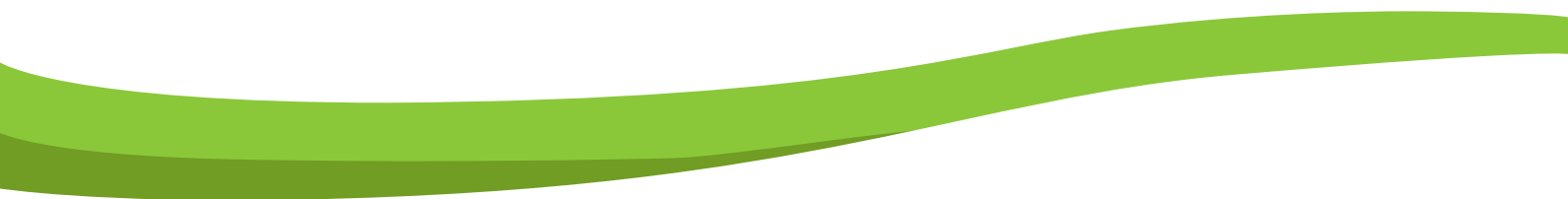




Compuverde  
**REST API Management**

Version 1.5.48  
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## Abstract

The purpose of this document is to describe the Compuverde Management REST API, the types of operations it supports as well as how authentication and authorization are handled.

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## Summary of Changes

Version	Nature of Change	Date
1.0	First version of this document.	2016-10-18
1.0.1	Repagination.	2016-11-07
Next	New section "Getting started" three steps to do before API can be used. Section " Authentication & Authorization" is modified.	2016-11-14
1.5.48	<ul style="list-style-type: none"><li>• Change name of header x-cv-directory-id to x-cv-inode-id.</li><li>• Change path prefix on directory management and policy management from /fs/dirs to /fs.</li><li>• Change URL for List File/Quota/Snapshot Policies from /fs/dirs?policy=file/quota/snapshot to /fs?policy=file/quota/snapshot&amp;list.</li><li>• Change URL for Create/Rename/Delete Directory from /fs/dirs/&lt;path&gt; to /fs/&lt;path&gt;?type=directory.</li><li>• Change operation Head Directory to Head Inode</li><li>• Add operation Get Inode</li><li>• Change name of Directory Object to Inode Object, and add fields accessDate, usedSize, directoryCount, fileCount, readBytes, writeBytes, readOperations, writeOperations.</li><li>• Add message attribute to the Error object.</li><li>• Add S3 account attribute to the Share object.</li><li>• Add NNTP protocol to the Share object.</li><li>• Erasure coding: Options removed.</li></ul>	2017-03-06

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## Introduction

The Management REST API makes it possible to programmatically manage a Compuverde file system. The API supports administration of file shares, users, groups, iSCSI targets and LUNs, ACLs, and policies; it also has support for manual snapshots. Requests are executed in the context of a single domain / tenant.

## Getting started

The storage cluster must have at least one file system configured. To be able to use the REST API, you will need to do the following in the Management tool:

1. Go to the **cluster > File System** tab > **Domain** and enable **Web management**.
2. Go to a **node > Config** tab > **Gateway** > and enable **Web management** (you will find this under *protocols*). Do this for any node that is going to be used for API communication.
3. Go to **File system > domain > Users** and give Management permissions to the User or Group that you want to use.

The following screenshot shows how the list of user permissions looks like in the Management Tool:

- Management permissions
- Create/modify/delete directories and shares
  - Get/list directories and shares
  - Create/modify/delete snapshot, file and quota policies
  - Get/list snapshot, file and quota policies
  - Take manual snapshot
  - Create/modify/delete users and groups
  - Get/list users and groups
  - Create/modify/delete iSCSI targets and LUNs
  - Get/list iSCSI targets and LUNs

You can specify permissions for both users and groups; the user's effective permissions is a combination of its own permissions and the permissions of all the groups it's a member of.



**Note:** Guest and Administrator users are currently not supported for permissions.

## Authentication & Authorization

Compuverde uses HTTP Basic authentication to authenticate requests. To authenticate as a user you must first generate a base64 encoding of the string <username>:<password>, where <username> and <password> are the values from one of your users. Note that ":" must be included in the string. When you have the base64 encoded string, you set the Authorization header in the following way:

```
Authorization: Basic <base64_encoded_string>
```

Note that the user must be defined in the same domain as the request is intended for.

After a request has been successfully authenticated, Compuverde checks the user's permissions to determine if the request is allowed to proceed.

## Current Working Directory

Every operation that takes a path as an argument, either in the path part of the URI or in the request body, is executed relative to a current working directory (cwd). You specify a cwd by using a directory's unique ID in the x-cv-cwd-id header. The x-cv-cwd-id header is optional and the request

is executed relative to the file system root if it's omitted. You can retrieve the unique ID of a directory by using the Head Inode operation or the Get Inode operation. The ID is also included in the result for an entry in the List Directories and Files operation.

Note that when the path is part of the request body, it's relative to the cwd only if it doesn't begin with a '/'. If it begins with a '/', the path is relative to the file system root. Paths that are included in the URI are always relative to the cwd.

## How to use the API

You access the Management API by using the HTTP protocol to send requests to nodes in your cluster. Any node in a Compuverde cluster is capable of responding to Management API requests. The API is running on port 81.

Example with Curl (replace <username>, <password> and <node> with your own values):

```
$ CV_AUTH="$(echo -n <username>:<password> | base64)"
$ curl -I -H "Authorization: Basic $CV_AUTH" http://<node>:81/api/v1
HTTP/1.1 200 OK
Date: Fri, 14 Oct 2016 09:52:42 GMT
Server: Compuverde Management
Content-Length: 0
x-cv-request-id: ce1efac3-20ea-4a36-93f1-f0941ee2a650
```

## File system Management

Operations for file system management. Create, rename, and delete a directory; get an inode, and list files and directories.

### The Inode object

```
{
  "id": "8e82ba51-0000-0000-1956-56df2b153a43",
  "type": "directory",
  "name": "mydirectory",
  "createDate": "2016-10-14 12:44:21",
  "modifyDate": "2016-10-14 12:44:21",
  "accessDate": "2016-10-14 12:44:21",
  "mode": "777",
  "size": 0,
  "usedSize": 0,
  "directoryCount": 0,
  "fileCount": 0,
  "readBytes": 0,
  "writeBytes": 0,
  "readOperations": 0,
  "writeOperations": 0,
}
```

### Attribute Definitions

Name	Type	Description	Status
id	String	The unique ID of the file / directory.	Required
type	String	The type of inode. Valid values: directory, file, symlink and link	Required
name	String	The name of the file / directory.	Required
createDate	String	The date and time the file / directory was created.	Required
modifyDate	String	The date and time the file / directory was last modified.	Required
accessDate	String	The date and time the file / directory was last accessed.	
mode	String	The Linux permissions of the file / directory.	Required
size	Integer	The size of the file / directory.	Required
usedSize	Integer	The used size of the file / directory.	Required
directoryCount	Integer	The number of directory entries. Always 0 if the inode is not a directory.	Required
fileCount	Integer	The number of file entries. Always 0 if the inode is not a directory.	Required
readBytes	Integer	The number of bytes that have been read.	Required
writeBytes	Integer	The number of bytes that have been written.	Required
readOperations	Integer	The number of read operations.	Required
writeOperations	Integer	The number of write operations.	Required



## Create Directory

**POST** */api/v1/fs?type=directory*

Create a directory at the path specified in the request body.

### Request Headers

x-cv-cwd-id	Optional. The ID of the directory the path is relative to.
-------------	--

### Response Headers

x-cv-inode-id	The ID of the newly created directory.
x-cv-parent-id	The ID of the parent directory.

### Request Body

Name	Type	Description	Status
createHierarchy	Bool	If true, parent directories in the path are created as needed. If false, only the last part of the path is created.	Optional, default false.
path	String	The path to the new directory, relative to the current working directory.	Required

### Sample Request

```
POST /api/v1/fs?type=directory HTTP/1.1
Host: <node>
Authorization: Basic <base64_encoded_string>
Content-Length: <length>

{
  "createParents": true,
  "path": "/path/to/directory"
}
```

### Sample Response

```
HTTP/1.1 201 Created
Date: Fri, 14 Oct 2016 10:51:57 GMT
Server: Compuverde Management
Content-Length: 0
Location: http://<node>:81/api/v1/fs/path/to/directory
x-cv-request-id: 880c0b32-9ad0-4fbc-b338-3e48bacdd75e
x-cv-parent-id: 3b100000-0000-0000-1956-56df2b153a43
x-cv-inode-id: 3e4a8ed1-0000-0000-1956-56df2b153a43
```

## Rename Directory

**PUT** */api/v1/fs/<path>?type=directory*

Change the name of a directory to the name specified in the request body.

### Path Parameters

path	The path of the directory, relative to the current working directory.
------	---

### Request Headers

x-cv-cwd-id	Optional. The ID of the directory the path is relative to.
-------------	--

### Response Headers

x-cv-inode-id	The ID of the directory.
x-cv-parent-id	The ID of the parent directory.

### Request Body

Same as for Create Directory, except createHierarchy is not used.

### Sample Request

```
PUT /api/v1/fs/path/to/directory?type=directory HTTP/1.1
Host: <node>
Authorization: Basic <base64_encoded_string>
Content-Length: <length>

{
  "path": "new_name"
}
```

### Sample Response

```
HTTP/1.1 200 OK
Date: Fri, 14 Oct 2016 11:50:56 GMT
Server: Compuverde Management
Content-Length: 0
x-cv-request-id: 880c0b32-9ad0-4fbe-b338-3e48bacdd75e
x-cv-parent-id: 3b100000-0000-0000-1956-56df2b153a43
x-cv-inode-id: 3e4a8ed1-0000-0000-1956-56df2b153a43
```

## Delete Directory

**DELETE** /api/v1/fs/<path>?type=directory

Delete a directory. The directory must be empty for this operation to succeed.

### Path Parameters

path	The path of the directory, relative to the current working directory.
------	---

### Request Headers

x-cv-cwd-id	Optional. The ID of the directory the path is relative to.
-------------	--

### Response Headers

x-cv-parent-id	The ID of the parent directory.
----------------	---------------------------------

### Sample Request

```
DELETE /api/v1/fs/path/to/directory?type=directory HTTP/1.1
Host: <node>
Authorization: Basic <base64_encoded_string>
```

### Sample Response

```
HTTP/1.1 204 No Content
Date: Fri, 14 Oct 2016 12:01:37 GMT
Server: Compuverde Management
Content-Length: 0
x-cv-request-id: 880c0b32-9ad0-4fbe-b338-3e48bacdd75e
x-cv-parent-id: 3b100000-0000-0000-1956-56df2b153a43
```

## Head Inode

**HEAD** */api/v1/fs/<path>*

Check the existence of a file or directory.

### Path Parameters

path	The path of the directory / file, relative to the current working directory.
------	--

### Request Headers

x-cv-cwd-id	Optional. The ID of the directory the path is relative to.
-------------	--

### Response Headers

x-cv-inode-id	The ID of the inode.
x-cv-inode-type	The type of the inode.
x-cv-parent-id	The ID of the parent directory.

### Sample Request

```
HEAD /api/v1/fs/path/to/directory HTTP/1.1
Host: <node>
Authorization: Basic <base64_encoded_string>
```

### Sample Response

```
HTTP/1.1 200 OK
Date: Fri, 14 Oct 2016 12:05:32 GMT
Server: Compuverde Management
Content-Length: <length>
x-cv-request-id: c69a0b0c-236c-4372-8fc6-2caaf85551b8
x-cv-parent-id: 3b100000-0000-0000-1956-56df2b153a43
x-cv-inode-id: 3e4a8ed1-0000-0000-1956-56df2b153a43
x-cv-inode-type: directory
```

## Get Inode / Statistics

**GET** */api/v1/fs/<path>*

Retrieve inode attributes.

### Path Parameters

path	The path of the directory / file, relative to the current working directory.
------	--

### Request Headers

x-cv-cwd-id	Optional. The ID of the directory the path is relative to.
-------------	--

### Response Headers

x-cv-parent-id	The ID of the parent directory.
----------------	---------------------------------

### Response Body

The [Inode object](#).

### Sample Request

```
GET /api/v1/fs/path/to/directory HTTP/1.1
Host: <node>
Authorization: Basic <base64_encoded_string>
```

### Sample Response

```
HTTP/1.1 200 OK
Date: Fri, 14 Oct 2016 12:05:32 GMT
Server: Compuverde Management
Content-Length: <length>
x-cv-request-id: c69a0b0c-236c-4372-8fc6-2caaf85551b8
x-cv-parent-id: 3b100000-0000-0000-1956-56df2b153a43

{
  "id": "8e82ba51-0000-0000-1956-56df2b153a43",
  "type": "directory",
  "name": "mydirectory",
  "createDate": "2016-10-14 12:44:21",
  "modifyDate": "2016-10-14 12:44:21",
  "accessDate": "2016-10-14 12:44:21",
  "mode": "777",
  "size": 0,
  "usedSize": 0,
  "directoryCount": 0,
  "fileCount": 0,
  "readBytes": 0,
  "writeBytes": 0,
  "readOperations": 0,
  "writeOperations": 0,
}
```

## List Directories and Files

**GET** */api/v1/fs/<path>?list*

List the content of a directory.

### Path Parameters

path	The path of the directory, relative to the current working directory.
------	---

### Request Headers

x-cv-cwd-id	Optional. The ID of the directory the path is relative to.
-------------	--

### Response Headers

x-cv-inode-id	The ID of the directory.
x-cv-parent-id	The ID of the parent directory.
x-cv-directory-count	The number of entries in the directory.

### Response Body

A JSON array of [Inode objects](#).

### Sample Request

```
GET /api/v1/fs/path/to/directory?list HTTP/1.1
Host: <node>
Authorization: Basic <base64_encoded_string>
```

### Sample Response

```
HTTP/1.1 200 OK
Date: Fri, 14 Oct 2016 12:05:32 GMT
Server: Compuverde Management
Content-Length: <length>
x-cv-request-id: c69a0b0c-236c-4372-8fc6-2caaf85551b8
x-cv-parent-id: 3b100000-0000-0000-1956-56df2b153a43
x-cv-inode-id: 3e4a8ed1-0000-0000-1956-56df2b153a43
x-cv-directory-count: 5

[
  {
    "id": "8e82ba51-0000-0000-1956-56df2b153a43",
    "type": "directory",
    "name": "mydirectory",
    "createDate": "2016-10-14 12:44:21",
    "modifyDate": "2016-10-14 12:44:21",
    "accessDate": "2016-10-14 12:44:21",
    "mode": "777",
    "size": 0,
    "usedSize": 0,
    "directoryCount": 0,
    "fileCount": 0,
    "readBytes": 0,
    "writeBytes": 0,
    "readOperations": 0,
    "writeOperations": 0,
  },
  ...
]
```

## Policy Management

Operations for policy management. Create, modify, delete, and get a file/quota/snapshot policy; list file/quota/snapshot policies. A policy is created by configuring an existing directory.

### The File Policy object

```
{
  "filters": {
    "pattern": {
      "enable": true,
      "value": "*.doc"
    },
    "age": {
      "enable": true,
      "count": 2,
      "type": "months"
    }
  },
  "actions": {
    "fileCoding": {
      "enable": true,
      "value": "ERASURE_2_1"
    },
    "tier": {
      "enable": true,
      "value": "TIER_0"
    },
    "retention": {
      "enable": true,
      "count": 1,
      "type": "days"
    },
    "worm": {
      "enable": true,
      "count": 2,
      "type": "hours"
    }
  }
}
```

### Attribute Definitions

Name	Type	Description	Status
filters	Object	Files that match the filters will trigger the actions.	Conditional
filters.pattern	Object	Filter for file names that match the pattern.	Conditional
filters.pattern.enable	Bool	Enable or disable the pattern filter.	Optional, default false
filters.pattern.value	String	The pattern argument.	Conditional
filters.age	Object	Filter for files that are older than the specified age.	Conditional
filters.age.enable	Bool	Enable or disable the age filter.	Optional, default false

filters.age.count	Integer	This and filters.age.type defines the age filter.  Valid values: If type is days: 1 – 6 If type is weeks: 1 – 4 If type is months: 1 – 12 If type is years: > 0	Conditional
filters.age.type	String	This and filters.age.count defines the age filter.  Valid values: "days", "weeks", "months", "years"	Conditional
actions	Object	Actions that are triggered for files that match the filters.	Conditional
actions.fileCoding	Object	The new file coding of the files that match the filter. See the appendix for valid file encodings.	Conditional
actions.fileCoding.enable	Bool	Enable or disable the file coding action.	Optional, default false
actions.fileCoding.value	String	The file encoding argument.	Conditional
actions.tier	Object	The new tier of the files that match the filter. See the appendix for valid tiers.	Conditional
actions.tier.enable	Bool	Enable or disable the tier action.	Optional, default false
actions.tier.value	String	The tier argument.	Conditional
actions.retention	Object	Files are deleted after the specified duration.	Conditional
actions.retention.enable	Bool	Enable or disable the retention action.	Optional, default false
actions.retention.count	Integer	This and actions.retention.type defines the retention action.  Valid values: If type is days: 1 – 6 If type is weeks: 1 – 4 If type is months: 1 – 12 If type is years: > 0	Conditional
actions.retention.type	String	This and actions.retention.count defines the retention action.  Valid values: "days", "weeks", "months", "years"	Conditional
actions.worm	Object	Write Once Read Many. Files become read-only after the specified duration.	Conditional



actions.worm.enable	Bool	Enable or disable the worm action.	Optional, default false
actions.worm.count	Integer	This and actions.worm.type defines the worm action.  Valid values: If type is seconds: 1 – 59 If type is minutes: 1 – 59 If type is hours: 1 – 23 If type is days: 1 – 6 If type is weeks: 1 – 4 If type is months: 1 – 12 If type is years: > 0	Conditional
actions.worm.type	String	This and actions.worm.count defines the worm actions.  Valid values: "seconds", "minutes", "hours", "days", "weeks", "months", "years"	Conditional

## The Quota Policy object

```
{
  "limit": {
    "count": 2,
    "type": "GB"
  }
}
```

## Attribute Definitions

Name	Type	Description	Status
limit	Object	The quota limit.	Required
limit.count	String	This and limit.type defines the quota limit.  Valid values: 1-999.	Required
limit.type	String	This and limit.count defines the quota limit.  Valid values: "GB", "TB", "PB"	Required

## The Snapshot Policy object

```
{
  "type": "weekly",
  "numberOfCopies": 5,
  "timeOfDay": 13,
  "dayOfWeek": "monday",
  "hoursOfDay": [1, 12, 23]
}
```

### Attribute Definitions

Name	Type	Description	Status
type	String	<p>The type of snapshot. The type depends how the numberOfCopies, timeOfDay, dayOfWeek and hoursOfDay attributes are used.</p> <p>Valid values: "manually", "hourly", "daily", "weekly"</p> <p>The type manually doesn't use any of the attributes. The type hourly uses numberOfCopies and hoursOfDay. The type daily uses numberOfCopies and timeOfDay. The type weekly uses numberOfCopies , timeOfDay and dayOfWeek.</p>	Conditional
numberOfCopies	Integer	<p>The number of snapshots that can be retained at any point in time.</p>	Conditional
timeOfDay	Integer	<p>The time of the day the snapshot should be performed. In UTC +00.</p> <p>Valid values: 0 - 23.</p>	Conditional
dayOfWeek	String	<p>The day of the week the snapshot should be performed.</p> <p>Valid values: "monday", "tuesday", "wednesday", "thursday", "friday", "saturday", "sunday"</p>	Conditional
hoursOfDay	Array of integers	<p>The hours of the day a snapshot should be performed. In UTC +00.</p> <p>Valid values: Each entry must be in the range 0 - 23. Duplicates are ignored.</p>	Conditional

## Create File Policy

**POST** */api/v1/fs/<path>?policy=file*

Add a file policy to a directory.

### Path Parameters

path	The path of the directory the policy should be added to, relative to the current working directory.
------	---

### Request Headers

x-cv-cwd-id	Optional. The ID of the directory the path is relative to.
-------------	--

### Request Body

The [File Policy object](#). At least one action must be specified.

### Sample Request

```
POST /api/v1/fs/path/to/directory?policy=file HTTP/1.1
Host: <node>
Authorization: Basic <base64_encoded_string>
Content-Length: <length>

{
  "filters": {
    "pattern": {
      "enable": true,
      "value": "*.doc"
    },
    "age": {
      "enable": true,
      "count": 2,
      "type": "months"
    }
  },
  "actions": {
    "fileCoding": {
      "enable": true,
      "value": "ERASURE_2_1"
    },
    "tier": {
      "enable": true,
      "value": "TIER_0"
    },
    "retention": {
      "enable": true,
      "count": 1,
      "type": "days"
    },
    "worm": {
      "enable": true,
      "count": 2,
      "type": "hours"
    }
  }
}
```

## Sample Response

```
HTTP/1.1 201 Created
Date: Fri, 14 Oct 2016 12:01:37 GMT
Server: Compuverde Management
Content-Length: 0
x-cv-request-id: 880c0b32-9ad0-4fbe-b338-3e48bacdd75e
```

## Modify File Policy

**PUT** */api/v1/fs/<path>?policy=file*

Modify a directory's file policy.

### Path Parameters

path	The path of the directory that has the file policy, relative to the current working directory.
------	--

### Request Headers

x-cv-cwd-id	Optional. The ID of the directory the path is relative to.
-------------	--

### Request Body

The [File Policy object](#). Any parameters not provided remains unchanged.

### Sample Request

```
PUT /api/v1/fs/path/to/directory?policy=file HTTP/1.1
Host: <node>
Authorization: Basic <base64_encoded_string>
Content-Length: <length>

{
  "filters": {
    "pattern": {
      "value": "*.jpg"
    }
  },
  "actions": {
    "retention": {
      "enable": false
    },
    "worm": {
      "enable": false
    }
  }
}
```

This sample request changes the pattern from \*.doc to \*.jpg, and disables the retention and worm action. The other file policy configuration remains unchanged.

### Sample Response

```
HTTP/1.1 200 OK
Date: Fri, 14 Oct 2016 12:01:37 GMT
Server: Compuverde Management
Content-Length: 0
x-cv-request-id: 880c0b32-9ad0-4fbe-b338-3e48bacdd75e
```

## Delete File Policy

**DELETE** */api/v1/fs/<path>?policy=file*

Delete a directory's file policy.

### Path Parameters

path	The path of the directory that has the file policy, relative to the current working directory.
------	--

### Request Headers

x-cv-cwd-id	Optional. The ID of the directory the path is relative to.
-------------	--

### Sample Request

```
DELETE /api/v1/fs/path/to/directory?policy=file HTTP/1.1
Host: <node>
Authorization: Basic <base64_encoded_string>
```

### Sample Response

```
HTTP/1.1 204 No Content
Date: Fri, 14 Oct 2016 12:01:37 GMT
Server: Compuverde Management
Content-Length: 0
x-cv-request-id: 880c0b32-9ad0-4fbe-b338-3e48bacdd75e
```

## Get File Policy

**GET** */api/v1/fs/<path>?policy=file*

Retrieve a directory's file policy configuration.

### Path Parameters

path	The path of the directory that has the file policy, relative to the current working directory.
------	--

### Request Headers

x-cv-cwd-id	Optional. The ID of the directory the path is relative to.
-------------	--

### Response Body

The File Policy object.

## Sample Request

```
GET /api/v1/fs/path/to/directory?policy=file HTTP/1.1
Host: <node>
Authorization: Basic <base64_encoded_string>
```

## Sample Response

```
HTTP/1.1 200 OK
Date: Fri, 14 Oct 2016 12:01:37 GMT
Server: Compuverde Management
Content-Length: <length>
x-cv-request-id: 880c0b32-9ad0-4fbe-b338-3e48bacdd75e

{
  "filters": {
    "pattern": {
      "enable": true,
      "value": "*.doc"
    },
    "age": {
      "enable": true,
      "count": 2,
      "type": "months"
    }
  },
  "actions": {
    "fileCoding": {
      "enable": true,
      "value": "ERASURE_2_1"
    },
    "tier": {
      "enable": true,
      "value": "TIER_0"
    },
    "retention": {
      "enable": true,
      "count": 1,
      "type": "days"
    },
    "worm": {
      "enable": true,
      "count": 2,
      "type": "hours"
    }
  }
}
```

## List File Policies

**GET** */api/v1/fs?policy=file&list*

List all file policies in the file system.

### Response Body

Name	Type	Description
path	String	The path of the directory that has the file policy.
filePolicy	Object	<a href="#">The File Policy object.</a>

## Sample Request

```
GET /api/v1/fs?policy=file&list HTTP/1.1
Host: <node>
Authorization: Basic <base64_encoded_string>
```

## Sample Response

```
HTTP/1.1 200 OK
Date: Fri, 14 Oct 2016 12:01:37 GMT
Server: Compuverde Management
Content-Length: <length>
x-cv-request-id: 880c0b32-9ad0-4fbc-b338-3e48bacdd75e

[
  {
    "path": "/path/to/directory",
    "filePolicy": {
      "filters": {
        "pattern": {
          "enable": true,
          "value": "*.doc"
        },
        "age": {
          "enable": true,
          "count": 2,
          "type": "months"
        }
      },
      "actions": {
        "fileCoding": {
          "enable": true,
          "value": "ERASURE_2_1"
        },
        "tier": {
          "enable": true,
          "value": "TIER_0"
        },
        "retention": {
          "enable": true,
          "count": 1,
          "type": "days"
        },
        "worm": {
          "enable": true,
          "count": 2,
          "type": "hours"
        }
      }
    }
  },
  ...
]
```

## Create Quota Policy

**POST** */api/v1/fs/<path>?policy=quota*

Add a quota policy to a directory.

### Path Parameters

path	The path of the directory the policy should be added to, relative to the current working directory.
------	---

### Request Headers

x-cv-cwd-id	Optional. The ID of the directory the path is relative to.
-------------	--

### Request Body

The [Quota Policy](#) object.

### Sample Request

```
POST /api/v1/fs/path/to/directory?policy=quota HTTP/1.1
Host: <node>
Authorization: Basic <base64_encoded_string>
Content-Length: <length>

{
  "limit": {
    "count": 2,
    "type": "GB"
  }
}
```

### Sample Response

```
HTTP/1.1 201 Created
Date: Fri, 14 Oct 2016 12:01:37 GMT
Server: Compuverde Management
Content-Length: 0
x-cv-request-id: 880c0b32-9ad0-4fbe-b338-3e48bacdd75e
```

## Modify Quota Policy

**PUT** */api/v1/fs/<path>?policy=quota*

Modify a directory's quota policy.

### Path Parameters

path	The path of the directory that has the quota policy, relative to the current working directory.
------	---

### Request Headers

x-cv-cwd-id	Optional. The ID of the directory the path is relative to.
-------------	--

### Request Body

The [Quota Policy](#) object. Any parameters not provided remains unchanged.



## Sample Request

```
PUT /api/v1/fs/path/to/directory?policy=quota HTTP/1.1
Host: <node>
Authorization: Basic <base64_encoded_string>
Content-Length: <length>

{
  "limit": {
    "count": 5,
    "type": "TB"
  }
}
```

This sample request changes the quota limit from 2 GB to 5 TB. The other quota policy configuration remains unchanged.

## Sample Response

```
HTTP/1.1 200 OK
Date: Fri, 14 Oct 2016 12:01:37 GMT
Server: Compuverde Management
Content-Length: 0
x-cv-request-id: 880c0b32-9ad0-4fbe-b338-3e48bacdd75e
```

## Delete Quota Policy

**DELETE** /api/v1/fs/<path>?policy=quota

Delete a directory's quota policy.

### Path Parameters

path	The path of the directory that has the quota policy, relative to the current working directory.
------	---

### Request Headers

x-cv-cwd-id	Optional. The ID of the directory the path is relative to.
-------------	--

## Sample Request

```
DELETE /api/v1/fs/path/to/directory?policy=quota HTTP/1.1
Host: <node>
Authorization: Basic <base64_encoded_string>
```

## Sample Response

```
HTTP/1.1 204 No Content
Date: Fri, 14 Oct 2016 12:01:37 GMT
Server: Compuverde Management
Content-Length: 0
x-cv-request-id: 880c0b32-9ad0-4fbe-b338-3e48bacdd75e
```

## Get Quota Policy

**GET** */api/v1/fs/<path>?policy=quota*

Retrieve a directory's quota policy configuration.

### Path Parameters

path	The path of the directory that has the quota policy, relative to the current working directory.
------	---

### Request Headers

x-cv-cwd-id	Optional. The ID of the directory the path is relative to.
-------------	--

### Response Body

The [Quota Policy](#) object.

### Sample Request

```
GET /api/v1/fs/path/to/directory?policy=quota HTTP/1.1
Host: <node>
Authorization: Basic <base64_encoded_string>
```

### Sample Response

```
HTTP/1.1 200 OK
Date: Fri, 14 Oct 2016 12:01:37 GMT
Server: Compuverde Management
Content-Length: <length>
x-cv-request-id: 880c0b32-9ad0-4fbe-b338-3e48bacdd75e

{
  "limit": {
    "count": 2,
    "type": "GB"
  }
}
```

## List Quota Policies

**GET** */api/v1/fs?policy=quota&list*

List all quota policies in the file system.

### Response Body

Name	Type	Description
path	String	The path of the directory that has the quota policy.
quotaPolicy	Object	<a href="#">The Quota Policy object.</a>

### Sample Request

```
GET /api/v1/fs?policy=quota&list HTTP/1.1
Host: <node>
Authorization: Basic <base64_encoded_string>
```

### Sample Response

```
HTTP/1.1 200 OK
Date: Fri, 14 Oct 2016 12:01:37 GMT
Server: Compuverde Management
Content-Length: <length>
x-cv-request-id: 880c0b32-9ad0-4fbc-b338-3e48bacdd75e

[
  {
    "path": "/path/to/directory",
    "quotaPolicy": {
      "limit": {
        "count": 2,
        "type": "GB"
      }
    }
  },
  ...
]
```

## Create Snapshot Policy

**POST** */api/v1/fs/<path>?policy=snapshot*

Add a snapshot policy to a directory.

### Path Parameters

path	The path of the directory the policy should be added to, relative to the current working directory.
------	---

### Request Headers

x-cv-cwd-id	Optional. The ID of the directory the path is relative to.
-------------	--

### Request Body

The [Snapshot Policy object](#).

### Sample Request

```
POST /api/v1/fs/path/to/directory?policy=snapshot HTTP/1.1
Host: <node>
Authorization: Basic <base64_encoded_string>
Content-Length: <length>

{
  "type": "weekly",
  "numberOfCopies": 5,
  "timeOfDay": 13,
  "dayOfWeek": "monday"
}
```

### Sample Response

```
HTTP/1.1 201 Created
Date: Fri, 14 Oct 2016 12:01:37 GMT
Server: Compuverde Management
Content-Length: 0
x-cv-request-id: 880c0b32-9ad0-4fbe-b338-3e48bacdd75e
```

## Modify Snapshot Policy

**PUT** */api/v1/fs/<path>?policy=snapshot*

Modify a directory's snapshot policy.

### Path Parameters

path	The path of the directory that has the snapshot policy, relative to the current working directory.
------	--

### Request Headers

x-cv-cwd-id	Optional. The ID of the directory the path is relative to.
-------------	--

### Request Body

The [Snapshot Policy object](#). Any parameters not provided remains unchanged.

## Sample Request

```
PUT /api/v1/fs/path/to/directory?policy=snapshot HTTP/1.1
Host: <node>
Authorization: Basic <base64_encoded_string>
Content-Length: <length>

{
  "type": "manually"
}
```

This sample request changes the snapshot type from weekly to manually. The other snapshot policy configuration remains unchanged.

## Sample Response

```
HTTP/1.1 200 OK
Date: Fri, 14 Oct 2016 12:01:37 GMT
Server: Compuverde Management
Content-Length: 0
x-cv-request-id: 880c0b32-9ad0-4fbe-b338-3e48bacdd75e
```

## Delete Snapshot Policy

**DELETE** /api/v1/fs/<path>?policy=snapshot

Delete a directory's snapshot policy.

### Path Parameters

path	The path of the directory that has the snapshot policy, relative to the current working directory.
------	--

### Request Headers

x-cv-cwd-id	Optional. The ID of the directory the path is relative to.
-------------	--

## Sample Request

```
DELETE /api/v1/fs/path/to/directory?policy=snapshot HTTP/1.1
Host: <node>
Authorization: Basic <base64_encoded_string>
```

## Sample Response

```
HTTP/1.1 204 No Content
Date: Fri, 14 Oct 2016 12:01:37 GMT
Server: Compuverde Management
Content-Length: 0
x-cv-request-id: 880c0b32-9ad0-4fbe-b338-3e48bacdd75e
```

## Get Snapshot Policy

**GET** */api/v1/fs/<path>?policy=snapshot*

Retrieve a directory's snapshot policy configuration.

### Path Parameters

path	The path of the directory that has the snapshot policy, relative to the current working directory.
------	--

### Request Headers

x-cv-cwd-id	Optional. The ID of the directory the path is relative to.
-------------	--

### Response Body

The [Snapshot Policy](#) object.

### Sample Request

```
GET /api/v1/fs/path/to/directory?policy=snapshot HTTP/1.1
Host: <node>
Authorization: Basic <base64_encoded_string>
```

### Sample Response

```
HTTP/1.1 200 OK
Date: Fri, 14 Oct 2016 12:01:37 GMT
Server: Compuverde Management
Content-Length: <length>
x-cv-request-id: 880c0b32-9ad0-4fbc-b338-3e48bacdd75e

{
  "type": "weekly",
  "numberOfCopies": 5,
  "timeOfDay": 13,
  "dayOfWeek": "monday"
}
```

## List Snapshot Policies

**GET** */api/v1/fs?policy=snapshot&list*

List all snapshot policies in the file system.

### Response Body

Name	Type	Description
path	String	The path of the directory that has the snapshot policy.
snapshotPolicy	Object	<a href="#">The Snapshot Policy object.</a>

### Sample Request

```
GET /api/v1/fs?policy=snapshot&list HTTP/1.1
Host: <node>
Authorization: Basic <base64_encoded_string>
```

### Sample Response

```
HTTP/1.1 200 OK
Date: Fri, 14 Oct 2016 12:01:37 GMT
Server: Compuverde Management
Content-Length: <length>
x-cv-request-id: 880c0b32-9ad0-4fbe-b338-3e48bacdd75e

[
  {
    "path": "/path/to/directory",
    "snapshotPolicy": {
      "type": "weekly",
      "numberOfCopies": 5,
      "timeOfDay": 13,
      "dayOfWeek": "monday"
    }
  },
  ...
]
```

## Share Management

Operations for share management. Create, modify, delete, and get a file share; list file shares. A share is created by configuring an existing directory.

### The Share object

```
{
  "name": "myshare",
  "path": "/path/to/directory",
  "smb": {
    "enable": true,
    "options": {
      "ALLOW_GUEST_ACCESS": true,
      "DISABLE_CLIENT_WRITE_CACHE": true,
      "ENCRYPTION": true,
      "SCALE_OUT": true,
      "ALLOW_OFFLINE_FILE_SUPPORT": true,
      "ACCESS_BASED_ENUMERATION": true
    }
  },
  "nfs": {
    "enable": true,
    "options": {
      "ALLOW_ROOT_ACCESS": true,
      "ALLOW_GUEST_ACCESS": true,
      "USE_32BIT_INODES": true,
      "DISABLE_SHARE_MODE_CHECK": true,
      "DISABLE_RW_DELEGATION": true
    },
    "authentication": {
      "sys": true,
      "krb5": true,
      "krb5i": true,
      "krb5p": true
    },
    "ipFilter": "192.168.1.0/24 192.168.2.0/24"
  },
  "amazonS3": {
    "enable": true,
    "account": "myaccount",
    "apiEndpoint": "api.endpoint",
    "websiteEndpoint": "website.endpoint",
    "websiteBucketDomains": "mydomain.com"
  },
  "openStack": {
    "enable": true
  },
  "nntp": {
    "enable": true
  }
}
```



## Attribute Definitions

Name	Type	Description	Status
name	String	The name of the new share.	Conditional
path	String	The path to the directory that should be enabled as a Compuverde file share. The path is relative to the current working directory.	Conditional
smb	Object	Configuration for the SMB protocol.	Optional
smb.enable	Bool	Enable or disable the SMB protocol.	Optional
smb.options	Object	See the Management Manual for a description.	Optional
nfs	Object	Configuration for the NFS protocol.	Optional
nfs.enable	Bool	Enable or disable the NFS protocol.	Optional
nfs.options	Object	See the Management Manual for a description.	Optional
nfs.authentication	Object	See the Management Manual for a description.	Optional
nfs.ipFilter	String	See the Management Manual for a description.	Optional
amazonS3	Object	Configuration for the Amazon S3 protocol.	Optional
amazonS3.enable	Bool	Enable or disable the Amazon S3 protocol.	Optional
amazonS3.account	String	Account refers to a group. Only users that are members of the account will have access to the S3 share. If account is empty, all users will have access.	Optional
amazonS3.apiEndpoint	String	See the Management Manual for a description.	Optional
amazonS3.websiteEndpoint	String	See the Management Manual for a description.	Optional
amazonS3.websiteBucketDomains	String	See the Management Manual for a description.	Optional
openStack	Object	Configuration for the OpenStack Swift protocol.	Optional
openStack.enable	Bool	Enable or disable the OpenStack Swift protocol.	Optional
nntp	Object	Configuration for the NNTP protocol.	Optional
nntp.enable	Bool	Enable or disable the NNTP protocol.	Optional

## Create Share

**POST** */api/v1/shares*

Create a new Compuverde file share. Note that the directory specified in the path in the request body must already exist.

x-cv-cwd-id	Optional. The ID of the directory the path in the request body is relative to.
-------------	--

### Request Body

[The Share object](#). Name and path are required.

## Sample Request

```
POST /api/v1/shares HTTP/1.1
Host: <node>
Authorization: Basic <base64_encoded_string>
Content-Length: <length>

{
  "name": "myshare",
  "path": "/path/to/directory",
  "smb": {
    "enable": true,
    "options": {
      "ALLOW_GUEST_ACCESS": true,
      "DISABLE_CLIENT_WRITE_CACHE": true,
      "ENCRYPTION": true,
      "SCALE_OUT": true,
      "ALLOW_OFFLINE_FILE_SUPPORT": true,
      "ACCESS_BASED_ENUMERATION": true
    }
  },
  "nfs": {
    "enable": true,
    "options": {
      "ALLOW_ROOT_ACCESS": true,
      "ALLOW_GUEST_ACCESS": true,
      "USE_32BIT_INODES": true,
      "DISABLE_SHARE_MODE_CHECK": true,
      "DISABLE_RW_DELEGATION": true
    },
    "authentication": {
      "sys": true,
      "krb5": true,
      "krb5i": true,
      "krb5p": true
    },
    "ipFilter": "192.168.1.0/24 192.168.2.0/24"
  },
  "amazonS3": {
    "enable": true,
    "account": "myaccount",
    "apiEndpoint": "api.endpoint",
    "websiteEndpoint": "website.endpoint",
    "websiteBucketDomains": "mydomain.com"
  },
  "openStack": {
    "enable": true
  },
  "nntp": {
    "enable": true
  }
}
```

## Sample Response

```
HTTP/1.1 201 Created
Date: Fri, 14 Oct 2016 14:15:12 GMT
Server: Compuverde Management
Content-Length: 0
Location: http://<node>:81/api/v1/shares/myshare
x-cv-request-id: 880c0b32-9ad0-4fbe-b338-3e48bacdd75e
```

## Modify Share

**PUT** */api/v1/shares/<share>*

Modify a file share. Enable or disable a protocol, change protocol settings, and/or change the name of the share.

### Path Parameters

share	The name of the share.
-------	------------------------

### Request Body

The [Share object](#). Path is ignored and Name is optional. The name attribute is the new name of the share. Any parameters not provided remains unchanged.

### Sample Request

```
PUT /api/v1/shares/myshare HTTP/1.1
Host: <node>
Authorization: Basic <base64_encoded_string>
Content-Length: <length>

{
  "nfs": {
    "authentication": {
      "sys": false
    }
  },
  "openStack": {
    "enable": false
  }
}
```

This sample request disables sys as a security flavor for NFS and disables the OpenStack Swift protocol. The other share and protocol configuration remains unchanged.

### Sample Response

```
HTTP/1.1 200 OK
Date: Fri, 14 Oct 2016 14:17:33 GMT
Server: Compuverde Management
Content-Length: 0
x-cv-request-id: 880c0b32-9ad0-4fbc-b338-3e48bacdd75e
```

## Delete Share

**DELETE** */api/v1/shares/<share>*

Delete a file share. Note that the directory is not deleted.

### Path Parameters

share	The name of the share.
-------	------------------------

### Sample Request

```
DELETE /api/v1/shares/myshare HTTP/1.1
Host: <node>
Authorization: Basic <base64_encoded_string>
```

### Sample Response

```
HTTP/1.1 204 No Content
Date: Fri, 14 Oct 2016 12:01:37 GMT
Server: Compuverde Management
Content-Length: 0
x-cv-request-id: 880c0b32-9ad0-4fbe-b338-3e48bacdd75e
```

## Get Share

**GET** */api/v1/shares/<share>*

Retrieve the configuration for a file share.

### Path Parameters

share	The name of the share.
-------	------------------------

### Response Body

[The Share object](#).

### Sample Request

```
GET /api/v1/shares/myshare HTTP/1.1
Host: <node>
Authorization: Basic <base64_encoded_string>
```

## Sample Response

```
HTTP/1.1 200 OK
Date: Fri, 14 Oct 2016 12:01:37 GMT
Server: Compuverde Management
Content-Length: <length>
x-cv-request-id: 880c0b32-9ad0-4fbc-b338-3e48bacdd75e

{
  "name": "myshare",
  "path": "/path/to/directory",
  "smb": {
    "enable": true,
    "options": {
      "ALLOW_GUEST_ACCESS": true,
      "DISABLE_CLIENT_WRITE_CACHE": true,
      "ENCRYPTION": true,
      "SCALE_OUT": true,
      "ALLOW_OFFLINE_FILE_SUPPORT": true,
      "ACCESS_BASED_ENUMERATION": true
    }
  },
  "nfs": {
    "enable": true,
    "options": {
      "ALLOW_ROOT_ACCESS": true,
      "ALLOW_GUEST_ACCESS": true,
      "USE_32BIT_INODES": true,
      "DISABLE_SHARE_MODE_CHECK": true,
      "DISABLE_RW_DELEGATION": true
    },
    "authentication": {
      "sys": true,
      "krb5": true,
      "krb5i": true,
      "krb5p": true
    },
    "ipFilter": "192.168.1.0/24 192.168.2.0/24"
  },
  "amazonS3": {
    "enable": true,
    "account": "myaccount",
    "apiEndpoint": "api.endpoint",
    "websiteEndpoint": "website.endpoint",
    "websiteBucketDomains": "mydomain.com"
  },
  "openStack": {
    "enable": true
  },
  "nntp": {
    "enable": true
  }
}
```

## List Shares

**GET** */api/v1/shares*

List all file shares in the file system.

### Response Body

A JSON array of [Share objects](#).

### Sample Request

```
GET /api/v1/shares HTTP/1.1
Host: <node>
Authorization: Basic <base64_encoded_string>
```

## Sample Response

```
HTTP/1.1 200 OK
Date: Fri, 14 Oct 2016 12:01:37 GMT
Server: Compuverde Management
Content-Length: <length>
x-cv-request-id: 880c0b32-9ad0-4fbc-b338-3e48bacdd75e

[
  {
    "name": "myshare",
    "path": "/path/to/directory",
    "smb": {
      "enable": true,
      "options": {
        "ALLOW_GUEST_ACCESS": true,
        "DISABLE_CLIENT_WRITE_CACHE": true,
        "ENCRYPTION": true,
        "SCALE_OUT": true,
        "ALLOW_OFFLINE_FILE_SUPPORT": true,
        "ACCESS_BASED_ENUMERATION": true
      }
    },
    "nfs": {
      "enable": true,
      "options": {
        "ALLOW_ROOT_ACCESS": true,
        "ALLOW_GUEST_ACCESS": true,
        "USE_32BIT_INODES": true,
        "DISABLE_SHARE_MODE_CHECK": true,
        "DISABLE_RW_DELEGATION": true
      }
    },
    "authentication": {
      "sys": true,
      "krb5": true,
      "krb5i": true,
      "krb5p": true
    },
    "ipFilter": "192.168.1.0/24 192.168.2.0/24"
  },
  "amazonS3": {
    "enable": true,
    "account": "myaccount",
    "apiEndpoint": "api.endpoint",
    "websiteEndpoint": "website.endpoint",
    "websiteBucketDomains": "mydomain.com"
  },
  "openStack": {
    "enable": true
  },
  "nntp": {
    "enable": true
  }
}
...
]
```



## ISCSI Management

Operations for iSCSI management. Create, modify, delete, and get an iSCSI target; list iSCSI targets. Create, modify, resize, and delete an iSCSI LUN.

### The Target object

```
{
  "name": "mytarget",
  "fileCoding": "DEFAULT",
  "tier": "ANY",
  "allowAnonymous": false,
  "luns": [
    {
      "id": 1,
      "size": 1,
      "comment": "my lun"
    }
  ]
}
```

### Attribute Definitions

Name	Type	Description	Status
name	String	The name of the target.	Conditional
fileCoding	String	The file coding to apply on the target and its LUNs. "DEFAULT" uses the file encoding of the file system.  See the Management Manual for a more thorough description of file encoding.  See the appendix for valid file encodings.	Optional, default "DEFAULT".
tier	String	The tier to use for the target and its LUNs.  See the Management Manual for a more thorough description of tiering.  See the appendix for valid tiers.	Optional, default "ANY"
allowAnonymous	Bool	Allow unauthenticated initiators to access the target's LUNs.	Optional, default false
luns	Array	An array of LUN Objects.	Optional

## The LUN object

```
{
  "id": 1,
  "size": 1,
  "comment": "my lun"
}
```

### Attribute Definitions

Name	Type	Description	Status
id	Integer	The ID of the LUN. Must be unique within a target.	Conditional
size	Integer	The size of the LUN, specified in GB.	Conditional
comment	String	A short comment / description of the LUN.	Optional

## Create Target

**POST** */api/v1/iscsi*

Create a target, as well as an optional set of LUNs. You can create a target without any LUNs and then use the Create LUN operation to manually create each LUN, or you can create a target and specify the LUNs in the same request.

### Request Body

The [Target object](#). Name is required.

### Sample Request

```
POST /api/v1/iscsi HTTP/1.1
Host: <node>
Authorization: Basic <base64_encoded_string>
Content-Length: <length>

{
  "name": "mytarget",
  "fileCoding": "DEFAULT",
  "tier": "ANY",
  "allowAnonymous": false,
  "luns": [
    {
      "id": 1,
      "size": 1,
      "comment": "my lun"
    }
  ]
}
```

### Sample Response

```
HTTP/1.1 201 Created
Date: Fri, 14 Oct 2016 12:01:37 GMT
Server: Compuverde Management
Content-Length: 0
Location: http://<node>:81/api/v1/iscsi/mytarget
x-cv-request-id: 880c0b32-9ad0-4fbc-b338-3e48bacdd75e
```

## Modify Target

**PUT** */api/v1/iscsi/<target>*

Modify a target.

### Path Parameters

target	The name of the target.
--------	-------------------------

### Request Body

The [Target object](#). Name is optional — the name of the target is changed if it's specified. The LUNs array is ignored, i.e. you cannot use this operation to modify LUNs. Any parameters not provided remains unchanged.

### Sample Request

```
PUT /api/v1/iscsi/mytarget HTTP/1.1
Host: <node>
Authorization: Basic <base64_encoded_string>
Content-Length: <length>

{
  "allowAnonymous": true
}
```

This sample request modifies the target to allow anonymous access. The other target configuration remains unchanged.

### Sample Response

```
HTTP/1.1 200 OK
Date: Fri, 14 Oct 2016 12:01:37 GMT
Server: Compuverde Management
Content-Length: 0
x-cv-request-id: 880c0b32-9ad0-4fbc-b338-3e48bacdd75e
```

## Delete Target

**DELETE** */api/v1/iscsi/<target>*

Delete a target. All LUNs must have been deleted, using the Delete LUN Operation, before this operation will succeed.

### Path Parameters

target	The name of the target.
--------	-------------------------

### Sample Request

```
DELETE /api/v1/iscsi/mytarget HTTP/1.1
Host: <node>
Authorization: Basic <base64_encoded_string>
```

## Sample Response

```
HTTP/1.1 204 No Content
Date: Fri, 14 Oct 2016 12:01:37 GMT
Server: Compuverde Management
Content-Length: 0
x-cv-request-id: 880c0b32-9ad0-4fbe-b338-3e48bacdd75e
```

## Get Target

**GET** */api/v1/iscsi/<target>*

Retrieve information about a target and its LUNs.

### Path Parameters

target	The name of the target.
--------	-------------------------

### Response Body

The [Target](#) object.

### Sample Request

```
GET /api/v1/iscsi/mytarget HTTP/1.1
Host: <node>
Authorization: Basic <base64_encoded_string>
```

## Sample Response

```
HTTP/1.1 200 OK
Date: Fri, 14 Oct 2016 12:01:37 GMT
Server: Compuverde Management
Content-Length: <length>
x-cv-request-id: 880c0b32-9ad0-4fbe-b338-3e48bacdd75e

{
  "name": "mytarget",
  "fileCoding": "DEFAULT",
  "tier": "ANY",
  "allowAnonymous": false,
  "luns": [
    {
      "id": 1,
      "size": 1,
      "comment": "my lun"
    }
  ]
}
```

## List Targets

**GET** */api/v1/iscsi*

List all iSCSI targets and LUNs.

### Response Body

A JSON array of [Target objects](#).

### Sample Request

```
GET /api/v1/iscsi HTTP/1.1
Host: <node>
Authorization: Basic <base64_encoded_string>
```

### Sample Response

```
HTTP/1.1 200 OK
Date: Fri, 14 Oct 2016 12:01:37 GMT
Server: Compuverde Management
Content-Length: <length>
x-cv-request-id: 880c0b32-9ad0-4fbe-b338-3e48bacdd75e

[
  {
    "name": "mytarget",
    "fileCoding": "DEFAULT",
    "tier": "ANY",
    "allowAnonymous": false,
    "luns": [
      {
        "id": 1,
        "size": 1,
        "comment": "my lun"
      }
    ]
  },
  ...
]
```

## Create LUN

**POST** */api/v1/iscsi/<target>*

Create a LUN under the specified target.

### Path Parameters

target	The name of the target the LUN should be created for.
--------	---

### Request Body

The [LUN object](#). ID and size are required.

## Sample Request

```
POST /api/v1/iscsi/mytarget HTTP/1.1
Host: <node>
Authorization: Basic <base64_encoded_string>
Content-Length: <length>

{
  "id": 1,
  "size": 1,
  "comment": "my lun"
}
```

## Sample Response

```
HTTP/1.1 201 Created
Date: Fri, 14 Oct 2016 12:01:37 GMT
Server: Compuverde Management
Content-Length: 0
Location: http://<node>:81/api/v1/iscsi/mytarget/1
x-cv-request-id: 880c0b32-9ad0-4fbe-b338-3e48bacdd75e
```

## Modify LUN

**PUT** */api/v1/iscsi/<target>/<lun>*

Change the ID or comment of the LUN. To change the size of a LUN you must use the Resize LUN operation.

### Path Parameters

target	The name of the target that has the LUN.
lun	The ID of the LUN.

### Request Body

The [LUN object](#). ID and comment are optional; ID is the new ID of the LUN. Size is ignored. Any parameters not provided remains unchanged.

### Sample Request

```
PUT /api/v1/iscsi/mytarget/1 HTTP/1.1
Host: <node>
Authorization: Basic <base64_encoded_string>
Content-Length: <length>

{
  "id": 2
}
```

This sample request changes the ID of the LUN from 1 to 2. The other LUN configuration remains unchanged.

## Sample Response

```
HTTP/1.1 200 OK
Date: Fri, 14 Oct 2016 12:01:37 GMT
Server: Compuverde Management
Content-Length: 0
x-cv-request-id: 880c0b32-9ad0-4fbe-b338-3e48bacdd75e
```

## Resize LUN

**PUT** */api/v1/iscsi/<target>/<lun>?resize=<size>*

Change the size of a LUN. It's not possible to reduce the size of a LUN.

### Path Parameters

target	The name of the target that has the LUN.
lun	The ID of the LUN.

### Query Parameters

resize	Required. The new size of the LUN, specified in GB.
--------	---

## Sample Request

```
PUT /api/v1/iscsi/mytarget/1?resize=2 HTTP/1.1
Host: <node>
Authorization: Basic <base64_encoded_string>
```

This sample request changes the size of the LUN to 2 GB.

## Sample Response

```
HTTP/1.1 200 OK
Date: Fri, 14 Oct 2016 12:01:37 GMT
Server: Compuverde Management
Content-Length: 0
x-cv-request-id: 880c0b32-9ad0-4fbe-b338-3e48bacdd75e
```

## Delete LUN

**DELETE** /api/v1/iscsi/<target>/<lun>

Delete a LUN.

### Path Parameters

target	The name of the target that has the LUN.
lun	The ID of the LUN.

### Sample Request

```
DELETE /api/v1/iscsi/mytarget/1 HTTP/1.1
Host: <node>
Authorization: Basic <base64_encoded_string>
```

### Sample Response

```
HTTP/1.1 204 No Content
Date: Fri, 14 Oct 2016 12:01:37 GMT
Server: Compuverde Management
Content-Length: 0
x-cv-request-id: 880c0b32-9ad0-4fbe-b338-3e48bacdd75e
```



## User & Group Management

Operations for user and group management. Create, modify, delete, and get a user; list existing users. Create, modify, delete, and get a group; list existing groups.

### The User object

```
{
  "name": "myuser",
  "password": "mypassword",
  "enable": true,
  "linuxUID": 1000,
  "windowsSID": "S-1-5-21-1634518050-1170479241-3746985662-1000",
  "mainGroup": "Administrators",
  "additionalGroups": ["users"],
  "s3SecretKey": "secretkey",
  "permissions": {
    "SET_SHARE": true,
    "GET_SHARE": true,
    "SET_POLICY": true,
    "GET_POLICY": true,
    "TAKE_SNAPSHOT": true,
    "SET_USER_GROUP": true,
    "GET_USER_GROUP": true,
    "SET_ISCSI": true,
    "GET_ISCSI": true
  }
}
```

### Attribute Definitions

Name	Type	Description	Status
name	String	The name of the user.	Conditional
password	String	The user's password.	Conditional
enable	Bool	Enable or disable the user.	Optional
linuxUID	Integer	The Linux UID.	Optional
windowsSID	String	The Windows SID.	Optional
mainGroup	String	The name of the user's primary group.	Conditional
additionalGroups	Array	A list of groups the user is a member of.	Optional
s3SecretKey	String	The user's s3 secret key. See the Management Manual for a more thorough description.	Optional
permissions	Object	The user's permissions.	Optional

## The Group object

```
{
  "name": "users",
  "linuxGID": 1000,
  "windowsSID": "S-1-5-21-1634518050-1170479241-3746985662-1000",
  "permissions": {
    "SET_SHARE": true,
    "GET_SHARE": true,
    "SET_POLICY": true,
    "GET_POLICY": true,
    "TAKE_SNAPSHOT": true,
    "SET_USER_GROUP": true,
    "GET_USER_GROUP": true,
    "SET_ISCSI": true,
    "GET_ISCSI": true
  }
}
```

### Attribute Definitions

Name	Type	Description	Status
name	String	The name of the group.	Conditional
linuxGID	Integer	The Linux GID.	Optional
windowsSID	String	The Windows SID.	Optional
permissions	Object	The group's permissions.	Optional

### Permissions

Name	Type	Description	Status
SET_SHARE	Bool	Create/modify/delete directories and shares.	Optional, default false
GET_SHARE	Bool	Get/list directories and shares.	Optional, default false
SET_POLICY	Bool	Create/modify/delete snapshot, file and quota policies.	Optional, default false
GET_POLICY	Bool	Get/list snapshot, file and quota policies.	Optional, default false
TAKE_SNAPSHOT	Bool	Take manual snapshot.	Optional, default false
SET_USER_GROUP	Bool	Create/modify/delete users and groups	Optional, default false
GET_USER_GROUP	Bool	Get/list users and groups.	Optional, default false
SET_ISCSI	Bool	Create/modify/delete iSCSI targets and LUNs	Optional, default false
GET_ISCSI	Bool	Get/list iSCSI targets and LUNs.	Optional, default false

## Create User

**POST** */api/v1/users*

Create a user.

### Request Body

The [User object](#). Name, password and mainGroup are required. WindowsSID is ignored.

### Sample Request

```
POST /api/v1/users HTTP/1.1
Host: <node>
Authorization: Basic <base64_encoded_string>
Content-Length: <length>

{
  "name": "myuser",
  "password": "mypassword",
  "enable": true,
  "linuxUID": 1000,
  "mainGroup": "Administrators",
  "additionalGroups": ["users"],
  "s3SecretKey": "secretkey",
  "permissions": {
    "SET_SHARE": true,
    "GET_SHARE": true,
    "SET_POLICY": true,
    "GET_POLICY": true,
    "TAKE_SNAPSHOT": true,
    "SET_USER_GROUP": true,
    "GET_USER_GROUP": true,
    "SET_ISCSI": true,
    "GET_ISCSI": true
  }
}
```

### Sample Response

```
HTTP/1.1 201 Created
Date: Fri, 14 Oct 2016 12:01:37 GMT
Server: Compuverde Management
Content-Length: 0
Location: http://<node>:81/api/v1/users/myuser
x-cv-request-id: 880c0b32-9ad0-4fbc-b338-3e48bacdd75e
```

## Modify User

**PUT** */api/v1/users/<user>*

Modify an existing user.

### Path Parameters

user	The name of the user.
------	-----------------------

### Request Body

The [User object](#). Name, password and mainGroup are optional. Any parameters not provided remains unchanged.

## Sample Request

```
PUT /api/v1/users/myuser HTTP/1.1
Host: <node>
Authorization: Basic <base64_encoded_string>
Content-Length: <length>

{
  "name": "myuser2",
  "password": "mypassword2"
}
```

This sample request renames the user from myuser to myuser2, and changes the password from mypassword to mypassword2. The other user configuration remains unchanged.

## Sample Response

```
HTTP/1.1 200 OK
Date: Fri, 14 Oct 2016 12:01:37 GMT
Server: Compuverde Management
Content-Length: 0
x-cv-request-id: 880c0b32-9ad0-4fbe-b338-3e48bacdd75e
```

## Delete User

**DELETE** /api/v1/users/<user>

Delete a user.

### Path Parameters

user	The name of the user.
------	-----------------------

## Sample Request

```
DELETE /api/v1/users/myuser HTTP/1.1
Host: <node>
Authorization: Basic <base64_encoded_string>
```

## Sample Response

```
HTTP/1.1 204 No Content
Date: Fri, 14 Oct 2016 12:01:37 GMT
Server: Compuverde Management
Content-Length: 0
x-cv-request-id: 880c0b32-9ad0-4fbe-b338-3e48bacdd75e
```

## Get User

**GET** */api/v1/users/<user>*

Retrieve a user.

### Path Parameters

user	The name of the user.
------	-----------------------

### Response Body

The [User object](#).

### Sample Request

```
GET /api/v1/users/myuser HTTP/1.1
Host: <node>
Authorization: Basic <base64_encoded_string>
```

### Sample Response

```
HTTP/1.1 200 OK
Date: Fri, 14 Oct 2016 12:01:37 GMT
Server: Compuverde Management
Content-Length: <length>
x-cv-request-id: 880c0b32-9ad0-4fbc-b338-3e48bacdd75e

{
  "name": "myuser",
  "password": "mypassword",
  "enable": true,
  "linuxUID": 1000,
  "windowsSID": "S-1-5-21-1634518050-1170479241-3746985662-1000",
  "mainGroup": "Administrators",
  "additionalGroups": ["users"],
  "s3SecretKey": "secretkey",
  "permissions": {
    "SET_SHARE": true,
    "GET_SHARE": true,
    "SET_POLICY": true,
    "GET_POLICY": true,
    "TAKE_SNAPSHOT": true,
    "SET_USER_GROUP": true,
    "GET_USER_GROUP": true,
    "SET_ISCSI": true,
    "GET_ISCSI": true
  }
}
```

## List Users

**GET** */api/v1/users*

List all users.

### Response Body

A JSON array of [User objects](#).

### Sample Request

```
GET /api/v1/users HTTP/1.1
Host: <node>
Authorization: Basic <base64_encoded_string>
```

### Sample Response

```
HTTP/1.1 200 OK
Date: Fri, 14 Oct 2016 12:01:37 GMT
Server: Compuverde Management
Content-Length: <length>
x-cv-request-id: 880c0b32-9ad0-4fbe-b338-3e48bacdd75e

[
  {
    "name": "myuser",
    "password": "mypassword",
    "enable": true,
    "linuxUID": 1000,
    "windowsSID": "S-1-5-21-1634518050-1170479241-3746985662-1000",
    "mainGroup": "Administrators",
    "additionalGroups": ["users"],
    "s3SecretKey": "secretkey",
    "permissions": {
      "SET_SHARE": true,
      "GET_SHARE": true,
      "SET_POLICY": true,
      "GET_POLICY": true,
      "TAKE_SNAPSHOT": true,
      "SET_USER_GROUP": true,
      "GET_USER_GROUP": true,
      "SET_ISCSI": true,
      "GET_ISCSI": true
    }
  },
  ...
]
```

## Create Group

**POST** */api/v1/groups*

Create a group.

### Request Body

The [Group object](#). Name is required. WindowsSID is ignored.

### Sample Request

```
POST /api/v1/groups HTTP/1.1
Host: <node>
Authorization: Basic <base64_encoded_string>
Content-Length: <length>

{
  "name": "users",
  "linuxGID": 1000,
  "permissions": {
    "SET_SHARE": true,
    "GET_SHARE": true,
    "SET_POLICY": true,
    "GET_POLICY": true,
    "TAKE_SNAPSHOT": true,
    "SET_USER_GROUP": true,
    "GET_USER_GROUP": true,
    "SET_ISCSI": true,
    "GET_ISCSI": true
  }
}
```

### Sample Response

```
HTTP/1.1 201 Created
Date: Fri, 14 Oct 2016 12:01:37 GMT
Server: Compuverde Management
Content-Length: 0
Location: http://<node>:81/api/v1/groups/users
x-cv-request-id: 880c0b32-9ad0-4fbc-b338-3e48bacdd75e
```

## Modify Group

**PUT** */api/v1/groups/<group>*

Modify an existing user.

### Path Parameters

group	The name of the group.
-------	------------------------

### Request Body

The [Group object](#). Name is optional. Any parameters not provided remains unchanged.

## Sample Request

```
PUT /api/v1/groups/users HTTP/1.1
Host: <node>
Authorization: Basic <base64_encoded_string>
Content-Length: <length>

{
  "name": "users2",
}
```

This sample request renames the group from users to users2. The other user configuration remains unchanged.

## Sample Response

```
HTTP/1.1 200 OK
Date: Fri, 14 Oct 2016 12:01:37 GMT
Server: Compuverde Management
Content-Length: 0
x-cv-request-id: 880c0b32-9ad0-4fbe-b338-3e48bacdd75e
```

## Delete Group

**DELETE** /api/v1/groups/<group>

Delete a group.

### Path Parameters

group	The name of the group.
-------	------------------------

## Sample Request

```
DELETE /api/v1/groups/users HTTP/1.1
Host: <node>
Authorization: Basic <base64_encoded_string>
```

## Sample Response

```
HTTP/1.1 204 No Content
Date: Fri, 14 Oct 2016 12:01:37 GMT
Server: Compuverde Management
Content-Length: 0
x-cv-request-id: 880c0b32-9ad0-4fbe-b338-3e48bacdd75e
```



## Get Group

**GET** */api/v1/groups/<group>*

Retrieve a group.

### Path Parameters

group	The name of the group.
-------	------------------------

### Response Body

[The Group object](#).

### Sample Request

```
GET /api/v1/groups/users HTTP/1.1
Host: <node>
Authorization: Basic <base64_encoded_string>
```

### Sample Response

```
HTTP/1.1 200 OK
Date: Fri, 14 Oct 2016 12:01:37 GMT
Server: Compuverde Management
Content-Length: <length>
x-cv-request-id: 880c0b32-9ad0-4fbe-b338-3e48bacdd75e

{
  "name": "users",
  "linuxGID": 1000,
  "windowsSID": "S-1-5-21-1634518050-1170479241-3746985662-1000",
  "permissions": {
    "SET_SHARE": true,
    "GET_SHARE": true,
    "SET_POLICY": true,
    "GET_POLICY": true,
    "TAKE_SNAPSHOT": true,
    "SET_USER_GROUP": true,
    "GET_USER_GROUP": true,
    "SET_ISCSI": true,
    "GET_ISCSI": true
  }
}
```

## List Groups

**GET** */api/v1/groups*

List all groups.

### Response Body

A JSON array of [Group objects](#).

### Sample Request

```
GET /api/v1/groups HTTP/1.1
Host: <node>
Authorization: Basic <base64_encoded_string>
```

### Sample Response

```
HTTP/1.1 200 OK
Date: Fri, 14 Oct 2016 12:01:37 GMT
Server: Compuverde Management
Content-Length: <length>
x-cv-request-id: 880c0b32-9ad0-4fbe-b338-3e48bacdd75e

[
  {
    "name": "users",
    "linuxGID": 1000,
    "windowsSID": "S-1-5-21-1634518050-1170479241-3746985662-1000",
    "permissions": {
      "SET_SHARE": true,
      "GET_SHARE": true,
      "SET_POLICY": true,
      "GET_POLICY": true,
      "TAKE_SNAPSHOT": true,
      "SET_USER_GROUP": true,
      "GET_USER_GROUP": true,
      "SET_ISCSI": true,
      "GET_ISCSI": true
    }
  },
  ...
]
```

## Actions

### Take Snapshot

**POST** */api/v1/actions/snapshot*

Take a manual snapshot of a directory. Note that the directory must have been configured with a snapshot policy that allows manual snapshots.

#### Request Headers

x-cv-cwd-id	Optional. The ID of the directory the path in the request body is relative to.
-------------	--

#### Request Body

Name	Type	Description	Status
path	String	The path of the directory the snapshot should be applied to, relative to the current working directory.	Required
expireDate	String	When the snapshot will expire, as UTC time (ex. 2016-10-31 00:00:00). After the snapshot expires, it is removed.	Required

#### Sample Request

```
POST /api/v1/actions/snapshot HTTP/1.1
Host: <node>
Authorization: Basic <base64_encoded_string>
Content-Length: <length>

{
  "path": "path/to/directory",
  "expireDate": "2016-10-31 00:00:00"
}
```

#### Sample Response

```
HTTP/1.1 200 OK
Date: Fri, 14 Oct 2016 12:01:37 GMT
Server: Compuverde Management
Content-Length: 0
x-cv-request-id: 880c0b32-9ad0-4fbc-b338-3e48bacdd75e
```

## Appendix

### Common Request Headers

x-cv-request-id	The unique ID of the request. Used for troubleshooting.
-----------------	---

### Errors

Any response with a 4xx or 5xx HTTP status code includes an Error object in the response.

#### The Error object

```
{
  "code": 72,
  "error": "UserNotFound",
  "message": "UserNotFound"
}
```

### Attribute Definitions

Name	Type	Description
code	Integer	Uniquely identifies the error.
error	String	Human readable string of the numerical code.
message	String	Description of the error. For some errors, this contains the same text as the error attribute.

The following table is a list of the errors.

Code	Error	Description	HTTP Status Code
53	AccessDenied	Access denied. The user doesn't have the required permissions, or the ID in the x-cv-cwd-id header is not valid for the current domain / tenant.	403 Forbidden
11	DirectoryNotEmpty	The specified directory is not empty.	409 Conflict
101 or 102	GroupAlreadyExists	A group with the specified name / GID already exists.	409 Conflict
100	GroupNotFound	The group does not exist.	404 Not Found
Depends	InternalServerError	An internal server error occurred. The code varies, depending on the type of server error.	500 Internal Server Error
5	InvalidArgument	The request contains invalid arguments. Malformed JSON document, JSON attributes that doesn't conform to the specification, or invalid query parameters.	400 Bad Request
17	InvalidCredentials	User authentication failed.	403 Forbidden
15	InvalidMessage	There isn't an operation that matches the request, e.g. the combination of HTTP method and request URI is invalid.	400 Bad Request

132	IscsiTargetAlreadyExists	A target with the specified name already exists.	409 Conflict
131	IscsiTargetNotFound	The target does not exist.	404 Not Found
134	IscsiLunAlreadyExists	A LUN with the specified ID already exists for that target.	409 Conflict
133	IscsiLunNotFound	The LUN does not exist.	404 Not Found
51	PathAlreadyExists	A directory already exists at the specified path.	409 Conflict
50	PathNotFound	The directory does not exist.	404 Not Found
91	PolicyAlreadyExists	The directory already has a configuration for the specified policy.	409 Conflict
90	PolicyNotFound	The directory does not have a configuration for the specified policy.	404 Not Found
10	RequestBodyTooLarge	The size of the request body is larger than what is allowed.	400 Bad Request
81	ShareAlreadyExists	A file share with the specified name already exists.	409 Conflict
80	ShareNotFound	The file share does not exist.	404 Not Found
73 or 74	UserAlreadyExists	A user with the specified name / UID already exists.	409 Conflict
72	UserNotFound	The user does not exist.	404 Not Found

## File encodings

### DEFAULT

COPIES_1
COPIES_2
COPIES_3
METRO_COPIES_3
COPIES_5
COPIES_9
COPIES_11
COPIES_13
ERASURE_2_1
METRO_ERASURE_2_1
ERASURE_3_1
METRO_ERASURE_3_1
ERASURE_4_1
METRO_ERASURE_4_1
ERASURE_5_1
METRO_ERASURE_5_1
ERASURE_6_1

METRO_ERASURE_6_1
ERASURE_8_1
ERASURE_10_1
ERASURE_12_1
ERASURE_2_2
METRO_ERASURE_2_2
ERASURE_4_2
METRO_ERASURE_4_2
ERASURE_6_2
METRO_ERASURE_6_2
ERASURE_8_2
ERASURE_10_2
ERASURE_12_2
ERASURE_3_2
METRO_ERASURE_3_2
ERASURE_5_2
METRO_ERASURE_5_2

## Tiers

### ANY

DEFAULT
TIER_0
TIER_1
TIER_2
TIER_3
TIER_4