

Hitachi Data Ingestor

6.4.4

API References

This manual describes how to use the Hitachi Data Ingestor (HDI) API.

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Contents

Preface.....	xi
Intended audience.....	xii
Product version.....	xii
Release notes.....	xii
Organization of HDI manuals.....	xii
Abbreviation conventions.....	xiii
Document conventions.....	xiv
Convention for storage capacity values.....	xv
Accessing product documentation.....	xv
Getting help.....	xv
Comments.....	xvi
1 Overview of the API.....	1-1
What you can do by using the API.....	1-2
System configurations.....	1-2
Notes on use.....	1-3
Resources and properties.....	1-3
HTTP methods.....	1-3
How to execute a request.....	1-4
When using the GET method.....	1-5
When using the PUT method.....	1-6
When using the POST method.....	1-7
When using the DELETE method.....	1-8
When using the HEAD method.....	1-8
HTTP status codes.....	1-8
I/O formats for requests and responses.....	1-11
Query parameters.....	1-11
Request headers.....	1-13
Response headers.....	1-13
Response XML when an error occurs.....	1-15
2 Access and Authentication.....	2-1
URI and account for accessing an HDI system.....	2-2
Notes on URIs.....	2-2
Maximum URI length.....	2-2

Encoding of specific characters and values.....	2-2
Quotation marks on the command line.....	2-3
Using multi-byte characters.....	2-3
Authentication.....	2-3
Public key certificate.....	2-4
3 Resources.....	3-1
List of resources.....	3-3
APIAccount.....	3-4
APIAccount resource overview.....	3-4
APIAccount resource.....	3-4
Acquiring API administrator account information by using the GET method.	3-4
Changing the API administrator account password by using the POST method	
.....	3-5
CIFSShare.....	3-7
CIFSShare resource overview.....	3-7
CIFSShare resource.....	3-8
Acquiring information about all CIFS shares by using the GET method.....	3-8
Adding a CIFS share by using the PUT method.....	3-18
CIFSShares/CIFS-share-name-encoded-in-Base64 resource.....	3-38
Acquiring CIFS share information by using the GET method.....	3-39
Changing CIFS share information by using the POST method.....	3-42
Deleting the specified CIFS share by using the DELETE method.....	3-55
Checking whether the specified CIFS share exists by using the HEAD method	
.....	3-56
Disk.....	3-56
Disk resource overview.....	3-56
Disk resource.....	3-56
Acquiring information specified about the disk by using the GET method...	3-56
FCPath.....	3-58
FCPath resource overview.....	3-58
FCPath resource.....	3-58
Acquiring information about the FC path specified in the GET method.....	3-58
FileSystem.....	3-62
FileSystem resource overview.....	3-62
FileSystem resource.....	3-63
Acquiring file system information by using the GET method.....	3-63
Creating a file system by using the PUT method.....	3-76
FileSystems/file-system-name resource.....	3-89
Acquiring the specified file system information by using the GET method..	3-89
Editing information about the specified file system by using the POST method	
.....	3-94
Deleting the specified file system by using the DELETE method.....	3-104
Checking whether the specified file system exists by using the HEAD method	
.....	3-104
FileSystems/file-system-name/MountSetting resource.....	3-104
Acquiring information about the mount settings of the specified file system by	
using the GET method.....	3-104
Editing information about the mount settings of the specified file system by	
using the POST method.....	3-107
FileSystems/file-system-name/LargeFileTransferSetting resource.....	3-109

Acquiring information about the Large File Transfer function for the specified file system by using the GET method.....	3-109
Editing the settings of the Large File Transfer function for the specified file system by using the POST method.....	3-110
Hardware.....	3-113
Hardware resource overview	3-113
Hardware resource.....	3-113
Acquiring hardware information by using the GET method.....	3-113
HCP.....	3-126
HCP resource overview.....	3-126
HCP resource.....	3-126
Acquiring the specified HCP information by using the GET method.....	3-126
Setting or deleting HCP information by using the POST method.....	3-128
HCP/ACCESS resource.....	3-131
Checking whether the user can access the HCP namespace by using the POST method.....	3-131
HCP/Read-siteAccess resource.....	3-132
Checking whether the user can access the HCP namespace by using the POST method.....	3-132
LU.....	3-134
LU resource overview.....	3-134
LU resource.....	3-134
Acquiring LU information by using the GET method.....	3-135
MigrationTask.....	3-139
MigrationTask resource overview.....	3-139
MigrationTask resource.....	3-140
Acquiring information for all migration tasks by using the GET method....	3-140
Setting the migration task by using the PUT method.....	3-144
MigrationTask/task-name-encoded-in-Base64 resource.....	3-148
Acquiring information for the specified migration task by using the GET method.....	3-148
Setting the schedule of the migration task or information about the subtree namespace by using the POST method.....	3-150
Deleting task information by using the DELETE method.....	3-155
Checking whether the specified migration task exists by using the HEAD method.....	3-155
NetworkInterface.....	3-156
NetworkInterface resource overview.....	3-156
NetworkInterface resource.....	3-156
Acquiring network interface information by using the GET method.....	3-156
Adding a network interface by using the PUT method.....	3-161
NetworkInterfaces/network-interface-name resource.....	3-164
Acquiring network interface information by using the GET method.....	3-164
Changing the network interface information by using the POST method..	3-166
Checking whether the specified network interface exists by using the HEAD method.....	3-170
NFSShare.....	3-171
NFSShare resource overview.....	3-171
NFSShare resource.....	3-171
Acquiring information for all NFS shares by using the GET method.....	3-172
Adding an NFS share by using the PUT method.....	3-177
NFSShares/NFS-share-directory-name resource.....	3-192

Acquiring information for the specified NFS share by using the GET method	3-192
Editing NFS share information by using the POST method.....	3-195
Deleting the specified NFS share by using the DELETE method.....	3-203
Checking whether the specified NFS share exists by using the HEAD method	3-203
ProcessingNode.....	3-203
ProcessingNode resource overview.....	3-203
ProcessingNode resource.....	3-204
Acquiring cluster and node information by using the GET method.....	3-204
Changing a host name by using the POST method.....	3-210
Routing.....	3-211
Routing resource overview.....	3-211
Routing resource.....	3-212
Acquiring the specified routing information by using the GET method.....	3-212
Adding or deleting routing information by using the POST method.....	3-216
SystemController.....	3-221
SystemController resource overview.....	3-221
SystemController resource.....	3-222
Checking whether the service or OS needs to be restarted by using the GET	3-222
method.....	
Restarting the service or OS by using the POST method.....	3-224
SystemController/OS resource.....	3-226
Using the GET method to check the startup status of the OS.....	3-226
Restarting or Stopping the OS on the node by using the POST method....	3-228
VolumeGroup.....	3-229
VolumeGroup resource overview.....	3-229
VolumeGroup resource.....	3-229
Using the GET method to acquire information about the volume group....	3-229

A API Usage Examples.....	A-1
Example of acquiring cluster and node information in a cluster configuration.....	A-2
Example of editing the host name in a single-node configuration.....	A-3
Example of monitoring the hardware status.....	A-6
Example of setting up the network.....	A-11
Example of setting HCP information.....	A-17
Example of creating a file system in a cluster configuration.....	A-18
Example of creating a file system that can link with HCP at the file system level in a	A-18
cluster configuration.....	
Example of editing a file system that can link with HCP at the file system level in a	A-32
cluster configuration.....	
Example of creating a file system that can link with HCP at the share level in a	A-40
cluster configuration.....	
Example of editing a file system that can link with HCP at the share level in a cluster	A-55
configuration.....	
Example of creating a file system in a single-node configuration.....	A-63
Example of creating a file system that can link with HCP at the file system level in a	A-64
single node configuration.....	
Example of editing a file system that can link with HCP at the file system level in a	A-75
single node configuration.....	
Example of creating a file system that can link with HCP at the share level in a single	A-84
node configuration.....	

Example of editing a file system that can link with HCP at the share level in a single node configuration.....	A-97
Example of deleting a file system.....	A-106
Example of stopping the OS in a cluster configuration.....	A-110
Example of stopping the OS in a single-node configuration.....	A-111



Preface

This manual describes how to use the Hitachi Data Ingestor (HDI) API.
This preface includes the following information:

- [Intended audience](#)
- [Product version](#)
- [Release notes](#)
- [Organization of HDI manuals](#)
- [Abbreviation conventions](#)
- [Document conventions](#)
- [Convention for storage capacity values](#)
- [Accessing product documentation](#)
- [Getting help](#)
- [Comments](#)

Intended audience

This manual is intended for those who use the API to develop application programs that manage HDI systems.

Readers of this manual must have:

- Knowledge of how to use and manage an HDI system
- Knowledge of Hitachi Content Platform (HCP) systems
- Knowledge of application programming using the REST interface

Product version

This document revision applies to Hitachi Data Ingestor version 4.2.1 or later.

Release notes

Read the release notes before installing and using this product. They may contain requirements or restrictions that are not fully described in this document or updates or corrections to this document. Release notes are available on Hitachi Vantara Support Connect: <https://knowledge.hitachivantara.com/Documents>.

Organization of HDI manuals

HDI manuals are organized as shown below:

Note that whether HDI nodes can be set up in a redundant configuration depends on the HDI model. A configuration where nodes are made redundant is called a cluster configuration, and a configuration where a node is not made redundant with another node is called a single-node configuration. Which manuals you need to read depends on which configuration you are going to use.

Manual name	Description
<i>Hitachi Data Ingestor Installation and Configuration Guide, MK-90HDICOM002</i>	You must read this manual first to use an HDI system. This manual contains the information that you must be aware of before starting HDI system operation, as well as the environment settings for an external server.
<i>Hitachi Data Ingestor Cluster Getting Started Guide, MK-90HDICOM001</i>	This manual explains how to set up an HDI system in a cluster configuration.
<i>Hitachi Data Ingestor Cluster Administrator's Guide, MK-90HDI038</i>	This manual provides procedures for using HDI systems in a cluster configuration, as well as provides GUI references.

Manual name	Description
<i>Hitachi Data Ingestor Cluster Troubleshooting Guide, MK-90HDI029</i>	This manual provides troubleshooting information for HDI systems in a cluster configuration.
<i>Hitachi Data Ingestor Single Node Getting Started Guide, MK-90HDI028</i>	This manual explains how to set up an HDI system in a single-node configuration.
<i>Hitachi Data Ingestor Single Node Administrator's Guide, MK-90HDI039</i>	This manual explains the procedures for using HDI systems in a single-node configuration, as well as provides GUI references.
<i>Hitachi Data Ingestor Single Node Troubleshooting Guide, MK-90HDI030</i>	This manual provides troubleshooting information for HDI systems in a single-node configuration.
<i>Hitachi Data Ingestor CLI Administrator's Guide, MK-90HDI034</i>	This manual describes the syntax of the commands that can be used for HDI systems in a cluster configuration or a single-node configuration.
<i>Hitachi Data Ingestor API References (This manual)</i>	This manual explains how to use the API for HDI systems in a cluster configuration or a single-node configuration.
<i>Hitachi Data Ingestor Error Codes, MK-90HDI005</i>	This manual contains messages for HDI systems in a cluster configuration or a single-node configuration.
<i>Hitachi Data Ingestor File System Protocols (CIFS/NFS) Administrator's Guide, MK-90HDI035</i>	This manual contains the things to keep in mind before using the CIFS or NFS service of an HDI system in a cluster configuration or a single-node configuration from a CIFS or NFS client.

Abbreviation conventions

This manual uses the following abbreviations for product names:

Abbreviation	Full name or meaning
Dynamic Tiering	Hitachi Dynamic Tiering
HCP	Hitachi Content Platform
HDI	Hitachi Data Ingestor
HUS100 series	A generic name for the following: <ul style="list-style-type: none"> • Hitachi Unified Storage 150 • Hitachi Unified Storage 130 • Hitachi Unified Storage 110
HUS VM	Hitachi Unified Storage VM
Universal Storage Platform V/VM	A generic name for the following: <ul style="list-style-type: none"> • Hitachi Universal Storage Platform V

Abbreviation	Full name or meaning
	<ul style="list-style-type: none"> Hitachi Universal Storage Platform VM
Virtual Storage Platform	Hitachi Virtual Storage Platform
VSP Fx00 models	A generic name for the following: <ul style="list-style-type: none"> Hitachi Virtual Storage Platform F350 Hitachi Virtual Storage Platform F370 Hitachi Virtual Storage Platform F400 Hitachi Virtual Storage Platform F600 Hitachi Virtual Storage Platform F700 Hitachi Virtual Storage Platform F800 Hitachi Virtual Storage Platform F900
VSP G1000	Hitachi Virtual Storage Platform G1000
VSP Gx00 models	A generic name for the following: <ul style="list-style-type: none"> Hitachi Virtual Storage Platform G200 Hitachi Virtual Storage Platform G350 Hitachi Virtual Storage Platform G370 Hitachi Virtual Storage Platform G400 Hitachi Virtual Storage Platform G600 Hitachi Virtual Storage Platform G700 Hitachi Virtual Storage Platform G800 Hitachi Virtual Storage Platform G900
Windows	Microsoft(R) Windows(R) Operating System

If you want to reference other manuals, note that hereinafter in this manual, the *Hitachi Data Ingestor Cluster Administrator's Guide* and *Hitachi Data Ingestor Single Node Administrator's Guide* are referred to as the *Administrator's Guide*, and the *Hitachi Data Ingestor Cluster Troubleshooting Guide* and the *Hitachi Data Ingestor Single Node Troubleshooting Guide* are referred to as the *Troubleshooting Guide*. See the appropriate manual as needed.

Document conventions

This document uses the following typographic conventions:

Convention	Description
Bold	Indicates text on a window, other than the window title, including menus, menu options, buttons, fields, and labels. Example: Click OK .
<i>Italic</i>	Indicates a variable, which is a placeholder for actual text provided by the user or system. Example: <i>copy source-file target-file</i>

Convention	Description
	<i>Note:</i> Angled brackets (< >) are also used to indicate variables.
screen/code	Indicates text that is displayed on screen or entered by the user. Example: # pairdisplay -g oradb
< > angled brackets	Indicates a variable, which is a placeholder for actual text provided by the user or system. Example: # pairdisplay -g <group> <i>Note:</i> Italic font is also used to indicate variables.
[] square brackets	Indicates optional values. Example: [a b] indicates that you can choose a, b, or nothing.
...	The item or items preceding the ellipsis (...) can be repeated. To specify multiple items, use a comma (,) to delimit them. Example: A,B... indicates that B can be specified as many times as necessary after A.

Convention for storage capacity values

Storage capacity values (e.g., drive capacity) are calculated based on the following values:

Capacity Unit	Physical Value	Logical Value
1 KB	1,000 bytes	1,024 (2 ¹⁰) bytes
1 MB	1,000 KB or 1,000 ² bytes	1,024 KB or 1,024 ² bytes
1 GB	1,000 MB or 1,000 ³ bytes	1,024 MB or 1,024 ³ bytes
1 TB	1,000 GB or 1,000 ⁴ bytes	1,024 GB or 1,024 ⁴ bytes
1 PB	1,000 TB or 1,000 ⁵ bytes	1,024 TB or 1,024 ⁵ bytes
1 EB	1,000 PB or 1,000 ⁶ bytes	1,024 PB or 1,024 ⁶ bytes
1 block	-	512 bytes

Accessing product documentation

Product user documentation is available on Hitachi Vantara Support Connect: <https://knowledge.hitachivantara.com/Documents>. Check this site for the most current documentation, including important updates that may have been made after the release of the product.

Getting help

[Hitachi Vantara Support Connect](https://knowledge.hitachivantara.com/Documents) is the destination for technical support of products and solutions sold by Hitachi Vantara. To contact technical

support, log on to Hitachi Vantara Support Connect for contact information:
https://support.hitachivantara.com/en_us/contact-us.html.

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Comments

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Thank you!

Overview of the API

The Hitachi Data Ingestor (HDI) API is an interface used for creating application programs that manage HDI systems that are located in each site from the data center.

This chapter provides an overview of the HDI API. The topics covered by this chapter include system configurations, resources and properties, HTTP methods, how to execute requests, HTTP status codes, I/O formats for requests and responses, query parameters, request headers, and response headers.

- [What you can do by using the API](#)
- [System configurations](#)
- [Notes on use](#)
- [Resources and properties](#)
- [HTTP methods](#)
- [How to execute a request](#)
- [HTTP status codes](#)
- [I/O formats for requests and responses](#)
- [Query parameters](#)
- [Request headers](#)
- [Response headers](#)
- [Response XML when an error occurs](#)

What you can do by using the API

HDI provides an API in the HTTP REST (Representational State Transfer) interface format. The API automates the settings for connecting HDI to the network and the operations such as for creating file systems.

By linking HDI with Hitachi Content Platform (HCP) via the network, you can create an application at the core site that centrally manages the HDI systems at the edge sites and the HCP system at the core site. Central management from the core site reduces the data management workload of the system administrators at each edge site.

System configurations

The following figure shows examples of a system configuration in which the HDI API is used.

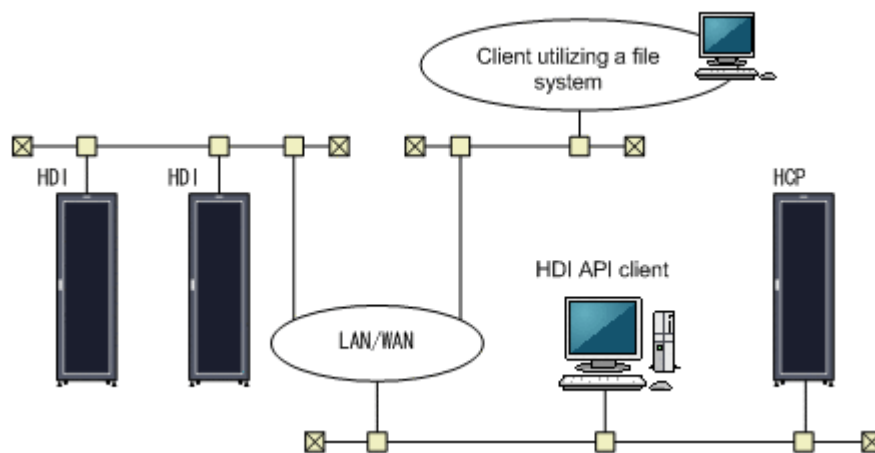


Figure 1-1 Examples of a system configuration

HDI

The HDI system provides services related to file systems for network clients.

HDI API client

The HDI API client uses the API to connect to the HDI system and manages the HDI node. The HDI API client uses the API to send a request, and then receives the processing results (a response) from the API. The HDI API client must be set so that it can communicate with the HDI node.

HCP

The HCP system archives large volumes of content generated by a variety of systems for long-term storage.

Client utilizing a file system

A client can use a CIFS or NFS share to access a file system.

Notes on use

When you use the HDI API, a timeout interrupts processing if a request is not completed within 30 minutes.

Resources and properties

You can manage resources by using the HDI API. Resources include `FileSystem`, `ProcessingNode`, `Routing`, and others.

Each resource has a property whose value defines the resource.

Some properties are treated as resources.

Each resource is identified by using a URI. For example, the following URI indicates a `FileSystem` resource named `fs01` in the HDI system named `system.example.com`:

```
https://system.example.com:9090/mapi/FileSystems/fs01
```

Each property has the `String`, `Integer`, or `Boolean` data type. For example, the data type of the `fileSystemName` property of a `FileSystem` resource is `String`.

HTTP methods

The following table describes the HTTP/1.1 methods supported by the HDI API.

Table 1-1 Supported HTTP methods

Method	Description
GET	Acquires information about the resource indicated by the request URI.
PUT	Adds information to the resource indicated by the request URI.
POST	Changes the information about the resource indicated by the request URI.
DELETE	Deletes the information about the resource indicated by the request URI.
HEAD	Acquires the meta-information of the resource indicated by the request URI. Unlike the GET method, the response of this method includes only meta-information and does not include a message body.
OPTIONS	Checks the methods that can be used for the resource indicated by the request URI.

The HDI API allows you to use the `OPTIONS` method for any resource URI. When the `OPTIONS` method request is used for a specific resource URI, the method returns the types of usable HTTP methods and the MIME types supported by these HTTP methods.

When the OPTIONS method request is used, it returns the following information:

- **Allow header**
A list of HTTP methods supported by the request URI.
For example, if the OPTIONS method request is used for a URI that supports the GET, HEAD, and POST methods, the Allow header is returned as follows:
Allow: OPTIONS, GET, HEAD, POST
- **WADL**
A WADL document describes the MIME types supported by the HTTP methods regarding the request URI. A WADL document is an XML document that defines Web service specifications.

The WADL document is set in the body of the response to an OPTIONS method request.

The following shows an example of the WADL XML document output when the OPTIONS method request is used for a FileSystem resource.

```
<?xml version="1.0" encoding="UTF-8" standalone="yes"?>
<application xmlns="http://research.sun.com/wadl/2006/10">
  <doc jersey:generatedBy="Jersey: 1.1.5 01/21/2011 03:50 PM"
  xmlns:jersey="http://jersey.dev.java.net/" />
  <resources base="https://hdi.example.com:9090/mapi/">
    <resource path="FileSystems">
      <method id="getFileSystems" name="GET">
        <response>
          <representation mediaType="application/xml" />
        </response>
      </method>
      <method id="createFileSystem" name="PUT">
        <request>
          <representation mediaType="application/xml" />
        </request>
        <response>
          <representation mediaType="*/*/" />
        </response>
      </method>
    </resource>
  </resources>
</application>
```

How to execute a request

This section describes how to use a REST interface to use request methods. This manual uses the `curl` command (version 7.18.2).

For details about the user name and password specified for the `curl` command, see [Authentication on page 2-3](#).

When using the GET method

You can use the GET method to acquire resource information. Resource information is returned in XML format.

To acquire information about the file system named `fs`, execute the `curl` command as follows:

```
curl -i -l -b
      api-auth=user-name:password "https://host-name-or-IP-address:
9090/mapi/FileSystems/fs?prettyprint" -k -X GET -H
"Accept:application/xml"
```

After you execute the `curl` command, the status code, header, and resource information are displayed as follows:

```
HTTP/1.1 200 OK
Date: Fri, 10 Oct 2014 05:26:51 GMT
Server: Cosminexus HTTP Server 09-65 (Unix) mod_jk
Content-Length: 1582
X-NODE-APIVersionID: 6.4.4-00
X-NODE-CompletedOperation: 2
X-NODE-OperationList: [1]Get file system details, [2]Set the Active
File Migration function
Connection: close
Content-Type: application/xml
```

```
<?xml version="1.0" encoding="UTF-8" standalone="yes"?>
<FileSystem>
  <fileName>fs</fileName>
  <isLvmEnabled>true</isLvmEnabled>
  <isLvmStripingEnabled>true</isLvmStripingEnabled>
  <stripeSize>64</stripeSize>
  <aclType>Advanced ACL</aclType>
  <NamespaceShareSettings>
    <namespaceType>--</namespaceType>
    <type>--</type>
    <FQDN></FQDN>
    <externalHcpHostName></externalHcpHostName>
    <user></user>
    <password></password>
    <hcpReplicaHost></hcpReplicaHost>
    <externalReplicaHcpHostName></externalReplicaHcpHostName>
    <hcpNamespace></hcpNamespace>
  </NamespaceShareSettings>
  <UseVersioning>used</UseVersioning>
  <periodToHold>7</periodToHold>
  <customSchedule>not used</customSchedule>
  <customSchedule15Minute>0</customSchedule15Minute>
  <customScheduleHourly>0</customScheduleHourly>
  <customScheduleDaily>0</customScheduleDaily>
  <customScheduleWeekly>0</customScheduleWeekly>
  <customScheduleMonthly>0</customScheduleMonthly>
  <customScheduleYearly>0</customScheduleYearly>
  <isBypassEnabled>true</isBypassEnabled>
  <WormSetting>
    <maxRetention>10950-0-0</maxRetention>
    <minRetention>0-0-0</minRetention>
    <isAutoCommitEnabled>false</isAutoCommitEnabled>
    <commitModeSetting></commitModeSetting>
    <autoCommitPeriod></autoCommitPeriod>
```

```

        <defaultRetention></defaultRetention>
    </WormSetting>
</LUs>
    <LU>
        <deviceFileName>lu0000</deviceFileName>
    </LU>
    <LU>
        <deviceFileName>lu0001</deviceFileName>
    </LU>
</LUs>
<WorkspaceLUs>
    <WorkSpace>
        <deviceFileName>lu0002</deviceFileName>
    </WorkSpace>
    <WorkSpace>
        <deviceFileName>lu0003</deviceFileName>
    </WorkSpace>
</WorkspaceLUs>
<LargeFileTransferSetting>
    <largeFileTransfer>Disable</largeFileTransfer>
    <lowerLimitInMegaBytes>100</lowerLimitInMegaBytes>
</LargeFileTransferSetting>
</FileSystem>

```

When using the PUT method

You can use the PUT method to add information to a resource. Create a file containing the contents you want to request in XML format, and then execute the `curl` command.

The procedure below shows how to enable the WORM functionality for a file system named `fs` and adding LUs to the file system.

1. Create a file named `fscreate.xml` containing the following information:

```

<?xml version="1.0" encoding="UTF-8" standalone="yes"?>
  <FileSystem>
    <fileName>fs</fileName>
    <aclType>Advanced ACL</aclType>
    <isLvmEnabled>true</isLvmEnabled>
    <stripeSize>64</stripeSize>
    <isLvmStripingEnabled>true</isLvmStripingEnabled>
    <WormSetting>
      <maxRetention>10950-0-0</maxRetention>
      <minRetention>0-0-0</minRetention>
      <isAutoCommitEnabled>false</isAutoCommitEnabled>
    </WormSetting>
    <LUs>
      <LU>
        <deviceFileName>lu0004</deviceFileName>
      </LU>
      <LU>
        <deviceFileName>lu0005</deviceFileName>
      </LU>
    </LUs>
  </FileSystem>

```

2. Execute the `curl` command as follows:

```
curl -i -l -b
  api-auth=user-name:password "https://host-name-or-IP-address:
9090/mapi/FileSystems" -k -d @fscree.xml -X PUT -H "Content-
Type: application/xml"
```

After you execute the `curl` command, the status code and header are displayed as follows:

```
HTTP/1.1 200 OK
Date: Tue, 19 Apr 2011 07:56:42 GMT
Server: Cosminexus HTTP Server 09-65 (Unix) mod_jk
X-NODE-APIVersionID: 6.4.4-00
X-NODE-CompletedOperation: 1
X-NODE-OperationList: [1]Create file system
Content-Length: 0
Connection: close
Content-Type: text/plain; charset=iso-8859-1
```

When using the POST method

You can use the POST method to change resource information. Create a file containing the contents you want to request in XML format, and then execute the `curl` command.

To expand the capacity of a file system named `fs` and change the WORM attribute:

1. Create a file named `fsmod.xml` containing the following information:

```
<?xml version="1.0" encoding="UTF-8" standalone="yes"?>
<FileSystem>
  <WormSetting>
    <isAutoCommitEnabled>>true</isAutoCommitEnabled>
    <commitModeSetting>>manual</commitModeSetting>
    <autoCommitPeriod>0-0-15</autoCommitPeriod>
    <defaultRetention>10950-0-0</defaultRetention>
  </WormSetting>
  <addLUs>
    <LU>
      <deviceFileName>lu0006</deviceFileName>
    </LU>
    <LU>
      <deviceFileName>lu0007</deviceFileName>
    </LU>
  </addLUs>
</FileSystem>
```

2. Execute the `curl` command as follows:

```
curl -i -l -b
  api-auth=user-name:password "https://host-name-or-IP-address:
9090/mapi/FileSystems/fs/" -k -d @fsmod.xml -X POST -H "Content-
Type: application/xml"
```

After you execute the `curl` command, the status code and header are displayed as follows:

```
HTTP/1.1 200 OK
Date: Tue, 19 Apr 2011 07:57:20 GMT
Server: Cosminexus HTTP Server 09-65 (Unix) mod_jk
X-NODE-APIVersionID: 6.4.4-00
X-NODE-CompletedOperation: 2
```

```
X-NODE-OperationList: [1]Expand file system, [2]Edit file system
Content-Length: 0
Connection: close
Content-Type: text/plain; charset=iso-8859-1
```

When using the DELETE method

You can use the DELETE method to delete resource information.

To delete a file system named `fs`, execute the `curl` command as follows:

```
curl -i -l -b
    api-auth=user-name:password "https://host-name-or-IP-address:
9090/mapi/FileSystems/fs/" -k -X DELETE -H "Content-Type:
application/xml"
```

After you execute the `curl` command, the status code and header are displayed as follows:

```
HTTP/1.1 200 OK
Date: Mon, 11 Apr 2011 05:39:27 GMT
Server: Cosminexus HTTP Server 09-65 (Unix) mod_jk
X-NODE-APIVersionID: 6.4.4-00
X-NODE-CompletedOperation: 1
X-NODE-OperationList: [1]Delete file system
Content-Length: 0
Connection: close
Content-Type: text/plain; charset=iso-8859-1
```

When using the HEAD method

You can use the HEAD method to check whether a resource exists.

To check whether the file system named `fs` exists, execute the `curl` command as follows:

```
curl -i -l -b
    api-auth=user-name:password "https://host-name-or-IP-address:
9090/mapi/FileSystems/fs/" -k -X HEAD -H "Content-Type: application/
xml"
```

If the executed `curl` command finds the specified resource, a status code and headers such as those shown below are displayed:

```
HTTP/1.1 200 OK
Date: Mon, 11 Apr 2011 05:39:11 GMT
Server: Cosminexus HTTP Server 09-65 (Unix) mod_jk
Content-Length: 685
X-NODE-APIVersionID: 6.4.4-00
X-NODE-CompletedOperation: 1
X-NODE-OperationList: [1]Get file system details
Connection: close
Content-Type: application/xml
```

HTTP status codes

An HDI system returns an HTTP status code in response to a request from an HDI API client.

If method execution succeeds, the HDI system generates a status code, and then returns the status code as a response via the API. For GET methods, response XML is returned in addition to status codes. The response XML returned for a GET method request contains detailed information about the resource indicated by the URI.

The following table describes the status codes that can be generated when a request terminates normally.

Table 1-2 HTTP status codes that can be generated when a request terminates normally

Status code		Applicable method	Description
200	OK	All methods	The HDI system successfully created a resource, changed a resource, deleted a resource, acquired information about a resource, or confirmed the existence of a resource.
202	Accepted	All methods	This status code means that HDI processing has been requested, but completion of the processing is not guaranteed. Wait a while, and then check the resource status to make sure that the processing has completed normally.

If method execution fails, the HDI system returns a status code that indicates the type of error along with error information set in the response header via the API. The status code returned when a failure occurs is determined by the cause of the failure.

The following table describes the status codes that can be generated when a request terminates abnormally. Status codes defined by RFC2068, which are not described in this table might also be returned.

Table 1-3 HTTP status codes that can be generated when a request terminates abnormally

Status code		Applicable method	Description
302	FOUND	All methods	The request was not valid. The following are possible causes: <ul style="list-style-type: none"> The api-auth cookie does not exist. An invalid certificate is specified.
400	BAD_REQUEST	All methods	The request was not valid. The following are possible causes: <ul style="list-style-type: none"> A required query parameter was not specified in the request. When a PUT or POST method request was used, any of the following conditions were met:

Status code		Applicable method	Description
			<ul style="list-style-type: none"> - A required property was not specified in the request body. - The request body contains an invalid property. - The request body contains an XML whose format is invalid. - Data-type checking failed. - The request body contains an invalid value. • A nonexistent MIME type was specified for the <code>Content-Type</code> or <code>Accept</code> header in the request.
401	UNAUTHORIZED	All methods	The user account specified in the request header was denied during authentication.
403	FORBIDDEN	GET PUT POST DELETE	<p>The requested processing could not be performed for the target resource.</p> <p>This status is returned when, for example, the <code>GET</code> method is executed for the LU resource in a single-node configuration.</p>
404	NOT_FOUND	All methods	The resource indicated by the URI does not exist.
405	METHOD_NOT_ALLOWED	GET PUT POST DELETE	The requested processing is not valid for the resource indicated by the URI.
406	NOT_ACCEPTABLE	GET	An invalid MIME type is specified in the <code>Accept</code> header that was specified when the request was made.
409	CONFLICT	PUT POST	<p>When the <code>PUT</code> method request was used, the HDI system could not create a resource because the resource already exists.</p> <p>Alternatively, when the <code>POST</code> method request was used for a Routing resource, the HDI system was unable to set a new route because the route already exists.</p>
415	UNSUPPORTED_MEDIA_TYPE	All methods	The HDI system does not support the MIME type specified for the <code>Content-Type</code> or <code>Accept</code> header.
500	INTERNAL_SERVER_ERROR	All methods	An error occurred in the processing of the node to which the request was sent.
503	SERVICE_UNAVAILABLE	All methods	<p>Requests cannot be temporarily accepted because the system is under a heavy load or is undergoing maintenance.</p> <p>Wait a while, and then reissue the request.</p> <p>This status code is also returned if the system or resource is unable to accept the request, or if a timeout occurs because processing is not completed within 30 minutes.</p>

I/O formats for requests and responses

When you use the API to create or change a resource, specify resource properties in XML format. To acquire information about a resource, responses to the OPTIONS request are in WADL format.

You can use the following URI to download the XML schema to be used by the HDI API for the request body and the response body:

`https://host-name-or-IP-address-of-HDI-node:9090/mapi/static/mapi.xsd`

All responses that are returned through the API are encoded in UTF-8. The body of requests created as input for the HDI API must also be encoded in UTF-8.

The HDI API supports the MIME types listed in the following table. These MIME types can be specified as I/O formats for requests and responses.

Table 1-4 Supported MIME types

MIME type	Description
application/xml	XML format
application/octet-stream	Multiple requests (for uploading or downloading the contents of files)

Query parameters

In the HDI API, you can use the query parameters listed in the following table.

Query parameters are specified following a question mark (?) appended to a resource URI. If multiple query parameters are specified, ampersands (&) are used as parameter separators. Note that query parameters are case sensitive.

Table 1-5 Supported query parameters

Query parameter	Applicable resource	Applicable method	Description
filesystemName	MigrationTask MigrationTask/ <i>task-name-encoded-in-Base64</i>	GET DELETE HEAD	This parameter is used to specify the name of the file system for which migration task information is to be output or deleted. This parameter must be specified when the MigrationTask/ <i>task-name-encoded-in-Base64</i> resource is used. Example: <code>MigrationTask?filesystemName=fs01</code>
namespaceType	HCP/Read-siteAccess	POST	For the namespace specified by the method, this parameter checks whether the namespace is assigned to the unit corresponding to the specified value.

Query parameter	Applicable resource	Applicable method	Description
			<p>If <code>fs</code> is specified, this parameter checks whether the namespace is assigned to a file system.</p> <p>If <code>st</code> is specified, this parameter checks whether the namespace is assigned to a share.</p> <p>Example:</p> <pre>HCP/Read-siteAccess? namespaceType=fs</pre>
<code>prettyprint</code>	All resources	All methods	<p>This parameter is used to specify the output format.</p> <p>If this parameter is specified, the XML is output in an easy-to-read format that uses line breaks and indentation.</p> <p>If this parameter is not specified, neither line breaks nor indentation is used in the output XML.</p> <p>Example:</p> <pre>FileSystems?prettyprint</pre>
<code>SHARE-DIRECTORY-NAME</code>	<p>CIFSShares/<i>CIFS-share-name-encoded-in-Base64</i></p> <p>NFSShares/<i>NFS-share-directory-name</i></p>	<p>GET</p> <p>POST</p> <p>DELETE</p> <p>HEAD</p>	<p>This parameter is used to specify a shared directory.</p> <p>This parameter must be specified when the <i>CIFSShares/CIFS-share-name-encoded-in-Base64</i> resource or the <i>NFSShares/NFS-share-directory-name</i> resource is used.</p> <p>Example:</p> <pre>CIFSShares/CIFS-share-name- encoded-in-Base64?SHARE-DIRECTORY- NAME=path-name-of-shared-directory- encoded-in-Base64</pre> <pre>NFSShares/NFS-share-directory-name? SHARE-DIRECTORY-NAME=path-name-of- shared-directory</pre>
<code>sharingType</code>	HCP/ACCESS	POST	<p>This parameter checks whether the file system corresponding to the specified value has been assigned to the namespace specified with the method.</p> <p>If <code>hd</code> is specified, this parameter checks whether the home directory-roaming file system has been assigned.</p> <p>If <code>sh</code> is specified, this parameter checks whether the read-write-content-sharing file system has been assigned.</p> <p>Example:</p> <pre>HCP/ACCESS?sharingType=hd</pre>
<code>verbose</code>	All resources	GET	<p>This parameter is used to specify whether to output information in verbose mode for the requested method.</p>

Query parameter	Applicable resource	Applicable method	Description
			<p>If <code>true</code> is specified, all properties contained in the resource are output.</p> <p>If <code>false</code> is specified, only the properties that the PUT or POST method can process are output.</p> <p>The output XML can be used as an XML template for requesting the PUT or POST method.</p> <p>If this parameter is not specified, the method operates the same way as when <code>false</code> is specified.</p> <p>Example:</p> <pre>ProcessingNode?verbose=true</pre>

Request headers

When execution of a method is requested, request headers are sent to HDI. The following table describes the request headers that the requesting API client must set.

Table 1-6 Request headers

Request header	Description
Cookie	<p>User authentication details for a request.</p> <p>If the request does not contain an api-auth cookie, an error is returned. For details about the api-auth cookie, see Authentication on page 2-3.</p>
Accept	<p>A list of MIME types for responses that the HDI API client can process.</p> <p>If an invalid MIME type has been set, an error is returned. For the MIME types that can be specified, see Table 1-4 Supported MIME types on page 1-11.</p>
Content-Type	<p>The media type of the content sent to the recipient.</p> <p>This header can be used when the PUT or POST method request is used.</p> <p>If an invalid MIME type has been set, an error is returned. For the MIME types that can be specified, see Table 1-4 Supported MIME types on page 1-11.</p>

Response headers

The following table describes the response headers set by the HDI API.

Table 1-7 Response headers

Response header	Description	Format of the set value	When the header is set
Status Code	A status code indicating the processing result. A status code is set in any type of request.	Number	This header is always set.
X-NODE-APIVersionID	The version number of the HDI API. If the corresponding CLI commands or properties do not exist, Unknown is displayed.	String (Same format as the HDI version number)	This header is always set.
Content-Type	The media type of the content sent to the recipient	MIME type Either application/xml or text/plain is returned. If application/xml is returned, check the body as well as the headers.	application/xml is set if the GET method request is terminated successfully.
Content-Length	The size of the content sent to the recipient. The size is represented as a decimal octet (eight bits).	Number	This header is set only if the GET method request is terminated successfully.
X-NODE-ErrorMessageID	The message ID of an error that occurred during processing	String	This header is set if a request fails.
X-NODE-OperationList	The names of all the processes executed by the request. If the request was not executed, a hyphen (-) is displayed.	String Command names listed in the following format: [1]processing-name-1, [2]processing-name-2, ... If multiple processes are executed, they are separated by commas (,).	This header is always set.
X-NODE-CompletedOperation	The number of processes executed successfully.	Number	This header is always set.

Response header	Description	Format of the set value	When the header is set
	If the request was not executed, a hyphen (-) is displayed.		

Response XML when an error occurs

Information regarding an error that occurs during processing is returned as response XML via the API. The following table shows the structure of the response XML when an error occurs.

Table 1-8 Structure of the response XML when an error occurs

Property		Description
Error		--
--	messageId	The message ID of the message
	message	The message text of the message
	cause	The cause of the error
	recoveryAction	The recovery action for the error

Access and Authentication

For the HDI API, URIs are used to identify resources. Each request must specify one URI and must contain a certificate of the account that is used to access the HDI system via the API.

This chapter explains the URI used to access an HDI system, how to set authentication information and SSL certificates, and provides notes pertaining to the URIs specified for API requests.

- [URI and account for accessing an HDI system](#)
- [Notes on URIs](#)
- [Authentication](#)
- [Public key certificate](#)

URI and account for accessing an HDI system

In each request sent to the HDI API, a resource URI must be specified in the following format:

```
https://HDI-node-host-name-or-IP-address:9090/mapi
```

As the port number, all resource URIs must contain `9090`, which is the port number used by the HDI API. Note that `mapi` is case-sensitive.

The account used to access the API is `admin`.

In a cluster configuration, the initial password for `admin` is `chang3me!`. In a single-node configuration, the account used to access the API is the same as the account used to log in to the GUI. If you have not changed the password for the GUI login account, the initial password for `admin` is `chang3me!`. To prevent unauthorized access, make sure that you change the password. For details about how to change the password for `admin`, see [APIAccount on page 3-4](#).

Notes on URIs

This section provides notes on the URIs specified in API requests.

Maximum URI length

The maximum length of the URI (excluding the query parameters) that follows `mapi` is 4,095 bytes. If a request contains a URI whose length exceeds the maximum, the HDI system returns status code `414` (`REQUEST_URI_TOO_LARGE`).

Encoding of specific characters and values

Some characters and values must be encoded in order to use them in a URI.

Base64 encoding must be used to encode the following values:

- *CIFS-share-name*
- *task-name*
- `SHARE-DIRECTORY-NAME` query parameter

The following characters must be percent-encoded.

Table 2-1 Characters that must be percent-encoded

Character	Percent-encoded value
Space	%20
Tab	%09
Carriage return	%0A
Line feed	%0D

Character	Percent-encoded value
Plus sign (+)	%2B
Percent sign (%)	%25
Hash mark (#)	%23
Question mark (?)	%3F
Ampersand (&)	%26
Forward slash (/)#	%2F

Note: The above characters must be percent encoded for Base64 encoding. However, do not percent-encode the characters if they are used as URI delimiters.

The following is an encoding example:

1. Use Base64 encoding to encode the CIFS share name.
For this example, the result of Base64 encoding is `PX5+U2hhcmU=`.
2. Percent-encoding the plus sign (+) in `PX5+U2hhcmU=` replaces the plus sign with `%2B`.
The result of percent-encoding is `PX5%2BU2hhcmU=`.

Quotation marks on the command line

To prevent the Windows or UNIX shell from misinterpreting characters in URIs, make sure that the entire URI is enclosed in double quotation marks (").

Using multi-byte characters

Unicode (UTF-8) multi-byte characters can be used for the request URI and request XML of the following resources:

- `/CIFSShares/CIFS-share-name-encoded-in-Base64`
- `/MigrationTask/task-name-encoded-in-Base64`

Authentication

To access an HDI system via the API, authentication information consisting of a user name and a password is required for each request. An `api-auth` cookie is used to set authentication information.

Each request is always authenticated before it is processed.

The following shows the format of `api-auth` cookies:

```
api-auth=user-name-encoded-in-Base64:password-generated-by-MD5-hash-algorithm
```

Use tools that convert plain texts into Base64-encoded values and MD5 hash values to generate api-auth cookie values. However, we recommend that you do not use a Web-based interactive tool because of the reduced level of security. After generating api-auth cookie values, specify them in request headers.

The authentication information sent with these request headers is checked against the user information stored in the database. If the request sent to the server is authenticated successfully, the request is validated as being in the correct format. If authentication fails, a status code for the processing abnormally terminating is returned.

Note:

- Authentication cannot be performed if you have forgotten the password. If you forget the password, use the `adminpasswd` command to re-initialize the password, and then change the password after that.
- When you set auto account lockout in a single-node configuration, if you continuously fail to access HDI system, the account is locked. In this case, wait until the time specified for the account lock release time in the Login Security dialog box of the GUI passes, or use the `adminctl` command to cancel the lockout.

Public key certificate

A public key certificate stored in HDI system is a self-signed certificate. The `certctl` command is used to set up in a node a public key certificate obtained from the certificate authority (CA). For details about how to set public key certificate, see the *Administrator's Guide*.

As a trusted server certificate for an API client, install the server certificate sent from HDI system to the API client. If it cannot be installed as a server certificate, skip the server authentication procedure and use the certificate for SSL encrypted communication.

Resources

This chapter describes the types of HTTP methods that can be used for requests, the structure of request XMLs and response XMLs for each method, the details of properties, the URIs of the resources to which requests are sent, and the status codes returned when methods end. The OPTIONS method can be used for all resources, but is omitted from the tables in this chapter.

- [List of resources](#)
- [APIAccount](#)
- [CIFSShare](#)
- [Disk](#)
- [FCPath](#)
- [FileSystem](#)
- [Hardware](#)
- [HCP](#)
- [LU](#)
- [MigrationTask](#)
- [NetworkInterface](#)
- [NFSShare](#)
- [ProcessingNode](#)

- [Routing](#)
- [SystemController](#)
- [VolumeGroup](#)

List of resources

The following table describes resources according to how they are used and where to find additional information.

Table 3-1 Resources according to purpose of use

Use	Resource name	Description	Reference
Managing user accounts	APIAccount	Manage the API administrator account.	APIAccount on page 3-4
Managing nodes	ProcessingNode	Manage cluster and node information.	ProcessingNode on page 3-203
Managing networks	NetworkInterface	Manage network interface information.	NetworkInterface on page 3-156
	Routing	Manage routing information.	Routing on page 3-211
Controlling services	SystemController	Control services and OSs.	SystemController on page 3-221
Acquiring statuses	FCPath	Acquire the FC path status.	FCPath on page 3-58
	Hardware	Acquire the hardware status.	Hardware on page 3-113
Managing file systems	LU	Acquire the LU status.	LU on page 3-134
	Disk	Acquire the total capacity and unused capacity of a specific volume group.	Disk on page 3-56
	FileSystem	Manage file system information.	FileSystem on page 3-62
	VolumeGroup	Acquire volume group information.	VolumeGroup on page 3-229
Managing shares	CIFSShare	Manage CIFS share information.	CIFSShare on page 3-7
	NFSShare	Manage NFS share information.	NFSShare on page 3-171
Configuring HCP linkage	HCP	Manage HCP information.	HCP on page 3-126
	MigrationTask	Manage data migration to HCP.	MigrationTask on page 3-139

APIAccount

APIAccount resource overview

You can use the APIAccount resource to change the passwords of API administrator accounts and acquire information.

The following table describes the HTTP methods that can be used for the APIAccount resource.

Table 3-2 HTTP methods that can be used for the APIAccount resource

Resource URI	HTTP method	Supported configurations	Description
/APIAccount	GET	Cluster Single node	Acquires API administrator account information.
	POST	Cluster Single node	Changes the password of the API administrator account.

APIAccount resource

This section describes how to use the APIAccount resource.

Acquiring API administrator account information by using the GET method

The following table describes the structure of the response XML output when the method ends.

Table 3-3 Structure of the response XML when a GET method request is sent to the APIAccount resource

Properties		Number of response XMLs output	Supported configurations	Displayed value when verbose is false
APIAccount		1	Cluster Single node	Y
--	userName	1	Cluster Single node	Y
	password	1	Cluster Single node	Y (null string)

Legend: Y: Displayed.

The following table describes the properties displayed when a GET method request is sent to the APIAccount resource.

Table 3-4 Properties displayed when a GET method request is sent to the APIAccount resource

Properties		Description
APIAccount		--
--	userName	Displays the user name of the API administrator account (<code>admin</code>).
	password	A null string is always displayed.

The following shows an example of acquiring API administrator account information by sending a GET method request to the APIAccount resource.

URI of the resource to which a request is sent

`https://host-name-or-IP-address:9090/mapi/APIAccount`

Response XML example

```
<?xml version="1.0" encoding="UTF-8" standalone="yes"?>
<APIAccount>
  <userName>admin</userName>
  <password></password>
</APIAccount>
```

The following table describes the status code output when the method ends.

Table 3-5 Status codes returned when a GET method request is sent to the APIAccount resource

Status code	Description
200	Execution of the method ended successfully.
Other codes	Execution of the method ended abnormally. See Table 1-3 HTTP status codes that can be generated when a request terminates abnormally on page 1-9 .

Changing the API administrator account password by using the POST method

In a cluster configuration, the initial password is `chang3me!`. In a single-node configuration, the API administrator account is the same as the account to log in to the GUI. If you have not changed the password for the GUI login account, the initial password for `admin` is `chang3me!`. To prevent unauthorized access, make sure that you change the password.

Important:

You need the set password for operating and managing HDI. Do not forget the password.

Note:

A request is valid only on the cluster node on which it is executed. To change the password in a cluster configuration, send the same POST method request to both nodes.

The following table describes the XML structure when a POST method request is sent to the APIAccount resource.

Table 3-6 XML structure when the POST method is used to send a request to the APIAccount resource

Properties		Data type	Number of items that can be specified	Supported configurations
APIAccount		--	1	Cluster Single node
--	userName	String	1	Cluster Single node
	password	String	1	Cluster Single node

The following table describes the properties to be specified when sending a POST method request to the APIAccount resource.

Table 3-7 Properties used to send a POST method request to the APIAccount resource

Properties		Description	Specification
APIAccount		--	--
--	userName	Sets the user name of the API administrator. Only <code>admin</code> can be specified.	Required
	password	Sets the password of the API administrator. In a single-node configuration, specify a password that complies with the password policy set in the Login Security dialog box of the GUI. You can use alphanumeric characters, exclamation marks (!), hash marks (#), dollar signs (\$), percent signs (%), ampersands (&), single quotation marks ('), left parentheses ((), right parentheses ()), asterisks (*), plus signs (+), hyphens (-), periods (.), equal signs (=), carets (^), underscores (_), vertical bars (), backslashes (\), at marks (@), and spaces. However, a password cannot start or end with a space. You can specify 4 to 256 characters.	Required

The following shows an example of changing the password of the API administrator account by sending a POST method request to the APIAccount resource.

URI of the resource to which a request is sent

`https://host-name-or-IP-address:9090/mapi/APIAccount`

Example of a request XML

```
<?xml version="1.0" encoding="UTF-8" standalone="yes"?>
<APIAccount>
  <userName>admin</userName>
  <password>password</password>
</APIAccount>
```

The following table describes the status codes output when the method ends.

Table 3-8 Status codes returned when a POST method request is sent to the APIAccount resource

Status code	Description
200	Execution of the method ended successfully.
400	Execution of the method failed.
500	An SQL exception or a database connection error occurred.
Other codes	Execution of the method ended abnormally. See Table 1-3 HTTP status codes that can be generated when a request terminates abnormally on page 1-9 .

CIFSShare

CIFSShare resource overview

You can use the CIFSShare resource to manage CIFS shares.

The following table describes the HTTP methods that can be used for the CIFSShare resource.

Table 3-9 HTTP methods that can be used for the CIFSShare resource

Resource URI	HTTP method	Supported configurations	Description
/CIFSShares	GET	Cluster Single node	Acquires information about the CIFS shares on the node you are logged in to.
	PUT	Cluster Single node	Adds a CIFS share.
/CIFSShares/ <i>CIFS-share- name-encoded- in-Base64</i>	GET [#]	Cluster Single node	Acquires information about the specified CIFS share.
	POST [#]	Cluster Single node	Changes information about the specified CIFS share.
	DELETE [#]	Cluster Single node	Deletes the specified CIFS share.
	HEAD [#]	Cluster	Checks whether the specified CIFS share exists.

Resource URI	HTTP method	Supported configurations	Description
		Single node	

#: You must specify the path name of the shared directory encoded in Base64 by using the query parameter SHARE-DIRECTORY-NAME.

CIFSShare resource

This section describes how to use the CIFSShare resource.

Acquiring information about all CIFS shares by using the GET method

The following table describes the structure of the response XML output when the method ends.

Table 3-10 Structure of the response XML when a GET method request is sent to the CIFSShare resource

Properties		Number of response XMLs output	Supported configurations	Displayed value when verbose is false
CIFSShares		1	Cluster Single node	Y
--	CIFSShare	0 or 1 to <i>n</i>	Cluster Single node	Y
--	exportPoint	1	Cluster Single node	Y
	cifsShareName	1	Cluster Single node	Y
	isAclEnabled	1	Cluster Single node	Y
	restrictionTargetHosts	1	Cluster Single node	Y
	isAccessRestrictionAllowed	1	Cluster Single node	Y
	commentForShare	1	Cluster Single node	Y
	isReadOnly	1	Cluster Single node	Y
	isBrowseEnabled	1	Cluster Single node	Y

Properties		Number of response XMLs output	Supported configurations	Displayed value when verbose is false
	fileAccessPermissionOfOwner	1	Cluster Single node	Y
	fileAccessPermissionOfGroup	1	Cluster Single node	Y
	fileAccessPermissionOfOther	1	Cluster Single node	Y
	directoryAccessPermissionOfOwner	1	Cluster Single node	Y
	directoryAccessPermissionOfGroup	1	Cluster Single node	Y
	directoryAccessPermissionOfOther	1	Cluster Single node	Y
	guestAccessPermission	1	Cluster Single node	Y
	diskSynchronizationPolicy	1	Cluster Single node	Y
	cifsClientCacheSetting	1	Cluster Single node	Y
	fileTimestampChangeableUsers	1	Cluster Single node	Y
	isHomeDirectoryEnabled	1	Cluster Single node	Y
	aclType	1	Cluster Single node	N
	clientAccessPolicy	1	Cluster Single node	Y
	vssUse	1	Cluster Single node	Y
	cifsClientRoCacheOptimize	1	Cluster Single node	Y
	accessBasedEnumeration	1	Cluster Single node	Y
	homeDirectoryRoaming	1	Cluster Single node	Y
	smbEncryption	1	Cluster	Y

Properties		Number of response XMLs output	Supported configurations	Displayed value when verbose is false
			Single node	
	writeDisallowedUsers	1	Cluster Single node	Y
	writeDisallowedGroups	1	Cluster Single node	Y
	writeAllowedUsers	1	Cluster Single node	Y
	writeAllowedGroups	1	Cluster Single node	Y
	NamespaceShareSettings	0 or 1	Cluster Single node	N
--	type	1	Cluster Single node	N
	FQDN	1	Cluster Single node	N
	externalHcpHostName	1	Cluster Single node	N
	user	1	Cluster Single node	N
	password	1	Cluster Single node	N
	hcpReplicaHost	1	Cluster Single node	N
	externalReplicaHcpHostName	1	Cluster Single node	N
	hcpNamespace	1	Cluster Single node	N

Legend: *n*: An integer of 2 or more, Y: Displayed, N: Not displayed.

The following table describes the properties displayed when a GET method request is sent to the CIFSShare resource.

Table 3-11 Properties displayed when a GET method request is sent to the CIFSShare resource

Properties	Description
CIFSShares	--

Properties		Description
--	CIFSShare	--
--	exportPoint	Displays the absolute path for the directory where the CIFS share was created.
	cifsShareName	Displays the CIFS share name.
	isAclEnabled	Displays whether CIFS clients are allowed to view and set ACLs. true CIFS clients are allowed to view and set ACLs. false CIFS clients are not allowed to view and set ACLs.
	restrictionTargetHosts	Displays the host for which access restriction is set.
	isAccessRestrictionAllowed	Displays whether access restriction is set. true Displayed when access restriction is set. false Displayed when access restriction is not set.
	commentForShare	Displays the CIFS share comment.
	isReadOnly	Displays the access privilege for the CIFS share. true Only read operations are permitted. false Both read and write operations are permitted.
	isBrowseEnabled	Displays whether display of a list of CIFS share names is permitted in a client environment. true Displaying of a list of CIFS share names is permitted. false Displaying of a list of CIFS share names is not permitted.
	fileAccessPermissionOfOwner	Displays the owner access privileges set for when creating a file in a CIFS share for which write operations are permitted. rw

Properties		Description
		<p>Both read and write operations are permitted.</p> <p>ro</p> <p>Only read operations are permitted.</p> <p>none</p> <p>Neither read nor write operations are permitted.</p> <p>Unknown</p> <p>The ACL type could not be acquired.</p> <p>If access privileges are set for only the owner, a null string is displayed.</p>
	fileAccessPermissionOfGroup	<p>Displays the group access privileges set for when creating a file in a CIFS share for which write operations are permitted.</p> <p>For details about displayed values, see fileAccessPermissionOfOwner property.</p>
	fileAccessPermissionOfOther	<p>Displays the other access privileges set for when creating a file in a CIFS share for which write operations are permitted.</p> <p>For details about displayed values, see fileAccessPermissionOfOwner property.</p>
	directoryAccessPermissionOfOwner	<p>Displays the owner access privileges set for when creating a directory in a CIFS share for which write operations are permitted.</p> <p>For details about displayed values, see fileAccessPermissionOfOwner property.</p>
	directoryAccessPermissionOfGroup	<p>Displays the group access privileges set for when creating a directory in a CIFS share for which write operations are permitted.</p> <p>For details about displayed values, see fileAccessPermissionOfOwner property.</p>
	directoryAccessPermissionOfOther	<p>Displays the other access privileges set for when creating a directory in a CIFS share for which write operations are permitted.</p> <p>For details about displayed values, see fileAccessPermissionOfOwner property.</p>
	guestAccessPermission	<p>Displays whether access from a guest account is permitted.</p> <p>allow</p>

Properties		Description
		<p>CIFS shares allow access from a guest account.</p> <p>disallow</p> <p>CIFS shares do not allow access from a guest account.</p> <p>default</p> <p>The settings in the CIFS service configuration definitions specified on the CIFS Service Management page (Setting Type: Security) are applied.</p>
	diskSynchronizationPolicy	<p>Displays the operation to be performed for a write request issued from a CIFS client to a CIFS share.</p> <p>write_and_close</p> <p>Data is written synchronously with a write request or a close request.</p> <p>close</p> <p>Data is written synchronously with a close request.</p> <p>none</p> <p>Data is written at a fixed interval.</p> <p>default</p> <p>The settings in the CIFS service configuration definitions specified on the CIFS Service Management page (Setting Type: Performance) are applied.</p>
	cifsClientCacheSetting	<p>Displays whether update data for files in the CIFS share is to be to cached on a client.</p> <p>use</p> <p>Data is cached on a client.</p> <p>do_not_use</p> <p>Data is not cached on a client.</p> <p>default</p> <p>The settings in the CIFS service configuration definitions specified on the CIFS Service Management page (Setting Type: Performance) are applied.</p>
	fileTimestampChangeableUsers	<p>Displays the users who can update the timestamps of files in the CIFS share.</p> <p>write_permitted_users</p> <p>All users permitted to write to the file can update the timestamp.</p> <p>owner_only</p>

Properties		Description
		<p>Only the owner of the file can update the timestamp.</p> <p>Unknown</p> <p>The ACL type could not be acquired.</p> <p>default</p> <p>The settings in the CIFS service configuration definitions specified on the CIFS Service Management page (Setting Type: Security) are applied.</p> <p>If the file system uses Advanced ACL, a null string is displayed.</p>
	isHomeDirectoryEnabled	<p>Displays whether automatic creation of the home directory is enabled for CIFS shares.</p> <p>true</p> <p>Automatic creation of the home directory is enabled.</p> <p>false</p> <p>Automatic creation of the home directory is disabled.</p>
	aclType	<p>Displays the ACL type of the file system in which the CIFS shares have been created.</p> <p>Advanced ACL</p> <p>The ACL type is Advanced ACL.</p> <p>Classic ACL</p> <p>The ACL type is Classic ACL.</p> <p>Unknown</p> <p>The ACL type could not be acquired.</p>
	clientAccessPolicy	<p>Displays the method for processing the accesses from a CIFS client.</p> <p>parallel</p> <p>Accesses are handled in parallel.</p> <p>serial</p> <p>Accesses are handled serially.</p> <p>default</p> <p>The settings in the CIFS service configuration definitions specified on the CIFS Service Management page (Setting Type: Performance) are applied.</p>
	vssUse	This property is not supported.
	cifsClientRoCacheOptimize	Displays whether the read-only client cache is used when file access contention by CIFS clients occurs.

Properties		Description
		<p>use A read-only client cache is used.</p> <p>do_not_use A read-only client cache is not used.</p> <p>default The settings in the CIFS service configuration definitions specified on the CIFS Service Management page (Setting Type: Performance) are applied.</p>
	accessBasedEnumeration	<p>Displays whether access-based enumeration is enabled.</p> <p>use Access-based enumeration is enabled.</p> <p>do_not_use Access-based enumeration is disabled.</p> <p>default The settings in the CIFS service configuration definitions specified on the CIFS Service Management page (Setting Type: Security) are applied.</p>
	homeDirectoryRoaming	<p>Displays whether the home-directory-roaming functionality is enabled.</p> <p>use The home-directory-roaming functionality is enabled.</p> <p>do_not_use The home-directory-roaming functionality is disabled.</p>
	smbEncryption	<p>Displays whether communication with the CIFS client is encrypted when using SMB 3.0.</p> <p>auto Displayed only when the client supports encryption.</p> <p>mandatory Displayed when encryption is mandatory.</p> <p>disable Displayed when encryption is disabled.</p> <p>default The settings in the CIFS service configuration definitions specified on</p>

Properties		Description
		<p>the CIFS Service Management page (Setting Type: <i>Security</i>) are applied.</p> <p>You can confirm whether SMB 3.0 is being used by checking the CIFS Service Maintenance page of the GUI.</p>
	writeDisallowedUsers	<p>Displays the users who are denied write permission for the CIFS share.</p> <p>If no users are denied to write to the CIFS share, a null string is displayed.</p>
	writeDisallowedGroups	<p>Displays the groups who are denied write permission for the CIFS share.</p> <p>If no groups are denied to write to the CIFS share, a null string is displayed.</p>
	writeAllowedUsers	<p>Displays the users who are allowed write permission for the CIFS share.</p> <p>If no users are allowed to write to the CIFS share, a null string is displayed.</p>
	writeAllowedGroups	<p>Displays the groups who are allowed write permission for the CIFS share.</p> <p>If no groups are allowed to write to the CIFS share, a null string is displayed.</p>
	NamespaceShareSettings	--
--	type	<p>Displays how the HCP data is shared.</p> <p>Read/Write</p> <p>Displayed if the data is not synchronized with other HDI systems via linked HCP systems.</p> <p>Read Only</p> <p>Displayed if the data from other HDI systems is referenced as read-only.</p>
	FQDN	<p>Displays the name of the HCP namespace in FQDN (Fully Qualified Domain Name) format.</p> <p>If the <i>type</i> property is <i>Read/Write</i>, a null string is displayed.</p>
	externalHcpHostName	<p>Displays the host name or IP address that has been made external and is used to connect to the HCP system.</p> <p>If the <i>type</i> property is <i>Read/Write</i>, or the host name or IP address that has been made external and is used to connect to the HCP system is not set, a null string is displayed.</p>
	user	<p>Displays the user name of the account used to access the HCP namespace.</p>

Properties			Description
			If the <code>type</code> property is <code>Read/Write</code> , a null string is displayed.
		<code>password</code>	A null string is always displayed.
		<code>hcpReplicaHost</code>	A replica HCP host name is displayed. If the <code>type</code> property is <code>Read/Write</code> , or if no replica HCP host name is set, a null string is displayed.
		<code>externalReplicaHcpHost Name</code>	Displays the host name or IP address that has been made external and is used to connect to the replica HCP system. If the <code>type</code> property is <code>Read/Write</code> , or the host name or IP address that has been made external and is used to connect to the replica HCP system is not set, a null string is displayed.
		<code>hcpNamespace</code>	Displays the name of the HCP namespace.

The following shows an example of acquiring all CIFS share information by sending a GET method request to the CIFSShare resource.

URI of the resource to which a request is sent

`https://host-name-or-IP-address:9090/mapi/CIFSShares`

Response XML example

```
<?xml version="1.0" encoding="UTF-8" standalone="yes"?>
<CIFSShares>
  <CIFSShare>
    <exportPoint>/mnt/aaa/sh1</exportPoint>
    <cifsShareName>sh</cifsShareName>
    <isAclEnabled>true</isAclEnabled>
    <restrictionTargetHosts>0.0.0.0/0</restrictionTargetHosts>
    <isAccessRestrictionAllowed>>false</
isAccessRestrictionAllowed>
    <commentForShare></commentForShare>
    <isReadOnly>>false</isReadOnly>
    <isBrowseEnabled>true</isBrowseEnabled>
    <fileAccessPermissionOfOwner></fileAccessPermissionOfOwner>
    <fileAccessPermissionOfGroup></fileAccessPermissionOfGroup>
    <fileAccessPermissionOfOther></fileAccessPermissionOfOther>
    <directoryAccessPermissionOfOwner></
directoryAccessPermissionOfOwner>
    <directoryAccessPermissionOfGroup></
directoryAccessPermissionOfGroup>
    <directoryAccessPermissionOfOther></
directoryAccessPermissionOfOther>
    <guestAccessPermission>default</guestAccessPermission>
    <diskSynchronizationPolicy>default</
diskSynchronizationPolicy>
    <cifsClientCacheSetting>default</cifsClientCacheSetting>
    <fileTimestampChangeableUsers></fileTimestampChangeableUsers>
```

```

    <isHomeDirectoryEnabled>>false</isHomeDirectoryEnabled>
    <clientAccessPolicy>default</clientAccessPolicy>
    <vssUse>default</vssUse>
    <cifsClientRoCacheOptimize>default</
cifsClientRoCacheOptimize>
    <accessBasedEnumeration>default</accessBasedEnumeration>
    <homeDirectoryRoaming>do_not_use</homeDirectoryRoaming>
    <smbEncryption>auto</smbEncryption>
    <writeDisallowedUsers></writeDisallowedUsers>
    <writeDisallowedGroups></writeDisallowedGroups>
    <writeAllowedUsers></writeAllowedUsers>
    <writeAllowedGroups></writeAllowedGroups>
  </CIFSShare>
</CIFSShares>

```

The following table describes the status codes output when the method ends.

Table 3-12 Status codes returned when a GET method request is sent to the CIFSShare resource

Status code	Description
200	Execution of the method ended successfully.
Other codes	Execution of the method ended abnormally. See Table 1-3 HTTP status codes that can be generated when a request terminates abnormally on page 1-9 .

Adding a CIFS share by using the PUT method

The following table describes the XML structure when a PUT method request is sent to the CIFSShare resource.

Table 3-13 XML structure when the PUT method is used to send a request to the CIFSShare resource

Properties	Data type	Number of items that can be specified	Supported configurations	
CIFSShare	--	1	Cluster Single node	
--	exportPoint	String	1	Cluster Single node
	cifsShareName	String	1	Cluster Single node
	isClassicAcl	Boolean	1	Cluster Single node
	isAclEnabled	Boolean	0 or 1	Cluster Single node
	restrictionTargetHosts	String	0 or 1	Cluster Single node

Properties	Data type	Number of items that can be specified	Supported configurations
isAccessRestrictionAllowed	Boolean	0 or 1	Cluster Single node
commentForShare	String	0 or 1	Cluster Single node
isReadOnly	Boolean	0 or 1	Cluster Single node
isBrowseEnabled	Boolean	0 or 1	Cluster Single node
fileAccessPermissionOfOwner	String	0 or 1	Cluster Single node
fileAccessPermissionOfGroup	String	0 or 1	Cluster Single node
fileAccessPermissionOfOther	String	0 or 1	Cluster Single node
directoryAccessPermissionOfOwner	String	0 or 1	Cluster Single node
directoryAccessPermissionOfGroup	String	0 or 1	Cluster Single node
directoryAccessPermissionOfOther	String	0 or 1	Cluster Single node
guestAccessPermission	String	0 or 1	Cluster Single node
diskSynchronizationPolicy	String	0 or 1	Cluster Single node
cifsClientCacheSetting	String	0 or 1	Cluster Single node
fileTimestampChangeableUsers	String	0 or 1	Cluster Single node
isHomeDirectoryEnabled	Boolean	0 or 1	Cluster Single node
clientAccessPolicy	String	0 or 1	Cluster Single node
vssUse	String	0 or 1	Cluster Single node
cifsClientRoCacheOptimize	String	0 or 1	Cluster Single node

Properties		Data type	Number of items that can be specified	Supported configurations
	accessBasedEnumeration	String	0 or 1	Cluster Single node
	homeDirectoryRoaming	String	0 or 1	Cluster Single node
	smbEncryption	String	0 or 1	Cluster Single node
	writeDisallowedUsers	String	0 or 1	Cluster Single node
	writeDisallowedGroups	String	0 or 1	Cluster Single node
	writeAllowedUsers	String	0 or 1	Cluster Single node
	writeAllowedGroups	String	0 or 1	Cluster Single node
	NamespaceShareSettings	--	0 or 1	Cluster Single node
--	type	String	0 or 1	Cluster Single node
	FQDN	String	0 or 1	Cluster Single node
	externalHcpHostName	String	0 or 1	Cluster Single node
	user	String	0 or 1	Cluster Single node
	password	String	0 or 1	Cluster Single node
	hcpReplicaHost	String	0 or 1	Cluster Single node
	externalReplicaHcpHostName	String	0 or 1	Cluster Single node
	DirectorySetup	--	0 or 1	Cluster Single node
--	userName	String	0 or 1	Cluster Single node
	groupName	String	0 or 1	Cluster Single node

Properties		Data type	Number of items that can be specified	Supported configurations	
	isStickyBit	Boolean	0 or 1	Cluster Single node	
	ownerPermission	String	0 or 1	Cluster Single node	
	groupPermission	String	0 or 1	Cluster Single node	
	otherPermission	String	0 or 1	Cluster Single node	
	DirectoryACLSettings	--	0 or 1	Cluster Single node	
--	DirectoryACLSetting	--	0 or 1 to <i>n</i>	Cluster Single node	
	--	userGroupAccess	String	1	Cluster Single node
		name	String	1	Cluster Single node
		accountType	String	1	Cluster Single node
		applicationDestination	String	1	Cluster Single node
		inheritanceRange	String	1	Cluster Single node
		accessPermission	String	1	Cluster Single node

Legend: *n*: An integer of 2 or more.

The following table describes the properties to be specified when sending a PUT method request to the CIFSShare resource.

Table 3-14 Properties used to send a PUT method request to the CIFSShare resource

Properties		Description	Specification
CIFSShare		--	--
--	exportPoint	Specify 6 to 256 characters for the absolute path of the directory in which you want to create a CIFS share.	Required

Properties	Description	Specification
	<p>Specify a path beginning with <code>/mnt/<i>file-system-name</i></code> for this property to associate the file system with the CIFS share.</p> <p>For example, if you want to create a file share in the <code>share01</code> directory in <code>filesystem01</code> file system, specify <code>/mnt/filesystem01/share01</code>.</p> <p>You can use any alphanumeric character, exclamation mark (!), hash mark (#), dollar sign (\$), percent sign (%), ampersand (&), single quotation mark ('), left parenthesis ((), right parenthesis ()), plus sign (+), comma (,), hyphen (-), period (.), forward slash (/), semicolon (;), equal sign (=), at mark (@), left square bracket ([), right square bracket (]), caret (^), underscore (_), grave accent mark (`), left curly bracket ({), right curly bracket (}), tilde (~), or space. You can also specify multi-byte characters.</p> <p>The shared directory must be unique in the cluster. Note that the directory names <code>.conflict</code>, <code>.conflict_long</code> path, <code>.snaps</code>, <code>.history</code>, and <code>.lost+found</code> cannot be specified, and the directory names <code>.arc</code>, <code>.system_gi</code>, <code>.system_reorganize</code>, <code>.backupdates</code>, <code>.temp_backupdates</code>, and <code>lost+found</code> cannot be specified directly under a file system. The path cannot contain symbolic links. A forward slash or space specified at the end of the string will be removed.</p> <p>If you use a percent sign (%) in the shared directory name, make sure the percent sign is not used in any of the following combinations:</p> <p><code>%D, %G, %H, %I, %L, %M, %N, %P, %R, %S, %T, %U, %V, %a, %d, %g, %h, %i, %m, %p, %u, %v, %w, %\$</code></p> <p>For home-directory-roaming file systems and read-write-content-sharing file systems, specify a mount point.</p>	
cifsShareName	Specify a name of the CIFS share that can be referred to by the users.	Required

Properties	Description	Specification
	<p>A CIFS share name must be a string no longer than 80 characters, and must be unique within the node.</p> <p>You can use alphanumeric characters, exclamation marks (!), hash marks (#), dollar signs (\$), percent signs (%), ampersands (&), single quotation marks ('), left parentheses ((), right parentheses ()), plus signs (+), commas (,), hyphens (-), periods (.), semicolons (;), equal signs (=), at marks (@), left square brackets ([), right square brackets (]), carets (^), underscores (_), grave accent marks (`), left curly brackets ({), right curly brackets (}), tildes (~), and spaces.</p> <p>You can also specify multibyte characters. However, you cannot specify only a dollar sign or periods (e.g., \$, ., or ..) in the string, and you cannot specify a period at the end (e.g., Abc.). If the string ends with a dollar sign, you cannot specify a period just before the dollar sign (e.g., Abc.\$). Spaces specified at the end are deleted.</p> <p>If you use a percent sign (%) in the CIFS share name, make sure the percent sign is not used in any of the following combinations:</p> <p>%D, %G, %H, %I, %L, %M, %N, %P, %R, %S, %T, %U, %V, %a, %d, %g, %h, %i, %m, %p, %u, %v, %w, %\$</p> <p>In addition, the CIFS share name cannot be global, homes, printers, admin\$, c\$, global\$, homes\$, ipc\$, or printers\$.</p> <p>In Windows, the entered value is not case sensitive. Specify a name that is unique regardless of whether upper-case or lower-case alphabetic characters are used.</p>	
isClassicAcl	<p>Sets whether the Advanced ACL or Classic ACL type is used for operation. Specify this setting so that it matches the ACL type of the file system to which the shared directory belongs.</p> <p>true</p> <p>Specify this value when the file system is the Classic ACL type.</p> <p>false</p>	Required

Properties	Description	Specification
isAclEnabled	<p>Specify this value when the file system is the Advanced ACL type.</p> <p>Specify whether to allow CIFS clients to view or set ACLs.</p> <p>true#1</p> <p>Specify this value to allow CIFS clients to view or set ACLs.</p> <p>false</p> <p>Specify this value to prohibit CIFS clients from viewing or setting ACLs.</p>	<p>If the isClassicAcl property is set to false, this property must be set to true.</p>
restrictionTargetHosts	<p>Sets a host for which you restrict access to the CIFS share. When specifying multiple hosts, separate them with a comma (,).</p> <p>If you use a network address to specify a host, specify the IP address (for example, 10.203.15.0).</p> <p>If you use a netmask to specify a network range, use the <i>network-address/netmask</i> format (for example, 10.203.15.0/255.255.255.0).</p> <p>When you specify host names, edit the <i>/etc/hosts</i> file in the Edit System File page of the GUI to add all the specified host names and IP addresses.</p> <p>If you omit this, all hosts or networks are selected as the target.</p> <p>If hosts or networks for which access is restricted are set in the CIFS Service Management page (Setting Type: Security) of the GUI, the settings are applied to all the file shares.</p>	<p>Required if the isAccessRestrictionAllowed property is set.</p>
isAccessRestrictionAllowed	<p>Sets whether to restrict access to the CIFS share by a host specified by the <i>restrictionTargetHosts</i> property.</p> <p>true</p> <p>Specify this value to restrict access.</p> <p>false</p> <p>Specify this value to not restrict access.</p> <p>If hosts or networks for which access is restricted are set in the CIFS Service Management page</p>	<p>Required if the <i>restrictionTargetHosts</i> property is set.</p>

Properties	Description	Specification
	(Setting Type: Security) of the GUI, the settings are applied to all the file shares.	
commentForShare	Specify a comment no longer than 256 characters for the CIFS share. You can use alphanumeric characters, exclamation marks (!), hash marks (#), dollar signs (\$), ampersands (&), single quotation marks ('), left parentheses ((), right parentheses ()), asterisks (*), plus signs (+), commas (,), hyphens (-), periods (.), forward slashes (/), colons (:), left angle brackets (<), right angle brackets (>), question marks (?), at marks (@), left square brackets ([), backslashes (\), right square brackets (]), carets (^), underscores (_), grave accent marks (`), left curly brackets ({), vertical bars (), right curly brackets (}), and tildes (~). You can also specify a space, but a string cannot start or end with a space. Also, a string cannot end with a backslash (\). In addition, you can specify multi-byte characters. If you omit this, a comment is not set for the CIFS share.	Optional
isReadOnly	Specify whether to set the CIFS share as read-only. true Specify this value to set the share as read-only. false#1 Specify this value to permit both read and write operations for the share.	If the homeDirectoryRoaming property is set to use, this property must be set to false.
isBrowseEnabled	Sets whether to list the names of the CIFS shares in a client environment. true#1 Specify this value to list the names. false Specify this value to not list the names.	Optional
fileAccessPermissionOfOwner#2	Specifies the owner access privileges set for creation of files in a CIFS share for which write operations are permitted.	Required if both the fileAccessPermissionOfGroup

Properties	Description	Specification
	<p><code>rw</code>^{#1} Specify this value to grant read and write permission.</p> <p><code>ro</code> Specify this value to grant read permission only.</p> <p><code>none</code> Specify this value to grant neither read nor write permission.</p>	<p><code>p</code> and <code>fileAccessPermissionOfOther</code> properties are set.</p>
<p><code>fileAccessPermissionOfGroup</code>^{#2}</p>	<p>Specifies the group access privileges set for creation of files in a CIFS share for which write operations are permitted.</p> <p>If you omit this, <code>ro</code> is set.</p> <p>For details about the access privileges you can set, see the <code>fileAccessPermissionOfOwner</code> property.</p>	<p>Required if both the <code>fileAccessPermissionOfOwner</code> and <code>fileAccessPermissionOfOther</code> properties are set.</p>
<p><code>fileAccessPermissionOfOther</code>^{#2}</p>	<p>Specifies the other access privileges set for creation of files in a CIFS share for which write operations are permitted.</p> <p>If you omit this, <code>ro</code> is set.</p> <p>For details about the access privileges you can set, see the <code>fileAccessPermissionOfOwner</code> property.</p>	<p>Required if both the <code>fileAccessPermissionOfOwner</code> and <code>fileAccessPermissionOfGroup</code> properties are set.</p>
<p><code>directoryAccessPermissionOfOwner</code>^{#2}</p>	<p>Specifies the owner access privileges set for creation of directories in a CIFS share for which write operations are permitted.</p> <p>If you omit this, <code>rw</code> is set.</p> <p>For details about the access privileges you can set, see the <code>fileAccessPermissionOfOwner</code> property.</p>	<p>Required if both the <code>directoryAccessPermissionOfGroup</code> and <code>directoryAccessPermissionOfOther</code> properties are set.</p>
<p><code>directoryAccessPermissionOfGroup</code>^{#2}</p>	<p>Specifies the group access privileges set for creation of directories in a CIFS share for which write operations are permitted.</p> <p>If you omit this, <code>ro</code> is set.</p> <p>For details about the access privileges you can set, see the <code>fileAccessPermissionOfOwner</code> property.</p>	<p>Required if both the <code>directoryAccessPermissionOfOwner</code> and <code>directoryAccessPermissionOfOther</code> properties are set.</p>

Properties	Description	Specification
directoryAccessPermissionOfOther#2	<p>Specifies the other access privileges set for creation of directories in a CIFS share for which write operations are permitted.</p> <p>If you omit this, <code>ro</code> is set.</p> <p>For details about the access privileges you can set, see the <code>fileAccessPermissionOfOwner</code> property.</p>	<p>Required if both the <code>directoryAccessPermissionOfOwner</code> and <code>directoryAccessPermissionOfGroup</code> properties are set.</p>
guestAccessPermission	<p>Sets whether to allow access from the guest account.</p> <p><code>allow</code></p> <p>Specify this value to allow access from the guest account.</p> <p><code>disallow</code></p> <p>Specify this value to deny access from the guest account.</p> <p><code>default#1</code></p> <p>Specify this to use the default settings of the CIFS service configuration definitions set in the CIFS Service Management page (Setting Type: Security) of the GUI.</p>	<p>If the <code>homeDirectoryRoaming</code> property is set to use, this property must be set to <code>disallow</code>.</p>
diskSynchronizationPolicy	<p>Sets the behavior for a write or close request from a client.</p> <p><code>write_and_close</code></p> <p>Specify this to perform writing synchronously with a write request or a close request issued from a client to a CIFS share.</p> <p><code>close</code></p> <p>Specify this to perform writing synchronously with a close request issued from a client to a CIFS share.</p> <p><code>none</code></p> <p>Specify this to perform writing at a fixed interval.</p> <p><code>default#1</code></p> <p>Specify this to use the default settings of the CIFS service configuration definitions set in the CIFS Service Management page (Setting Type: Performance) of the GUI.</p>	<p>Optional</p>

Properties	Description	Specification
cifsClientCacheSetting	<p>Sets whether to cache updated data for files in the CIFS share on a client.</p> <p>Specify <code>do_not_use</code> for read-write-content-sharing file systems. If the updated data in the file of the CIFS share is cached on the client, the update date might not be reflected properly on other sites.</p> <p><code>use</code></p> <p>Specify this value to cache data.</p> <p><code>do_not_use</code></p> <p>Specify this value to not cache data.</p> <p><code>default#1</code></p> <p>Specify this to use the default settings of the CIFS service configuration definitions set in the CIFS Service Management page (Setting Type: Performance) of the GUI.</p>	Optional
fileTimestampChangeableUsers	<p>Sets the users who can update the timestamps of files in the CIFS share.</p> <p><code>write_permitted_users</code></p> <p>Specify this if you want to permit timestamp updating for all users who are permitted to write to the file.</p> <p><code>owner_only</code></p> <p>Specify this if you want to limit timestamp file updating to the file owner only.</p> <p><code>default#1</code></p> <p>Specify this to use the default settings of the CIFS service configuration definitions set in the CIFS Service Management page (Setting Type: Security) of the GUI.</p>	Can be specified if the <code>isClassicAcl</code> property is set to <code>true</code> .
isHomeDirectoryEnabled	<p>Sets whether to enable automatic creation of the home directory of the CIFS share.</p> <p><code>true</code></p> <p>Specify this value to enable automatic creation of the home directory of the CIFS share.</p> <p><code>false#1</code></p>	If the <code>homeDirectoryRoaming</code> property is set to <code>use</code> , this property must be set to <code>true</code> .

Properties	Description	Specification
	Specify this value to disable automatic creation of the home directory of the CIFS share.	
clientAccessPolicy	<p>Sets the method for processing the accesses from a CIFS client.</p> <p>parallel Specify this to handle access in parallel.</p> <p>serial Specify this to handle access serially.</p> <p>default#1 Specify this to use the default settings of the CIFS service configuration definitions set in the CIFS Service Management page (Setting Type: Performance) of the GUI.</p>	Optional
vssUse	This property is not supported.	Optional
cifsClientRoCacheOptimize	<p>Sets whether to use a read-only client cache when accesses to a file from multiple CIFS clients conflict. Note that we recommend that you do not use this if you also want to use the NFS protocol to access the file shares because changes might not be applied.</p> <p>use Specify this if you want to use a read-only client cache.</p> <p>do_not_use Specify this if you do not want to use a read-only client cache.</p> <p>default#1 Specify this to use the default settings of the CIFS service configuration definitions set in the CIFS Service Management page (Setting Type: Performance) of the GUI.</p>	Optional
accessBasedEnumeration	<p>Sets whether to enable access-based enumeration.</p> <p>use Specify this to enable access-based enumeration.</p> <p>do_not_use Specify this to disable access-based enumeration.</p>	If the homeDirectoryRoaming property is set to use, this property must be set to use.

Properties	Description	Specification
	<p>default#1</p> <p>Specify this to use the default settings of the CIFS service configuration definitions set in the CIFS Service Management page (Setting Type: Security) of the GUI.</p>	
homeDirectoryRoaming	<p>If home-directory-roaming is enabled for the file system, specify use.</p>	<p>If the type property of the FileSystem resource is set to Home Directory, this property must be set to use.</p>
smbEncryption	<p>Specify whether to encrypt communication with a CIFS client when using SMB 3.0.</p> <p>This property is valid only when SMB 3.0 is selected as SMB protocol on the CIFS Service Management page (Setting Type: Basic) of the GUI. If a value other than SMB 3.0 is selected as the SMB protocol, specify <i>disable</i>, or disable encryption in the CIFS service configuration definitions and specify default.</p> <p>auto</p> <p>Specify this only if the client supports encryption.</p> <p>mandatory</p> <p>Specify this if encryption is mandatory.</p> <p>A client that does not support SMB 3.0 cannot access CIFS sharing.</p> <p>disable</p> <p>Specify this if you do not want encryption.</p> <p>default#1</p> <p>Specify this to use the default settings of the CIFS service configuration definitions set in the CIFS Service Management page (Setting Type: Security) of the GUI.</p>	Optional
writeDisallowedUsers#3	<p>Sets the users who are denied write permission for the CIFS share.</p>	Optional

Properties		Description	Specification
		To specify multiple users, separate them by using commas (,). If you omit this, no value is set.	
	<code>writeDisallowedGroups#3</code>	Sets the groups that are denied write permission for the CIFS share. To specify multiple groups, separate them by using commas (,). If you omit this, no value is set.	Optional
	<code>writeAllowedUsers#3</code>	Sets the users who are granted write permission for the CIFS share. To specify multiple users, separate them by using commas (,). If you omit this, no value is set.	Optional
	<code>writeAllowedGroups#3</code>	Sets the groups that are granted write permission for the CIFS share. To specify multiple groups, separate them by using commas (,). If you omit this, no value is set.	Optional
	<code>NamespaceShareSettings</code>	--	This property can be specified if the data from another HDI system is referenced as read-only at the share level. This property need not be specified if information for the target directory has already been set.
--	<code>type</code>	Specify Read Only.	Required if the <code>NamespaceShareSettings</code> property is set.
	<code>FQDN</code>	Sets the name of the HCP namespace in FQDN (Fully Qualified Domain Name) format. If information for the target directory has already been set, specify the same value as that set for the directory.	Required if the <code>NamespaceShareSettings</code> property is set.
	<code>externalHcpHostName</code>	If the HCP system to be linked uses a relaying device, such as a load balancer, when connecting to the network, specify the host name or IP address that has been made	Can be specified when the <code>NamespaceShareSettings</code>

Properties		Description	Specification
		external and is used to connect to the HCP system. If information for the target directory has already been set, the set value is overwritten.	eSettings property is set.
	user	Sets the user name of the account used to access the HCP namespace. If information for the target directory has already been set, specify the same value as that set for the directory.	Required if the NamespaceShareSettings property is set.
	password	Sets the password of the account used to access the HCP namespace. If information for the target directory has already been set, the set value is overwritten.	Required if the NamespaceShareSettings property is set.
	hcpReplicaHost	Sets the host name of the replica HCP system. If information for the target directory has already been set, the set value is overwritten.	Can be specified when the NamespaceShareSettings property is set.
	externalReplicaHcpHostName	If the replica HCP system to be linked uses a relaying device, such as a load balancer, when connecting to the network, specify the host name or IP address that has been made external and is used to connect to the replica HCP system. If information for the target directory has already been set, the set value is overwritten.	Can be specified when the NamespaceShareSettings property is set.
	DirectorySetup	Specifies that a shared directory is also created when a share is created. To check the values set for this property, check if the created shared directory can be accessed from a client.	Can be specified if the HCP system is not linked or type property of the FileSystem resource is set to Read/Write.
--	userName	Sets a user name or user ID of the owner for the directory to be created. For a user ID, specify an ID from 0 to 2147483147. Note that, for an ID other than 0, you cannot specify 0 at the beginning of the ID. You cannot specify a built-in user for a Windows domain.	Can be specified when the DirectorySetup property is set.

Properties	Description	Specification
	<p>If this setting is omitted, root will be set for the <code>userName</code> and <code>groupName</code> properties, and access privileges will not be set for the <code>isStickyBit</code>, <code>ownerPermission</code>, <code>groupPermission</code>, and <code>otherPermission</code> properties.</p>	
<code>groupName</code>	<p>Sets the name or ID of the group that owns the directory.</p> <p>For a group ID, specify an ID from 0 to 2147483147. Note that, for an ID other than 0, you cannot specify 0 at the beginning of the ID. You cannot specify a built-in group for a Windows domain.</p> <p>If this setting is omitted, root will be set for the <code>userName</code> and <code>groupName</code> properties, and access privileges will not be set for the <code>isStickyBit</code>, <code>ownerPermission</code>, <code>groupPermission</code>, and <code>otherPermission</code> properties.</p>	<p>Can be specified when the <code>DirectorySetup</code> property is set.</p>
<code>isStickyBit</code>	<p>Sets whether to use the sticky bit. This property is valid only when the <code>userName</code> and <code>groupName</code> properties are set.</p> <p><code>true</code></p> <p>Specify this value to use the sticky bit.</p> <p><code>false#1</code></p> <p>Specify this value to not use the sticky bit.</p>	<p>Can be specified when the <code>DirectorySetup</code> property is set.</p>
<code>ownerPermission</code>	<p>Sets the access privileges the owner has for a shared directory. This property is valid only when the <code>userName</code> and <code>groupName</code> properties are set.</p> <p>If the <code>ownerPermission</code> property is omitted, no default access privileges are assumed for it. However, if all of the <code>isStickyBit</code>, <code>groupPermission</code>, and <code>otherPermission</code> properties are omitted, <code>rw</code> is set for the <code>ownerPermission</code> property.</p> <p>For details about the access privileges you can set, see the <code>fileAccessPermissionOfOwner</code> property.</p>	<p>Can be specified when the <code>DirectorySetup</code> property is set.</p>

Properties		Description	Specification
	groupPermission	<p>Sets the access privileges a group has for a shared directory.</p> <p>This property is valid only when the <code>userName</code> and <code>groupName</code> properties are set.</p> <p>If the <code>groupPermission</code> property is omitted, no default access privileges are assumed for it. However, if all of the <code>isStickyBit</code>, <code>ownerPermission</code>, and <code>otherPermission</code> properties are omitted, <code>ro</code> is set for the <code>groupPermission</code> property.</p> <p>For details about the access privileges you can set, see the <code>fileAccessPermissionOfOwner</code> property.</p>	Can be specified when the <code>DirectorySetup</code> property is set.
	otherPermission	<p>Sets the access privileges others have for a shared directory.</p> <p>This property is valid only when the <code>userName</code> and <code>groupName</code> properties are set.</p> <p>If the <code>otherPermission</code> property is omitted, no default access privileges are assumed for it. However, if all of the <code>isStickyBit</code>, <code>ownerPermission</code>, and <code>groupPermission</code> properties are omitted, <code>ro</code> is set for the <code>otherPermission</code> property.</p> <p>For details about the access privileges you can set, see the <code>fileAccessPermissionOfOwner</code> property.</p>	Can be specified when the <code>DirectorySetup</code> property is set.
	DirectoryACLSettings	<p>Specify this if you want to set the ACL for a shared directory.</p> <p>To check the values set for this property, check if the created shared directory can be accessed from a client.</p>	Can be specified when the <code>homeDirectoryRoaming</code> property is not use.
--	DirectoryACLSetting	--	Required if the <code>DirectoryACLSettings</code> property is set.
--	userGroupAccess	<p>Sets access privileges for users or groups as ACEs.</p> <p><code>allow</code></p> <p>Specify this value to set the <code>allow</code> access privileges for the specified users or groups. The privileges are added as the ACEs of the users or groups. If ACEs</p>	Required if the <code>DirectoryACLSetting</code> property is set.

Properties			Description	Specification
			<p>are already set, the access privileges are combined. If multiple ACEs are set for a user, the ACEs are combined into one ACE.</p> <p>replace</p> <p>Specify this value to set the allow access privileges for the specified users and groups and to replace the access privileges of the users and groups with the specified ACEs.</p> <p>deny</p> <p>Specify this value to set the deny access privileges for the specified users and groups and to replace the access privileges of the users and groups with the specified ACEs.</p>	
		name	Sets an ACE user name or group name.	Required if the DirectoryACLSetting property is set.
		accountType	<p>Sets the ACE account type.</p> <p>u</p> <p>Specify this value to set the access privileges for the users.</p> <p>g</p> <p>Specify this value to set the access privileges for the groups.</p>	Required if the DirectoryACLSetting property is set.
		applicationDestination	<p>Sets the ACE scope.</p> <p>o</p> <p>Specify this value to apply to the directory only.</p> <p>a</p> <p>Specify this value to apply to the directory, subdirectories, and files.</p> <p>f</p> <p>Specify this value to apply to the directory and subdirectories.</p> <p>e</p> <p>Specify this value to apply to the directory and files.</p> <p>s</p> <p>Specify this value to apply to the subdirectories and files.</p> <p>u</p>	Required if the DirectoryACLSetting property is set.

Properties			Description	Specification
			<p>Specify this value to apply to the subdirectories only.</p> <p>i</p> <p>Specify this value to apply to the files only.</p>	
		inheritanceRange	<p>Sets the scope of ACE inheritance.</p> <p>o</p> <p>Specify this value for only the directories and files immediately under the directory to inherit ACEs.</p> <p>a</p> <p>Specify this value for all the directories and files under the directory to inherit ACEs.</p>	Required if the DirectoryACLSetting property is set.
		accessPermissions	<p>Sets access privileges.</p> <p>To set multiple access privileges, use two colons (: :) as a separator.</p> <p>f</p> <p>Specify this value to allow Full Control.</p> <p>s</p> <p>Specify this value to allow Traverse Folder/Execute File.</p> <p>r</p> <p>Specify this value to allow List Folder/Read Data.</p> <p>a</p> <p>Specify this value to allow Read Attributes.</p> <p>e</p> <p>Specify this value to allow Read Extended Attributes.</p> <p>w</p> <p>Specify this value to allow Create Files/Write Data.</p> <p>p</p> <p>Specify this value to allow Create Folders/Append Data.</p> <p>t</p> <p>Specify this value to allow Write Attributes.</p> <p>x</p> <p>Specify this value to allow Write Extended Attributes.</p> <p>l</p>	Required if the DirectoryACLSetting property is set.

Properties				Description	Specification
				Specify this value to allow Delete Subfolders and Files.	
			d	Specify this value to allow Delete.	
			c	Specify this value to allow Read Permissions.	
			h	Specify this value to allow Change Permissions.	
			g	Specify this value to allow Take ownership.	

#1: This is the default value used when the property is omitted.

#2: For an Advanced ACL file system, if you specify null strings for all the following properties, the same settings are used as when the `cifscreate` command is executed with the `--owner-only` option:

- `fileAccessPermissionOfOwner` property
- `fileAccessPermissionOfGroup` property
- `fileAccessPermissionOfOther` property
- `directoryAccessPermissionOfOwner` property
- `directoryAccessPermissionOfGroup` property
- `directoryAccessPermissionOfOther` property

#3: To set access privileges for users or groups, the expression shown below must be true. Here, *u* indicates the number of users, *g* indicates the number of groups, *n* indicates the total number of characters in the user names, and *m* indicates the total number of characters in the group names.

$$u + 2g + n + m \leq 1024$$

(<=: Less than or equal to)

The following shows an example of adding a CIFS share by sending a PUT method request to the CIFSshare resource.

URI of the resource to which a request is sent

`https://host-name-or-IP-address:9090/mapi/CIFSshares`

Example of a request XML

```
<?xml version="1.0" encoding="UTF-8" standalone="yes"?>
<CIFSshare>
  <exportPoint>/mnt/fs/cifs</exportPoint>
  <cifsShareName>cifsshare</cifsShareName>
  <isClassicAcl>>false</isClassicAcl>
  <isAclEnabled>>true</isAclEnabled>
</CIFSshare>
```

```

<restrictionTargetHosts>10.213.77.231</restrictionTargetHosts>
<isAccessRestrictionAllowed>true</isAccessRestrictionAllowed>
<commentForShare>cifscomment</commentForShare>
<isReadOnly>>false</isReadOnly>
<isBrowseEnabled>true</isBrowseEnabled>
<guestAccessPermission>default</guestAccessPermission>
<diskSynchronizationPolicy>default</diskSynchronizationPolicy>
<cifsClientCacheSetting>default</cifsClientCacheSetting>
<isHomeDirectoryEnabled>true</isHomeDirectoryEnabled>
<clientAccessPolicy>default</clientAccessPolicy>
<vssUse>default</vssUse>
<cifsClientRoCacheOptimize>default</cifsClientRoCacheOptimize>
<accessBasedEnumeration>default</accessBasedEnumeration>
<homeDirectoryRoaming>do_not_use</homeDirectoryRoaming>
<smbEncryption>mandatory</smbEncryption>
<writeDisallowedUsers>user3,user4</writeDisallowedUsers>
<writeDisallowedGroups>group3,group4</writeDisallowedGroups>
<writeAllowedUsers>user1,user2</writeAllowedUsers>
<writeAllowedGroups>group1,group2</writeAllowedGroups>
<DirectorySetup>
  <userName>22222</userName>
  <groupName>11111</groupName>
  <isStickyBit>true</isStickyBit>
  <ownerPermission>rw</ownerPermission>
  <groupPermission>rw</groupPermission>
  <otherPermission>rw</otherPermission>
</DirectorySetup>
<DirectoryACLSettings>
  <DirectoryACLSetting>
    <userGroupAccess>allow</userGroupAccess>
    <name>Everyone</name>
    <accountType>g</accountType>
    <applicationDestination>a</applicationDestination>
    <inheritanceRange>a</inheritanceRange>
    <accessPermission>r</accessPermission>
  </DirectoryACLSetting>
</DirectoryACLSettings>
</CIFSShare>

```

The following table describes the status codes output when the method ends.

Table 3-15 Status codes returned when a PUT method request is sent to the CIFSShare resource

Status code	Description
200	Execution of the method ended successfully.
Other codes	Execution of the method ended abnormally. See Table 1-3 HTTP status codes that can be generated when a request terminates abnormally on page 1-9 .

CIFSShares/*CIFS-share-name-encoded-in-Base64* resource

This section describes how to use the CIFSShares/*CIFS-share-name-encoded-in-Base64* resource.

Acquiring CIFS share information by using the GET method

You must specify the path name of the shared directory encoded in Base64 by using the query parameter SHARE-DIRECTORY-NAME.

The following table describes the structure of the response XML output when the method ends.

Table 3-16 Structure of the response XML when a GET method request is sent to the CIFSShares/CIFS-share-name-encoded-in-Base64 resource

Properties		Number of response XMLs output	Supported configurations	Displayed value when verbose is false
CIFSShare		1	Cluster Single node	Y
--	exportPoint	1	Cluster Single node	Y
	cifsShareName	1	Cluster Single node	Y
	isAclEnabled	1	Cluster Single node	Y
	restrictionTargetHosts	1	Cluster Single node	Y
	isAccessRestrictionAllowed	1	Cluster Single node	Y
	commentForShare	1	Cluster Single node	Y
	isReadOnly	1	Cluster Single node	Y
	isBrowseEnabled	1	Cluster Single node	Y
	fileAccessPermissionOfOwner	1	Cluster Single node	Y
	fileAccessPermissionOfGroup	1	Cluster Single node	Y
	fileAccessPermissionOfOther	1	Cluster Single node	Y
	directoryAccessPermissionOfOwner	1	Cluster Single node	Y
	directoryAccessPermissionOfGroup	1	Cluster Single node	Y

Properties	Number of response XMLs output	Supported configurations	Displayed value when verbose is false
directoryAccessPermissionOfOther	1	Cluster Single node	Y
guestAccessPermission	1	Cluster Single node	Y
diskSynchronizationPolicy	1	Cluster Single node	Y
cifsClientCacheSetting	1	Cluster Single node	Y
fileTimestampChangeableUsers	1	Cluster Single node	Y
isHomeDirectoryEnabled	1	Cluster Single node	Y
aclType	1	Cluster Single node	N
clientAccessPolicy	1	Cluster Single node	Y
vssUse	1	Cluster Single node	Y
cifsClientRoCacheOptimize	1	Cluster Single node	Y
accessBasedEnumeration	1	Cluster Single node	Y
homeDirectoryRoaming	1	Cluster Single node	Y
smbEncryption	1	Cluster Single node	Y
writeDisallowedUsers	1	Cluster Single node	Y
writeDisallowedGroups	1	Cluster Single node	Y
writeAllowedUsers	1	Cluster Single node	Y
writeAllowedGroups	1	Cluster Single node	Y
NamespaceShareSettings	0 or 1	Cluster	N

Properties		Number of response XMLs output	Supported configurations	Displayed value when verbose is false
			Single node	
--	type	1	Cluster Single node	N
	FQDN	1	Cluster Single node	N
	externalHcpHostName	1	Cluster Single node	N
	user	1	Cluster Single node	N
	password	1	Cluster Single node	N
	hcpReplicaHost	1	Cluster Single node	N
	externalReplicaHcpHostName	1	Cluster Single node	N
	hcpNamespace	1	Cluster Single node	N

Legend: Y: Displayed, N: Not displayed.

For the properties displayed when a GET method request is sent to the `CIFSShares/CIFS-share-name-encoded-in-Base64` resource, see [Table 3-11 Properties displayed when a GET method request is sent to the CIFSShare resource on page 3-10](#).

The following shows an example of acquiring CIFS share information by sending a GET method request to the `CIFSShares/CIFS-share-name-encoded-in-Base64` resource.

URI of the resource to which a request is sent

`https://host-name-or-IP-address:9090/mapi/CIFSShares/CIFS-share-name-encoded-in-Base64`

Response XML example

```
<?xml version="1.0" encoding="UTF-8" standalone="yes"?>
<CIFSShare>
  <exportPoint>/mnt/aaa/sh</exportPoint>
  <cifsShareName>sh</cifsShareName>
  <isAclEnabled>true</isAclEnabled>
  <restrictionTargetHosts>0.0.0.0/0</restrictionTargetHosts>
  <isAccessRestrictionAllowed>>false</isAccessRestrictionAllowed>
  <commentForShare></commentForShare>
  <isReadOnly>>false</isReadOnly>
</CIFSShare>
```

```

    <isBrowseEnabled>true</isBrowseEnabled>
    <fileAccessPermissionOfOwner></fileAccessPermissionOfOwner>
    <fileAccessPermissionOfGroup></fileAccessPermissionOfGroup>
    <fileAccessPermissionOfOther></fileAccessPermissionOfOther>
    <directoryAccessPermissionOfOwner></
directoryAccessPermissionOfOwner>
    <directoryAccessPermissionOfGroup></
directoryAccessPermissionOfGroup>
    <directoryAccessPermissionOfOther></
directoryAccessPermissionOfOther>
    <guestAccessPermission>default</guestAccessPermission>
    <diskSynchronizationPolicy>default</diskSynchronizationPolicy>
    <cifsClientCacheSetting>default</cifsClientCacheSetting>
    <fileTimestampChangeableUsers></fileTimestampChangeableUsers>
    <isHomeDirectoryEnabled>>false</isHomeDirectoryEnabled>
    <clientAccessPolicy>default</clientAccessPolicy>
    <vssUse>default</vssUse>
    <cifsClientRoCacheOptimize>default</cifsClientRoCacheOptimize>
    <accessBasedEnumeration>default</accessBasedEnumeration>
    <homeDirectoryRoaming>do_not_use</homeDirectoryRoaming>
    <smbEncryption>default</smbEncryption>
    <writeDisallowedUsers></writeDisallowedUsers>
    <writeDisallowedGroups></writeDisallowedGroups>
    <writeAllowedUsers></writeAllowedUsers>
    <writeAllowedGroups></writeAllowedGroups>
</CIFSShare>

```

The following table describes the status codes output when the method ends.

Table 3-17 Status codes returned when a GET method request is sent to the CIFSShares/CIFS-share-name-encoded-in-Base64 resource

Status code	Description
200	Execution of the method ended successfully.
Other codes	Execution of the method ended abnormally. See Table 1-3 HTTP status codes that can be generated when a request terminates abnormally on page 1-9 .

Changing CIFS share information by using the POST method

You must specify the path name of the shared directory encoded in Base64 by using the query parameter SHARE-DIRECTORY-NAME.

The following table describes the XML structure when a POST method request is sent to the CIFSShares/CIFS-share-name-encoded-in-Base64 resource.

Table 3-18 XML structure when the POST method is used to send a request to the CIFSShares/CIFS-share-name-encoded-in-Base64 resource

Properties	Data type	Number of items that can be specified	Supported configurations
CIFSShare	--	1	Cluster Single node

	Properties	Data type	Number of items that can be specified	Supported configurations
--	cifsShareName	String	0 or 1	Cluster Single node
	isClassicAcl	Boolean	1	Cluster Single node
	isAclEnabled	Boolean	0 or 1	Cluster Single node
	restrictionTargetHosts	String	0 or 1	Cluster Single node
	isAccessRestrictionAllowed	Boolean	0 or 1	Cluster Single node
	commentForShare	String	0 or 1	Cluster Single node
	isReadOnly	Boolean	0 or 1	Cluster Single node
	isBrowseEnabled	Boolean	0 or 1	Cluster Single node
	fileAccessPermissionOfOwner	String	0 or 1	Cluster Single node
	fileAccessPermissionOfGroup	String	0 or 1	Cluster Single node
	fileAccessPermissionOfOther	String	0 or 1	Cluster Single node
	directoryAccessPermissionOfOwner	String	0 or 1	Cluster Single node
	directoryAccessPermissionOfGroup	String	0 or 1	Cluster Single node
	directoryAccessPermissionOfOther	String	0 or 1	Cluster Single node
	guestAccessPermission	String	0 or 1	Cluster Single node
	diskSynchronizationPolicy	String	0 or 1	Cluster Single node
cifsClientCacheSetting	String	0 or 1	Cluster Single node	
fileTimestampChangeableUsers	String	0 or 1	Cluster Single node	

Properties		Data type	Number of items that can be specified	Supported configurations
	isHomeDirectoryEnabled	Boolean	0 or 1	Cluster Single node
	clientAccessPolicy	String	0 or 1	Cluster Single node
	vssUse	String	0 or 1	Cluster Single node
	cifsClientRoCacheOptimize	String	0 or 1	Cluster Single node
	accessBasedEnumeration	String	0 or 1	Cluster Single node
	smbEncryption	String	0 or 1	Cluster Single node
	writeDisallowedUsers	String	0 or 1	Cluster Single node
	writeDisallowedGroups	String	0 or 1	Cluster Single node
	writeAllowedUsers	String	0 or 1	Cluster Single node
	writeAllowedGroups	String	0 or 1	Cluster Single node
	NamespaceShareSettings	--	0 or 1	Cluster Single node
--	type	String	0 or 1	Cluster Single node
	FQDN	String	0 or 1	Cluster Single node
	externalHcpHostName	String	0 or 1	Cluster Single node
	user	String	0 or 1	Cluster Single node
	password	String	0 or 1	Cluster Single node
	hcpReplicaHost	String	0 or 1	Cluster Single node
	externalReplicaHcpHostName	String	0 or 1	Cluster Single node

The following table describes the properties to be specified when sending a POST method request to the CIFSShares/*CIFS-share-name-encoded-in-Base64* resource.

Table 3-19 Properties used to send a POST method request to the CIFSShares/*CIFS-share-name-encoded-in-Base64* resource

Properties		Description	Specification
CIFSShare		--	--
--	cifsShareName	Sets the CIFS share name. You can use no more than 80 characters.	Optional
	isClassicAcl	Sets whether the Advanced ACL or Classic ACL type is used for operation. Specify this setting so that it matches the ACL type of the file system to which the shared directory belongs. true Specify this value when the file system is the Classic ACL type. false Specify this value when the file system is the Advanced ACL type.	Required
	isAclEnabled	Specify whether to allow CIFS clients to view or set ACLs. You cannot change the setting from true to false. true Specify this value to allow CIFS clients to view or set ACLs. false Specify this value to prohibit CIFS clients from viewing or setting ACLs.	Optional
	restrictionTargetHosts	Sets a host for which you restrict access to the CIFS share. When specifying multiple hosts, separate them with a comma (,). If you use a network address to specify a host, specify the IP address (for example, 10.203.15.0). If you use a netmask to specify a network range, use the <i>network-address/netmask</i> format (for example, 10.203.15.0/255.255.255.0).	Required if the <i>isAccessRestrictionAllowed</i> property is set.

Properties	Description	Specification
	<p>When you specify host names, edit the <code>/etc/hosts</code> file in the Edit System File page of the GUI to add all the specified host names and IP addresses.</p> <p>If you omit this, all hosts or networks are selected as the target.</p> <p>If hosts or networks for which access is restricted are set in the CIFS Service Management page (Setting Type: <i>Security</i>) of the GUI, the settings are applied to all the file shares.</p>	
<code>isAccessRestrictionAllowed</code>	<p>Sets whether to restrict access to the CIFS share by a host specified by the <code>restrictionTargetHosts</code> property.</p> <p><code>true</code></p> <p>Specify this value to restrict access.</p> <p><code>false#</code></p> <p>Specify this value to not restrict access.</p> <p>If hosts or networks for which access is restricted are set in the CIFS Service Management page (Setting Type: <i>Security</i>) of the GUI, the settings are applied to all the file shares.</p>	<p>Required if the <code>restrictionTargetHosts</code> property is set.</p>
<code>commentForShare</code>	<p>Sets a comment related to the CIFS share.</p> <p>You can use alphanumeric characters, exclamation marks (!), hash marks (#), dollar signs (\$), ampersands (&), single quotation marks ('), left parentheses ((), right parentheses ()), asterisks (*), plus signs (+), commas (,), hyphens (-), periods (.), forward slashes (/), colons (:), left angle brackets (<), right angle brackets (>), question marks (?), at marks (@), left square brackets ([), backslashes (\), right square brackets (]), carets (^), underscores (_), grave accent marks (`), left curly brackets ({), vertical bars (), right curly brackets (}), and tildes (~). You can also specify a space, but a string cannot start or end with a space. Also, a string cannot end with a backslash (\). In addition, you can specify multi-byte</p>	<p>Optional</p>

Properties	Description	Specification
	characters. You can use up to 256 characters.	
isReadOnly	<p>Sets whether to set the CIFS share as read-only.</p> <p>true</p> <p>Specify this value to set the share as read-only.</p> <p>false</p> <p>Specify this value to permit both read and write operations.</p>	Optional
isBrowseEnabled	<p>Sets whether to list the names of the CIFS shares in a client environment.</p> <p>true</p> <p>Specify this value to list the names.</p> <p>false</p> <p>Specify this value to not list the names.</p>	Optional
fileAccessPermissionOfOwner#	<p>Specifies the owner access privileges set for creation of files in a CIFS share for which write operations are permitted.</p> <p>rw</p> <p>Specify this value to grant read and write permissions.</p> <p>ro</p> <p>Specify this value to grant read permission only.</p> <p>none</p> <p>Specify this value to grant neither read nor write permission.</p>	Required if both the fileAccessPermissionOfGroup and fileAccessPermissionOfOther properties are set.
fileAccessPermissionOfGroup#1	<p>Specifies the group access privileges set for creation of files in a CIFS share for which write operations are permitted.</p> <p>For details about the access privileges you can set, see the fileAccessPermissionOfOwner property.</p>	Required if both the fileAccessPermissionOfOwner and fileAccessPermissionOfOther properties are set.
fileAccessPermissionOfOther#1	<p>Specifies the others' access privileges set for creation of files in a CIFS share for which write operations are permitted.</p> <p>For details about the access privileges you can set, see the</p>	Required if both the fileAccessPermissionOfOwner and fileAccessPermissionOfGroup

Properties	Description	Specification
	fileAccessPermissionOfOwner property.	p properties are set.
directoryAccessPermissionOfOwner#1	<p>Specifies the owner access privileges set for creation of directories in a CIFS share for which write operations are permitted.</p> <p>For details about the access privileges you can set, see the fileAccessPermissionOfOwner property.</p>	Required if both the directoryAccessPermissionOfGroup and directoryAccessPermissionOfOther properties are set.
directoryAccessPermissionOfGroup#1	<p>Specifies the group access privileges set for creation of directories in a CIFS share for which write operations are permitted.</p> <p>For details about the access privileges you can set, see the fileAccessPermissionOfOwner property.</p>	Required if both the directoryAccessPermissionOfOwner and directoryAccessPermissionOfOther properties are set.
directoryAccessPermissionOfOther#1	<p>Specifies the others' access privileges set for creation of directories in a CIFS share for which write operations are permitted.</p> <p>For details about the access privileges you can set, see the fileAccessPermissionOfOwner property.</p>	Required if both the directoryAccessPermissionOfOwner and directoryAccessPermissionOfGroup properties are set.
guestAccessPermission	<p>Sets whether to allow access from the guest account.</p> <p>allow Specify this value to allow access from the guest account.</p> <p>disallow Specify this value to deny access from the guest account.</p> <p>default Specify this to use the default settings of the CIFS service configuration definitions set in the CIFS Service Management page (Setting Type: Security) of the GUI.</p>	Optional
diskSynchronizationPolicy	<p>Sets the behavior for a write or close request from a client.</p> <p>write_and_close</p>	Optional

Properties	Description	Specification
	<p>Specify this to perform writing synchronously with a write request or a close request issued from a client to a CIFS share.</p> <p>close</p> <p>Specify this to perform writing synchronously with a close request issued from a client to a CIFS share.</p> <p>none</p> <p>Specify this to perform writing at a fixed interval.</p> <p>default</p> <p>Specify this to use the default settings of the CIFS service configuration definitions set in the CIFS Service Management page (Setting Type: Performance) of the GUI.</p>	
cifsClientCacheSetting	<p>Sets whether to cache updated data for files in the CIFS share on a client. Specify <code>do_not_use</code> for read-write-content-sharing file systems. If the updated data in the file of the CIFS share is cached on the client, the update date might not be reflected properly on other sites.</p> <p>use</p> <p>Specify this value to cache data.</p> <p>do_not_use</p> <p>Specify this value to not cache data.</p> <p>default</p> <p>Specify this to use the default settings of the CIFS service configuration definitions set in the CIFS Service Management page (Setting Type: Performance) of the GUI.</p>	Optional
fileTimestampChangeableUsers	<p>Sets the users who can update the timestamps of files in the CIFS share.</p> <p>write_permitted_users</p> <p>Specify this to permit all users who are permitted to write to files to update timestamps.</p> <p>owner_only</p> <p>Specify this to permit only file owners to update timestamps.</p> <p>default</p>	Can be specified if the <code>isClassicAcl</code> property is set to <code>true</code> .

Properties	Description	Specification
	Specify this to use the default settings of the CIFS service configuration definitions set in the CIFS Service Management page (Setting Type: Security) of the GUI.	
isHomeDirectoryEnabled	Sets whether to enable automatic creation of the home directory of the CIFS share. true Specify this value to enable automatic creation of the home directory of the CIFS share. false Specify this value to disable automatic creation of the home directory of the CIFS share.	Optional#2
clientAccessPolicy	Sets the method for processing the accesses from a CIFS client. parallel Specify this to handle access in parallel. serial Specify this to handle access serially. default Specify this to use the default settings of the CIFS service configuration definitions set in the CIFS Service Management page (Setting Type: Performance) of the GUI.	Optional
vssUse	This property is not supported.	Optional
cifsClientRoCacheOptimize	Sets whether to use a read-only client cache when access requests to a file from multiple CIFS clients conflict. Note that we recommend that you do not use this if you also want to use the NFS protocol to access the file shares because changes might not be applied. use Specify this if you want to use a read-only client cache. do_not_use Specify this if you do not want to use a read-only client cache. default	Optional

Properties	Description	Specification
	Specify this to use the default settings of the CIFS service configuration definitions set in the CIFS Service Management page (Setting Type: Performance) of the GUI.	
accessBasedEnumeration	<p>Sets whether to enable access-based enumeration.</p> <p>use</p> <p>Specify this to enable access-based enumeration.</p> <p>do_not_use</p> <p>Specify this to disable access-based enumeration.</p> <p>default</p> <p>Specify this to use the default settings of the CIFS service configuration definitions set in the CIFS Service Management page (Setting Type: Security) of the GUI.</p>	Optional
smbEncryption	<p>Specify whether to encrypt communication with a CIFS client when using SMB 3.0.</p> <p>This property is valid only when <code>SMB 3.0</code> is selected as SMB protocol on the CIFS Service Management page (Setting Type: Basic) of the GUI. If a value other than <code>SMB 3.0</code> is selected as the SMB protocol, specify <code>disable</code>, or disable encryption in the CIFS service configuration definitions and specify <code>default</code>.</p> <p>auto</p> <p>Specify this only if the client supports encryption.</p> <p>mandatory</p> <p>Specify this if encryption is mandatory.</p> <p>A client that does not support SMB 3.0 cannot access CIFS sharing.</p> <p>disable</p> <p>Specify this if you do not want encryption.</p> <p>default</p> <p>Specify this to use the default settings of the CIFS service configuration definitions set in</p>	Optional

Properties	Description	Specification
	the CIFS Service Management page (Setting Type: <i>Security</i>) of the GUI.	
writeDisallowedUsers	Sets the users who are denied write permission for the CIFS share. To specify multiple users, separate them by using commas (,). The set information is deleted if you omit settings or specify a null string for this property. However, the set information is not deleted if you also omit settings or specify a null string for the <code>writeDisallowedGroups</code> property.	Optional
writeDisallowedGroups	Sets the groups that are denied write permission for the CIFS share. To specify multiple groups, separate them by using commas (,). The set information is deleted if you omit settings or specify a null string for this property. However, the set information is not deleted if you also omit settings or specify a null string for the <code>writeDisallowedUsers</code> property.	Optional
writeAllowedUsers	Sets the users who are granted write permission for the CIFS share. To specify multiple users, separate them by using commas (,). The set information is deleted if you omit settings or specify a null string for this property. However, the set information is not deleted if you also omit settings or specify a null string for the <code>writeAllowedGroups</code> property.	Optional
writeAllowedGroups	Sets the groups that are granted write permission for the CIFS share. To specify multiple groups, separate them by using commas (,). The set information is deleted if you omit settings or specify a null string for this property. However, the set information is not deleted if you also omit settings or specify a null string for the <code>writeAllowedUsers</code> property.	Optional
NamespaceShareSettings	--	This property can be specified if the data from another HDI system is

Properties		Description	Specification
			referenced as read-only at the share level. This property need not be specified if information for the target directory has already been set.
--	type	Specify Read Only.	Required if the NamespaceShareSettings property is set.
	FQDN	Sets the name of the HCP namespace in FQDN (Fully Qualified Domain Name) format. If information for the target directory has already been set, specify the same value as that set for the directory.	Required if the NamespaceShareSettings property is set.
	externalHcpHostName	If the HCP system to be linked uses a relaying device, such as a load balancer, when connecting to the network, specify the host name or IP address that has been made external and is used to connect to the HCP system. If information for the target directory has already been set, the set value is overwritten. The set information is deleted if you omit settings or specify a null string for this property. However, the set information is not deleted if you also omit settings for the NamespaceShareSettings property.	Can be specified when the NamespaceShareSettings property is set.
	user	Sets the user name of the account used to access the HCP namespace. If information for the target directory has already been set, specify the same value as that set for the directory.	Required if the NamespaceShareSettings property is set.
	password	Sets the password of the account used to access the HCP namespace. If information for the target directory has already been set, the set value is overwritten.	Required if the NamespaceShareSettings property is set.

Properties		Description	Specification
	hcpReplicaHost	<p>Sets the host name of the replica HCP system.</p> <p>If information for the target directory has already been set, the set value is overwritten.</p> <p>The set information is deleted if you omit settings or specify a null string for this property. However, the set information is not deleted if you also omit settings for the <code>NamespaceShareSettings</code> property.</p>	Can be specified when the <code>NamespaceShareSettings</code> property is set.
	externalReplicaHcpHostName	<p>If the replica HCP system to be linked uses a relaying device, such as a load balancer, when connecting to the network, specify the host name or IP address that has been made external and is used to connect to the replica HCP system.</p> <p>If information for the target directory has already been set, the set value is overwritten.</p> <p>The set information is deleted if you omit settings or specify a null string for this property. However, the set information is not deleted if you also omit settings for the <code>NamespaceShareSettings</code> property.</p>	Can be specified when the <code>NamespaceShareSettings</code> property is set.

#1: For an Advanced ACL file system, if you specify null strings for all the following properties, the same settings are used as when the `cifsedit` command is executed with the `--owner-only` option:

- `fileAccessPermissionOfOwner` property
- `fileAccessPermissionOfGroup` property
- `fileAccessPermissionOfOther` property
- `directoryAccessPermissionOfOwner` property
- `directoryAccessPermissionOfGroup` property
- `directoryAccessPermissionOfOther` property

#2: To specify the `isHomeDirectoryEnabled` property for a home-directory-roaming file system, `true` must be specified.

The following shows an example of changing CIFS share information by sending a POST method request to the `CIFSShares/CIFS-share-name-encoded-in-Base64` resource.

URI of the resource to which a request is sent

`https://host-name-or-IP-address:9090/mapi/CIFSShares/CIFS-share-name-encoded-in-Base64`

Example of a request XML

```
<?xml version="1.0" encoding="UTF-8" standalone="yes"?>
<CIFSShare>
  <cifsShareName>cifssharechange</cifsShareName>
  <isClassicAcl>>false</isClassicAcl>
  <isAclEnabled>>true</isAclEnabled>
  <restrictionTargetHosts>10.213.77.88</restrictionTargetHosts>
  <isAccessRestrictionAllowed>>true</isAccessRestrictionAllowed>
  <commentForShare>cifscomment</commentForShare>
  <isReadOnly>>false</isReadOnly>
  <isBrowseEnabled>>true</isBrowseEnabled>
  <guestAccessPermission>default</guestAccessPermission>
  <diskSynchronizationPolicy>default</diskSynchronizationPolicy>
  <cifsClientCacheSetting>default</cifsClientCacheSetting>
  <isHomeDirectoryEnabled>>true</isHomeDirectoryEnabled>
  <clientAccessPolicy>default</clientAccessPolicy>
  <vssUse>default</vssUse>
  <cifsClientRoCacheOptimize>default</cifsClientRoCacheOptimize>
  <accessBasedEnumeration>default</accessBasedEnumeration>
  <smbEncryption>disable</smbEncryption>
  <writeDisallowedUsers>user1,user2</writeDisallowedUsers>
  <writeDisallowedGroups>group1,group2</writeDisallowedGroups>
  <writeAllowedUsers>user3,user4</writeAllowedUsers>
  <writeAllowedGroups>group3,group4</writeAllowedGroups>
</CIFSShare>
```

The following table describes the status codes output when the method ends.

Table 3-20 Status codes returned when a POST method request is sent to the CIFSShares/CIFS-share-name-encoded-in-Base64 resource

Status code	Description
200	Execution of the method ended successfully.
Other codes	Execution of the method ended abnormally. See Table 1-3 HTTP status codes that can be generated when a request terminates abnormally on page 1-9 .

Deleting the specified CIFS share by using the DELETE method

You must specify the path name of the shared directory encoded in Base64 by using the query parameter SHARE-DIRECTORY-NAME.

The shared directory is not deleted even if a CIFS share is deleted.

CIFS shares used by home-directory-roaming file systems cannot be deleted.

The following table describes the status codes output when the method ends.

Table 3-21 Status codes returned when a DELETE method request is sent to the CIFSShares/CIFS-share-name-encoded-in-Base64 resource

Status code	Description
200	Execution of the method ended successfully.

Status code	Description
Other codes	Execution of the method ended abnormally. See Table 1-3 HTTP status codes that can be generated when a request terminates abnormally on page 1-9 .

Checking whether the specified CIFS share exists by using the HEAD method

You must specify the path name of the shared directory encoded in Base64 by using the query parameter SHARE-DIRECTORY-NAME.

The following table describes the status codes output when the method ends.

Table 3-22 Status codes returned when a HEAD method request is sent to the CIFSShares/CIFS-share-name-encoded-in-Base64 resource

Status code	Description
200	The specified CIFS share can be used.
Other codes	Execution of the method ended abnormally. See Table 1-3 HTTP status codes that can be generated when a request terminates abnormally on page 1-9 .

Disk

Disk resource overview

You can use the Disk resource to acquire the total capacity and unused capacity of a specific volume group in a single-node configuration.

The following table describes the HTTP method that can be used for the Disk resource.

Table 3-23 HTTP method that can be used for the Disk resource

Resource URI	HTTP method	Supported configurations	Description
/Disk	GET	Single node	Acquires information about the total capacity and unused capacity of a specific volume group.

Disk resource

This section describes how to use the Disk resource.

Acquiring information specified about the disk by using the GET method

The following table describes the structure of the response XML output when the method ends.

Table 3-24 Structure of the response XML when a GET method request is sent to the Disk resource

Properties		Number of response XMLs output	Supported configurations	Displayed value when verbose is false
Disk		1	Single node	Y
--	totalDiskSize	1	Single node	Y
	freeDiskSize	1	Single node	Y
	volumeGroupName	1	Single node	Y

Legend: Y: Displayed.

The following table describes the properties displayed when a GET method request is sent to the Disk resource.

Table 3-25 Properties displayed when a GET method request is sent to the Disk resource

Properties		Description
Disk		--
--	totalDiskSize	Displays the total capacity of the volume group with the largest unused capacity in GB. Displays a null string, if a volume group does not exist.
	freeDiskSize	Displays the unused capacity of the volume group with the largest unused capacity in GB. Displays a null string, if a volume group does not exist.
	volumeGroupName	Displays the name (no more than 16 bytes) of the volume group with the largest unused capacity. Displays a null string, if a volume group does not exist.

The following shows an example of acquiring the total capacity and unused capacity of the volume group with the largest unused capacity by sending a GET method request to the Disk resource.

URI of the resource to which a request is sent

`https://host-name-or-IP-address:9090/mapi/Disk`

Response XML example

```
<?xml version="1.0" encoding="UTF-8" standalone="yes"?>
<Disk>
  <totalDiskSize>275980</totalDiskSize>
  <freeDiskSize>256000</freeDiskSize>
  <volumeGroupName>vg0001</volumeGroupName>
</Disk>
```

The following table describes the status codes output when the method ends.

Table 3-26 Status codes returned when a GET method request is sent to the Disk resource

Status code	Description
200	Execution of the method ended successfully.
Other codes	Execution of the method ended abnormally. See Table 1-3 HTTP status codes that can be generated when a request terminates abnormally on page 1-9 .

FCPath

FCPath resource overview

You can use the FCPath resource to acquire FC path information.

The following table describes the HTTP method that can be used for the FCPath resource.

Table 3-27 HTTP method that can be used for the FCPath resource

Resource URI	HTTP method	Supported configurations	Description
/FCPaths	GET	Cluster Single node	Acquires information about all FC paths set on the node you are logged in to.

FCPath resource

This section describes how to use the FCPath resource.

Acquiring information about the FC path specified in the GET method

The following table describes the structure of the response XML output when the method ends.

Table 3-28 Structure of the response XML when a GET method request is sent to the FCPath resource

Properties		Number of response XMLs output	Supported configurations	Displayed value when verbose is false
FCPaths		1	Cluster Single node	Y
--	FCPath	0 or 1 to <i>n</i>	Cluster Single node	Y

Properties			Number of response XMLs output	Supported configurations	Displayed value when verbose is false
--	path	1	Cluster Single node	Y	
	target	1	Cluster Single node	Y	
	hostPort	1	Cluster Single node	Y	
	hostPortWWN	1	Cluster Single node	Y	
	arrayPort	1	Cluster Single node	Y	
	arrayPortWWN	1	Cluster Single node	Y	
	model	1	Cluster Single node	Y	
	serial	1	Cluster Single node	Y	
	status	1	Cluster Single node	Y	

Legend: *n*: An integer of 2 or more, Y: Displayed.

The following table describes the properties displayed when a GET method request is sent to the FCPath resource.

Table 3-29 Properties displayed when a GET method request is sent to the FCPath resource

Properties			Description
FCPaths			--
--	FCPath		--
	--	path	Displays the FC path in the following format: <i>pathfixed_GID-host_port_number-storage_port_number</i> A null string is displayed if the target cannot be identified.
	--	target	Displays the target (7 bytes). A null string is displayed if the target cannot be identified.
	--	hostPort	Displays the 6-byte name of the FC port on the node (host port).

Properties		Description
		A null string is displayed if the FC port cannot be identified.
	hostPortWWN	Displays the 16-byte WWN of the FC port on the node. If the FC port cannot be identified, ----- is displayed.
	arrayPort	Displays the name (no more than 4 bytes) of the FC port on the Storage System (Storage Port).
	arrayPortWWN	Displays the WWN of the FC port on the Storage System. If the FC port cannot be identified, ----- is displayed.
	model	Displays the model of the storage system where the cluster management LU exists. A null string is displayed in the following cases: <ul style="list-style-type: none"> • The Storage System does not contain LUs being used in the HDI system. • Storage System information has not been acquired because a failure occurred on the FC path during startup of the OS on the node, or for some other reason.
	serial	Displays the serial number (no more than 16 bytes) of the storage system. A null string is displayed if the serial number cannot be identified.
	status	Displays the status of the FC path. <p>Online</p> <p>The FC path is working normally.</p> <p>If a device file error is detected, Online (LU Error) is displayed.</p> <p>Offline</p> <p>The system administrator has placed the FC path in the offline status.</p> <p>If a device file error is detected, Offline (LU Error) is displayed.</p> <p>Error</p> <p>This is displayed when any of the following conditions are satisfied:</p> <ul style="list-style-type: none"> - An error has occurred on the FC path. - None of the device files belonging to the target FC path are accessible. - No LUs has been assigned to a host group associated with the FC path. <p>Partially Online</p> <p>The FC path is working normally but some device files are inaccessible.</p>

Properties			Description
			<p>If a device file error is detected, Partially Online (LU Error) is displayed.</p> <p>Configuration Mismatch</p> <p>The assignment of LUs to host groups associated with the FC path differs from the assignment of LUs for the alternate path, or there is no alternate path.</p> <p>Unknown</p> <p>The FC port on the node (host port) or the FC port on the Storage System (Storage Port) cannot be identified.</p>

The following shows an example of acquiring FC path information by sending a GET method request to the FCPath resource.

URI of the resource to which a request is sent

`https://host-name-or-IP-address:9090/mapi/FCPaths`

Response XML example

```
<?xml version="1.0" encoding="UTF-8" standalone="yes"?>
<FCPaths>
  <FCPath>
    <path>path000-0004-1E</path>
    <target>N1-T000</target>
    <hostPort>fc0004</hostPort>
    <hostPortWWN>10000000c98f2992</hostPortWWN>
    <arrayPort>1E</arrayPort>
    <arrayPortWWN>50060e801046889c</arrayPortWWN>
    <model>AMS</model>
    <serial>83016761</serial>
    <status>Online</status>
  </FCPath>
  <FCPath>
    <path>path000-0005-1F</path>
    <target>N1-T000</target>
    <hostPort>fc0005</hostPort>
    <hostPortWWN>10000000c98f2993</hostPortWWN>
    <arrayPort>1F</arrayPort>
    <arrayPortWWN>50060e801046889d</arrayPortWWN>
    <model>AMS</model>
    <serial>83016761</serial>
    <status>Online</status>
  </FCPath>
</FCPaths>
```

The following table describes the status codes output when the method ends.

Table 3-30 Status codes returned when a GET method request is sent to the FCPath resource

Status code	Description
200	Execution of the method ended successfully.
Other codes	Execution of the method ended abnormally. See Table 1-3 HTTP status codes that can be generated when a request terminates abnormally on page 1-9 .

FileSystem

FileSystem resource overview

You can use the FileSystem resource to acquire file system information or to create a file system. You can also delete a file system, and check whether a file system exists.

The following table describes the HTTP methods that can be used for the FileSystem resource.

Table 3-31 HTTP methods that can be used for the FileSystem resource

Resource URI	HTTP method	Supported configurations	Description
/FileSystems	GET	Cluster Single node	Acquires information about all file systems on the node.
	PUT	Cluster Single node	Creates a file system.
/FileSystems/ <i>file-system-name</i>	GET	Cluster Single node	Acquires information about the specified file system.
	POST	Cluster Single node	Edits information about the specified file system.
	DELETE	Cluster Single node	Deletes the specified file system.
	HEAD	Cluster Single node	Checks whether the specified file system exists.
/FileSystems/ <i>file-system-name</i> / MountSetting	GET	Cluster Single node	Acquires information about the mount settings of the specified file system.
	POST	Cluster Single node	Edits information about the mount settings of the specified file system.

Resource URI	HTTP method	Supported configurations	Description
/FileSystems/ <i>file-system-name</i> / LargeFileTransferSetting	GET	Cluster Single node	Acquires information about the Large File Transfer function for the specified file system.
	POST	Cluster Single node	Edits information about the Large File Transfer function for the specified file system.

FileSystem resource

This section describes how to use the FileSystem resource.

Acquiring file system information by using the GET method

The following table describes the structure of the response XML output when the method ends.

Table 3-32 Structure of the response XML when a GET method request is sent to the FileSystem resource

Properties		Number of response XMLs output	Supported configurations	Displayed value when verbose is false	
FileSystems		1	Cluster Single node	Y	
--	FileSystem	0 or 1 to <i>n</i>	Cluster Single node	Y	
	--	fileSystemName	1	Cluster Single node	Y
		usage	1	Cluster Single node	N
		deviceStatus	1	Cluster Single node	N
		freeBlocksInMegaBytes	1	Cluster Single node	N
		usedBlocksInMegaBytes	1	Cluster Single node	N
		totalBlocksInMegaBytes	1	Cluster Single node	N
		isLvmEnabled	1	Cluster	Y
		volumeGroupName	1	Single node	N

Properties		Number of response XMLs output	Supported configurations	Displayed value when verbose is false
	fileSystemSizeInGigaByte	1	Cluster Single node	Single
	workSpaceSizeInGigaByte	0 or 1	Single node	Y
	isLvmStripingEnabled	1	Cluster	Y
	stripes	1	Cluster	N
	stripeSize	1	Cluster	Y
	aclType	1	Cluster Single node	Y
	NamespaceShareSettings	1	Cluster Single node	Y
--	namespaceType	1	Cluster Single node	Y
	type	1	Cluster Single node	Y
	FQDN	1	Cluster Single node	Y
	externalHcpHostName	1	Cluster Single node	Y
	user	1	Cluster Single node	Y
	password	1	Cluster Single node	Y (null string)
	hcpReplicaHost	1	Cluster Single node	Y
	externalReplicaHcpHostName	1	Cluster Single node	Y
	hcpNamespace	1	Cluster Single node	Y
	UseVersioning	0 or 1	Cluster Single node	Y
	periodToHold	0 or 1	Cluster Single node	Y
	isBypassEnabled	1	Cluster Single node	Y
	customSchedule	0 or 1	Cluster	Y

Properties		Number of response XMLs output	Supported configurations	Displayed value when verbose is false
			Single node	
	customSchedule15Minute	0 or 1	Cluster Single node	Y
	customScheduleHourly	0 or 1	Cluster Single node	Y
	customScheduleDaily	0 or 1	Cluster Single node	Y
	customScheduleWeekly	0 or 1	Cluster Single node	Y
	customScheduleMonthly	0 or 1	Cluster Single node	Y
	customScheduleYearly	0 or 1	Cluster Single node	Y
	WormSetting	1	Cluster Single node	Y
--	maxRetention	1	Cluster Single node	Y
	minRetention	1	Cluster Single node	Y
	isAutoCommitEnabled	1	Cluster Single node	Y
	commitModeSetting	1	Cluster Single node	Y
	autoCommitPeriod	1	Cluster Single node	Y
	defaultRetention	1	Cluster Single node	Y
	isWormDeleteEnabled	1	Cluster Single node	N
	longestRetention	1	Cluster Single node	N
	MountSetting	1	Cluster Single node	N
--	isMounted	1	Cluster Single node	N

Properties			Number of response XMLs output	Supported configurations	Displayed value when verbose is false
		mountStatus	1	Cluster Single node	N
		isReadOnly	1	Cluster Single node	N
		isFileLastAccessTimeRecordingEnabled	1	Cluster Single node	N
		LUs	1	Cluster	Y
	--	LU	1 to <i>n</i>	Cluster	Y
	--	deviceFileName	1	Cluster	Y
		WorkSpaceLUs	1	Cluster	Y
	--	WorkSpace	1 to <i>n</i>	Cluster	Y
	--	deviceFileName	1	Cluster	Y
		LargeFileTransferSetting	1	Cluster Single node	N
	--	largeFileTransfer	1	Cluster Single node	N
		lowerLimitInMegaBytes	1	Cluster Single node	N

Legend: *n*: An integer of 2 or more, Y: Displayed, Single: Displayed only in single-node configurations, N: Not displayed.

The following table describes the properties displayed when a GET method request is sent to the FileSystem resource.

Table 3-33 Properties displayed when a GET method request is sent to the FileSystem resource

Properties			Description
		FileSystems	--
--		FileSystem	--
	--	fileName	The file system name is displayed.
	--	usage	The name of the function that is using the file system. None This value is displayed if the none of the following items apply. ActMig

Properties		Description
		<p>The file system is used by a function of Active File Migration.</p> <p>WORM</p> <p>The file system is a WORM file system.</p> <p>If several of the above items apply to the file system usage, the items are all displayed and separated by commas (,).</p>
	deviceStatus	<p>Displays the status of a device file that make up the file system.</p> <p>Normal</p> <p>The status is normal.</p> <p>Error</p> <p>A failure has been detected while accessing the device file.</p> <p>A null string is displayed in a single-node configuration.</p>
	freeBlocksInMegaBytes	<p>When the file system is correctly mounted, and the unused block capacity is displayed in MB.</p> <p>The size is displayed to 3 decimal places.</p> <p>A null string is displayed if the file system is not correctly mounted.</p>
	usedBlocksInMegaBytes	<p>When the file system is correctly mounted, and the used block capacity is displayed in MB.</p> <p>The size is displayed to 3 decimal places.</p> <p>A null string is displayed if the file system is not correctly mounted.</p>
	totalBlocksInMegaBytes	<p>When the file system is correctly mounted, and the total block capacity is displayed in MB.</p> <p>The size is displayed to 3 decimal places.</p> <p>A null string is displayed if the file system is not correctly mounted.</p>
	isLvmEnabled	<p>Displays whether a volume manager is used for the file system.</p> <p>true</p> <p>A volume manager is used.</p> <p>false</p> <p>A volume manager is not used.</p> <p>This item is not displayed in a single-node configuration.</p>
	volumeGroupName	<p>Displays the name of the volume group that is used for the file system.</p>
	fileSystemSizeInGigaByte	<p>Displays the file system capacity (total device file capacity) in GB.</p>

Properties		Description
		The total file system capacity that was specified when the file system is created or expanded is displayed in a single-node configuration. The size is displayed to 3 decimal places.
	workSpaceSizeInGigaByte	In a single-node configuration, the size of the work space (in GB) is displayed.
	isLvmStripingEnabled	Displays whether the file system is striped. true The file system is striped. false The file system is not striped. This item is not displayed in a single-node configuration.
	stripes	Displays the number of stripes as an integer. A null string is displayed if the file system is not striped. This item is not displayed in a single-node configuration.
	stripeSize	Displays the stripe size in KB. A null string is displayed if the file system is not striped. This item is not displayed in a single-node configuration.
	aclType	Displays the ACL type of the file system. Classic ACL The ACL type is Classic ACL. Advanced ACL The ACL type is Advanced ACL. Unknown The ACL type could not be acquired.
	NamespaceShareSettings	--
--	namespaceType	Displays how the namespace is allocated. FileSystem Allocated at the file system level. Subtree Allocated at the share level.
	type	Displays how the HCP data is shared. Read/Write Displayed if the file system does not synchronizes the data with other HDI systems via linked HCP systems. Read Only

Properties			Description
			<p>Displayed if the file system references the data from other HDI systems as read-only.</p> <p>Home Directory</p> <p>Displayed for home-directory-roaming file systems.</p> <p>Read/Write (Content Sharing)</p> <p>Displayed for read-write-content-sharing file systems.</p> <p>Displays two hyphens (--) when the HCP system is not linked.</p>
		FQDN	<p>Displays the name of the HCP namespace in FQDN (Fully Qualified Domain Name) format.</p> <p>If the <code>type</code> property is not <code>Read Only</code>, a null string is displayed.</p>
		externalHcpHostName	<p>Displays the host name or IP address that has been made external and is used to connect to the HCP system.</p> <p>If the <code>type</code> property is not <code>Read Only</code>, or the host name or IP address that has been made external and is used to connect to the HCP system is not set, a null string is displayed.</p>
		user	<p>Displays the user name of the account used to access the HCP namespace.</p> <p>If the <code>type</code> property is not <code>Read Only</code>, a null string is displayed.</p>
		password	A null string is always displayed.
		hcpReplicaHost	<p>A replica HCP host name is displayed.</p> <p>If the <code>type</code> property is not <code>Read Only</code>, or if no replica HCP host name is set, a null string is displayed.</p>
		externalReplicaHcpHostName	<p>Displays the host name or IP address that has been made external and is used to connect to the replica HCP system.</p> <p>If the <code>type</code> property is not <code>Read Only</code>, or the host name or IP address that has been made external and is used to connect to the replica HCP system is not set, a null string is displayed.</p>
		hcpNamespace	<p>Displays the name of the HCP namespace.</p> <p>If the <code>type</code> property is <code>--</code>, a null string is displayed.</p>
		UseVersioning	<p>Displays the setting for whether to allow clients to access the past version of files migrated to the HCP system.</p> <p>used</p>

Properties		Description
		<p>Displayed if the clients are allowed to access the past version of files migrated to the HCP system.</p> <p>not used</p> <p>Displayed if the clients are not allowed to access the past version of files migrated to the HCP system.</p>
	periodToHold	Displays in days the retention period of the past versions of the file migrated to the HCP system.
	isBypassEnabled	<p>Displays whether the CIFS bypass traverse checking function is enabled.</p> <p>true</p> <p>Displayed if the CIFS bypass traverse checking function is enabled.</p> <p>false</p> <p>Displayed if the CIFS bypass traverse checking function is disabled.</p> <p>A null string is displayed if the information could not be acquired.</p>
	customSchedule	<p>Displays whether a custom schedule is used.</p> <p>used</p> <p>If UseVersioning property is used and the custom schedule is used, used is displayed.</p> <p>not used</p> <p>If UseVersioning property is used and the custom schedule is not used, not used is displayed.</p> <p>--</p> <p>If UseVersioning property is other than used, -- is displayed.</p>
	customSchedule15Minute	<p>The value specified for a custom schedule in 15-minute units is displayed (unit: minutes).</p> <p>Note that, in the following cases, 0 is displayed:</p> <ul style="list-style-type: none"> • If UseVersioning property is not used • If UseVersioning property is used and a custom schedule in 15-minute units is disabled.
	customScheduleHourly	<p>The value specified for an hourly custom schedule is displayed (unit: hours).</p> <p>Note that, in the following cases, 0 is displayed:</p> <ul style="list-style-type: none"> • If UseVersioning property is not used

Properties		Description
		<ul style="list-style-type: none"> If UseVersioning property is used and an hourly custom schedule is disabled.
	customScheduleDaily	<p>The value specified for a daily custom schedule is displayed (unit: days).</p> <p>Note that, in the following cases, 0 is displayed:</p> <ul style="list-style-type: none"> If UseVersioning property is not used If UseVersioning property is used and a daily custom schedule is disabled.
	customScheduleWeekly	<p>The value specified for a weekly custom schedule is displayed (unit: weeks).</p> <p>Note that, in the following cases, 0 is displayed:</p> <ul style="list-style-type: none"> If UseVersioning property is not used If UseVersioning property is used and a weekly custom schedule is disabled.
	customScheduleMonthly	<p>The value specified for a monthly custom schedule is displayed (unit: months).</p> <p>Note that, in the following cases, 0 is displayed:</p> <ul style="list-style-type: none"> If UseVersioning property is not used If UseVersioning property is used and a monthly custom schedule is disabled.
	customScheduleYearly	<p>The value specified for a yearly custom schedule is displayed (unit: years).</p> <p>Note that, in the following cases, 0 is displayed:</p> <ul style="list-style-type: none"> If UseVersioning property is not used If UseVersioning property is used and a yearly custom schedule is disabled.
	WormSetting#	--
--	maxRetention	<p>Displays the maximum retention period for a WORM file system in the following format:</p> <p><i>day-hour-minute</i></p> <p><i>infinite</i> is displayed if an indefinite time period is set for the maximum retention period. A null string is displayed for a non-WORM file system.</p>
	minRetention	<p>Displays the minimum retention period for a WORM file system in the following format:</p> <p><i>day-hour-minute</i></p> <p><i>infinite</i> is displayed if an indefinite time period is set for the minimum retention period. A null string is displayed for a non-WORM file system.</p>

Properties		Description
	<code>isAutoCommitEnabled</code>	<p>Displays whether autocommitting is enabled for a WORM file system.</p> <p><code>true</code> Displayed if autocommitting is enabled.</p> <p><code>false</code> Displayed if autocommitting is disabled.</p> <p>A null string is displayed for a non-WORM file system.</p>
	<code>commitModeSetting</code>	<p>Displays the mode of the autocommit function when the autocommit function is enabled in a WORM file system.</p> <p><code>auto</code> The autocommit function is in auto mode.</p> <p><code>manual</code> The autocommit function is in manual mode.</p> <p><code>Unknown</code> This is displayed if information could not be acquired.</p> <p>A null string is displayed if the file system is a non-WORM file system or autocommit is disabled.</p>
	<code>autoCommitPeriod</code>	<p>Displays, in the following format, how long to wait until files are turned into WORM files if autocommitting is enabled for a WORM file system: <i>day-hour-minute</i></p> <p>A null string is displayed if the file system is a non-WORM file system or auto commit is disabled.</p>
	<code>defaultRetention</code>	<p>Displays the retention period for an auto-committed file in a WORM file system in the following format: <i>day-hour-minute</i></p> <p><code>infinite</code> is displayed if an indefinite time period is set for the default retention period. A null string is displayed if the file system is a non-WORM file system or auto commit is disabled.</p>
	<code>isWormDeleteEnabled</code>	<p>Displays whether a WORM file system can be deleted.</p> <p><code>true</code> A WORM file system can be deleted.</p> <p><code>false</code> A WORM file system cannot be deleted.</p>

Properties		Description
	longestRetention	<p>Displays the longest of the retention periods for files in a WORM file system. The value is the number of seconds in decimal format.</p> <p>A null string is displayed in the following cases:</p> <ul style="list-style-type: none"> • <code>isWormDeleteEnabled</code> property is <code>true</code>. • The file system is a non-WORM file system. • The file system is blocked.
	MountSetting	--
--	isMounted	<p>Displays whether the file system is mounted.</p> <p><code>true</code></p> <p>The file system is mounted.</p> <p><code>false</code></p> <p>The file system is not mounted.</p>
	mountStatus	<p>Displays the mount status of the file system.</p> <p><code>Normal</code></p> <p>The file system is mounted correctly.</p> <p><code>Fatal error</code></p> <p>The file system is blocked.</p> <p><code>Expanding</code></p> <p>The file system is being expanded or an error occurred during expansion processing.</p> <p><code>Reclaiming</code></p> <p>The unused area of the virtual LUs that are used for the file system is being released.</p> <p>A null string is displayed if the file system is not mounted.</p>
	isReadOnly	<p>Displays whether the file system is mounted as read-only.</p> <p><code>true</code></p> <p>The file system is mounted as read-only.</p> <p><code>false</code></p> <p>The file system is mounted with both read and write operations permitted.</p> <p>A null string is displayed if the file system is not mounted.</p>
	isFileLastAccessTimeRecordingEnabled	<p>Displays whether settings have been specified so that the last file system access time is updated.</p> <p><code>true</code></p> <p>The last access time is updated.</p> <p><code>false</code></p> <p>The last access time is not updated.</p>

Properties			Description
			A null string is displayed if the file system is not mounted.
	LUs		--
--	LU		--
	--	deviceFileName	Displays the names of the device files that are used for the file system. If <code>true</code> is specified for the <code>isLvmStripingEnabled</code> property, the names are displayed in the order they were specified when the file system was created or expanded. Otherwise, the names are displayed in ascending order.
	WorkSpaceLUs		--
--	WorkSpace		--
	--	deviceFileName	In a cluster configuration, the name of the device file used by the work space is displayed.
	LargeFileTransferSetting		--
--	largeFileTransfer		Displays whether the Large File Transfer function is enabled. Enable The Large File Transfer function is enabled. Disable The Large File Transfer function is disabled.
		lowerLimitInMegabytes	Displays the lower threshold value for the size of files to which the Large File Transfer function is applied(unit: MB).

#: The value is not displayed if the file system is not mounted.

The following shows an example of acquiring file system information by sending a GET method request to the FileSystem resource.

URI of the resource to which a request is sent

`https://host-name-or-IP-address:9090/mapi/FileSystems`

Response XML example

```
<?xml version="1.0" encoding="UTF-8" standalone="yes"?>
<FileSystems>
  <FileSystem>
    <fileName>FileSystem</fileName>
    <isLvmEnabled>true</isLvmEnabled>
    <isLvmStripingEnabled>>false</isLvmStripingEnabled>
    <stripeSize></stripeSize>
    <aclType>Advanced ACL</aclType>
    <NamespaceShareSettings>
      <namespaceType>FileSystem</namespaceType>
    </NamespaceShareSettings>
  </FileSystem>
</FileSystems>
```

```

        <type>Read/Write</type>
        <FQDN></FQDN>
        <externalHcpHostName></externalHcpHostName>
        <user></user>
        <password></password>
        <hcpReplicaHost></hcpReplicaHost>
        <externalReplicaHcpHostName></externalReplicaHcpHostName>
        <hcpNamespace>FileSystem-22ed0908-3d2c-4632-
b6c9-2a6b019787ef</hcpNamespace>
    </NamespaceShareSettings>
    <UseVersioning>used</UseVersioning>
    <periodToHold>7</periodToHold>
    <customSchedule>not used</customSchedule>
    <customSchedule15Minute>0</customSchedule15Minute>
    <customScheduleHourly>0</customScheduleHourly>
    <customScheduleDaily>0</customScheduleDaily>
    <customScheduleWeekly>0</customScheduleWeekly>
    <customScheduleMonthly>0</customScheduleMonthly>
    <customScheduleYearly>0</customScheduleYearly>
    <isBypassEnabled>true</isBypassEnabled>
    <WormSetting>
        <maxRetention></maxRetention>
        <minRetention></minRetention>
        <isAutoCommitEnabled></isAutoCommitEnabled>
        <commitModeSetting></commitModeSetting>
        <autoCommitPeriod></autoCommitPeriod>
        <defaultRetention></defaultRetention>
    </WormSetting>
    <LUs>
        <LU>
            <deviceFileName>lu0006</deviceFileName>
        </LU>
    </LUs>
    <WorkSpaceLUs>
        <WorkSpace>
            <deviceFileName>lu0007</deviceFileName>
        </WorkSpace>
    </WorkSpaceLUs>
    <LargeFileTransferSetting>
        <largeFileTransfer>Enable</largeFileTransfer>
        <lowerLimitInMegaBytes>100</lowerLimitInMegaBytes>
    </LargeFileTransferSetting>
</FileSystem>
</FileSystems>

```

The following table describes the status codes output when the method ends.

Table 3-34 Status codes returned when a GET method request is sent to the FileSystem resource

Status code	Description
200	Execution of the method ended successfully.
Other codes	Execution of the method ended abnormally. See Table 1-3 HTTP status codes that can be generated when a request terminates abnormally on page 1-9 .

Creating a file system by using the PUT method

The following table describes the XML structure when a PUT method request is sent to the FileSystem resource.

Table 3-35 XML structure when the PUT method is used to send a request to the FileSystem resource

Properties		Data type	Number of items that can be specified	Supported configurations	
FileSystem		--	1	Cluster Single node	
--	fileSystemName	String	1	Cluster Single node	
	isLvmEnabled	Boolean	0 or 1	Cluster	
	volumeGroupName	String	0 or 1	Single node	
	fileSystemSizeInGigaByte	String	1	Single node	
	workspaceSizeInGigaByte	String	0 or 1	Single node	
	isLvmStripingEnabled	Boolean	0 or 1	Cluster	
	stripeSize	Integer	0 or 1	Cluster	
	aclType	String	0 or 1	Cluster Single node	
	NamespaceShareSettings	--	0 or 1	Cluster Single node	
	--	namespaceType	String	0 or 1	Cluster Single node
		type	String	0 or 1	Cluster Single node
		FQDN	String	0 or 1	Cluster Single node
		user	String	0 or 1	Cluster Single node
password		String	0 or 1	Cluster Single node	
hcpReplicaHost		String	0 or 1	Cluster Single node	
hcpNamespace		String	0 or 1	Cluster Single node	

Properties		Data type	Number of items that can be specified	Supported configurations
	externalHcpHostName	String	0 or 1	Cluster Single node
	externalRepllicaHcpHostName	String	0 or 1	Cluster Single node
	UseVersioning	String	0 or 1	Cluster Single node
	periodToHold	Integer	0 or 1	Cluster Single node
	isBypassEnabled	Boolean	0 or 1	Cluster Single node
	customSchedule	String	0 or 1	Cluster Single node
	customSchedule15Minute	String	0 or 1	Cluster Single node
	customScheduleHourly	String	0 or 1	Cluster Single node
	customScheduleDaily	String	0 or 1	Cluster Single node
	customScheduleWeekly	String	0 or 1	Cluster Single node
	customScheduleMonthly	String	0 or 1	Cluster Single node
	customScheduleYearly	String	0 or 1	Cluster Single node
	WormSetting	--	0 or 1	Cluster Single node
--	maxRetention	String	0 or 1	Cluster Single node
	minRetention	String	0 or 1	Cluster Single node
	isAutoCommitEnabled	Boolean	0 or 1	Cluster Single node
	commitModeSetting	String	0 or 1	Cluster Single node
	autoCommitPeriod	String	0 or 1	Cluster Single node

Properties		Data type	Number of items that can be specified	Supported configurations
	defaultRetention	String	0 or 1	Cluster Single node
	WorkspaceLUs	--	0 or 1	Cluster
--	Workspace	--	1 to <i>n</i>	Cluster
	-- deviceFileName	String	1	Cluster
	LUs	--	1	Cluster
--	LU	--	1 to <i>n</i>	Cluster
	-- deviceFileName	String	1	Cluster

Legend: *n*: An integer of 2 or more.

The following table describes the properties to be specified when sending a PUT method request to the FileSystem resource.

Table 3-36 Properties used to send a PUT method request to the FileSystem resource

Properties		Description	Specification
FileSystem		--	--
--	fileSystemName	Specify the name of the file system to be created. Specify a unique name within a cluster. Specify a string of no more than 16 characters consisting of alphanumeric characters and underscores (_).	Required
	isLvmEnabled	Sets whether to use the volume manager. true#1 Specify this value to use a volume manager. If you create the file system from multiple device files, specify true. false Specify this value to not use a volume manager. If false is specified for this item, you cannot expand the capacity after the creation of the file	Optional

Properties	Description	Specification
	<p>system. Also you cannot specify the <code>isLvmStripingEnabled</code> property and <code>stripeSize</code> property.</p>	
<p><code>volumeGroupName</code></p>	<p>Sets the name of the volume group that is used for the file system. This can be set only for single-node configurations.</p> <p>Specify a string of no more than 16 characters beginning with <code>vg</code> and consisting of alphanumeric characters and underscores (<code>_</code>).</p> <p>If this is omitted, a file system is created in the volume group with the largest unused capacity. If there are multiple volume groups with the same unused capacity, the file system is created in the volume group whose name comes first alphabetically.</p>	<p>Optional</p>
<p><code>fileSystemSizeInGigaByte</code></p>	<p>Sets the file system capacity in GB. This can be set only for single-node configurations.</p> <p>You can specify a value from 1 to the user disk free capacity. Specify a value from 1 to the available capacity of the volume group.</p>	<p>Required</p>
<p><code>workspaceSizeInGigaByte</code></p>	<p>Specifies the amount of space (in GB) to be assigned to the work space. This can be set only for single-node configurations.</p> <p>You can specify a value from 1 to the user disk free capacity. Specify a value from 1 to the available capacity of the volume group.</p>	<p>Optional</p>
<p><code>isLvmStripingEnabled</code></p>	<p>Sets whether to build the file system as a striped file system.</p> <p><code>true</code></p> <p>Specify this value to create a striped file system.</p> <p><code>false</code>^{#1}</p>	<p>Optional</p>

Properties		Description	Specification
		Specify this value to not create a striped file system.	
	stripeSize	<p>Sets the stripe size in kilobytes.</p> <p>Specify one of the following values:</p> <ul style="list-style-type: none"> • 8 • 16 • 32 • 64#1 • 128 • 256 • 512 • 1024 	Can be specified if the <code>isLvmStripingEnabled</code> property is set to <code>true</code> .
	aclType	<p>Sets the ACL of the file system.</p> <p>Classic ACL#1</p> <p>Specify this value to build a Classic ACL file system.</p> <p>Advanced ACL</p> <p>Specify this value to build an Advanced ACL file system.</p>	Optional
	NamespaceShareSettings	--	Optional
--	namespaceType	<p>Specify how the namespace is to be allocated.</p> <p>FileSystem#1</p> <p>The namespace is allocated at the file system level.</p> <p>Subtree</p> <p>The namespace is allocated at the share level.</p>	Optional
	type	<p>Specify how the HCP data is to be shared.</p> <p>Read/Write#1</p> <p>Specify this value if the file system does not synchronize the data with other HDI systems via linked HCP systems.</p> <p>Read Only</p>	Optional

Properties		Description	Specification
		<p>Specify this value if the file system references the data from other HDI systems as read-only.</p> <p>Home Directory</p> <p>Specify this value for home-directory-roaming file systems. This value cannot be specified if the <code>namespaceType</code> property is set to <code>Subtree</code>.</p> <p>Read/Write (Content Sharing)</p> <p>Specify this value for read-write-content-sharing file systems. This value cannot be specified if the <code>namespaceType</code> property is set to <code>Subtree</code>.</p>	
	FQDN	Sets the name of the HCP namespace in FQDN (Fully Qualified Domain Name) format.	Required if the <code>type</code> property is set to <code>Read Only</code> .#2
	user	Sets the user name of the account used to access the HCP namespace.	Required if the <code>type</code> property is set to <code>Read Only</code> .#2
	password	Sets the password of the account used to access the HCP namespace.	Required if the <code>type</code> property is set to <code>Read Only</code> .#2
	hcpReplicaHost	Sets the host name of the replica HCP system.	Can be specified if the <code>type</code> property is set to <code>Read Only</code> .#2
	hcpNamespace	Specifies the name of the HCP namespace.	Required if the <code>type</code> property is set to <code>Home Directory</code> or <code>Read/Write (Content Sharing)</code> .#2
	externalHcpHostName	If the HCP system to be linked uses a relaying device, such as a load balancer, when connecting to the network, specify the host name or IP address that has been made external and is used to connect to the HCP system.	Can be specified if the <code>type</code> property is set to <code>Read Only</code> .#2
	externalReplicaHcpHostName	If the replica HCP system to be linked uses a relaying device, such as a load balancer, when connecting to the network, specify the host name or IP	Can be specified if the <code>hcpReplicaHost</code> property is set.#2

Properties		Description	Specification
		address that has been made external and is used to connect to the replica HCP system.	
	UseVersioning	<p>Specify whether to allow clients to access the past version of files migrated to the HCP system.</p> <p>used#1</p> <p>Specify this to allow clients to access the past version of files migrated to the HCP system.</p> <p>not used</p> <p>Specify this to prohibit clients from accessing the past version of files migrated to the HCP system.</p>	Cannot be specified if the <code>type</code> property is set to <code>Read Only</code> .#2
	periodToHold	<p>Sets in days the retention period of the past versions of the file migrated to the HCP system.</p> <p>A value from 1 to 36500 can be specified.</p> <p>When using custom scheduling, specify a number of days greater than or equal to the recommended value calculated by the formula for the retention period of the past-version directories. For details about the formula for recommended values of the retention period, see the <i>Installation and Configuration Guide</i>.</p>	Required if the <code>UseVersioning</code> property is set to <code>used</code> .
	isBypassEnabled	<p>Specify whether to enable the CIFS bypass traverse checking function.</p> <p>true#1</p> <p>Specify this value to enable the CIFS bypass traverse checking function.</p> <p>false</p> <p>Specify this value to disable the CIFS bypass traverse checking function.</p>	Cannot be specified if the <code>type</code> property is set to <code>Home Directory</code> .

Properties	Description	Specification
<code>customSchedule</code>	<p>Specify whether to use the custom schedule. For details about custom scheduling of the file version restore functionality, see the <i>Installation and Configuration Guide</i>.</p> <p>used</p> <p>Specify this to use the custom schedule.</p> <p>not used</p> <p>Specify this to not use the custom schedule.</p>	<p>Cannot be specified if the <code>type</code> property is set to <code>Read Only</code>.</p>
<code>customSchedule15Minute</code>	<p>The oldest past version directory with 15-minute time units (hour <i>n</i>, minutes 00 to 14, minutes 15 to 29, minutes 30 to 44, minutes 45 to 59) is kept for the number of units specified. Specify 0, 15, 30, 45, or 60.</p> <p>If you specify 0, schedules with 15-minute time units become invalid.</p>	<p>Can be specified if the <code>customSchedule</code> property is set to <code>used</code>.</p>
<code>customScheduleHourly</code>	<p>The oldest past version directory with hourly time units (hour <i>n</i>, minutes 00 to 59) is kept for the number of units specified. Specify in the range from 0 to 48.</p> <p>If you specify 0, schedules with hourly time units become invalid.</p>	<p>Can be specified if the <code>customSchedule</code> property is set to <code>used</code>.</p>
<code>customScheduleDaily</code>	<p>The oldest past version directory with daily time units (day <i>n</i>, 00:00 to 23:59) is kept for the number of units specified. Specify in the range from 0 to 62.</p> <p>If you specify 0, schedules with daily time units become invalid.</p>	<p>Can be specified if the <code>customSchedule</code> property is set to <code>used</code>.</p>
<code>customScheduleWeekly</code>	<p>The oldest past version directory with weekly time units (week <i>n</i>, Sunday, 00:00 to Saturday, 23:59) is kept for the number of units specified. Specify in the range from 0 to 156.</p>	<p>Can be specified if the <code>customSchedule</code> property is set to <code>used</code>.</p>

Properties		Description	Specification
		If you specify 0, schedules with weekly time units become invalid.	
	customScheduleMonthly	The oldest past version directory with monthly time units (month <i>n</i> , 1st day, 00:00 to <i>last-day</i> , 23:59) is kept for the number of units specified. Specify in the range from 0 to 72. If you specify 0, schedules with monthly time units become invalid.	Can be specified if the <code>customSchedule</code> property is set to <code>used</code> .
	customScheduleYearly	The oldest past version directory with yearly time units (year <i>n</i> , Jan 1, 00:00 to Dec 31, 23:59) is kept for the number of units specified. Specify in the range from 0 to 100. If you specify 0, schedules with yearly time units become invalid.	Can be specified if the <code>customSchedule</code> property is set to <code>used</code> .
	WormSetting	Specify this property when you create a WORM file system. After you have created a file system, you cannot change the setting for whether the WORM functionality is enabled or disabled.	Cannot be specified if the <code>type</code> property is set to <code>Read Only</code> , <code>Home Directory</code> or <code>Read/Write (Content Sharing)</code> .#2
--	maxRetention	Sets the maximum retention period for a WORM file system. Specify <code>infinite</code> or a value in the following format: <i>day-hour-minute</i> You can specify the following values for each item: <ul style="list-style-type: none"> <i>day</i>: 0 to 36500 <i>hour</i>: 0 to 876000 <i>minute</i>: 0 to 52560000 The period you can specify is from one minute (0-0-1) to 100 years (36500-0-0).#3 An indefinite time period is set for the maximum retention period if you specify <code>infinite</code> . If you omit this, 10950-0-0 is set.	Can be specified if the <code>WormSetting</code> property is set.

Properties		Description	Specification
	minRetention	<p>Sets the minimum retention period for a WORM file system.</p> <p>Specify <i>infinite</i> or a value in the following format: <i>day-hour-minute</i></p> <p>You can specify the following values for each item:</p> <ul style="list-style-type: none"> <i>day</i>: 0 to 36500 <i>hour</i>: 0 to 876000 <i>minute</i>: 0 to 52560000 <p>The period you can specify is from 0 minute (0-0-0) to 100 years (36500-0-0).^{#3}</p> <p>An indefinite time period is set for the minimum retention period if you specify <i>infinite</i>. If you omit this, 0-0-0 is set.</p>	Can be specified if the <code>WormSetting</code> property is set.
	isAutoCommitEnabled	<p>Specify whether to enable autocommitting for a WORM file system.</p> <p>You cannot change the setting from <code>true</code> to <code>false</code>.</p> <p><code>true</code></p> <p>Specify this value to enable autocommitting.</p> <p><code>false</code>^{#1}</p> <p>Specify this value to disable autocommitting.</p>	Can be specified if the <code>WormSetting</code> property is set.
	commitModeSetting	<p>Specifies the mode of the autocommit function in a WORM file system.</p> <p><code>auto</code></p> <p>Specify this value to enable the autocommit function in auto mode.</p> <p>In auto mode, all ordinary files, except for the system files and files in the system directories, are subject to the autocommit functionality.</p> <p><code>manual</code>^{#1}</p> <p>Specify this value to enable the autocommit function in manual mode.</p> <p>In manual mode, files that are specified as read-only files by clients are subject</p>	<p>This property can be specified if all of the following conditions are satisfied:</p> <ul style="list-style-type: none"> The <code>WormSetting</code> property is set. The <code>isAutoCommitEnabled</code> property is set to <code>true</code>.

Properties		Description	Specification
		to the autocommit functionality.	
	autoCommitPeriod	<p>Specifies how long to wait until files are turned into WORM files. After you have specified the setting, you cannot change it.</p> <p>Specify a value in the following format: <i>day-hour-minute</i></p> <p>You can specify the following values for each item:</p> <ul style="list-style-type: none"> • <i>day</i>: 0 to 36500 • <i>hour</i>: 0 to 876000 • <i>minute</i>: 0 to 52560000 <p>The period you can specify is from one minute (0-0-1) to 100 years (36500-0-0).#³</p> <p>If you omit this, 0-0-15 is set.</p>	<p>This property can be specified if the following conditions are satisfied:</p> <ul style="list-style-type: none"> • The <code>WormSetting</code> property is set. • The <code>isAutoCommitEnabled</code> property is set to <code>true</code>.
	defaultRetention	<p>Sets the default retention period for an auto-committed file.</p> <p>Specify <code>infinite</code> or a value in the following format: <i>day-hour-minute</i></p> <p>You can specify the following values for each item:</p> <ul style="list-style-type: none"> • <i>day</i>: 0 to 36500 • <i>hour</i>: 0 to 876000 • <i>minute</i>: 0 to 52560000 <p>The period you can specify is from one minute (0-0-1) to 100 years (36500-0-0).#³</p> <p>An indefinite time period is set for the default retention period if you specify <code>infinite</code>.</p> <p>If you omit this, 10-0-0 is set. Note that, if the <code>minRetention</code> property is set to <code>infinite</code>, <code>infinite</code> is set.</p>	<p>This property can be specified if the following conditions are satisfied:</p> <ul style="list-style-type: none"> • The <code>WormSetting</code> property is set. • The <code>isAutoCommitEnabled</code> property is set to <code>true</code>.
	WorkspaceLUs	--	--
--	Workspace	--	--
--	deviceFileName	<p>Specifies the name of the device file to be assigned to the work space. The format of the file name is as follows:</p> <p><i>luuser-LUN</i></p>	Optional

Properties				Description	Specification
				<p>For <i>user-LUN</i>, you can specify a hexadecimal value in the range from 00 to FF or from 0000 to 03FF.</p> <p>This can be set only for cluster configurations.</p> <p>If you specify <code>true</code> for the <code>isLvmEnabled</code> property, the capacity of each selected device file must be 65 MB or more.</p>	
	LUs			--	--
--	LU			--	--
	--	deviceFile Name	<p>Specifies the name of the device file to be assigned to the file system. The format of the file name is as follows:</p> <p><code>luuser-LUN</code></p> <p>For <i>user-LUN</i>, you can specify a hexadecimal value in the range from 00 to FF or from 0000 to 03FF.</p> <p>This can be set only for cluster configurations.</p> <p>If you specify <code>true</code> for the <code>isLvmEnabled</code> property, the capacity of each selected device file must be 65 MB or more. If virtual LUs will be used, the total size of the selected device files must be at least 256 MB. If virtual LUs will not be used, the total size of the selected device files must be at least 130 MB. If you want to create a file system in a striping configuration, select 2 to 128 device files that have the same capacity. The number of the selected LUs is the number of stripes. In addition, striping will be performed in the order the device files are specified.</p>	Required	

#1: This is the default value used when the property is omitted.

#2: The following shows the specifiable combinations of the `NamespaceShareSettings`, `UseVersioning`, and `WormSetting` properties.

NamespaceShareSettings							UseVersioning	WormSetting
namespaceType	type	FQDN	user	password	hcpReplicaHost	hcpNamespace		
FileSystem	Read/Write	N	N	N	N	N	Y	Y
	Read Only	Y	Y	Y	Y	N	N	N
	Home Directory	N	N	N	N	Y	Y	N
	Read/Write (Content Sharing)	N	N	N	N	Y	Y	N
Subtree	Read/Write	N	N	N	N	N	Y	Y

Legend: Y: Can be specified, N: Cannot be specified

#3: For example, the specification 30-15-10 sets 30 days 15 hours 10 minutes. The specifications 0-48-0 and 2-0-0 set the same period (two days).

The following shows an example of creating a file system by sending a PUT method request to the FileSystem resource.

URI of the resource to which a request is sent

<https://host-name-or-IP-address:9090/mapi/FileSystems>

Example of a request XML

```
<?xml version="1.0" encoding="UTF-8" standalone="yes"?>
  <FileSystem>
    <fileName>fs07</fileName>
    <isLvmEnabled>true</isLvmEnabled>
    <isLvmStripingEnabled>>false</isLvmStripingEnabled>
    <stripeSize></stripeSize>
    <aclType>Classic ACL</aclType>
    <NamespaceShareSettings>
      <type>Read/Write</type>
    </NamespaceShareSettings>
    <UseVersioning>used</UseVersioning>
    <periodToHold>7</periodToHold>
    <isBypassEnabled>true</isBypassEnabled>
    <WormSetting>
      <maxRetention>36500-0-0</maxRetention>
      <minRetention>0-0-0</minRetention>
      <isAutoCommitEnabled>true</isAutoCommitEnabled>
      <commitModeSetting>manual</commitModeSetting>
      <autoCommitPeriod>0-0-15</autoCommitPeriod>
      <defaultRetention>10950-0-0</defaultRetention>
    </WormSetting>
  </FileSystem>

```

```

</WormSetting>
<LUs>
  <LU>
    <deviceFileName>lu0002</deviceFileName>
  </LU>
</LUs>
</FileSystem>

```

The following table describes the status codes output when the method ends.

Table 3-37 Status codes returned when a PUT method request is sent to the FileSystem resource

Status code	Description
200	Execution of the method ended successfully.
Other codes	Execution of the method ended abnormally. See Table 1-3 HTTP status codes that can be generated when a request terminates abnormally on page 1-9 .

FileSystems/file-system-name resource

This section describes how to use the FileSystems/*file-system-name* resource.

Acquiring the specified file system information by using the GET method

The following table describes the structure of the response XML output when the method ends.

Table 3-38 Structure of the response XML when a GET method request is sent to the FileSystems/file-system-name resource

Properties		Number of response XMLs output	Supported configurations	Displayed value when verbose is false
FileSystem		1	Cluster Single node	Y
--	fileName	1	Cluster Single node	Y
	usage	1	Cluster Single node	N
	deviceStatus	1	Cluster Single node	N
	freeBlocksInMegabytes	1	Cluster Single node	N
	usedBlocksInMegabytes	1	Cluster Single node	N

Properties		Number of response XMLs output	Supported configurations	Displayed value when verbose is false
	totalBlocksInMegabytes	1	Cluster Single node	N
	isLvmEnabled	1	Cluster	N
	volumeGroupName	1	Single node	N
	fileSystemSizeInGigaByte	1	Cluster Single node	N
	workspaceSizeInGigaByte	0 or 1	Single node	Y
	isLvmStripingEnabled	1	Cluster	N
	stripes	1	Cluster	N
	stripeSize	1	Cluster	N
	aclType	1	Cluster Single node	Y
	NamespaceShareSettings	1	Cluster Single node	Y
--	namespaceType	1	Cluster Single node	Y
	type	1	Cluster Single node	Y
	FQDN	1	Cluster Single node	Y
	externalHcpHostName	1	Cluster Single node	Y
	user	1	Cluster Single node	Y
	password	1	Cluster Single node	Y
	hcpReplicaHost	1	Cluster Single node	Y
	externalReplicaHcpHostName	1	Cluster Single node	Y
	hcpNamespace	1	Cluster Single node	Y
	UseVersioning	0 or 1	Cluster	Y

Properties		Number of response XMLs output	Supported configurations	Displayed value when verbose is false
			Single node	
	periodToHold	0 or 1	Cluster Single node	Y
	isBypassEnabled	1	Cluster Single node	Y
	customSchedule	0 or 1	Cluster Single node	Y
	customSchedule15Minute	0 or 1	Cluster Single node	Y
	customScheduleHourly	0 or 1	Cluster Single node	Y
	customScheduleDaily	0 or 1	Cluster Single node	Y
	customScheduleWeekly	0 or 1	Cluster Single node	Y
	customScheduleMonthly	0 or 1	Cluster Single node	Y
	customScheduleYearly	0 or 1	Cluster Single node	Y
	WormSetting	1	Cluster Single node	Y
--	maxRetention	1	Cluster Single node	Y
	minRetention	1	Cluster Single node	Y
	isAutoCommitEnabled	1	Cluster Single node	Y
	commitModeSetting	1	Cluster Single node	Y
	autoCommitPeriod	1	Cluster Single node	Y
	defaultRetention	1	Cluster Single node	Y
	isWormDeleteEnabled	1	Cluster Single node	N

Properties		Number of response XMLs output	Supported configurations	Displayed value when verbose is false
	longestRetention	1	Cluster Single node	N
MountSetting		1	Cluster Single node	N
--	isMounted	1	Cluster Single node	N
	mountStatus	1	Cluster Single node	N
	isReadOnly	1	Cluster Single node	N
	isFileLastAccessTimeRecordingEnabled	1	Cluster Single node	N
LUs		1	Cluster	Y
--	LU	1 to <i>n</i>	Cluster	Y
--	deviceFileName	1	Cluster	Y
WorkspaceLUs		1	Cluster	Y
--	Workspace	1 to <i>n</i>	Cluster	Y
--	deviceFileName	1	Cluster	Y
LargeFileTransferSetting		1	Cluster Single node	N
--	largeFileTransfer	1	Cluster Single node	N
	lowerLimitInMegaBytes	1	Cluster Single node	N

Legend: *n*: An integer of 2 or more, Y: Displayed, N: Not displayed.

For the properties displayed when a GET method request is sent to the `FileSystems/file-system-name` resource, see [Table 3-33 Properties displayed when a GET method request is sent to the FileSystem resource on page 3-66](#).

The following shows an example of acquiring specified file system information by sending a GET method request to the `FileSystems/file-system-name` resource.

URI of the resource to which a request is sent

`https://host-name-or-IP-address:9090/mapi/FileSystems/file-system-name`

Example of a request XML

```
<?xml version="1.0" encoding="UTF-8" standalone="yes"?>
<FileSystem>
  <fileName>fs</fileName>
  <isLvmEnabled>true</isLvmEnabled>
  <isLvmStripingEnabled>true</isLvmStripingEnabled>
  <stripeSize>64</stripeSize>
  <aclType>Advanced ACL</aclType>
  <NamespaceShareSettings>
    <namespaceType>--</namespaceType>
    <type>--</type>
    <FQDN></FQDN>
    <externalHcpHostName></externalHcpHostName>
    <user></user>
    <password></password>
    <hcpReplicaHost></hcpReplicaHost>
    <externalReplicaHcpHostName></externalReplicaHcpHostName>
    <hcpNamespace></hcpNamespace>
  </NamespaceShareSettings>
  <UseVersioning>used</UseVersioning>
  <periodToHold>7</periodToHold>
  <customSchedule>not used</customSchedule>
  <customSchedule15Minute>0</customSchedule15Minute>
  <customScheduleHourly>0</customScheduleHourly>
  <customScheduleDaily>0</customScheduleDaily>
  <customScheduleWeekly>0</customScheduleWeekly>
  <customScheduleMonthly>0</customScheduleMonthly>
  <customScheduleYearly>0</customScheduleYearly>
  <isBypassEnabled>true</isBypassEnabled>
  <WormSetting>
    <maxRetention>10950-0-0</maxRetention>
    <minRetention>0-0-0</minRetention>
    <isAutoCommitEnabled>false</isAutoCommitEnabled>
    <commitModeSetting></commitModeSetting>
    <autoCommitPeriod></autoCommitPeriod>
    <defaultRetention></defaultRetention>
  </WormSetting>
  <LUs>
    <LU>
      <deviceFileName>lu0000</deviceFileName>
    </LU>
    <LU>
      <deviceFileName>lu0001</deviceFileName>
    </LU>
  </LUs>
  <WorkspaceLUs>
    <Workspace>
      <deviceFileName>lu0002</deviceFileName>
    </Workspace>
  </WorkspaceLUs>
  <LargeFileTransferSetting>
    <largeFileTransfer>Disable</largeFileTransfer>
    <lowerLimitInMegaBytes>100</lowerLimitInMegaBytes>
  </LargeFileTransferSetting>
</FileSystem>
```

```
</LargeFileTransferSetting>
</FileSystem>
```

The following table describes the status codes output when the method ends.

Table 3-39 Status codes returned when a GET method request is sent to the FileSystems/file-system-name resource

Status code	Description
200	Execution of the method ended successfully.
Other codes	Execution of the method ended abnormally. See Table 1-3 HTTP status codes that can be generated when a request terminates abnormally on page 1-9 .

Editing information about the specified file system by using the POST method

The following table describes the XML structure when a POST method request is sent to the FileSystems/file-system-name resource.

Table 3-40 XML structure when the POST method is used to send a request to the FileSystems/file-system-name resource

Properties		Data type	Number of items that can be specified	Supported configurations	
FileSystem		--	1	Cluster Single node	
--	expandFileSystemSize	String	0 or 1	Single node	
	expandWorkspaceSize	String	0 or 1	Single node	
	NamespaceShareSettings	--	0 or 1	Cluster Single node	
	--	namespaceType	String	0 or 1	Cluster Single node
		type	String	0 or 1	Cluster Single node
		user	String	0 or 1	Cluster Single node
		password	String	0 or 1	Cluster Single node
		hcpReplicaHost	String	0 or 1	Cluster Single node
externalHcpHostName		String	0 or 1	Cluster Single node	
externalReplicaHcpHostName		String	0 or 1	Cluster Single node	

Properties		Data type	Number of items that can be specified	Supported configurations
	UseVersioning	Boolean	0 or 1	Cluster Single node
	periodToHold	Integer	0 or 1	Cluster Single node
	isBypassEnabled	Boolean	0 or 1	Cluster Single node
	customSchedule	String	0 or 1	Cluster Single node
	customSchedule15Minute	String	0 or 1	Cluster Single node
	customScheduleHourly	String	0 or 1	Cluster Single node
	customScheduleDaily	String	0 or 1	Cluster Single node
	customScheduleWeekly	String	0 or 1	Cluster Single node
	customScheduleMonthly	String	0 or 1	Cluster Single node
	customScheduleYearly	String	0 or 1	Cluster Single node
	addLUs	--	0 or 1	Cluster
--	LU	--	1 to <i>n</i>	Cluster
	--	deviceFileName	String 1	Cluster
	WormSetting	--	0 or 1	Cluster Single node
--	maxRetention	String	0 or 1	Cluster Single node
	minRetention	String	0 or 1	Cluster Single node
	isAutoCommitEnabled	Boolean	0 or 1	Cluster Single node
	commitModeSetting	String	0 or 1	Cluster Single node
	autoCommitPeriod	String	0 or 1	Cluster Single node

Properties		Data type	Number of items that can be specified	Supported configurations
	defaultRetention	String	0 or 1	Cluster Single node
	addWorkspaceLUs	--	0 or 1	Cluster
--	Workspace	--	1 to n	Cluster
	-- deviceFileName	String	1	Cluster

Legend: n : An integer of 2 or more.

The following table describes the properties to be specified when sending a POST method request to the `FileSystems/file-system-name` resource.

Table 3-41 Properties used to send a POST method request to the `FileSystems/file-system-name` resource

Properties		Description	Specification
FileSystem		--	--
--	expandFileSystemSize	Specifies the capacity (as an integer) in GB to expand the file system to. Specify the capacity to be added.	One of the following properties is required: <ul style="list-style-type: none"> expandFileSystemSize NamespaceShareSettings UseVersioning addLUs WormSetting
	expandWorkspaceSize	Specifies the capacity (as an integer) in GB to expand the work space to. Specify the capacity to be added.	Optional
	NamespaceShareSettings	--	One of the following properties is required: <ul style="list-style-type: none"> expandFileSystemSize NamespaceShareSettings UseVersioning addLUs

Properties		Description	Specification
			<ul style="list-style-type: none"> WormSetting
--	namespaceType	<p>Specify how the namespace is to be allocated.</p> <p>FileSystem The namespace is allocated at the file system level.</p> <p>Subtree The namespace is allocated at the share level.</p>	Optional
	type	You cannot change this property.	--
	user	Sets the user name of the account used to access the HCP namespace.	This property can be specified if the type property is set to Read Only and the namespaceType property is set to FileSystem. This property must be specified with the password property.
	password	Sets the password of the account used to access the HCP namespace.	This property can be specified if the type property is set to Read Only and the namespaceType property is set to FileSystem. This property must be specified with the user property.
	hcpReplicaHost	<p>Sets the host name of the replica HCP system.</p> <p>If you specify a null string, the value set for this property is deleted.</p>	This property can be specified if the type property is set to Read Only and the namespaceType property is set to FileSystem.
	externalHcpHostName	<p>If the HCP system to be linked uses a relaying device, such as a load balancer, when connecting to the network, specify the host name or IP address that has been made external and is used to connect to the HCP system.</p> <p>If you specify a null string, the value set for this property is deleted.</p>	Can be specified if the type property is set to Read Only.

Properties		Description	Specification
	externalReplicaHcpHostName	<p>If the replica HCP system to be linked uses a relaying device, such as a load balancer, when connecting to the network, specify the host name or IP address that has been made external and is used to connect to the replica HCP system.</p> <p>If you specify a null string, the value set for this property is deleted.</p>	Can be specified when the hcpReplicaHost property is set.
	UseVersioning	<p>Specify whether to allow clients to access the past version of files migrated to the HCP system.</p> <p>used</p> <p>Specify this to allow clients to access the past version of files migrated to the HCP system.</p> <p>not used</p> <p>Specify this to prohibit clients from accessing the past version of files migrated to the HCP system.</p>	<p>One of the following properties is required:</p> <ul style="list-style-type: none"> expandFileSystemSize NamespaceShareSettings UseVersioning addLUs WormSetting <p>Cannot be specified if the type property is set to Read Only.</p>
	periodToHold	<p>Sets in days the retention period of the past versions of the file migrated to the HCP system.</p> <p>A value from 1 to 36500 can be specified.</p> <p>When using custom scheduling, specify a number of days greater than or equal to the recommended value calculated by the formula for the retention period of the past-version directories. For details about the formula for recommended values of the retention period, see the <i>Installation and Configuration Guide</i>.</p>	Required if the UseVersioning property is set to used.
	isBypassEnabled	<p>Specify whether to enable the CIFS bypass traverse checking function.</p> <p>true</p> <p>Specify this value to enable the CIFS bypass traverse checking function.</p> <p>false</p>	Optional

Properties	Description	Specification
	Specify this value to disable the CIFS bypass traverse checking function.	
customSchedule	<p>Specify whether to use the custom schedule. For details about custom scheduling of the file version restore functionality, see the <i>Installation and Configuration Guide</i>.</p> <p>used</p> <p>Specify this to use the custom schedule.</p> <p>not used</p> <p>Specify this to not use the custom schedule.</p>	Cannot be specified if the <code>type</code> property is set to Read Only.
customSchedule15Minute	<p>The oldest past version directory with 15-minute time units (hour <i>n</i>, minutes 00 to 14, minutes 15 to 29, minutes 30 to 44, minutes 45 to 59) is kept for the number of units specified. Specify 0, 15, 30, 45, or 60.</p> <p>If you specify 0, schedules with 15-minute time units become invalid.</p>	Can be specified if the <code>customSchedule</code> property is set to used.
customScheduleHourly	<p>The oldest past version directory with hourly time units (hour <i>n</i>, minutes 00 to 59) is kept for the number of units specified. Specify in the range from 0 to 48.</p> <p>If you specify 0, schedules with hourly time units become invalid.</p>	Can be specified if the <code>customSchedule</code> property is set to used.
customScheduleDaily	<p>The oldest past version directory with daily time units (day <i>n</i>, 00:00 to 23:59) is kept for the number of units specified. Specify in the range from 0 to 62.</p> <p>If you specify 0, schedules with daily time units become invalid.</p>	Can be specified if the <code>customSchedule</code> property is set to used.
customScheduleWeekly	<p>The oldest past version directory with weekly time units (week <i>n</i>, Sunday, 00:00 to Saturday, 23:59) is kept for the number of units specified. Specify in the range from 0 to 156.</p> <p>If you specify 0, schedules with weekly time units become invalid.</p>	Can be specified if the <code>customSchedule</code> property is set to used.

Properties		Description	Specification
customScheduleMonthly		The oldest past version directory with monthly time units (month <i>n</i> , 1st day, 00:00 to <i>last-day</i> , 23:59) is kept for the number of units specified. Specify in the range from 0 to 72. If you specify 0, schedules with monthly time units become invalid.	Can be specified if the <code>customSchedule</code> property is set to used.
customScheduleYearly		The oldest past version directory with yearly time units (year <i>n</i> , Jan 1, 00:00 to Dec 31, 23:59) is kept for the number of units specified. Specify in the range from 0 to 100. If you specify 0, schedules with yearly time units become invalid.	Can be specified if the <code>customSchedule</code> property is set to used.
addLUs		Sets the LUs to be added to expand the file system. If <code>false</code> was specified for the <code>isLvmStripingEnabled</code> property when the file system was created, you cannot expand the capacity. If <code>true</code> was specified for <code>isLvmStripingEnabled</code> property, specify device files that have the same capacity. The number of device files to be specified here must be the same as the number of stripes specified by <code>stripes</code> property when the file system was created.	One of the following properties is required: <ul style="list-style-type: none"> • <code>expandFilesystemSize</code> • <code>NamespaceShareSettings</code> • <code>UseVersioning</code> • <code>addLUs</code> • <code>WormSetting</code>
--	LU	Sets the LU to be assigned to the file system.	Required if the <code>addLUs</code> property is set.
--	deviceFileName	Specifies the device file name in the following format: <code>luuser-LUN</code> For <code>user-LUN</code> , you can specify a hexadecimal value in the range from <code>00</code> to <code>FF</code> or from <code>0000</code> to <code>03FF</code> .	Required if the <code>addLUs</code> property is set.
WormSetting		--	One of the following properties is required: <ul style="list-style-type: none"> • <code>expandFilesystemSize</code> • <code>NamespaceShareSettings</code>

Properties		Description	Specification
			<ul style="list-style-type: none"> UseVersioning addLUs WormSetting Cannot be specified if the <code>type</code> property is set to Read Only, Home Directory or Read/Write (Content Sharing).
--	maxRetention	Sets the maximum retention period for a WORM file system. Specify <i>infinite</i> or a value in the following format: <i>day-hour-minute</i> You can specify the following values for each item: <ul style="list-style-type: none"> <i>day</i>: 0 to 36500 <i>hour</i>: 0 to 876000 <i>minute</i>: 0 to 52560000 The period you can specify is from one minute (0-0-1) to 100 years (36500-0-0).# An indefinite time period is set for the maximum retention period if you specify <i>infinite</i> .	This property can be specified if all of the following conditions are satisfied: <ul style="list-style-type: none"> The <code>WormSetting</code> property is set. The <code>minRetention</code> property is not set to <i>infinite</i>.
	minRetention	Sets the minimum retention period for a WORM file system. Specify <i>infinite</i> or a value in the following format: <i>day-hour-minute</i> You can specify the following values for each item: <ul style="list-style-type: none"> <i>day</i>: 0 to 36500 <i>hour</i>: 0 to 876000 <i>minute</i>: 0 to 52560000 The period you can specify is from 0 minute (0-0-0) to 100 years (36500-0-0).# An indefinite time period is set for the minimum retention period if you specify <i>infinite</i> .	Can be specified when the <code>WormSetting</code> property is set.
	isAutoCommitEnabled	Sets <code>true</code> when auto commit for a WORM file system is used. Note that if you enable autocommit, you can no longer disable it.	Can be specified when the <code>WormSetting</code> property is set.

Properties		Description	Specification
		<p>true</p> <p>Specify this value to enable autocommitting.</p>	
	commitModeSetting	<p>Specifies the mode of the autocommit function in a WORM file system.</p> <p>auto</p> <p>Specify this value to enable the autocommit function in auto mode.</p> <p>In auto mode, all ordinary files, except for the system files and files in the system directories, are subject to the autocommit functionality.</p> <p>manual</p> <p>Specify this value to enable the autocommit function in manual mode.</p> <p>In manual mode, files that are specified as read-only files by clients are subject to the autocommit functionality.</p>	<p>Required if the following conditions are satisfied:</p> <ul style="list-style-type: none"> The <code>WormSetting</code> property is set. The <code>isAutoCommitEnabled</code> property is set to <code>true</code>.
	autoCommitPeriod	<p>Specifies how long to wait until files are turned into WORM files. After you have specified the setting, you cannot change it.</p> <p>Specify a value in the following format:</p> <p><i>day-hour-minute</i></p> <p>You can specify the following values for each item:</p> <ul style="list-style-type: none"> <i>day</i>: 0 to 36500 <i>hour</i>: 0 to 876000 <i>minute</i>: 0 to 52560000 <p>The period you can specify is from one minute (0-0-1) to 100 years (36500-0-0).#</p>	<p>This property can be specified if all of the following conditions are satisfied:</p> <ul style="list-style-type: none"> The <code>WormSetting</code> property is set. The <code>isAutoCommitEnabled</code> property is set to <code>true</code>.
	defaultRetention	<p>Sets the default retention period for a WORM file system.</p> <p>Specify <i>infinite</i> or a value in the following format:</p> <p><i>day-hour-minute</i></p> <p>You can specify the following values for each item:</p> <ul style="list-style-type: none"> <i>day</i>: 0 to 36500 <i>hour</i>: 0 to 876000 <i>minute</i>: 0 to 52560000 	<p>This property can be specified if all of the following conditions are satisfied:</p> <ul style="list-style-type: none"> The <code>WormSetting</code> property is set. The <code>isAutoCommitEnabled</code> property is set to <code>true</code>.

Properties		Description	Specification
		The period you can specify is from one minute (0-0-1) to 100 years (36500-0-0).# An indefinite time period is set for the default retention period if you specify <i>infinite</i> .	property is set to true.
	addWorkspaceLUs	Specifies the LUs to be added to expand the work space.	Optional
--	WorkSpace	Specifies the LUs to be assigned to the work space.	Required if the addWorkSpaceLUs property is set.
--	deviceFileName	Specifies the name of the device file to be assigned to the file system. The format of the file name is as follows: <i>luuser-LUN</i> For <i>user-LUN</i> , you can specify a hexadecimal value in the range from 00 to FF or from 0000 to 03FF.	Required if the addWorkSpaceLUs property is set.

For example, the specification 30-15-10 sets 30 days 15 hours 10 minutes. The specifications 0-48-0 and 2-0-0 set the same period (two days).

The following shows examples of editing information about the specified file system by sending a POST method request to the FileSystems/*file-system-name* resource.

URI of the resource to which a request is sent

<https://host-name-or-IP-address:9090/mapi/FileSystems/file-system-name>

Example of a request XML (for a cluster configuration)

```
<?xml version="1.0" encoding="UTF-8" standalone="yes"?>
<FileSystem>
  <addLUs>
    <LU>
      <deviceFileName>lu0003</deviceFileName>
    </LU>
  </addLUs>
</FileSystem>
```

Example of a request XML (for a single-node configuration)

```
<?xml version="1.0" encoding="UTF-8" standalone="yes"?>
<FileSystem>
  <expandFileSystemSize>2</expandFileSystemSize>
</FileSystem>
```

The following table describes the status codes output when the method ends.

Table 3-42 Status codes returned when a POST method request is sent to the FileSystems/file-system-name resource

Status code	Description
200	Execution of the method ended successfully.
Other codes	Execution of the method ended abnormally. See Table 1-3 HTTP status codes that can be generated when a request terminates abnormally on page 1-9 .

Deleting the specified file system by using the DELETE method

The following table describes the status codes output when the method ends.

Table 3-43 Status codes returned when a DELETE method request is sent to the FileSystems/file-system-name resource

Status code	Description
200	Execution of the method ended successfully.
Other codes	Execution of the method ended abnormally. See Table 1-3 HTTP status codes that can be generated when a request terminates abnormally on page 1-9 .

Checking whether the specified file system exists by using the HEAD method

The following table describes the status codes output when the method ends.

Table 3-44 Status codes returned when a HEAD method request is sent to the FileSystems/file-system-name resource

Status code	Description
200	The specified file system exists.
404	The specified file system does not exist.
Other codes	Execution of the method ended abnormally. See Table 1-3 HTTP status codes that can be generated when a request terminates abnormally on page 1-9 .

FileSystems/file-system-name/MountSetting resource

This section describes how to use the FileSystems/*file-system-name*/MountSetting resource.

Acquiring information about the mount settings of the specified file system by using the GET method

The following table describes the structure of the response XML output when the method ends.

Table 3-45 Structure of the response XML when a GET method is sent to the FileSystems/file-system-name/MountSetting resource

Properties		Number of response XMLs output	Supported configurations	Displayed value when verbose is false
MountSetting		1	Cluster Single node	Y
--	isMounted	1	Cluster Single node	Y
	isReadOnly	1	Cluster Single node	Y
	isFileLastAccessTimeRecordingEnabled	1	Cluster Single node	Y
	mountStatus	1	Cluster Single node	N

Legend: Y: Displayed, N: Not displayed.

The following table describes the properties displayed when a GET method request is sent to the FileSystems/file-system-name/MountSetting resource.

Table 3-46 Properties displayed when a GET method request is sent to the FileSystems/file-system-name/MountSetting resource

Properties		Description
MountSetting		--
--	isMounted	Displays whether the file system is mounted. true The file system is mounted. false The file system is not mounted.
	isReadOnly	Displays the file system is mounted as read-only. true The file system is mounted as read-only. false The file system is mounted with both read and write operations permitted. A null string is displayed if the file system is not mounted.
	isFileLastAccessTimeRecordingEnabled	Displays whether settings have been specified so that the last file system access time is updated. true The last access time is updated.

Properties		Description
		false The last access time is not updated. A null string is displayed if the file system is not mounted.
	mountStatus	Displays the mount status of the file system. Normal The file system is mounted correctly. Fatal error The file system is blocked. Expanding The file system is being expanded or an error occurred during expansion processing. Reclaiming The unused area of the virtual LUs that are used for the file system is being released. A null string is displayed if the file system is not mounted.

The following shows an example of acquiring information about the specified file system by sending a GET method request to the FileSystems/*file-system-name*/MountSetting resource.

URI of the resource to which a request is sent

`https://host-name-or-IP-address:9090/mapi/FileSystems/file-system-name/MountSetting`

Response XML example

```
<?xml version="1.0" encoding="UTF-8" standalone="yes"?>
<MountSetting>
  <isMounted>true</isMounted>
  <isReadOnly>>false</isReadOnly>
  <isFileLastAccessTimeRecordingEnabled>true</
isFileLastAccessTimeRecordingEnabled>
</MountSetting>
```

The following table describes the status codes output when the method ends.

Table 3-47 Status codes returned when a GET method request is sent to the FileSystems/*file-system-name*/MountSetting resource

Status code	Description
200	Execution of the method ended successfully.
Other codes	Execution of the method ended abnormally. See Table 1-3 HTTP status codes that can be generated when a request terminates abnormally on page 1-9 .

Editing information about the mount settings of the specified file system by using the POST method

The following table describes the XML structure when a POST method request is sent to the `FileSystems/file-system-name/MountSetting` resource.

Table 3-48 XML structure when the POST method is used to send a request to the `FileSystems/file-system-name/MountSetting` resource

Properties		Data type	Number of items that can be specified	Supported configurations
MountSetting		--	1	Cluster Single node
--	isMounted	Boolean	1	Cluster Single node
	isReadOnly	Boolean	0 or 1	Cluster Single node
	isFileLastAccessTimeRecordingEnabled	Boolean	0 or 1	Cluster Single node
	isConvertToAdvancedAclType	Boolean	0 or 1	Cluster Single node

The following table describes the properties to be specified when sending a POST method request to the `FileSystems/file-system-name/MountSetting` resource.

Table 3-49 Properties used to send a POST method request to the `FileSystems/file-system-name/MountSetting` resource

Properties		Description	Specification
MountSetting		--	--
--	isMounted	Sets whether to change the mount status. true Specify this value to mount the file system. false Specify this value to unmount the file system.	Required
	isReadOnly	Sets whether to allow writing to the file system. true Specify this value to mount the file system as read-only. false	Required if the <code>isMounted</code> property is set to <code>true</code> .

Properties		Description	Specification
		Specify this value to mount the file system with both read and write operations permitted.	
	isFileLastAccessTimeRecordingEnabled	<p>Sets whether the last file system access time is to be updated.</p> <p>true</p> <p>Specify this value to update the last access time.</p> <p>false#</p> <p>Specify this value to not update the last access time.</p>	<p>This property can be specified if the following conditions are satisfied:</p> <ul style="list-style-type: none"> The isMounted property is set to true. The isReadOnly property is set to false.
	isConvertToAdvancedAclType	<p>Sets whether to change the ACL type of a file system from the Classic ACL to Advanced ACL. If you change the ACL type, the ACL type of existing directories and files in the file system is changed in the background.</p> <p>true</p> <p>Specify this value to change the ACL type from Classic ACL to Advanced ACL.</p> <p>false#</p> <p>Specify this value to not change the ACL type from Classic ACL to Advanced ACL.</p>	<p>This property can be specified if all of the following conditions are satisfied:</p> <ul style="list-style-type: none"> The isMounted property is set to true. The isReadOnly property is set to false. The ACL type of the file system is Classic ACL.

#: This is the default value used when the property is omitted.

The following shows an example of editing information about the specified file system by sending a POST method request to the `FileSystems/file-system-name/MountSetting` resource.

URI of the resource to which a request is sent

`https://host-name-or-IP-address:9090/mapi/FileSystems/file-system-name/MountSetting`

Example of a request XML

```
<?xml version="1.0" encoding="UTF-8" standalone="yes"?>
<MountSetting>
  <isMounted>true</isMounted>
  <isReadOnly>>false</isReadOnly>
  <isFileLastAccessTimeRecordingEnabled>true</
isFileLastAccessTimeRecordingEnabled>
</MountSetting>
```

The following table describes the status codes output when the method ends.

Table 3-50 Status codes returned when a POST method request is sent to the FileSystems/file-system-name/MountSetting resource

Status code	Description
200	Execution of the method ended successfully.
Other codes	Execution of the method ended abnormally. See Table 1-3 HTTP status codes that can be generated when a request terminates abnormally on page 1-9 .

FileSystems/file-system-name/LargeFileTransferSetting resource

This section describes how to use the FileSystems/file-system-name/LargeFileTransferSetting resource.

Acquiring information about the Large File Transfer function for the specified file system by using the GET method

The following table describes the structure of the response XML output when the method ends.

Table 3-51 Structure of the response XML when a GET method is sent to the FileSystems/file-system-name/LargeFileTransferSetting resource

Properties		Number of response XMLs output	Supported configurations	Displayed value when verbose is false
LargeFileTransferSetting		1	Cluster Single node	Y
--	largeFileTransfer	1	Cluster Single node	Y
	lowerLimitInMegaBytes	1	Cluster Single node	N

Legend: Y: Displayed, N: Not displayed.

The following table describes the properties displayed when a GET method request is sent to the FileSystems/file-system-name/LargeFileTransferSetting resource.

Table 3-52 Properties displayed when a GET method request is sent to the FileSystems/file-system-name/LargeFileTransferSetting resource

Properties	Description
LargeFileTransferSetting	--
--	largeFileTransfer Displays whether the Large File Transfer function is enabled.

Properties		Description
		Enable The Large File Transfer function is enabled. Disable The Large File Transfer function is disabled.
	lowerLimitInMegabytes	Displays the lower threshold value for the size of files to which the Large File Transfer function is applied(unit: MB).

The following shows an example of acquiring information about the specified file system by sending a GET method request to the FileSystems/*file-system-name*/LargeFileTransferSetting resource.

URI of the resource to which a request is sent

`https://host-name-or-IP-address:9090/mapi/FileSystems/file-system-name/LargeFileTransferSetting`

Response XML example

```
<?xml version="1.0" encoding="UTF-8" standalone="yes"?>
<LargeFileTransferSetting>
  <largeFileTransfer>Enable</largeFileTransfer>
  <lowerLimitInMegaBytes>1024</lowerLimitInMegaBytes>
</LargeFileTransferSetting>
```

The following table describes the status codes output when the method ends.

Table 3-53 Status codes returned when a GET method request is sent to the FileSystems/*file-system-name*/LargeFileTransferSetting resource

Status code	Description
200	Execution of the method ended successfully.
Other codes	Execution of the method ended abnormally. See Table 1-3 HTTP status codes that can be generated when a request terminates abnormally on page 1-9 .

Editing the settings of the Large File Transfer function for the specified file system by using the POST method

The following table describes the XML structure when a POST method request is sent to the FileSystems/*file-system-name*/LargeFileTransferSetting resource.

Table 3-54 XML structure when the POST method is used to send a request to the FileSystems/file-system-name/LargeFileTransferSetting resource

Properties		Data type	Number of items that can be specified	Supported configurations
LargeFileTransferSetting		--	1	Cluster Single node
--	largeFileTransfer	String	0 or 1	Cluster Single node
	lowerLimitInMegaBytes	String	0 or 1	Cluster Single node

The following table describes the properties to be specified when sending a POST method request to the FileSystems/file-system-name/LargeFileTransferSetting resource.

Table 3-55 Properties used to send a POST method request to the FileSystems/file-system-name/LargeFileTransferSetting resource

Properties		Description	Specification
LargeFileTransferSetting		--	--
--	largeFileTransfer	<p>Specify whether to use the Large File Transfer function.</p> <p>Enable</p> <p>Specify this if you want to use the Large File Transfer function.</p> <p>Disable[#]</p> <p>Specify this if you do not want to use the Large File Transfer function.</p>	<p>One of the following properties is required:</p> <ul style="list-style-type: none"> largeFileTransfer lowerLimitInMegaBytes <p>You can specify Enable when all of the following conditions are met:</p> <ul style="list-style-type: none"> The value of the <code>fileSystemSizeInGigaByte</code> property for the File System resource is 100 GB or more. Required if the <code>type</code> property is set to <code>Read/Write</code>.

Properties		Description	Specification
			<ul style="list-style-type: none"> Required if the usage property is set to ActMig.
	lowerLimitInMegaBytes	Specifies the lower threshold for the size of files to which the Large File Transfer function is applied. A value in the range from 50 to 5,242,880 (unit: MB) can be specified.	One of the following properties is required: <ul style="list-style-type: none"> largeFileTransfer lowerLimitInMegaBytes

#

In a cluster configuration, after disabling the Large File Transfer function, if you need to reduce the work space capacity when using the Active File Migration function, use the `arcactmigctl` command to re-specify the LUs to be used for the work space.

The following shows an example of editing information about the specified file system by sending a POST method request to the `FileSystems/file-system-name/LargeFileTransferSetting` resource.

URI of the resource to which a request is sent

`https://host-name-or-IP-address:9090/mapi/FileSystems/file-system-name/LargeFileTransferSetting`

Example of a request XML

```
<?xml version="1.0" encoding="UTF-8" standalone="yes"?>
<LargeFileTransferSetting>
  <largeFileTransfer>Enable</largeFileTransfer>
  <lowerLimitInMegaBytes>1024</lowerLimitInMegaBytes>
</LargeFileTransferSetting>
```

The following table describes the status codes output when the method ends.

Table 3-56 Status codes returned when a POST method request is sent to the `FileSystems/file-system-name/LargeFileTransferSetting` resource

Status code	Description
200	Execution of the method ended successfully.
Other codes	Execution of the method ended abnormally. See Table 1-3 HTTP status codes that can be generated when a request terminates abnormally on page 1-9 .

Hardware

Hardware resource overview

You can use the Hardware resource to acquire the hardware status.

The following table describes the HTTP method that can be used for the Hardware resource.

Table 3-57 HTTP method that can be used for the Hardware resource

Resource URI	HTTP method	Supported configurations	Description
/Hardware	GET	Cluster Single node	Acquires the hardware status on the node you are logged in to.

Hardware resource

This section describes how to use the Hardware resource.

Acquiring hardware information by using the GET method

The following table describes the structure of the response XML output when the method ends.

Table 3-58 Structure of the response XML when a GET method is sent to the Hardware resource

Properties		Number of response XMLs output	Supported configurations	Displayed value when verbose is false
Hardware		1	Cluster Single node	Y
--	PortDetails	1	Cluster Single node	Y
--	PortDetail	0 or 1 to <i>n</i>	Cluster Single node	Y
--	status	1	Cluster Single node	Y
--	portName	1	Cluster Single node	Y
--	mediaType	1	Cluster Single node	Y
--	linkSpeed	1	Cluster	Y

Properties			Number of response XMLs output	Supported configurations	Displayed value when verbose is false
				Single node	
	ManagementLans		1	Cluster Single node	Y
--	ManagementLan		0 or 1	Cluster Single node	Y
	--	status	1	Cluster Single node	Y
		portName	1	Cluster Single node	Y
		mediaType	1	Cluster Single node	Y
		linkSpeed	1	Cluster Single node	Y
	HeartbeatLans		0 or 1	Cluster	Y
--	HeartbeatLan		0 or 1	Cluster	Y
	--	status	1	Cluster	Y
		portName	1	Cluster	Y
		mediaType	1	Cluster	Y
		linkSpeed	1	Cluster	Y
	PrivateMaintenanceLans		1	Cluster Single node	Y
--	PrivateMaintenanceLan		0 or 1 to <i>n</i>	Cluster Single node	Y
	--	status	1	Cluster Single node	Y
		portName	1	Cluster Single node	Y
		mediaType	1	Cluster Single node	Y
		linkSpeed	1	Cluster Single node	Y
	InternalHDDs		1	Cluster Single node	Y
--	InternalHDD		0 or 1 to <i>n</i>	Cluster Single node	Y

Properties			Number of response XMLs output	Supported configurations	Displayed value when verbose is false
	--	slotName	1	Cluster Single node	Y
		status	1	Cluster Single node	Y
		vendorInformation	1	Cluster Single node	Y
InternalRAIDBatteries			1	Cluster Single node	Y
--	InternalRAIDBattery		0 or 1 to <i>n</i>	Cluster Single node	Y
	--	slotName	1	Cluster Single node	Y
		status	1	Cluster Single node	Y
		vendorInformation	1	Cluster Single node	Y
Memories			1	Cluster Single node	Y
--	Memory		0 or 1 to <i>n</i>	Cluster Single node	Y
	--	slotName	1	Cluster Single node	Y
		status	1	Cluster Single node	Y
		vendorInformation	1	Cluster Single node	Y
MemTotals			1	Cluster Single node	Y
--	MemTotal		0 or 1	Cluster Single node	Y
	--	slotName	1	Cluster Single node	Y
		size	1	Cluster Single node	Y
PowerSupplies			1	Cluster	Y

Properties			Number of response XMLs output	Supported configurations	Displayed value when verbose is false
				Single node	
--	PowerSupply		0 or 1 to <i>n</i>	Cluster Single node	Y
	--	powerSupplyName	1	Cluster Single node	Y
		status	1	Cluster Single node	Y
		vendorInformation	1	Cluster Single node	Y
Fans			1	Cluster Single node	Y
--	Fan		0 or 1 to <i>n</i>	Cluster Single node	Y
	--	fanName	1	Cluster Single node	Y
		status	1	Cluster Single node	Y
		vendorInformation	1	Cluster Single node	Y
Temperatures			1	Cluster Single node	Y
--	Temperature		0 or 1 to <i>n</i>	Cluster Single node	Y
	--	temperatureName	1	Cluster Single node	Y
		status	1	Cluster Single node	Y
		vendorInformation	1	Cluster Single node	Y
BMCs			1	Cluster Single node	Y
--	BMC		0 or 1	Cluster Single node	Y
	--	status	1	Cluster Single node	Y

Properties				Number of response XMLs output	Supported configurations	Displayed value when verbose is false
		connection		0 or 1	Cluster	Y
	Models			1	Cluster Single node	Y
	--	Model		0 or 1	Cluster Single node	Y
		--	manufacturer	1	Cluster Single node	Y
			product	1	Cluster Single node	Y
	Serials			1	Cluster Single node	Y
	--	Serial		0 or 1	Cluster Single node	Y
		--	number	1	Cluster Single node	Y

Legend: *n*: An integer of 2 or more, Y: Displayed.

The following table describes the properties displayed when a GET method request is sent to the Hardware resource.

Table 3-59 Properties displayed when a GET method request is sent to the Hardware resource

Properties				Description
Hardware				--
--	PortDetails			--
	--	PortDetail		--
		--	status	Displays the status of the data port. Up The link is operating normally. Down The link is disconnected.
			portName	Displays the name of the data port in either of the following formats: <i>ethnumber</i> or <i>xgbenumber</i>
			mediaType	Displays the media type of the data port. copper

Properties			Description
			<p>The data port supports metal cables. fiber</p> <p>The data port supports optical cables.</p>
		linkSpeed	<p>Displays the link speed of the data port.</p> <p>10Base The speed is 10 Mbps.</p> <p>100Base The speed is 100 Mbps.</p> <p>1000Base The speed is 1 Gbps.</p> <p>10000Base The speed is 10 Gbps.</p> <p>Unknown! The speed is unknown.</p>
ManagementLans			--
--	ManagementLan		--
	--	status	<p>Displays the status of the management port.</p> <p>Up The link is operating normally.</p> <p>Down The link is disconnected.</p>
		portName	Displays the name of the management port (mng0).
		mediaType	<p>Displays the media type of the management port.</p> <p>copper The management port supports metal cables.</p> <p>fiber The management port supports optical cables.</p>
		linkSpeed	<p>Displays the link speed of the management port.</p> <p>10Base The speed is 10 Mbps.</p> <p>100Base The speed is 100 Mbps.</p> <p>1000Base The speed is 1 Gbps.</p> <p>10000Base The speed is 10 Gbps.</p> <p>Unknown! The speed is unknown.</p>
HeartbeatLans			Displayed only in a cluster configuration.
--	HeartbeatLan		--

Properties			Description
	--	status	Displays the status of the heartbeat port. Up The link is operating normally. Down The link is disconnected.
		portName	Displays the name of the heartbeat port (<i>hb0</i>).
		mediaType	Displays the media type of the heartbeat port. copper The heartbeat port supports metal cables. fiber The heartbeat port supports optical cables.
		linkSpeed	Displays the link speed of the heartbeat port. 10Base The speed is 10 Mbps. 100Base The speed is 100 Mbps. 1000Base The speed is 1 Gbps. 10000Base The speed is 10 Gbps. Unknown! The speed is unknown.
	PrivateMaintenanceLans		--
	--	PrivateMaintenanceLan	--
	--	status	Displays the status of the maintenance port. Up The link is operating normally. Down The link is disconnected.
		portName	Displays the name of the maintenance port in the following format: <i>pmnumber</i>
		mediaType	Displays the media type of the maintenance port. copper The maintenance port supports metal cables. fiber The maintenance port supports optical cables.
		linkSpeed	Displays the link speed of the maintenance port. 10Base

Properties			Description
			<p>The speed is 10 Mbps.</p> <p>100Base</p> <p>The speed is 100 Mbps.</p> <p>1000Base</p> <p>The speed is 1 Gbps.</p> <p>10000Base</p> <p>The speed is 10 Gbps.</p> <p>Unknown!</p> <p>The speed is unknown.</p>
InternalHDDs			--
--	InternalHDD		--
	--	slotName	Displays the index number of the internal hard disk as an integer of 0 or more.
		status	<p>Displays the status of the internal hard disk.</p> <p>Normal</p> <p>The status is normal.</p> <p>Rebuild</p> <p>RAID is being constructed or the hard disk is currently being formatted.</p> <p>Failed</p> <p>An error occurred.</p> <p>Removed</p> <p>The hard disk was removed from the RAID group.</p> <p>Nodevice</p> <p>The hard disk was removed from the node.</p> <p>Setup</p> <p>The hard disk installed on the node is not included in the RAID group.</p> <p>Not supported</p> <p>A program for acquiring information is not installed.</p>
		vendorInformation	Displays the vendor-specific detailed information regarding the internal hard disk.
InternalRAIDBatteries			--
--	InternalRAIDBattery		--
	--	slotName	Displays the index number of the internal RAID battery as an integer of 0 or more.
		status	<p>Displays the status of the internal RAID battery.</p> <p>OK</p> <p>The battery has been charged.</p>

Properties			Description
			Charging The battery is being charged. Failed An error occurred. Not supported A program for acquiring information is not installed.
		vendorInformation	Displays the vendor-specific detailed information regarding the internal RAID battery.
Memories			--
--	Memory		--
	--	slotName	Displays the index number of the memory as an integer of 0 or more.
		status	Displays the memory status. Installed Memory is installed. Not Installed Memory is not installed.
		vendorInformation	Displays the vendor-specific detailed information regarding the memory.
MemTotals			--
--	MemTotal		--
	--	slotName	Display the index number of the total memory capacity as an integer of 0 or more.
		size	Displays the total memory capacity.
PowerSupplies			--
--	PowerSupply		--
	--	powerSupplyName	Displays the index number of the power supply unit as an integer of 0 or more.
		status	Displays the status of the power supply unit. OK The status is normal. Failed An error has occurred. Not Installed No power supply unit is installed.
		vendorInformation	Displays the vendor-specific detailed information regarding the power supply unit.
Fans			--
--	Fan		--

Properties			Description
	--	fanName	Displays the index number of the fan as an integer of 0 or more.
		status	Displays the status of the fan. OK The status is normal. Failed An error has occurred or no fan is installed.
		vendorInformation	Displays the vendor-specific detailed information regarding the fan.
Temperatures			--
--	Temperature		--
	--	temperatureName	Displays the index number of the temperature sensor as an integer of 0 or more.
		status	Displays the detection results of the temperature sensor. OK The status is normal. Failed The status is abnormal.
		vendorInformation	Displays the vendor-specific detailed information regarding the temperature sensor.
BMCs			--
--	BMC		--
	--	status	Displays the status of the BMC on the node to which a request is sent. OK The status is normal. Unknown! The information could not be acquired.
		connection	In a cluster configuration, displays the status of the connection with the node other than the node to which the request is sent. OK The status is normal. Failed An attempt to connect to the BMC on the other node failed. None A cluster configuration is not defined or an attempt to acquire the information failed.
Models			--

Properties			Description
--	Model		--
	--	manufacturer	Displays the name of the manufacturer.
		product	Displays the name of the product.
Serials			--
--	Serial		--
	--	number	Displays the device identification number (no more than 64 bytes).

Note: The properties for the devices that are not installed are not displayed. If information could not be acquired, a null string is displayed for the property.

The following shows an example of acquiring the cluster mode details of the hardware by sending a GET method request to the Hardware resource.

URI of the resource to which a request is sent

`https://host-name-or-IP-address:9090/mapi/Hardware`

Response XML example

```
<?xml version="1.0" encoding="UTF-8" standalone="yes"?>
<Hardware>
  <PortDetails>
    <PortDetail>
      <status>Up</status>
      <portName>eth1</portName>
      <mediaType>copper</mediaType>
      <linkSpeed>1000Base</linkSpeed>
    </PortDetail>
    <PortDetail>
      <status>Down</status>
      <portName>eth2</portName>
      <mediaType>copper</mediaType>
      <linkSpeed>Unknown!</linkSpeed>
    </PortDetail>
  </PortDetails>
  <ManagementLans>
    <ManagementLan>
      <status>Up</status>
      <portName>mng0</portName>
      <mediaType>copper</mediaType>
      <linkSpeed>100Base</linkSpeed>
    </ManagementLan>
  </ManagementLans>
  <HeartbeatLans>
    <HeartbeatLan>
      <status>Up</status>
      <portName>hb0</portName>
      <mediaType>copper</mediaType>
      <linkSpeed>100Base</linkSpeed>
    </HeartbeatLan>
  </HeartbeatLans>
</Hardware>
```

```

    </HeartbeatLan>
  </HeartbeatLans>
  <PrivateMaintenanceLans>
    <PrivateMaintenanceLan>
      <status>Up</status>
      <portName>pm0</portName>
      <mediaType>copper</mediaType>
      <linkSpeed>100Base</linkSpeed>
    </PrivateMaintenanceLan>
    <PrivateMaintenanceLan>
      <status>Down</status>
      <portName>pm1</portName>
      <mediaType>copper</mediaType>
      <linkSpeed>Unknown!</linkSpeed>
    </PrivateMaintenanceLan>
  </PrivateMaintenanceLans>
  <InternalHDDs>
    <InternalHDD>
      <slotName>0</slotName>
      <status>Normal</status>
      <vendorInformation>size:136.732 GB,raid level:RAID1</
vendorInformation>
    </InternalHDD>
    <InternalHDD>
      <slotName>1</slotName>
      <status>Normal</status>
      <vendorInformation>size:136.732 GB,raid level:RAID1</
vendorInformation>
    </InternalHDD>
  </InternalHDDs>
  <Memories>
    <Memory>
      <slotName>0</slotName>
      <status>Not Installed</status>
      <vendorInformation>locator:P1C0D1,size:-</
vendorInformation>
    </Memory>
    <Memory>
      <slotName>1</slotName>
      <status>Installed</status>
      <vendorInformation>locator:P1C0D0,size:2048 MB</
vendorInformation>
    </Memory>
  </Memories>
  <MemTotals>
    <MemTotal>
      <slotName>0</slotName>
      <size>size:11.5 GB(12.0 GB)</size>
    </MemTotal>
  </MemTotals>
  <PowerSupplies>
    <PowerSupply>
      <powerSupplyName>0</powerSupplyName>
      <status>OK</status>
      <vendorInformation></vendorInformation>
    </PowerSupply>
  </PowerSupplies>
  <Fans>
    <Fan>
      <fanName>0</fanName>

```



```

        <status>OK</status>
        <vendorInformation></vendorInformation>
    </Fan>
    <Fan>
        <fanName>1</fanName>
        <status>OK</status>
        <vendorInformation></vendorInformation>
    </Fan>
</Fans>
<Temperatures>
    <Temperature>
        <temperatureName>0</temperatureName>
        <status>OK</status>
        <vendorInformation>reading:55 (+/- 0.500) degrees C</
vendorInformation>
    </Temperature>
    <Temperature>
        <temperatureName>1</temperatureName>
        <status>OK</status>
        <vendorInformation>reading:44 (+/- 0.500) degrees C</
vendorInformation>
    </Temperature>
</Temperatures>
<BMCs>
    <BMC>
        <status>OK</status>
        <connection>OK</connection>
    </BMC>
</BMCs>
<Models>
    <Model>
        <manufacturer>HITACHI</manufacturer>
        <product>Compute Rack 210H </product>
    </Model>
</Models>
<Serials>
    <Serial>
        <number>4230MB0-T019000037</number>
    </Serial>
</Serials>
</Hardware>

```

The following table describes the status codes output when the method ends.

Table 3-60 Status codes returned when a GET method request is sent to the Hardware resource

Status code	Description
200	Execution of the method ended successfully.
Other codes	Execution of the method ended abnormally. See Table 1-3 HTTP status codes that can be generated when a request terminates abnormally on page 1-9 .

HCP

HCP resource overview

You can use the HCP resource to acquire, set, or delete HCP information about the migration destination. You can also check whether the HCP namespace can be accessed.

For details about tenant and namespace settings when you link the HDI system to an HCP system, see the *Installation and Configuration Guide*.

The following table describes the HTTP methods that can be used for the HCP resource.

Table 3-61 HTTP methods that can be used for the HCP resource

Resource URI	HTTP method	Supported configurations	Description
/HCP	GET	Cluster Single node	Acquires all HCP information.
	POST	Cluster Single node	Sets or deletes HCP information.
/HCP/ACCESS	POST	Cluster Single node	Checks whether the user can access the HCP namespace.
/HCP/Read-siteAccess	POST	Cluster Single node	Checks whether it is possible to access the HCP namespace when the data from other HDI systems is referenced as read-only.

HCP resource

This section describes how to use the HCP resource.

Acquiring the specified HCP information by using the GET method

The following table describes the structure of the response XML output when the method ends.

Table 3-62 Structure of the response XML when a GET method is sent to the HCP resource

Properties	Number of response XMLs output	Supported configurations	Displayed value when verbose is false
HCP	1	Cluster Single node	Y
-- systemName	1	Cluster Single node	Y

Properties		Number of response XMLs output	Supported configurations	Displayed value when verbose is false
	tenantName	1	Cluster Single node	Y
	externalHcpHostName	1	Cluster Single node	Y
	userName	1	Cluster Single node	Y
	password	1	Cluster Single node	Y (null string)
	replicaSystemName	1	Cluster Single node	Y
	externalReplicaHcpHostName	1	Cluster Single node	Y

Legend: Y: Displayed.

The following table describes the properties displayed when a GET method request is sent to the HCP resource.

Table 3-63 Properties displayed when a GET method request is sent to the HCP resource

Properties		Description
HCP		--
--	systemName	Displays the HCP system name. A null string is displayed if the value of the HCP resource is not set.
	tenantName	Displays the HCP tenant name. A null string is displayed if the value of the HCP resource is not set.
	externalHcpHostName	Displays the host name or IP address that has been made external and is used to connect to the HCP system. A null string is displayed if the value of the HCP resource is not set.
	userName	Displays the user name of the account used for accessing the namespace. A null string is displayed if the value of the HCP resource is not set.
	password	A null string is always displayed.
	replicaSystemName	Displays the replica HCP system name. A null string is displayed if the value of the HCP resource is not set.

Properties		Description
	externalReplicaHcpHostName	Displays the host name or IP address that has been made external and is used to connect to the replica HCP system. A null string is displayed if the value of the HCP resource is not set.

The following shows an example of acquiring HCP information by sending a GET method request to the HCP resource.

URI of the resource to which a request is sent

`https://host-name-or-IP-address:9090/mapi/HCP`

Response XML example

```
<?xml version="1.0" encoding="UTF-8" standalone="yes"?>
<HCP>
  <systemName>hcp.example.com</systemName>
  <tenantName>HCP-tenant</tenantName>
  <externalHcpHostName></externalHcpHostName>
  <userName>username</userName>
  <password></password>
  <replicaSystemName></replicaSystemName>
  <externalReplicaHcpHostName></externalReplicaHcpHostName>
</HCP>
```

The following table describes the status codes output when the method ends.

Table 3-64 Status codes returned when a GET method request is sent to the HCP resource

Status code	Description
200	Execution of the method ended successfully.
Other codes	Execution of the method ended abnormally. See Table 1-3 HTTP status codes that can be generated when a request terminates abnormally on page 1-9 .

Setting or deleting HCP information by using the POST method

Note:

If you set HCP information, the periodic saving of system settings is set. The system settings file is stored in the HCP system.

Even if you delete HCP information, the settings for the periodic saving of system settings is not changed. Use the `sysluscheduleset` command to check the settings, such as the destination to which the system settings file is saved.

The following table describes the XML structure when a POST method request is sent to the HCP resource.

Table 3-65 XML structure when the POST method is used to send a request to the HCP resource

Properties		Data type	Number of items that can be specified	Supported configurations
HCP		--	1	Cluster Single node
--	systemName	String	1	Cluster Single node
	tenantName	String	1	Cluster Single node
	externalHcpHostName	String	0 or 1	Cluster Single node
	userName	String	1	Cluster Single node
	password	String	1	Cluster Single node
	replicaSystemName	String	0 or 1	Cluster Single node
	externalReplicaHcpHostName	String	0 or 1	Cluster Single node

The following table describes the properties to be specified when sending a POST method request to the HCP resource.

Table 3-66 Properties used to send a POST method request to the HCP resource

Properties		Description	Specification
HCP		--	--
--	systemName	Sets the HCP system name.#	Required
	tenantName	Sets the HCP tenant name.#	Required
	externalHcpHostName	If the HCP system to be linked uses a relaying device, such as a load balancer, when connecting to the network, specify the host name or IP address that has been made external and is used to connect to the HCP system.	Optional
	userName	Sets the user name of the account used for accessing the namespace.#	Required

Properties		Description	Specification
	password	Sets the password of the account used for accessing the namespace.#	Required
	replicaSystemName	Sets the replica HCP system name.	Optional
	externalReplicaHcpHostName	If the replica HCP system to be linked uses a relaying device, such as a load balancer, when connecting to the network, specify the host name or IP address that has been made external and is used to connect to the replica HCP system.	Can be specified when the replica HCP system name is set.

#: To delete HCP information, specify a null string for the property value.

The following shows examples of setting or deleting HCP information by sending a POST method request to the HCP resource.

URI of the resource to which a request is sent

`https://host-name-or-IP-address:9090/mapi/HCP`

Example of a request XML (when HCP information is set)

```
<?xml version="1.0" encoding="UTF-8" standalone="yes"?>
<HCP>
  <systemName>hcp.example.com</systemName>
  <tenantName>HCP-tenant</tenantName>
  <userName>username</userName>
  <password>password</password>
</HCP>
```

Example of a request XML (when HCP information is deleted)

```
<?xml version="1.0" encoding="UTF-8" standalone="yes"?>
<HCP>
  <systemName></systemName>
  <tenantName></tenantName>
  <userName></userName>
  <password></password>
</HCP>
```

The following table describes the status codes output when the method ends.

Table 3-67 Status codes returned when a POST method request is sent to the HCP resource

Status code	Description
200	Execution of the method ended successfully.
Other codes	Execution of the method ended abnormally. See Table 1-3 HTTP status codes that can be generated when a request terminates abnormally on page 1-9 .

HCP/ACCESS resource

This section describes how to use the HCP/ACCESS resource.

Checking whether the user can access the HCP namespace by using the POST method

You can use the `sharingType` query parameter to check whether the namespace specified by the method is assigned to a home directory-roaming file system or a read-write-content-sharing file system.

The following table describes the XML structure when a POST method request is sent to the HCP/ACCESS resource.

Table 3-68 XML structure when the POST method is used to send a request to the HCP/ACCESS resource

Properties		Data type	Number of items that can be specified	Supported configurations
HCP		--	1	Cluster Single node
--	<code>namespaceName</code>	String	1	Cluster Single node
	<code>isReplica</code>	Boolean	0 or 1	Cluster Single node

The following table describes the properties to be specified when sending a POST method request to the HCP/ACCESS resource.

Table 3-69 Properties used to send a POST method request to the HCP/ACCESS resource

Properties		Description	Specification
HCP		--	--
--	<code>namespaceName</code>	Sets the HCP namespace. You can specify alphanumeric characters and hyphens (-). The namespace strings must be no more than 63 bytes.	Required
	<code>isReplica</code>	Specifies the HCP system to test the connection of. <code>true</code> Specified when the connection of the replica HCP system is tested. <code>false</code> [#] Specified when the connection of the primary HCP system is tested.	Optional

#: This is the default value used when the property is omitted.

The following shows an example of checking whether access to the HCP namespace is allowed by sending a POST method request to the HCP/ACCESS resource.

URI of the resource to which a request is sent

`https://host-name-or-IP-address:9090/mapi/HCP/ACCESS`

Example of a request XML

```
<?xml version="1.0" encoding="UTF-8" standalone="yes"?>
<HCP>
  <namespaceName>arc-fs01</namespaceName>
  <isReplica>true</isReplica>
</HCP>
```

The following table describes the status codes output when the method ends.

Table 3-70 Status codes returned when a POST method request is sent to the HCP/ACCESS resource

Status code	Description
200	An attempt to access the namespace was successful. The namespace is assigned to the file system with the value specified for the sharingType query parameter.
503	An attempt to access the namespace failed. The namespace is not assigned to the file system with the value specified for the sharingType query parameter.
Other codes	Execution of the method ended abnormally. See Table 1-3 HTTP status codes that can be generated when a request terminates abnormally on page 1-9 .

HCP/Read-siteAccess resource

This section describes how to use the HCP/Read-siteAccess resource.

Checking whether the user can access the HCP namespace by using the POST method

You can use the namespaceType query parameter to check whether the namespace specified by the method is assigned to a file system or to check whether the namespaces specified by the method is assigned to a share.

The following table describes the XML structure when a POST method request is sent to the HCP/Read-siteAccess resource.

Table 3-71 XML structure when the POST method is used to send a request to the HCP/Read-siteAccess resource

Properties		Data type	Number of items that can be specified	Supported configurations
HCP		--	1	Cluster Single node
--	FQDN	String	1	Cluster Single node
	externalHcpHostName	String	0 or 1	Cluster Single node
	user	String	1	Cluster Single node
	password	String	1	Cluster Single node

The following table describes the properties to be specified when sending a POST method request to the HCP/Read-siteAccess resource.

Table 3-72 Properties used to send a POST method request to the HCP/Read-siteAccess resource

Properties		Description	Specification
HCP		--	--
--	FQDN	The name of the primary HCP namespace or the replica HCP namespace is set using a fully qualified domain name (FQDN).	Required
	externalHcpHostName	If the HCP system to be linked uses a relaying device, such as a load balancer, when connecting to the network, specify the host name or IP address that has been made external and is used to connect to the HCP system.	Optional
	user	Sets the user name of the account used to access the HCP namespace.	Required
	password	Sets the password of the account used to access the HCP namespace.	Required

The following shows an example of checking whether it is possible to access the HCP namespace if a POST method request is sent to the HCP/Read-siteAccess resource, and the data from other HDI systems is referenced as read-only.

URI of the resource to which a request is sent

`https://host-name-or-IP-address:9090/mapi/HCP/Read-siteAccess`

Example of a request XML

```
<?xml version="1.0" encoding="UTF-8" standalone="yes"?>
<HCP>
  <FQDN>arc-fs01.HCP-tenant.hcap1.hitachi.com</FQDN>
  <user>arc-fs01</user>
  <password>arc-fs01</password>
</HCP>
```

The following table describes the status codes output when the method ends.

Table 3-73 Status codes returned when a POST method request is sent to the HCP/Read-siteAccess resource

Status code	Description
200	An attempt to access the namespace was successful. The namespace is assigned to the unit corresponding to the value specified for the namespaceType query parameter.
503	An attempt to access the namespace failed. The namespace is not assigned to the unit corresponding to the value specified for the namespaceType query parameter.
Other codes	Execution of the method ended abnormally. See Table 1-3 HTTP status codes that can be generated when a request terminates abnormally on page 1-9 .

LU

LU resource overview

You can use the LU resource to acquire LU information.

The following table describes the HTTP method that can be used for the LU resource.

Table 3-74 HTTP method that can be used for the LU resource

Resource URI	HTTP method	Supported configurations	Description
/LUs	GET	Cluster	Acquires information about all the assigned LUs.

LU resource

This section describes how to use the LU resource.

Acquiring LU information by using the GET method

The following table describes the structure of the response XML output when the method ends.

Table 3-75 Structure of the response XML when a GET method request is sent to the LU resource

Properties		Number of response XMLs output	Supported configurations	Displayed value when verbose is false	
LUs		1	Cluster	Y	
--	LU	0 or 1 to <i>n</i>	Cluster	Y	
	--	deviceFileName	1	Cluster	Y
		userLUN	1	Cluster	Y
		isExternalDevice	1	Cluster	Y
		target	1	Cluster	Y
		model	1	Cluster	Y
		serial	1	Cluster	Y
		ldev	1	Cluster	Y
		type	1	Cluster	Y
		size	1	Cluster	Y
		function	1	Cluster	Y
		usedBy	1	Cluster	Y
		rg	1	Cluster	Y
		dp	1	Cluster	Y
		usedPage	1	Cluster	Y
		pool	1	Cluster	Y
		freePool	1	Cluster	Y
		totalPool	1	Cluster	Y

Legend: *n*: An integer of 2 or more, Y: Displayed.

The following table describes the properties displayed when a GET method request is sent to the LU resource.

Table 3-76 Properties displayed when a GET method request is sent to the LU resource

Properties		Description
LUs		--
--	LU	--

Properties		Description
--	deviceFileName	Displays the device file name in the following format: <i>luuser-LUN</i>
	userLUN	Displays the user LUN in hexadecimal format. If the LU is an external storage device, a hash mark (#) is displayed after the numeric value.
	isExternalDevice	Displays whether the device file is in an external storage device. true The device file is in an external storage device. false The device file is not in an external storage device.
	target	Displays the target in the following format: <i>Nnode_number-Tvalue_from_000_to_255</i>
	model	Displays the Storage System model.
	serial	Displays the serial number of the storage system. The number will consist of no more than 16 bytes.
	ldev	Displays the LDEV number of the device file. The number will consist of no more than 5 bytes. Displays a null string if an LDEV number has not been assigned to the user LUN or if an internal hard disk drive is used.
	type	Displays the drive type of the device file. <i>FC/SAS</i> The drive type is FC or SAS. <i>SAS7K</i> The drive type is SAS 7.2K. <i>SATA</i> The drive type is SATA. <i>SSD</i> The drive type is SSD. A null string is displayed in the following cases: <ul style="list-style-type: none"> • When information cannot be acquired due to a failure. • When the device file is in an external storage system. • When a virtual LU in a VSP G1000, VSP Fx00 model, VSP Gx00 model, Virtual Storage Platform, Universal Storage Platform V/VM, or HUS VM storage system is being used. • When a virtual LU that uses HUS100 series Dynamic Tiering is being used.
size	Displays the size of the device file in GB.	

Properties		Description
		<p>A hyphen (-) is displayed when an error has occurred in the device file.</p> <p>The size is displayed to 3 decimal places.</p>
	function	<p>Displays the intended use of the device file.</p> <p>Free</p> <p>The device file is not in use.</p> <p>File</p> <p>The device file is used for a file system.</p> <p>ActMig</p> <p>Displayed when the device file is used for a file system that uses Active File Migration.</p> <p>ActMig (Work)</p> <p>Displayed when the device file is used for a work space.</p> <p>WORM</p> <p>The device file is used for a WORM file system.</p> <p>WORM, ActMig</p> <p>Displayed when the device file is used for a WORM file system that uses Active File Migration.</p> <p>WORM, ActMig (Work)</p> <p>Displayed when the device file is used for a work space of a WORM file system that uses Active File Migration.</p> <p>Unknown</p> <p>This is displayed if the device file satisfied either of the following conditions:</p> <ul style="list-style-type: none"> - The intended use of the device file has been changed during command execution. - Information about the device file could not be obtained because an error occurred. <p>If <code>Unknown</code> is displayed, wait a while, and then try again. If <code>Unknown</code> is still displayed, check system messages and fix the problem. If a system message was not output, contact maintenance personnel.</p>
	usedBy	<p>Displays the name of the resource that uses the device file.</p> <p>If <code>function</code> property is <code>File</code>, <code>ActMig</code>, or <code>WORM</code>, the file system name is displayed.</p>
	rg	<p>Displays the number of the RAID group to which the device file belongs.</p> <p>If the LU is a virtual LU or if the device file exists in an external storage system, a null string is displayed.</p>
	dp	<p>Displays virtual LU information.</p> <p>DP</p> <p>The LU is a virtual LU.</p>

Properties		Description
		A null string is displayed if the LU is not a virtual LU.
	usedPage	Displays the virtual LU page size. A null string is displayed if the LU is not a virtual LU. The size is displayed to 3 decimal places.
	pool	Displays the number of the Pool to which the virtual LU belongs. A null string is displayed if the LU is not a virtual LU.
	freePool	Displays the free capacity in the Pool. A null string is displayed in the following cases: <ul style="list-style-type: none"> The LU is not a virtual LU. When a VSP G1000, VSP Fx00 model, VSP Gx00 model, Virtual Storage Platform, Universal Storage Platform V/VM, or HUS VM storage system is being used. The capacity is displayed to 3 decimal places.
	totalPool	Displays the total capacity of the Pool. A null string is displayed in the following cases: <ul style="list-style-type: none"> The LU is not a virtual LU. When a VSP G1000, VSP Fx00 model, VSP Gx00 model, Virtual Storage Platform, Universal Storage Platform V/VM, or HUS VM storage system is being used. The capacity is displayed to 3 decimal places.

The following shows an example of acquiring LU information by sending a GET method request to the LU resource.

URI of the resource to which a request is sent

`https://host-name-or-IP-address:9090/mapi/LUs`

Response XML example

```
<?xml version="1.0" encoding="UTF-8" standalone="yes"?>
<LUs>
  <LU>
    <deviceFileName>lu0000</deviceFileName>
    <userLUN>0000</userLUN>
    <isExternalDevice>>false</isExternalDevice>
    <target>N0-T000</target>
    <model>AMS</model>
    <serial>92210682</serial>
    <ldev>268</ldev>
    <type>FC/SAS</type>
    <size>100.000</size>
    <function>File</function>
    <usedBy>fs05</usedBy>
    <rg>001</rg>
    <dp></dp>
    <usedPage></usedPage>
```

```

    <pool></pool>
    <freePool></freePool>
    <totalPool></totalPool>
  </LU>
  <LU>
    <deviceFileName>lu0001</deviceFileName>
    <userLUN>0001</userLUN>
    <isExternalDevice>>false</isExternalDevice>
    <target>N0-T000</target>
    <model>AMS</model>
    <serial>92210682</serial>
    <ldev>269</ldev>
    <type>FC/SAS</type>
    <size>100.000</size>
    <function>File</function>
    <usedBy>fs07</usedBy>
    <rg>001</rg>
    <dp></dp>
    <usedPage></usedPage>
    <pool></pool>
    <freePool></freePool>
    <totalPool></totalPool>
  </LU>
</LUs>

```

The following table describes the status codes output when the method ends.

Table 3-77 Status codes returned when a GET method request is sent to the LU resource

Status code	Description
200	Execution of the method ended successfully.
Other codes	Execution of the method ended abnormally. See Table 1-3 HTTP status codes that can be generated when a request terminates abnormally on page 1-9 .

MigrationTask

MigrationTask resource overview

You can use the MigrationTask resource to manage data migration to HCP.

The following table describes the HTTP methods that can be used for the MigrationTask resource.

Table 3-78 HTTP methods that can be used for the MigrationTask resource

Resource URI	HTTP method	Supported configurations	Description
/MigrationTask	GET	Cluster Single node	Acquires information for all migration tasks.

Resource URI	HTTP method	Supported configurations	Description
	PUT	Cluster Single node	Sets a migration task.
/MigrationTask/ <i>task-name- encoded-in-Base64</i>	GET	Cluster Single node	Acquires information for the specified migration task.
	POST	Cluster Single node	Resets the migration task schedule. Also, assigns a namespace to a file share, or specifies whether to enable the quota of a subtree namespace.
	DELETE	Cluster Single node	Deletes the migration task.
	HEAD	Cluster Single node	Checks whether the specified migration task exists.

MigrationTask resource

This section describes how to use the MigrationTask resource.

Acquiring information for all migration tasks by using the GET method

You can use the `filesystemName` query parameter.

The following table describes the structure of the response XML output when the method ends.

Table 3-79 Structure of the response XML when a GET method request is sent to the MigrationTask resource

Properties		Number of response XMLs output	Supported configurations	Displayed value when verbose is false
MigrationTasks		1	Cluster Single node	Y
--	MigrationTask	0 or 1 to <i>n</i>	Cluster Single node	Y
--	task-name	1	Cluster Single node	Y
	task-priority	1	Cluster Single node	Y
	task-comment	0 or 1	Cluster Single node	Y
	task-enabled	1	Cluster	Y

Properties		Number of response XMLs output	Supported configurations	Displayed value when verbose is false
			Single node	
	task-status	1	Cluster Single node	N
	fileSystemName	1	Cluster Single node	Y
	namespace	1	Cluster Single node	Y
	Namespaces	0 or 1	Cluster Single node	Y
--	namespace	0 or 1 to <i>n</i>	Cluster Single node	Y
	-- name	1	Cluster Single node	Y
	directory	1	Cluster Single node	Y
	namespaceQuota	1	Cluster Single node	Y
	schedule-start-time	1	Cluster Single node	Y
	schedule-interval	1	Cluster Single node	Y
	duration	1	Cluster Single node	Y

Legend: *n*: An integer of 2 or more, Y: Displayed, N: Not displayed.

The following table describes the properties displayed when a GET method request is sent to the MigrationTask resource.

Table 3-80 Properties displayed when a GET method request is sent to the MigrationTask resource

Properties		Description
	MigrationTasks	--
--	MigrationTask	--
	-- task-name	Displays the migration task name.
	task-priority	Displays the priority of the scheduled migration task.
	task-comment	Displays the comment for the migration task.

Properties		Description
task-enabled		<p>Displays whether the migration task is enabled.</p> <p>Enable This is displayed when the migration task is enabled.</p> <p>Disable This is displayed when the migration task is disabled.</p>
task-status		<p>Displays one of the following task statuses:</p> <p>Running The task is running.</p> <p>Succeeded This status is displayed when the task is completed without any errors or interruptions.</p> <p>Partially Failed This status is displayed when the task is completed, but the migrations of some objects resulted in an error.</p> <p>Failed This status is displayed when the task fails to start.</p> <p>Interrupted This status is displayed when a migration task is interrupted due to a cancellation, an interruption, a failover, or a file system being unmounted. This status is also displayed when both a cancellation and migration error occur.</p> <p>Note that this is blank if no task has been executed. Note that, if a failover occurs during a migration, the status before the failover is displayed.</p>
fileSystemName		Displays the name of the migration destination file system.
namespace		Displays the name of the namespace that corresponds to the migration-destination file system if data is migrated at the file system level.
Namespaces		--
--	namespace	--
--	name	Displays the name of the HCP namespace if data is migrated at the share level.
--	directory	Displays the path to the share allocated to the namespace if data is migrated at the share level.
--	namespaceQuota	<p>Displays whether the capacity to be used by each share is restricted based on the hard quota (namespace quota) at the migration destination, if data is migrated at the share level.</p> <p>On</p>

Properties				Description
				<p>The capacity is restricted based on the hard quota of the namespace.</p> <p>Off</p> <p>The capacity is not restricted based on the hard quota of the namespace.</p>
		schedule-start-time		Displays the date and time at which the migration task is executed for the first time.
		schedule-interval		Displays the interval at which the migration task is to be run.
		duration		<p>Displays the time period from the time the migration task execution starts until it stops automatically.</p> <p>A value of 0 is displayed if the processing is not automatically terminated.</p>

The following shows an example of acquiring information for all migration tasks by sending a GET method request to the MigrationTask resource.

URI of the resource to which a request is sent

`https://host-name-or-IP-address:9090/mapi/MigrationTask`

Response XML example

```
<?xml version="1.0" encoding="UTF-8" standalone="yes"?>
<MigrationTasks>
  <MigrationTask>
    <task-name>task</task-name>
    <task-priority>10</task-priority>
    <task-comment>test</task-comment>
    <task-enabled>enabled</task-enabled>
    <fileSystemName>fs</fileSystemName>
    <namespace>arc-test</namespace>
    <schedule-start-time>2011-05-01T22:00:00.000+00:00</schedule-
start-time>
    <schedule-interval>5 days</schedule-interval>
    <duration>8</duration>
  </MigrationTask>
</MigrationTasks>
```

The following table describes the status codes output when the method ends.

Table 3-81 Status code returned when a GET method request is sent to the MigrationTask resource

Status code	Description
200	Execution of the method ended successfully.
Other codes	Execution of the method ended abnormally. See Table 1-3 HTTP status codes that can be generated when a request terminates abnormally on page 1-9 .

Setting the migration task by using the PUT method

Note:

If a target file is updated during a migration, the migration fails. Set task execution schedules that do not coincide with the updating of files. To forcibly migrate files that were updated during a migration, use the `arccconfedit` command to change the settings.

The following table describes the XML structure when a PUT method request is sent to the MigrationTask resource.

Table 3-82 XML structure when a PUT method request is sent to the MigrationTask resource

Properties		Data type	Number of items that can be specified	Supported configurations
MigrationTask		--	1	Cluster Single node
--	task-name	String	1	Cluster Single node
	task-priority	String	0 or 1	Cluster Single node
	task-comment	String	0 or 1	Cluster Single node
	fileSystemName	String	1	Cluster Single node
	namespace	String	0 or 1	Cluster Single node
	Namespaces	String	0 or 1	Cluster Single node
--	namespace	String	1	Cluster Single node
	--			
	name	String	1	Cluster Single node
	directory	String	1	Cluster Single node
	namespaceQuota	String	0 or 1	Cluster Single node
	schedule-start-time	String	1	Cluster Single node
	schedule-interval	String	1	Cluster Single node

Properties	Data type	Number of items that can be specified	Supported configurations
duration	Integer	0 or 1	Cluster Single node

The following table describes the properties to be specified when sending a PUT method request to the MigrationTask resource.

Table 3-83 Properties used to send a PUT method request to the MigrationTask resource

Properties	Description	Specification
MigrationTask	--	--
-- task-name	Specify the name of the migration task by using no more than 32 characters. You can set a maximum of 10 migration tasks per file system. You can use alphanumeric characters and underscores (_). Specify a name that is unique in the file system. Note that migration tasks cannot be set for file systems that reference other HDI data as read-only via the linked HCP. Furthermore, tasks other than the default migration tasks cannot be set for home-directory-roaming file systems or read-write-content-sharing file systems.	Required
task-priority	Specify this to set the priority of a scheduled migration task. high Specify this to set a high priority (equivalent a numerical priority of 3). middle# Specify this to set a middle priority (equivalent a numerical priority of 5). low Specify this to set a low priority (equivalent a numerical priority of 7). priority-level Specify this to set a numerical priority from a range of 1 to 10. A smaller value indicates a higher priority level.	Optional

Properties		Description	Specification
task-comment		Specify a comment by using no more than 256 characters. You can use any alphanumeric character, exclamation mark (!), hash mark (#), dollar sign (\$), percent sign (%), ampersand (&), single quotation mark ('), left parenthesis ((), right parenthesis ()), asterisks (*), plus sign (+), comma (,), hyphen (-), period (.), forward slash (/), colons (:), semicolon (;), left angle brackets (<), equal sign (=), right angle brackets (>), question marks (?), at mark (@), left square bracket ([), right square bracket (]), caret (^), underscore (_), grave accent mark (`), left curly bracket ({), vertical bars (), right curly bracket (}), tilde (~), or space. Other than these characters, you can specify multi-byte characters whose character encoding is Unicode (UTF-8).	Optional
fileSystemName		Sets the file system name. Note that, if the target file system is a home-directory-roaming file system or read-write-content-sharing file system, you cannot create tasks other than the migration tasks created by default.	Required
namespace		Sets the namespace name for the file system.	Specify this property to migrate data at the file system level.
Namespaces		--	Specify this property to migrate data at the share level.
--	namespace	--	Required if the Namespaces property is set.
--	name	Sets the namespace name for the file share.	Required if the Namespaces property is set.
--	directory	Specify the name of the shared directory assigned to the namespace.	Required if the Namespaces property is set.
--	namespaceQuota	Specifies whether to restrict the capacity to be used by each share based on the hard quota (namespace quota) at the migration destination.	Can be specified if the Namespaces property is set.

Properties	Description	Specification
	<p>On#</p> <p>Restrict the capacity based on the hard quota of the namespace.</p> <p>Off</p> <p>Do to not restrict the capacity based on the hard quota of the namespace.</p>	
schedule-start-time	<p>Sets the date and time that the migration task is first executed.</p> <p>Specify the date and time in the format below.</p> <p>For example, if you want to execute a task at 22:00, April 1, 2011: 2011-04-01T22:00:00.000+00:00</p> <p>Be sure to specify a date and time in the future.</p>	Required
schedule-interval	<p>Specify the interval at which the migration task is to be run. The format is as follows:</p> <p><i>execution-intervalunits</i></p> <p>In the above, specify one of the following as the unit: M (months), w (weeks), d (days), h (hours), or m (minutes). The values that can be specified for the interval at which the migration task is to be run varies depending on the unit as follows:</p> <ul style="list-style-type: none"> • M (months) : 1 • w (weeks) : 1 to 4 • d (days) : 1 to 6 • h (hours) : 1 to 23 • m (minutes) : 10 to 59 <p>Note that, if the target file system is a home-directory-roaming file system (for which the default setting is 1 hour) or read-write-content-sharing file system (for which the default setting is 10 minutes), you cannot change the default value to a value exceeding 1 hour.</p>	Required
duration	<p>Sets the period of time from the start of execution of the migration task until the migration task automatically stops.</p> <p>Specify an integer from 0 to 60. If 0 is specified, the migration task will not stop automatically.</p> <p>If you omit this, 0 is set.</p>	Optional

Properties	Description	Specification
	Note that, if the target file system is a home-directory-roaming file system or read-write-content-sharing file system, you cannot change the value from the default setting (0).	

#: This is the default value used when the property is omitted.

The following shows an example of setting the migration task by sending a PUT method request to the MigrationTask resource.

URI of the resource to which a request is sent

`https://host-name-or-IP-address:9090/mapi/MigrationTask`

Example of a request XML

```
<?xml version="1.0" encoding="UTF-8" standalone="yes"?>
<MigrationTask>
  <task-name>task</task-name>
  <task-priority>3</task-priority>
  <task-comment>test</task-comment>
  <fileName>fs</fileName>
  <namespace>arc-test</namespace>
  <schedule-start-time>2011-05-01T22:00:00.000+00:00</schedule-
start-time>
  <schedule-interval>5d</schedule-interval>
  <duration>8</duration>
</MigrationTask>
```

The following table describes the status codes output when the method ends.

Table 3-84 Status codes returned when a PUT method request is sent to the MigrationTask resource

Status code	Description
200	Execution of the method ended successfully.
Other codes	Execution of the method ended abnormally. See Table 1-3 HTTP status codes that can be generated when a request terminates abnormally on page 1-9 .

MigrationTask/task-name-encoded-in-Base64 resource

This section describes how to use the MigrationTask/*task-name-encoded-in-Base64* resource.

Acquiring information for the specified migration task by using the GET method

You must specify the filesystem name by using the query parameter `fileName`.

The following table describes the structure of the response XML output when the method ends.

Table 3-85 Structure of the response XML when a GET method request is sent to the MigrationTask/task-name-encoded-in-Base64 resource

Properties		Number of response XMLs output	Supported configurations	Displayed value when verbose is false
MigrationTask		1	Cluster Single node	Y
--	task-name	1	Cluster Single node	Y
	task-priority	1	Cluster Single node	Y
	task-comment	0 or 1	Cluster Single node	Y
	task-enabled	1	Cluster Single node	Y
	task-status	1	Cluster Single node	N
	fileSystemName	1	Cluster Single node	Y
	namespace	1	Cluster Single node	N
	Namespaces	0 or 1	Cluster Single node	Y
--	namespace	0 or 1 to <i>n</i>	Cluster Single node	Y
	-- name	1	Cluster Single node	Y
	directory	1	Cluster Single node	Y
	namespaceQuota	1	Cluster Single node	Y
	schedule-start-time	1	Cluster Single node	Y
	schedule-interval	1	Cluster Single node	Y
	duration	1	Cluster Single node	Y

Legend: *n*: An integer of 2 or more, Y: Displayed, N: Not displayed.

For the properties displayed when a GET method request is sent to the MigrationTask/*task-name-encoded-in-Base64* resource, see [Table 3-80 Properties displayed when a GET method request is sent to the MigrationTask resource on page 3-141](#).

The following shows an example of acquiring information for the specified migration task by sending a GET method request to the MigrationTask/*task-name-encoded-in-Base64* resource.

URI of the resource to which a request is sent

`https://host-name-or-IP-address:9090/mapi/MigrationTask/task-name-encoded-in-Base64`

Response XML example

```
<?xml version="1.0" encoding="UTF-8" standalone="yes"?>
<MigrationTask>
  <task-name>task</task-name>
  <task-priority>10</task-priority>
  <task-comment>test</task-comment>
  <task-enabled>enabled</task-enabled>
  <fileSystemName>fs</fileSystemName>
  <namespace>arc-test</namespace>
  <schedule-start-time>2011-05-01T22:00:00.000+00:00</
schedule-start-time>
  <schedule-interval>5 days</schedule-interval>
  <duration>8</duration>
</MigrationTask>
```

The following table describes the status codes output when the method ends.

Table 3-86 Status codes returned when a GET method request is sent to the MigrationTask/*task-name-encoded-in-Base64* resource

Status code	Description
200	Execution of the method ended successfully.
Other codes	Execution of the method ended abnormally. See Table 1-3 HTTP status codes that can be generated when a request terminates abnormally on page 1-9 .

Setting the schedule of the migration task or information about the subtree namespace by using the POST method

Note:

If a target file is updated during a migration, the migration fails. Set task execution schedules that do not coincide with the updating of files. To forcibly migrate files that were updated during a migration, use the `arccconfedit` command to change the settings.

The following table describes the XML structure when a POST method request is sent to the MigrationTask/*task-name-encoded-in-Base64* resource.

Table 3-87 XML structure when a POST method request is sent to the MigrationTask/task-name-encoded-in-Base64 resource

Properties	Data type	Number of items that can be specified	Supported configurations
MigrationTask	--	1	Cluster Single node
-- task-priority	String	0 or 1	Cluster Single node
task-enabled	String	0 or 1	Cluster Single node
task-comment	String	0 or 1	Cluster Single node
fileName	String	1	Cluster Single node
Namespaces	--	0 or 1	Cluster Single node
-- namespace	--	1	Cluster Single node
-- name	String	1	Cluster Single node
directory	String	1	Cluster Single node
namespaceQuota	String	0 or 1	Cluster Single node
schedule-start-time	String	0 or 1	Cluster Single node
schedule-interval	String	0 or 1	Cluster Single node
duration	Integer	0 or 1	Cluster Single node

The following table describes the properties to be specified when sending a POST method request to the MigrationTask/task-name-encoded-in-Base64 resource.

Table 3-88 Properties used to send a POST method request to the MigrationTask/task-name-encoded-in-Base64 resource

Properties	Description	Specification
MigrationTask	--	--

Properties	Description	Specification
<p>-- <code>task-priority</code></p>	<p>Specify this to set the priority of a scheduled migration task.</p> <p><code>high</code></p> <p>Specify this to set a <code>high</code> priority (equivalent a numerical priority of 3).</p> <p><code>middle#</code></p> <p>Specify this to set a <code>middle</code> priority (equivalent a numerical priority of 5).</p> <p><code>low</code></p> <p>Specify this to set a <code>low</code> priority (equivalent a numerical priority of 7).</p> <p><i>priority-level</i></p> <p>Specify this to set a numerical priority from a range of 1 to 10. A smaller value indicates a higher priority level.</p>	<p>Optional</p>
<p><code>task-enabled</code></p>	<p>Specify whether to enable the migration task.</p> <p><code>Enabled</code></p> <p>Specify this value to enable task.</p> <p><code>Disabled</code></p> <p>Specify this value to disable task.</p>	<p>Optional</p>
<p><code>task-comment</code></p>	<p>Specify a comment by using no more than 256 characters.</p> <p>You can use any alphanumeric character, exclamation mark (!), hash mark (#), dollar sign (\$), percent sign (%), ampersand (&), single quotation mark ('), left parenthesis ((), right parenthesis ()), asterisks (*), plus sign (+), comma (,), hyphen (-), period (.), forward slash (/), colons (:), semicolon (;), left angle brackets (<), equal sign (=), right angle brackets (>), question marks (?), at mark (@), left square bracket ([), right square bracket (]), caret (^), underscore (_), grave accent mark (`), left curly bracket ({), vertical bars (), right curly bracket (}), tilde (~), or space. Other than these characters, you can specify multi-byte characters</p>	<p>Optional</p>

Properties		Description	Specification
		whose character encoding is Unicode (UTF-8).	
	fileSystemName	Sets the file system name.	Required
	Namespaces	--	This property can be specified if data is migrated at the share level.
--	namespace	--	Required if the Namespaces property is set.
--	name	Sets the namespace name for the file share.	Required if the Namespaces property is set.
	directory	Specify the name of the shared directory assigned to the namespace.	Required if the Namespaces property is set.
	namespaceQuota	Specifies whether to restrict the capacity to be used by each share based on the hard quota (namespace quota) at the migration destination. On Restrict the capacity based on the hard quota of the namespace. Off Do to not restrict the capacity based on the hard quota of the namespace. If you omit this when assigning a namespace to a share file, On will be specified.	Can be specified if the Namespaces property is set.
	schedule-start-time	Sets the date and time that the migration task is first executed. Example: To execute the first task at 22:00, April 1, 2011: 2011-04-01T22:00:00.000+00:00 Be sure to specify a date and time in the future.	Optional
	schedule-interval	Specify the interval at which the migration task is to be run. The format is as follows: <i>execution-intervalunits</i> In the above, specify one of the following as the unit: M (months), w (weeks), d (days), h (hours), or m (minutes). The values that can be specified for the interval at	Optional

Properties	Description	Specification
	<p>which the migration task is to be run varies depending on the unit as follows:</p> <ul style="list-style-type: none"> • M (months) : 1 • w (weeks) : 1 to 4 • d (days) : 1 to 6 • h (hours) : 1 to 23 • m (minutes) : 10 to 59 <p>Note that, if the target file system is a home-directory-roaming file system (for which the default setting is 1 hour) or read-write-content-sharing file system (for which the default setting is 10 minutes), you cannot change the default value to a value exceeding 1 hour.</p>	
duration	<p>Sets the period of time from the start of execution of the migration task until the migration task automatically stops.</p> <p>Specify an integer from 0 to 60. If 0 is specified, the migration task does not automatically stop.</p> <p>If you omit this when re-setting the schedule, 0 will be specified.</p> <p>Note that, if the target file system is a home-directory-roaming file system or read-write-content-sharing file system, you cannot change the value from the default setting (0).</p>	Optional

The following shows an example of resetting the schedule of the migration task by sending a POST method request to the MigrationTask/*task-name-encoded-in-Base64* resource.

URI of the resource to which a request is sent

`https://host-name-or-IP-address:9090/mapi/MigrationTask/task-name-encoded-in-Base64`

Example of a request XML

```
<?xml version="1.0" encoding="UTF-8" standalone="yes"?>
<MigrationTask>
  <task-priority>6</task-priority>
  <task-comment>test</task-comment>
  <fileSystemName>fs</fileSystemName>
  <namespace>arc-test</namespace>
  <schedule-start-time>2011-05-01T22:00:00.000+00:00</schedule-
start-time>
```

```

        <schedule-interval>5d</schedule-interval>
        <duration>8</duration>
    </MigrationTask>

```

The following table describes the status codes output when the method ends.

Table 3-89 Status codes returned when a POST method request is sent to the MigrationTask/task-name-encoded-in-Base64 resource

Status code	Description
200	Execution of the method ended successfully.
Other codes	Execution of the method ended abnormally. See Table 1-3 HTTP status codes that can be generated when a request terminates abnormally on page 1-9 .

Deleting task information by using the DELETE method

You must specify the filesystem name by using the query parameter `filesystemName`.

You cannot delete migration tasks for which the target file system is a home-directory-roaming file system or read-write-content-sharing file system.

The following table describes the status codes output when the method ends.

Table 3-90 Status codes returned when a DELETE method request is sent to the MigrationTask/task-name-encoded-in-Base64 resource

Status code	Description
200	Execution of the method ended successfully.
Other codes	Execution of the method ended abnormally. See Table 1-3 HTTP status codes that can be generated when a request terminates abnormally on page 1-9 .

Checking whether the specified migration task exists by using the HEAD method

You must specify the filesystem name by using the query parameter `filesystemName`.

The following table describes the status codes output when the method ends.

Table 3-91 Status codes returned when a HEAD method request is sent to the MigrationTask/task-name-encoded-in-Base64 resource

Status code	Description
200	Execution of the method ended successfully.
404	The specified migration task cannot be used.
Other codes	Execution of the method ended abnormally. See Table 1-3 HTTP status codes that can be generated when a request terminates abnormally on page 1-9 .

NetworkInterface

NetworkInterface resource overview

You can use the NetworkInterface resource to acquire and manage network interface information.

The following table describes the HTTP methods that can be used for the NetworkInterface resource.

Table 3-92 HTTP methods that can be used for the NetworkInterface resource

Resource URI	HTTP method	Supported configurations	Description
/NetworkInterfaces	GET	Cluster Single node	Acquires current network interface information.
	PUT	Cluster Single node	Adds a network interface.
/NetworkInterfaces/ <i>network-interface-name</i>	GET	Cluster Single node	Acquires information for the specified network interface.
	POST	Cluster Single node	Edits the specified network interface information.
	HEAD	Cluster Single node	Checks whether the specified network interface exists.

NetworkInterface resource

This section describes how to use the NetworkInterface resource.

Acquiring network interface information by using the GET method

The following table describes the structure of the response XML output when the method ends.

Table 3-93 Structure of the response XML when a GET method request is sent to the NetworkInterface resource

Properties		Number of response XMLs output	Supported configurations	Displayed value when verbose is false
NetworkInterfaces		1	Cluster Single node	Y
--	NetworkInterface	0 or 1 to <i>n</i>	Cluster Single node	Y

Properties		Number of response XMLs output	Supported configurations	Displayed value when verbose is false	
--	name	1	Cluster Single node	Y	
	mtu	1	Cluster Single node	N	
	netmask	1	Cluster Single node	Y	
	networkAddresses	0 or 1	Cluster Single node	N	
	prefixLength	1	Cluster Single node	Y	
	addressPrefix	0 or 1	Cluster Single node	N	
	dhcp	0 or 1	Cluster Single node	N	
	FixedIP	1	Cluster Single node	Y	
	--	target	1	Cluster Single node	Y
		other	1	Cluster	Y
		target IPv6	1	Cluster Single node	Y
		other IPv6	1	Cluster	Y
	ServiceIP	1	Cluster	Y	
	--	target	1	Cluster	Y
		other	1	Cluster	Y
		target IPv6	1	Cluster	Y
target IPv6		1	Cluster	Y	

Legend: *n*: An integer of 2 or more, Y: Displayed, N: Not displayed.

The following table describes the properties displayed when a GET method request is sent to the NetworkInterface resource.

Table 3-94 Properties displayed when a GET method request is sent to the NetworkInterface resource

Properties		Description
NetworkInterfaces		--
--	NetworkInterface	--
	name	Displays the name of the interface.
	mtu#1	Displays the MTU value (no more than 5 bytes). A null string is displayed if no interface is set.
	netmask#2	Displays the netmask. A null string is displayed if no interface is set.
	networkAddress	Displays the network address. A null string is displayed if no interface is set.
	prefixLength	Displays the IPv6 prefix length. A null string is displayed if no interface is set.
	addressPrefix	Displays the IPv6 address prefix. A null string is displayed if no interface is set.
	dhcp	Displays whether DHCP is used to configure interface information. On DHCP is used. Off DHCP is not used.
	FixedIP	--
--	target	Displays the fixed IP address of the node to which the request is sent. A null string is displayed if the LAN port is not being used.
	other#2	Displays the fixed IP address of the node other than the node to which the request is sent. A null string is displayed if the LAN port is not being used.
	targetIPv6	Displays the fixed IP address of the node to which the request is sent. A null string is displayed if the LAN port is not being used.
	otherIPv6	Displays the fixed IP address of the node other than the node to which the request is sent. A null string is displayed if the LAN port is not being used.
	ServiceIP	--

Properties			Description
	--	target	Displays the virtual IP address of the node to which the request is sent. A null string is displayed if no virtual IP address is set.
		other#2	Displays the virtual IP address of the node other than the node to which the request is sent. A null string is displayed if no virtual IP address is set.
		targetIPv6	Displays the virtual IP address of the node to which the request is sent. A null string is displayed if no virtual IP address is set.
		otherIPv6	Displays the virtual IP address of the node other than the node to which the request is sent. A null string is displayed if no virtual IP address is set.

#1: If the MTU values in the cluster do not match each other, `Invalid` is displayed, and the values are displayed on the following line in the format *(MTU-value-of-the-node-currently-being-accessed, MTU-value-of-the-other-node)*.

If an MTU value cannot be acquired because the OS is not running, a communication error has occurred, or for some other reason, `Unknown` is displayed.

Example: `Invalid(1500,Unknown)`

If an MTU value cannot be acquired for some other reason, `None` is displayed.

Example: `Invalid(1500,None)`

#2: If the information cannot be acquired because the OS is not running, a communication error occurred, or for some other reason, `Unknown` is displayed. If the collected information is invalid, such as when the interface settings have been specified for only one node or when different IP addresses are specified for network addresses in the same interface, `Invalid(invalid-value)` is displayed.

The following shows an example of acquiring network interface information by sending a GET method request to the `NetworkInterfaces` resource.

URI of the resource to which a request is sent

`https://host-name-or-IP-address:9090/mapi/NetworkInterfaces`

Response XML example

```
<?xml version="1.0" encoding="UTF-8" standalone="yes"?>
<NetworkInterfaces>
  <NetworkInterface>
    <name>eth0</name>
    <mtu>1500</mtu>
    <netmask></netmask>
    <networkAddress></networkAddress>
    <prefixLength>64</prefixLength>
    <addressPrefix>2000::/64</addressPrefix>
    <dhcp>Off</dhcp>
    <FixedIP>
      <target></target>
      <other></other>
      <targetIPv6>2000::14</targetIPv6>
      <otherIPv6>2000::15</otherIPv6>
    </FixedIP>
    <ServiceIP>
      <target></target>
      <other></other>
      <targetIPv6>2000::16</targetIPv6>
      <otherIPv6>2000::17</otherIPv6>
    </ServiceIP>
  </NetworkInterface>
  <NetworkInterface>
    <name>mng0</name>
    <mtu>1500</mtu>
    <netmask>255.255.0.0</netmask>
    <networkAddress>192.168.0.0</networkAddress>
    <prefixLength>64</prefixLength>
    <addressPrefix>fdf1:afcb:44f9:1000::/64</addressPrefix>
    <dhcp>Off</dhcp>
    <FixedIP>
      <target>192.168.2.10</target>
      <other>192.168.2.20</other>
      <targetIPv6>fdf1:afcb:44f9:1000::2:10</targetIPv6>
      <otherIPv6>fdf1:afcb:44f9:1000::2:20</otherIPv6>
    </FixedIP>
    <ServiceIP>
      <target>192.168.2.11</target>
      <other>192.168.2.21</other>
      <targetIPv6></targetIPv6>
      <otherIPv6></otherIPv6>
    </ServiceIP>
  </NetworkInterface>
</NetworkInterfaces>
```

The following table describes the status codes output when the method ends.

Table 3-95 Status codes returned when a GET method request is sent to the NetworkInterface resource

Status code	Description
200	Execution of the method ended successfully.
Other codes	Execution of the method ended abnormally. See Table 1-3 HTTP status codes that can be generated when a request terminates abnormally on page 1-9 .

Adding a network interface by using the PUT method

The following table describes the XML structure when a PUT method request is sent to the NetworkInterface resource.

Table 3-96 XML structure when a PUT method request is sent to the NetworkInterface resource

Properties		Data type	Number of items that can be specified	Supported configurations	
NetworkInterface		--	1	Cluster Single node	
--	name	String	1	Cluster Single node	
	netmask	String	0 or 1	Cluster Single node	
	prefixLength	String	0 or 1	Cluster Single node	
	FixedIP	--	1	Cluster Single node	
	--	target	String	0 or 1	Cluster Single node
		other	String	0 or 1	Cluster
		targetIPv6	String	0 or 1	Cluster Single node
		otherIPv6	String	0 or 1	Cluster
	ServiceIP	--	0 or 1	Cluster	
	--	target	String	0 or 1	Cluster
		other	String	0 or 1	Cluster
		targetIPv6	String	0 or 1	Cluster
		otherIPv6	String	0 or 1	Cluster

The following table describes the properties to be specified when sending a PUT method request to the NetworkInterface resource.

Table 3-97 Properties used to send a PUT method request to the NetworkInterface resource

Properties		Description	Specification
NetworkInterface		--	--
--	name	Sets the name of the port to which the network interface will be added. You can set only the network interfaces that	Required

Properties		Description	Specification
		are displayed in the execution result of the GET method and for which only the <code>name</code> property is set. <ul style="list-style-type: none"> <code>ethnumber</code> <code>agrnumber</code> <code>rdnnumber</code> 	
	<code>netmask</code>	Sets the netmask for the fixed IP address and virtual IP address.	Required if IPv4 is used.
	<code>prefixLength</code>	Sets the IPv6 prefix length.	Required if IPv6 is used.
	<code>FixedIP#1</code>	--	Required
--	<code>target</code>	Sets the fixed IP address of the node to which the request is sent.	Required if an IPv4 address is used.
	<code>other</code>	Sets the fixed IP address of the node other than the node to which the request is sent.	Required if an IPv4 address is used.
	<code>targetIPv6</code>	Sets an IPv6 address as the fixed IP address of the node to which the request is sent.	Required if an IPv6 address is used.
	<code>otherIPv6</code>	Sets an IPv6 address as the fixed IP address of the other node (the counterpart of the node to which the request is sent).	Required if an IPv6 address is used.
	<code>ServiceIP#1#2</code>	--	Optional
--	<code>target</code>	Sets the virtual IP address of the node to which the request is sent. If you specify a null string or omit this property, no value is set.	Required if an IPv4 address is used.
	<code>other</code>	Sets the virtual IP address of the node other than the node to which the request is sent. If you specify a null string or omit this property, no value is set.	Required if an IPv4 address is used.
	<code>targetIPv6</code>	Sets an IPv6 address as the virtual IP address of the node to which the request is sent. If you specify a null string or omit this property, no value is set.	Required if an IPv6 address is used as the fixed IP address.
	<code>otherIPv6</code>	Sets an IPv6 address as the virtual IP address of the other node (the counterpart of the node to which the request is sent). If you specify a null string or omit this property, no value is set.	Required if an IPv6 address is used as the fixed IP address.

#1: Do not specify the IP addresses shown below. These addresses are reserved in the Storage System. If you must specify them, contact our Technical Support Center.

- For IPv4:
127.0.0.0 to 127.255.255.255
- For IPv6:
::ffff:IPv4-address, ::IPv4-address, ::1/128, ::/0, ::/ 128,
fe80::/10, ff00::/8
- IP addresses that belong to the same network as the IP address set for the private maintenance port
You can use the `pmctl` command to view the IP address set for the private maintenance port.
- IP addresses that belong to the same network as the IP address set for the heartbeat port
You can use the ProcessingNode resource to view the IP address set for the heartbeat port. For details on the ProcessingNode resource, see [ProcessingNode resource on page 3-204](#).

#2: Interfaces created without specifying a virtual IP address are excluded from the targets of resource group monitoring. Note the following when creating an interface without specifying a virtual IP address:

- The CIFS, NFS, FTP, SFTP, and TFTP services provided by the HDI system cannot be used from an interface for which no virtual IP address is set.
- If a linkage error occurs in an interface for which no virtual IP address is set, SNMP traps and email notifications, and the error notification for maintenance personnel are not sent.

The following shows examples of adding a network interface by sending a PUT method request to NetworkInterface resource.

URI of the resource to which a request is sent

`https://host-name-or-IP-address:9090/mapi/NetworkInterfaces`

Example of a request XML (for IPv4)

```
<?xml version="1.0" encoding="UTF-8" standalone="yes"?>
<NetworkInterface>
  <name>eth1</name>
  <netmask>255.255.255.0</netmask>
  <FixedIP>
    <target>10.208.136.210</target>
    <other>10.208.136.211</other>
  </FixedIP>
  <ServiceIP>
    <target>10.208.136.212</target>
    <other>10.208.136.213</other>
  </ServiceIP>
</NetworkInterface>
```

Example of a request XML (for IPv6)

```
<?xml version="1.0" encoding="UTF-8" standalone="yes"?>
<NetworkInterface>
  <name>eth1</name>
  <prefixLength>64</prefixLength>
  <FixedIP>
    <targetIPv6>2001:2c0:418:1::1</targetIPv6>
    <otherIPv6>2001:2c0:418:1::2</otherIPv6>
  </FixedIP>
  <ServiceIP>
    <targetIPv6>2001:2c0:418:1::3</targetIPv6>
    <otherIPv6>2001:2c0:418:1::4</otherIPv6>
  </ServiceIP>
</NetworkInterface>
```

Example of a request XML (when the fixed IP address is not set)

```
<?xml version="1.0" encoding="UTF-8" standalone="yes"?>
<NetworkInterface>
  <name>eth1</name>
  <netmask>255.255.255.0</netmask>
  <FixedIP>
    <target></target>
    <other></other>
  </FixedIP>
  <ServiceIP>
    <target></target>
    <other></other>
  </ServiceIP>
</NetworkInterface>
```

The following table describes the status codes output when the method ends.

Table 3-98 Status codes returned when a PUT method request is sent to the NetworkInterface resource

Status code	Description
200	Execution of the method ended successfully.
Other codes	Execution of the method ended abnormally. See Table 1-3 HTTP status codes that can be generated when a request terminates abnormally on page 1-9 .

NetworkInterfaces/network-interface-name resource

This section describes how to use the NetworkInterfaces/*network-interface-name* resource.

Acquiring network interface information by using the GET method

The following table describes the structure of the response XML output when the method ends.

Table 3-99 Structure of the response XML when a GET method request is sent to the NetworkInterfaces/network-interface-name resource

Properties		Number of response XMLs output	Supported configurations	Displayed value when verbose is false	
NetworkInterface		1	Cluster Single node	Y	
--	name	1	Cluster Single node	Y	
	mtu	1	Cluster Single node	N	
	netmask	1	Cluster Single node	Y	
	networkAddress	1	Cluster Single node	N	
	prefixLength	0 or 1	Cluster Single node	N	
	addressPrefix	0 or 1	Cluster Single node	N	
	dhcp	0 or 1	Cluster Single node	N	
	FixedIP	1	Cluster Single node	Y	
	--	target	1	Cluster Single node	Y
		other	1	Cluster	Y
		targetIPv6	1	Cluster Single node	Y
		otherIPv6	0 or 1	Cluster	Y
	ServiceIP		1	Cluster	Y
	--	target	1	Cluster	Y
other		1	Cluster	Y	
targetIPv6		1	Cluster	Y	
otherIPv6		0 or 1	Cluster	Y	

Legend: Y: Displayed, N: Not displayed.

For the properties displayed when a GET method request is sent to the `NetworkInterfaces/network-interface-name` resource, see [Table 3-94 Properties displayed when a GET method request is sent to the NetworkInterface resource on page 3-158](#).

The following shows an example of acquiring specified network interface information by sending a GET method request to the `NetworkInterfaces/network-interface-name` resource.

URI of the resource to which a request is sent

`https://host-name-or-IP-address:9090/mapi/NetworkInterfaces/network-interface-name`

Response XML example

```
<?xml version="1.0" encoding="UTF-8" standalone="yes"?>
<NetworkInterface>
  <name>eth0</name>
  <mtu>1500</mtu>
  <netmask>255.255.255.0</netmask>
  <networkAddress>10.208.148.0</networkAddress>
  <prefixLength>64</prefixLength>
  <addressPrefix>2000::/64</addressPrefix>
  <dhcp>Off</dhcp>
  <FixedIP>
    <target>10.208.148.100</target>
    <other>10.208.148.101</other>
    <targetIPv6>2000::14</targetIPv6>
    <otherIPv6>2000::15</otherIPv6>
  </FixedIP>
  <ServiceIP>
    <target>10.208.148.102</target>
    <other>10.208.148.103</other>
    <targetIPv6>2000::16</targetIPv6>
    <otherIPv6>2000::17</otherIPv6>
  </ServiceIP>
</NetworkInterface>
```

The following table describes the status codes output when the method ends.

Table 3-100 Status codes returned when a GET method request is sent to the `NetworkInterfaces/network-interface-name` resource

Status code	Description
200	Execution of the method ended successfully.
Other codes	Execution of the method ended abnormally. See Table 1-3 HTTP status codes that can be generated when a request terminates abnormally on page 1-9 .

Changing the network interface information by using the POST method

The following table describes the XML structure when a POST method request is sent to the `NetworkInterfaces/network-interface-name` resource.

Table 3-101 XML structure when a POST method request is sent to the NetworkInterfaces/network-interface-name resource

Properties		Data type	Number of items that can be specified	Supported configurations	
NetworkInterface		--	1	Cluster Single node	
--	netmask	String	0 or 1	Cluster Single node	
	prefixLength	String	0 or 1	Cluster Single node	
	FixedIP	--	0 or 1	Cluster Single node	
	--	target	String	0 or 1	Cluster Single node
		other	String	0 or 1	Cluster
		targetIPv6	String	0 or 1	Cluster Single node
		otherIPv6	String	0 or 1	Cluster
	ServiceIP	--	0 or 1	Cluster	
	--	target	String	0 or 1	Cluster
		other	String	0 or 1	Cluster
		targetIPv6	String	0 or 1	Cluster
		otherIPv6	String	0 or 1	Cluster

The following table describes the properties used to send a POST method request to the NetworkInterfaces/network-interface-name resource.

Table 3-102 Properties used to send a POST method request to the NetworkInterfaces/network-interface-name resource

Properties		Description	Specification
NetworkInterface		--	--
--	netmask	Sets the netmask for the fixed IP address and virtual IP address.	One of the following properties is required: <ul style="list-style-type: none"> netmask prefixLength FixedIP

Properties		Description	Specification
			<ul style="list-style-type: none"> ServiceIP
	prefixLength	Sets the IPv6 prefix length.	Required if IPv6 is used. One of the following properties is required: <ul style="list-style-type: none"> netmask prefixLength FixedIP ServiceIP
	FixedIP#1	--	One of the following properties is required: <ul style="list-style-type: none"> netmask prefixLength FixedIP ServiceIP
--	target	Sets the fixed IP address of the node to which the request is sent.	Required if an IPv4 address is used.
	other	Sets the fixed IP address of the node other than the node to which the request is sent.	Required if an IPv4 address is used.
	targetIPv6	Sets an IPv6 address as the fixed IP address of the node to which the request is sent.	Required if an IPv6 address is used.
	otherIPv6	Sets an IPv6 address as the fixed IP address of the other node (the counterpart of the node to which the request is sent).	Required if an IPv6 address is used.
	ServiceIP#1#2	--	One of the following properties is required: <ul style="list-style-type: none"> netmask prefixLength FixedIP ServiceIP
--	target	Sets the virtual IP address of the node to which the request is sent. If you specify a null string, the value set for this property is deleted.	Required if an IPv4 address is used.
	other	Sets the virtual IP address of the node other than the node to which the request is sent. If you specify a null string, the value set for this property is deleted.	Required if an IPv4 address is used.

Properties		Description	Specification
	targetIPv6	Sets an IPv6 address as the virtual IP address of the node to which the request is sent. If you specify a null string, the value set for this property is deleted.	Required if an IPv6 address is used as the fixed IP address.
	otherIPv6	Sets an IPv6 address as the virtual IP address of the other node (the counterpart of the node to which the request is sent). If you specify a null string or omit this property, no value is set.	Required if an IPv6 address is used as the fixed IP address.

#1: Do not specify the IP addresses shown below. These addresses are reserved in the Storage System. If you must specify them, contact our Technical Support Center.

- For IPv4:
127.0.0.0 to 127.255.255.255
- For IPv6:
::ffff:IPv4-address, ::IPv4-address, ::1/128, ::/0, ::/ 128, fe80::/10, ff00::/8
- IP addresses that belong to the same network as the IP address set for the private maintenance port
You can use the `pmctl` command to view the IP address set for the private maintenance port.
- IP addresses that belong to the same network as the IP address set for the heartbeat port
You can use the ProcessingNode resource to view the IP address set for the heartbeat port. For details on the ProcessingNode resource, see [ProcessingNode resource on page 3-204](#).

#2: Interfaces created without specifying a virtual IP address are excluded from the targets of resource group monitoring. Note the following when creating an interface without specifying a virtual IP address:

- The CIFS, NFS, FTP, SFTP, and TFTP services provided by the HDI system cannot be used from an interface for which no virtual IP address is set.
- If a linkage error occurs in an interface for which no virtual IP address is set, SNMP traps and email notifications, and the error notification for maintenance personnel are not sent.

The following shows examples of changing the network interface information by sending a POST method request to the `NetworkInterfaces/network-interface-name` resource.

URI of the resource to which a request is sent

`https://host-name-or-IP-address:9090/mapi/NetworkInterfaces/network-interface-name`

Example of a request XML (for IPv4)

```
<?xml version="1.0" encoding="UTF-8" standalone="yes"?>
<NetworkInterface>
  <netmask>255.255.255.0</netmask>
  <FixedIP>
    <target>10.208.136.210</target>
    <other>10.208.136.211</other>
  </FixedIP>
  <ServiceIP>
    <target>10.208.136.212</target>
    <other>10.208.136.213</other>
  </ServiceIP>
</NetworkInterface>
```

Example of a request XML (for IPv6)

```
<?xml version="1.0" encoding="UTF-8" standalone="yes"?>
<NetworkInterface>
  <prefixLength>64</prefixLength>
  <FixedIP>
    <targetIPv6>2001:2c0:418:1::1</targetIPv6>
    <otherIPv6>2001:2c0:418:1::2</otherIPv6>
  </FixedIP>
  <ServiceIP>
    <targetIPv6>2001:2c0:418:1::3</targetIPv6>
    <otherIPv6>2001:2c0:418:1::4</otherIPv6>
  </ServiceIP>
</NetworkInterface>
```

The following table describes the status codes output when the method ends.

Table 3-103 Status codes returned when a POST method request is sent to the NetworkInterfaces/network-interface-name resource

Status code	Description
200	Execution of the method ended successfully.
Other codes	Execution of the method ended abnormally. See Table 1-3 HTTP status codes that can be generated when a request terminates abnormally on page 1-9 .

Checking whether the specified network interface exists by using the HEAD method

The following table describes the status codes output when the method ends.

Table 3-104 Status codes returned when a HEAD method request is sent to the NetworkInterfaces/network-interface-name resource

Status code	Description
200	The specified network interface can be used.

Status code	Description
Other codes	Execution of the method ended abnormally. See Table 1-3 HTTP status codes that can be generated when a request terminates abnormally on page 1-9 .

NFSShare

NFSShare resource overview

You can use the NFSShare resource to manage NFS share information.

The following table describes the HTTP methods that can be used for the NFSShare resource.

Table 3-105 HTTP methods that can be used for the NFSShare resource

Resource URI	HTTP method	Supported configurations	Description
/NFSShares	GET	Cluster Single node	Acquires information for the NFS shares on the node you are logged in to.
	PUT	Cluster Single node	Adds an NFS share.
/NFSShares/ NFS-share- directory- name#1	GET#2	Cluster Single node	Acquires information for the specified NFS share.
	POST#2	Cluster Single node	Edits the specified NFS share information.
	DELETE#2	Cluster Single node	Deletes the specified NFS share.
	HEAD#2	Cluster Single node	Checks whether the specified NFS share exists.

#1: For *NFS-share-directory-name*, specify the name of the directory at the lowest level of the shared directory.

#2: You must specify the path name of the shared directory by using the query parameter SHARE-DIRECTORY-NAME.

NFSShare resource

This section describes how to use the NFSShare resource.

Acquiring information for all NFS shares by using the GET method

The following table describes the structure of the response XML output when the method ends.

Table 3-106 Structure of the response XML when a GET method request is sent to the NFSShare resource

Properties		Number of response XMLs output	Supported configurations	Displayed value when verbose is false
NFSShares		1	Cluster Single node	Y
--	NFSShare	0 or 1 to <i>n</i>	Cluster Single node	Y
--	exportPoint	1	Cluster Single node	Y
	anonymousUID	1	Cluster Single node	Y
	anonymousGID	1	Cluster Single node	Y
	isPortRestrictionEnabled	1	Cluster Single node	Y
	isSubtreeCheckEnabled	1	Cluster Single node	Y
	isAccessCheckWithLockRequestEnabled	1	Cluster Single node	Y
	aclType	1	Cluster Single node	N
	maxRwSize	1	Cluster Single node	Y
	NamespaceShareSettings	0 or 1	Cluster Single node	N
--	type	1	Cluster Single node	N
	FQDN	1	Cluster Single node	N
	externalHcpHostName	1	Cluster Single node	N
	user	1	Cluster Single node	N

Properties			Number of response XMLs output	Supported configurations	Displayed value when verbose is false
		password	1	Cluster Single node	N
		hcpReplicaHost	1	Cluster Single node	N
		externalReplicaHcpHostName	1	Cluster Single node	N
		hcpNamespace	1	Cluster Single node	N
		AllowedHosts	1	Cluster Single node	Y
	--	AllowedHost	1 to <i>n</i>	Cluster Single node	Y
	--	hostOrAddresses	1	Cluster Single node	Y
		isReadOnly	1	Cluster Single node	Y
		synchronousWritingSetting	1	Cluster Single node	Y
		anonymousMapping	1	Cluster Single node	Y
		securityFlavor	1	Cluster Single node	Y

Legend: *n*: An integer of 2 or more, Y: Displayed, N: Not displayed.

The following table describes the properties displayed when a GET method request is sent to the NFSShare resource.

Table 3-107 Properties displayed when a GET method request is sent to the NFSShare resource

Properties		Description
NFSShares		--
--	NFSShare	--
	--	exportPoint
		Displays the absolute path of the shared directory.
		anonymousUID
		Displays the user ID to be used when accessing a share as an anonymous user.

Properties		Description
	anonymousGID	Displays the group ID to be used when accessing a share as an anonymous user.
	isPortRestrictionEnabled	Displays whether settings are specified to receive requests from only Internet ports whose numbers are smaller than 1024. true Settings are specified to receive requests from only Internet ports whose numbers are smaller than 1024. false Settings are specified to receive requests from all Internet ports.
	isSubtreeCheckEnabled	Displays whether to check if the execute permission (x) exists for all directories (subtrees), including the shared directory and the directory that contains the file or directory to be accessed, as well as checking the access permissions for the file or directory to be accessed. true A subtree check is performed. false A subtree check is not performed.
	isAccessCheckWithLockRequestEnabled	Displays whether a permission check is performed when locking is requested. true A permission check is performed. false A permission check is not performed.
	aclType	Displays the ACL type of the file system. Advanced ACL Advanced ACL type Classic ACL Classic ACL type Unknown The ACL type could not be acquired.
	maxRwSize	Displays the maximum transfer length for the NFS share. A null string is displayed if no maximum transfer length is set.
	NamespaceShareSettings	--
	-- type	Displays how the HCP data is shared. Read/Write

Properties			Description
			<p>Displayed if the data is not synchronized with other HDI systems via linked HCP systems.</p> <p>Read Only</p> <p>Displayed if the data from other HDI systems is referenced as read-only.</p>
		FQDN	<p>Displays the name of the HCP namespace in FQDN (Fully Qualified Domain Name) format.</p> <p>If the <code>type</code> property is <code>Read/Write</code>, a null string is displayed.</p>
		externalHcpHostName	<p>Displays the host name or IP address that has been made external and is used to connect to the HCP system.</p> <p>If the <code>type</code> property is <code>Read/Write</code>, or the host name or IP address that has been made external and is used to connect to the HCP system is not set, a null string is displayed.</p>
		user	<p>Displays the user name of the account used to access the HCP namespace.</p> <p>If the <code>type</code> property is <code>Read/Write</code>, a null string is displayed.</p>
		password	A null string is always displayed.
		hcpReplicaHost	<p>A replica HCP host name is displayed.</p> <p>If the <code>type</code> property is <code>Read/Write</code>, or if no replica HCP host name is set, a null string is displayed.</p>
		externalReplicaHcpHostName	<p>Displays the host name or IP address that has been made external and is used to connect to the replica HCP system.</p> <p>If the <code>type</code> property is <code>Read/Write</code>, or the host name or IP address that has been made external and is used to connect to the replica HCP system is not set, a null string is displayed.</p>
		hcpNamespace	Displays the name of the HCP namespace.
		AllowedHosts	--
	--	AllowedHost	--
	--	hostOrAddresses	Displays the name of a host or network on which the NFS share is made public.
	--	isReadOnly	<p>Displays the access permissions for the NFS share.</p> <p>true</p> <p>Only read operations are permitted.</p> <p>false</p>

Properties				Description
				Both read and write operations are permitted.
			synchronousWritingSetting	<p>Displays whether to optimize synchronous writing when <code>isReadOnly</code> property is set to false. The displayed value is valid only when false is specified for the <code>isReadOnly</code> property.</p> <p><code>rw_sync</code> Synchronous writing is not optimized.</p> <p><code>rw_sync_opt</code> Synchronous writing is optimized.</p>
			anonymousMapping	<p>Displays users who are to be mapped as anonymous users.</p> <p><code>everyone</code> All users are mapped as anonymous users.</p> <p><code>root_only</code> Only the <code>root</code> user is mapped as an anonymous user.</p> <p><code>none</code> Users are not mapped as anonymous users.</p>
			securityFlavor	<p>Displays the security flavor set for the public destination of the NFS share. If multiple security flavors have been set, they are displayed separated by period (.).</p> <p><code>sys</code> UNIX (<code>AUTH_SYS</code>) authentication is applied.</p> <p><code>krb5</code> Kerberos authentication is applied.</p> <p><code>krb5i</code> Data integrity verification is applied in addition to Kerberos authentication.</p> <p><code>krb5p</code> Data integrity verification is applied and privacy is provided in addition to Kerberos authentication.</p>

The following shows an example of acquiring NFS share information by sending a GET method request to the NFSShare resource.

URI of the resource to which a request is sent

`https://host-name-or-IP-address:9090/mapi/NFSShares`

Response XML example

```
<?xml version="1.0" encoding="UTF-8" standalone="yes"?>
<NFSShares>
  <NFSShare>
    <exportPoint>/mnt/fs/nfs</exportPoint>
    <anonymousUID>22222</anonymousUID>
    <anonymousGID>22222</anonymousGID>
    <isPortRestrictionEnabled>true</isPortRestrictionEnabled>
    <isSubtreeCheckEnabled>true</isSubtreeCheckEnabled>
    <isAccessCheckWithLockRequestEnabled>true</
isAccessCheckWithLockRequestEnabled>
    <maxRwSize>5</maxRwSize>
    <AllowedHosts>
      <AllowedHost>
        <hostOrAddress>*</hostOrAddress>
        <isReadOnly>true</isReadOnly>
        <synchronousWritingSetting>rw_sync</
synchronousWritingSetting>
        <anonymousMapping>root_only</anonymousMapping>
        <securityFlavor>sys</securityFlavor>
      </AllowedHost>
    </AllowedHosts>
  </NFSShare>
</NFSShares>
```

The following table describes the status codes output when the method ends.

Table 3-108 Status codes returned when a GET method request is sent to the NFSShare resource

Status code	Description
200	Execution of the method ended successfully.
Other codes	Execution of the method ended abnormally. See Table 1-3 HTTP status codes that can be generated when a request terminates abnormally on page 1-9 .

Adding an NFS share by using the PUT method

The following table describes the XML structure when a PUT method request is sent to the NFSShare resource.

Table 3-109 XML structure when a PUT method request is sent to the NFSShare resource

Properties		Data type	Number of items that can be specified	Supported configurations
NFSShare		--	1	Cluster Single node
--	exportPoint	String	1	Cluster Single node
	anonymousUID	Integer	0 or 1	Cluster

Properties		Data type	Number of items that can be specified	Supported configurations	
				Single node	
anonymousGID		Integer	0 or 1	Cluster Single node	
isPortRestrictionEnabled		Boolean	0 or 1	Cluster Single node	
isSubtreeCheckEnabled		Boolean	0 or 1	Cluster Single node	
isAccessCheckWithLockRequestEnabled		Boolean	0 or 1	Cluster Single node	
maxRwSize		Integer	0 or 1	Cluster Single node	
NamespaceShareSettings		--	0 or 1	Cluster Single node	
--	type	String	0 or 1	Cluster Single node	
	FQDN	String	0 or 1	Cluster Single node	
	externalHcpHostName	String	0 or 1	Cluster Single node	
	user	String	0 or 1	Cluster Single node	
	password	String	0 or 1	Cluster Single node	
	hcpReplicaHost	String	0 or 1	Cluster Single node	
	externalReplicaHcpHostName	String	0 or 1	Cluster Single node	
AllowedHosts		--	1	Cluster Single node	
--	AllowedHost	--	0 or 1 to <i>n</i>	Cluster Single node	
	--	hostOrAddress	String	1	Cluster Single node
		isReadOnly	Boolean	0 or 1	Cluster Single node

Properties			Data type	Number of items that can be specified	Supported configurations
		synchronousWritingSetting	String	0 or 1	Cluster Single node
		anonymousMapping	String	0 or 1	Cluster Single node
		securityFlavor	String	0 or 1	Cluster Single node
DirectorySetup			--	0 or 1	Cluster Single node
--		userName	String	0 or 1	Cluster Single node
		groupName	String	0 or 1	Cluster Single node
		isStickyBit	Boolean	0 or 1	Cluster Single node
		ownerPermission	String	0 or 1	Cluster Single node
		groupPermission	String	0 or 1	Cluster Single node
		otherPermission	String	0 or 1	Cluster Single node
DirectoryACLSettings			--	0 or 1	Cluster Single node
--		DirectoryACLSetting	--	0 or 1 to <i>n</i>	Cluster Single node
	--	userGroupAccess	String	1	Cluster Single node
		name	String	1	Cluster Single node
		accountType	String	1	Cluster Single node
		applicationDestination	String	1	Cluster Single node
		inheritanceRange	String	1	Cluster Single node
		accessPermission	String	1	Cluster Single node

Legend: *n*: An integer of 2 or more.

The following table describes the properties to be specified when sending a PUT method request to the NFSShare resource.

Table 3-110 Properties used to send a PUT method request to the NFSShare resource

Properties		Description	Specification
NFSShare		--	--
--	exportPoint	<p>Specify from 6 to 63 characters for the absolute path of the directory in which you want to create an NFS share.</p> <p>Specify a path beginning with <code>/mnt/file-system-name</code> for this property to associate the file system with the NFS share.</p> <p>For example, if you want to create a file share in the <code>share01</code> directory in <code>filesystem01</code> file system, specify <code>/mnt/filesystem01/share01</code>.</p> <p>You can specify alphanumeric characters, hyphens (-), periods (.), forward slashes (/), and underscores (_). You cannot specify multibyte characters.</p> <p>The shared directory must be unique in the cluster. Note that the directory names <code>.conflict</code>, <code>.conflict_1</code>, <code>ongpath</code>, <code>.snaps</code>, <code>.history</code>, and <code>.lost+found</code> cannot be specified, and the directory names <code>.arc</code>, <code>.system_gi</code>, <code>.system_reorganize</code>, <code>.backupdates</code>, <code>.temp_backupdates</code>, and <code>lost+found</code> cannot be specified directly under a file system. The path cannot contain symbolic links. A forward slash or space specified at the end of the string will be removed.</p> <p>For read-write-content-sharing file systems, specify a mount point.</p>	Required
	anonymousUID	<p>Sets the user ID used for access as an anonymous user.</p> <p>You can specify an ID from 0 to 65535. If you omit this, 65534 is set.</p>	Optional

Properties	Description	Specification
anonymousGID	Sets the group ID used for access as an anonymous user. You can specify an ID from 0 to 65535. If you omit this, 65534 is set.	Optional
isPortRestrictionEnabled	Specifies whether to receive requests from only Internet ports whose numbers are smaller than 1024. true Specify this value to receive requests from only Internet ports whose numbers are smaller than 1024. false# Specify this value to receive requests from all Internet ports.	Optional
isSubtreeCheckEnabled	Sets to check for whether execution permission (x) exists for all directories (subtrees), including the shared directory and the directory that contains the file or directory to be accessed. true Specify this value to check the subtree. false# Specify this value to not check the subtree.	Optional
isAccessCheckWithLockRequestEnabled	Sets whether a permission check is performed if locking is requested. true Specify this value to enable a permission check. false# Specify this value to disable a permission check.	Optional
maxRwSize	Sets the maximum transfer length, from 4 to 1024 in KB, for the NFS share. If you omit this, no value is set.	Optional
NamespaceShareSettings	--	This property can be specified if the data from

Properties		Description	Specification
			another HDI system is referenced as read-only at the share level. This property need not be specified if information for the target directory has already been set.
--	type	Specify Read Only.	Required if the NamespaceShareSettings property is set.
	FQDN	Sets the name of the HCP namespace in FQDN (Fully Qualified Domain Name) format. If information for the target directory has already been set, specify the same value as that set for the directory.	Required if the NamespaceShareSettings property is set.
	externalHcpHostName	If the HCP system to be linked uses a relaying device, such as a load balancer, when connecting to the network, specify the host name or IP address that has been made external and is used to connect to the HCP system. If information for the target directory has already been set, the set value is overwritten.	Can be specified when the NamespaceShareSettings property is set.
	user	Sets the user name of the account used to access the HCP namespace. If information for the target directory has already been set, specify the same value as that set for the directory.	Required if the NamespaceShareSettings property is set.
	password	Sets the password of the account used to access the HCP namespace. If information for the target directory has already been set, the set value is overwritten.	Required if the NamespaceShareSettings property is set.
	hcpReplicaHost	Sets the host name of the replica HCP system.	Can be specified when the NamespaceShare

Properties			Description	Specification
			If information for the target directory has already been set, the set value is overwritten.	eSettings property is set.
		externalReplicaHcpHostName	If the replica HCP system to be linked uses a relaying device, such as a load balancer, when connecting to the network, specify the host name or IP address that has been made external and is used to connect to the replica HCP system. If information for the target directory has already been set, the set value is overwritten.	Can be specified when the NamespaceShareSettings property is set.
	AllowedHosts		--	Optional
--	AllowedHost		--	Optional
	--	hostOrAddress	Sets the hosts allowed to access the NFS share. Specify 255 characters or fewer. The string cannot start with a hyphen (-). If you specify a host alias, the official host name also must be 255 characters or fewer. Note that the total length (specified length + 5 bytes) of the specified host names or network addresses must be less than 1,258 bytes. In addition to the host name and the IP address, you can use the following format: Netgroup Specify an NIS netgroup. For example, for @group, only host segment is extracted from the netgroup members. IP network To permit all hosts in the subnetwork to access the NFS share, specify the IP address and the netmask in the following format: <i>address/netmask</i> The netmask can be specified in dotted decimal format or as continuous masks. DNS domain	Required

Properties			Description	Specification
			<p>Specify the name of the DNS domain to which NFS clients belong, with a period (.) added at the beginning of the name.</p> <p>Example: <code>.example.com</code></p> <p>Wild card</p> <p>To specify all hosts, use an asterisk (*) as a wild card.</p> <p>When the NFS client machine has multiple network interfaces communicating with the HDI system, specify the hosts and networks allowed to access the NFS share in one of the following formats:</p> <ul style="list-style-type: none"> • Use a wild card (*). • Specify the IP addresses of all network interfaces used on the NFS client side. • Specify the host names for all network interfaces used on the NFS client side. • Specify an IP network that contains the IP addresses of all network interfaces used on the NFS client side. • Specify a netgroup that contains the host names for all network interfaces used on the NFS client side. • Specify a DNS domain that contains the host names for all network interfaces used on the NFS client side. 	
		<code>isReadOnly</code>	<p>Sets whether to permit the NFS share to be read only.</p> <p><code>true</code></p> <p>Specify this value to set the share as read-only.</p> <p><code>false#</code></p> <p>Specify this value to not set the share as read-only.</p>	Optional
		<code>synchronousWritingSetting</code>	<p>Sets whether to optimize synchronous writing. This item is effective only when the <code>isReadOnly</code> property is <code>false</code>.</p> <p><code>rw_sync#</code></p>	Optional

Properties			Description	Specification
			<p>Specify this value to not optimize synchronous writing.</p> <p><code>rw_sync_opt</code></p> <p>Specify this value to optimize synchronous writing.</p>	
		<code>anonymousMapping</code>	<p>Sets this property to use mapping for the anonymous user.</p> <p><code>everyone</code></p> <p>Specify this value to map all users to the anonymous user.</p> <p><code>root_only#</code></p> <p>Specify this value to map only the root user to the anonymous user.</p> <p><code>none</code></p> <p>Specify this value if mapping to the anonymous user is not to be performed.</p>	Optional
		<code>securityFlavor</code>	<p>Sets the security flavor.</p> <p>To specify multiple security flavors, separate them by using periods (.). You cannot specify <code>default</code> with other security flavors.</p> <p><code>sys</code></p> <p>Specify this value to apply UNIX (<code>AUTH_SYS</code>) authentication.</p> <p><code>krb5</code></p> <p>Specify this value to apply Kerberos authentication.</p> <p><code>krb5i</code></p> <p>Specify this value to apply data integrity verification in addition to Kerberos authentication.</p> <p><code>krb5p</code></p> <p>Specify this value to apply data integrity verification and provide privacy in addition to Kerberos authentication.</p> <p><code>default#</code></p> <p>Specify this value to apply the security flavor value</p>	Optional

Properties			Description	Specification
			<p>indicated on the NFS Service Management page of the GUI. Other values cannot be specified when this value is specified.</p> <p>The value that is set at the time that the method is executed is applied.</p>	
	DirectorySetup		<p>Specify this if you want to create a shared directory whenever a share is created.</p> <p>To check the values set for this property, check if the created shared directory can be accessed from a client.</p>	Can be specified if the HCP system is not linked or <code>type</code> property of the FileSystem resource is set to Read/Write.
--	userName		<p>Sets the user name or user ID of the owner for a directory to be created.</p> <p>For a user ID, specify an ID from 0 to 2147483147. Note that, for an ID other than 0, you cannot specify 0 at the beginning of the ID. You cannot specify a built-in user for a Windows domain.</p> <p>If this setting is omitted, root will be set for the <code>userName</code> and <code>groupName</code> properties, and access privileges will not be set for the <code>isStickyBit</code>, <code>ownerPermission</code>, <code>groupPermission</code>, and <code>otherPermission</code> properties.</p>	Can be specified if the <code>DirectorySetup</code> property is set.
		groupName	<p>Specifies the name or ID of the group that owns the directory.</p> <p>For a group ID, specify an ID from 0 to 2147483147. Note that, for an ID other than 0, you cannot specify 0 at the beginning of the ID. You cannot specify a built-in group for a Windows domain.</p> <p>If this setting is omitted, root will be set for the <code>userName</code> and <code>groupName</code> properties, and access privileges will not be set for the <code>isStickyBit</code>, <code>ownerPermission</code>, <code>groupPermission</code>, and <code>otherPermission</code> properties.</p>	Can be specified if the <code>DirectorySetup</code> property is set.

Properties		Description	Specification
	isStickyBit	<p>Sets whether to use the sticky bit.</p> <p>This property is valid only when the <code>userName</code> and <code>groupName</code> properties are set.</p> <p><code>true</code></p> <p>Specify this value to use the sticky bit.</p> <p><code>false#</code></p> <p>Specify this value to not use the sticky bit.</p>	Can be specified if the <code>DirectorySetup</code> property is set.
	ownerPermission	<p>Sets the access privileges the owner has for the directory.</p> <p>This property is valid only when the <code>userName</code> and <code>groupName</code> properties are set.</p> <p>If the <code>ownerPermission</code> property is omitted, no default access privileges are assumed for it. However, if all of the <code>isStickyBit</code>, <code>groupPermission</code>, and <code>otherPermission</code> properties are omitted, <code>rw</code> is set for the <code>ownerPermission</code> property.</p> <p><code>rw</code></p> <p>Specify this value to permit reading and writing.</p> <p><code>ro</code></p> <p>Specify this value to permit only reading.</p> <p><code>none</code></p> <p>Specify this value to prohibit reading and writing.</p>	Can be specified if the <code>DirectorySetup</code> property is set.
	groupPermission	<p>Sets the access privileges a group has for the directory.</p> <p>This property is valid only when the <code>userName</code> and <code>groupName</code> properties are set.</p> <p>If the <code>groupPermission</code> property is omitted, no default access privileges are assumed for it. However, if all of the <code>isStickyBit</code>, <code>ownerPermission</code>, and <code>otherPermission</code> properties are omitted, <code>ro</code> is set for the <code>groupPermission</code> property.</p> <p>For details about the access permissions that can be set, see</p>	Can be specified if the <code>DirectorySetup</code> property is set.

Properties		Description	Specification
		the description of the <code>ownerPermission</code> property.	
	<code>otherPermission</code>	<p>Sets the access privileges others have for the directory.</p> <p>This property is valid only when the <code>userName</code> and <code>groupName</code> properties are set.</p> <p>If the <code>otherPermission</code> property is omitted, no default access privileges are assumed for it. However, if all of the <code>isStickyBit</code>, <code>ownerPermission</code>, and <code>groupPermission</code> properties are omitted, <code>ro</code> is set for the <code>otherPermission</code> property.</p> <p>For details about the access permissions that can be set, see the description of the <code>ownerPermission</code> property.</p>	Can be specified if the <code>DirectorySetup</code> property is set.
	<code>DirectoryACLSettings</code>	<p>Specify this if you want to set the ACL for a shared directory.</p> <p>To check the values set for this property, check if the created shared directory can be accessed from a client.</p>	Can be specified if the <code>isClassicAcl</code> property is set to <code>false</code> .
--	<code>DirectoryACLSetting</code>	--	Required if the <code>DirectoryACLSettings</code> property is set.
--	<code>userGroupAccess</code>	<p>Sets the access privileges for ACL users and groups.</p> <p><code>allow</code></p> <p>Specify this value to set the <code>allow</code> access privileges for the specified users or groups. The privileges are added as the ACEs of the users or groups. If ACEs are already set, the access privileges are combined. If multiple ACEs are set for a user, the ACEs are combined into one ACE.</p> <p><code>replace</code></p> <p>Specify this value to set the <code>allow</code> access privileges for the specified users and groups and to replace the access privileges of the users and groups with the specified ACEs.</p>	Required if the <code>DirectoryACLSetting</code> property is set.

Properties			Description	Specification
			deny Specify this value to set the deny access privileges for the specified users and groups and to replace the access privileges of the users and groups with the specified ACEs.	
		name	Sets a user name or group name in the ACL.	Required if the DirectoryACLSetting property is set.
		accountType	u Specify this value to set the access privileges for the users. g Specify this value to set the access privileges for the groups.	Required if the DirectoryACLSetting property is set.
		applicationDestination	o Specify this value to apply to the directory only. a Specify this value to apply to the directory, subdirectories, and files. f Specify this value to apply to the directory and subdirectories. e Specify this value to apply to the directory and files. s Specify this value to apply to the subdirectories and files. u Specify this value to apply to the subdirectories only. i Specify this value to apply to the files only.	Required if the DirectoryACLSetting property is set.
		inheritanceRange	Sets the scope of ACE inheritance.	Required if the DirectoryACLSetting property is set.

Properties			Description	Specification
			<p>o Specify this value for only the directories and files immediately under the directory to inherit ACEs.</p> <p>a Specify this value for all the directories and files under the directory to inherit ACEs.</p>	<p>etting property is set.</p>
		accessPermission	<p>Sets access privileges. To set multiple access privileges, use two colons (: :) as a separator.</p> <p>f Specify this value to allow Full Control.</p> <p>s Specify this value to allow Traverse Folder/Execute File.</p> <p>r Specify this value to allow List Folder/Read Data.</p> <p>a Specify this value to allow Read Attributes.</p> <p>e Specify this value to allow Read Extended Attributes.</p> <p>w Specify this value to allow Create Files/Write Data.</p> <p>p Specify this value to allow Create Folders/Append Data.</p> <p>t Specify this value to allow Write Attributes.</p> <p>x Specify this value to allow Write Extended Attributes.</p> <p>l Specify this value to allow Delete Subfolders and Files.</p> <p>d Specify this value to allow Delete.</p> <p>c</p>	<p>Required if the DirectoryACLSetting property is set.</p>

Properties				Description	Specification
				Specify this value to allow Read Permissions. h	
				Specify this value to allow Change Permissions. g	
				Specify this value to allow Take ownership.	

#: This is the default value used when the property is omitted.

The following shows an example of creating an NFS share by sending a PUT method request to the NFSShare resource.

URI of the resource to which a request is sent

`https://host-name-or-IP-address:9090/mapi/NFSShares`

Example of a request XML

```
<?xml version="1.0" encoding="UTF-8" standalone="yes"?>
<NFSShare>
  <exportPoint>/mnt/fs/nfs</exportPoint>
  <anonymousUID>22222</anonymousUID>
  <anonymousGID>22222</anonymousGID>
  <isPortRestrictionEnabled>true</isPortRestrictionEnabled>
  <isSubtreeCheckEnabled>true</isSubtreeCheckEnabled>
  <isAccessCheckWithLockRequestEnabled>true</
isAccessCheckWithLockRequestEnabled>
  <maxRwSize>5</maxRwSize>
  <AllowedHosts>
    <AllowedHost>
      <hostOrAddress>*</hostOrAddress>
      <isReadOnly>true</isReadOnly>
      <synchronousWritingSetting>rw_sync</
synchronousWritingSetting>
      <anonymousMapping>root_only</anonymousMapping>
      <securityFlavor>sys</securityFlavor>
    </AllowedHost>
  </AllowedHosts>
  <DirectorySetup>
    <userName>22222</userName>
    <groupName>11111</groupName>
    <isStickyBit>true</isStickyBit>
    <ownerPermission>rw</ownerPermission>
    <groupPermission>rw</groupPermission>
    <otherPermission>rw</otherPermission>
  </DirectorySetup>
  <DirectoryACLSettings>
    <DirectoryACLSetting>
      <userGroupAccess>allow</userGroupAccess>
      <name>Everyone</name>
      <accountType>g</accountType>
      <applicationDestination>a</applicationDestination>
      <inheritanceRange>a</inheritanceRange>
    </DirectoryACLSetting>
  </DirectoryACLSettings>
</NFSShare>
```

```

        <accessPermission>r</accessPermission>
      </DirectoryACLSetting>
    </DirectoryACLSettings>
  </NFSShare>

```

The following table describes the status codes output when the method ends.

Table 3-111 Status codes returned when a PUT method request is sent to the NFSShare resource

Status code	Description
200	Execution of the method ended successfully.
Other codes	Execution of the method ended abnormally. See Table 1-3 HTTP status codes that can be generated when a request terminates abnormally on page 1-9 .

NFSShares/NFS-share-directory-name resource

This section describes how to use the *NFSShares/NFS-share-directory-name* resource.

Acquiring information for the specified NFS share by using the GET method

You must specify the path name of the shared directory by using the query parameter SHARE-DIRECTORY-NAME.

The following table describes the structure of the response XML output when the method ends.

Table 3-112 Structure of the response XML when a GET method request is sent to the NFSShares/NFS-share-directory-name resource

Properties		Number of response XMLs output	Supported configurations	Displayed value when verbose is false
NFSShare		1	Cluster Single node	Y
--	exportPoint	1	Cluster Single node	Y
	anonymousUID	1	Cluster Single node	Y
	anonymousGID	1	Cluster Single node	Y
	isPortRestrictionEnabled	1	Cluster Single node	Y
	isSubtreeCheckEnabled	1	Cluster Single node	Y

Properties		Number of response XMLs output	Supported configurations	Displayed value when verbose is false	
	isAccessCheckWithLockRequestEnabled	1	Cluster Single node	Y	
	aclType	1	Cluster Single node	N	
	maxRwSize	1	Cluster Single node	Y	
	NamespaceShareSettings	0 or 1	Cluster Single node	N	
--	type	1	Cluster Single node	N	
	FQDN	1	Cluster Single node	N	
	externalHcpHostName	1	Cluster Single node	N	
	user	1	Cluster Single node	N	
	password	1	Cluster Single node	N	
	hcpReplicaHost	1	Cluster Single node	N	
	externalReplicaHcpHostName	1	Cluster Single node	N	
	hcpNamespace	1	Cluster Single node	N	
	AllowedHosts	1	Cluster Single node	Y	
--	AllowedHost	1 to <i>n</i>	Cluster Single node	Y	
	--	hostOrAddress	1	Cluster Single node	Y
		isReadOnly	1	Cluster Single node	Y
		synchronousWritingSetting	1	Cluster Single node	Y
		anonymousMapping	1	Cluster	Y

Properties			Number of response XMLs output	Supported configurations	Displayed value when verbose is false
				Single node	
		securityFlavor	1	Cluster Single node	Y

Legend: *n*: An integer of 2 or more, Y: Displayed, N: Not displayed.

For the properties displayed when a GET method request is sent to the NFSShares/*NFS-share-directory-name* resource, see [Table 3-107 Properties displayed when a GET method request is sent to the NFSShare resource on page 3-173](#).

The following shows an example of acquiring NFS share information by sending a GET method request to the NFSShares/*NFS-share-directory-name* resource.

URI of the resource to which a request is sent

`https://host-name-or-IP-address:9090/mapi/NFSShares/NFS-share-directory-name`

Response XML example

```
<?xml version="1.0" encoding="UTF-8" standalone="yes"?>
<NFSShare>
  <exportPoint>/mnt/fs/nfs</exportPoint>
  <anonymousUID>22222</anonymousUID>
  <anonymousGID>22222</anonymousGID>
  <isPortRestrictionEnabled>true</isPortRestrictionEnabled>
  <isSubtreeCheckEnabled>true</isSubtreeCheckEnabled>
  <isAccessCheckWithLockRequestEnabled>true</
isAccessCheckWithLockRequestEnabled>
  <maxRwSize>5</maxRwSize>
  <AllowedHosts>
    <AllowedHost>
      <hostOrAddress>*</hostOrAddress>
      <isReadOnly>true</isReadOnly>
      <synchronousWritingSetting>rw_sync</
synchronousWritingSetting>
      <anonymousMapping>root_only</anonymousMapping>
      <securityFlavor>sys</securityFlavor>
    </AllowedHost>
  </AllowedHosts>
</NFSShare>
```

The following table describes the status codes output when the method ends.

Table 3-113 Status codes returned when a GET method request is sent to the NFSShares/NFS-share-directory-name resource

Status code	Description
200	Execution of the method ended successfully.
Other codes	Execution of the method ended abnormally. See Table 1-3 HTTP status codes that can be generated when a request terminates abnormally on page 1-9 .

Editing NFS share information by using the POST method

You must specify the path name of the shared directory by using the query parameter SHARE-DIRECTORY-NAME.

The following table describes the XML structure when a POST method request is sent to the NFSShares/NFS-share-directory-name resource.

Table 3-114 XML structure when a POST method request is sent to the NFSShares/NFS-share-directory-name resource

Properties		Data type	Number of items that can be specified	Supported configurations
NFSShare		--	1	Cluster Single node
--	anonymousUID	Integer	0 or 1	Cluster Single node
	anonymousGID	Integer	0 or 1	Cluster Single node
	isPortRestrictionEnabled	Boolean	0 or 1	Cluster Single node
	isSubtreeCheckEnabled	Boolean	0 or 1	Cluster Single node
	isAccessCheckWithLockRequestEnabled	Boolean	0 or 1	Cluster Single node
	maxRwSize	Integer	0 or 1	Cluster Single node
	NamespaceShareSettings	--	0 or 1	Cluster Single node
--	type	String	0 or 1	Cluster Single node
	FQDN	String	0 or 1	Cluster Single node

Properties		Data type	Number of items that can be specified	Supported configurations	
	externalHcpHostName	String	0 or 1	Cluster Single node	
	user	String	0 or 1	Cluster Single node	
	password	String	0 or 1	Cluster Single node	
	hcpReplicaHost	String	0 or 1	Cluster Single node	
	externalReplicaHcpHostName	String	0 or 1	Cluster Single node	
	AllowedHosts	--	1	Cluster Single node	
--	AllowedHost	--	1 to n	Cluster Single node	
	--	hostOrAddress	String	1	Cluster Single node
		isReadOnly	Boolean	0 or 1	Cluster Single node
		synchronousWritingSetting	String	0 or 1	Cluster Single node
		anonymousMapping	String	0 or 1	Cluster Single node
		securityFlavor	String	0 or 1	Cluster Single node

Legend: n : An integer of 2 or more.

The following table describes the properties to be specified when sending a POST method request to the NFSShares/*NFS-share-directory-name* resource.

Table 3-115 Properties used to send a POST method request to the NFSShares/*NFS-share-directory-name* resource

Properties		Description	Specification
NFSShare		--	--
--	anonymousUID	Sets the user ID used for access as an anonymous user. You can specify an ID from 0 to 65535.	Optional

Properties	Description	Specification
anonymousGID	Sets the group ID used for access as an anonymous user. You can specify an ID from 0 to 65535.	Optional
isPortRestrictionEnabled	Specifies whether to receive requests from only Internet ports whose numbers are smaller than 1024. true Specify this value to receive requests from only Internet ports whose numbers are smaller than 1024. false Specify this value to receive requests from all Internet ports.	Optional
isSubtreeCheckEnabled	Sets to check for whether execution permission (x) exists for all directories (subtrees), including the shared directory and the directory that contains the file or directory to be accessed. true Specify this value to check the subtree. false Specify this value to not check the subtree.	Optional
isAccessCheckWithLockRequestEnabled	Sets whether a permission check is performed if locking is requested. true Specify this value to enable a permission check. false Specify this value to disable a permission check.	Optional
maxRwSize	Sets the maximum transfer length, from 4 to 1024 in KB, for the NFS share.	Optional
NamespaceShareSettings	--	This property can be specified if the data from another HDI system is referenced as

Properties		Description	Specification
			read-only at the share level. This property need not be specified if information for the target directory has already been set.
--	type	Specify Read Only.	Required if the NamespaceShareSettings property is set.
	FQDN	Sets the name of the HCP namespace in FQDN (Fully Qualified Domain Name) format. If information for the target directory has already been set, specify the same value as that set for the directory.	Required if the NamespaceShareSettings property is set.
	externalHcpHostName	If the HCP system to be linked uses a relaying device, such as a load balancer, when connecting to the network, specify the host name or IP address that has been made external and is used to connect to the HCP system. If information for the target directory has already been set, the set value is overwritten. The set information is deleted if you omit settings or specify a null string for this property. However, the set information is not deleted if you also omit settings for the NamespaceShareSettings property.	Can be specified when the NamespaceShareSettings property is set.
	user	Sets the user name of the account used to access the HCP namespace. If information for the target directory has already been set, specify the same value as that set for the directory.	Required if the NamespaceShareSettings property is set.
	password	Sets the password of the account used to access the HCP namespace. If information for the target directory has already been set, the set value is overwritten.	Required if the NamespaceShareSettings property is set.

Properties		Description	Specification
	hcpReplicaHost	<p>Sets the host name of the replica HCP system.</p> <p>If information for the target directory has already been set, the set value is overwritten.</p> <p>The set information is deleted if you omit settings or specify a null string for this property. However, the set information is not deleted if you also omit settings for the <code>NamespaceShareSettings</code> property.</p>	Can be specified when the <code>NamespaceShareSettings</code> property is set.
	externalReplicaHcpHostName	<p>If the replica HCP system to be linked uses a relaying device, such as a load balancer, when connecting to the network, specify the host name or IP address that has been made external and is used to connect to the replica HCP system.</p> <p>If information for the target directory has already been set, the set value is overwritten.</p> <p>The set information is deleted if you omit settings or specify a null string for this property. However, the set information is not deleted if you also omit settings for the <code>NamespaceShareSettings</code> property.</p>	Can be specified when the <code>NamespaceShareSettings</code> property is set.
	AllowedHosts	--	--
--	AllowedHost	--	--
--	hostOrAddress	<p>Sets the hosts allowed to access the NFS share.</p> <p>Specify 255 characters or fewer. The string cannot start with a hyphen (-). If you specify a host alias, the official host name also must be 255 characters or fewer.</p> <p>Note that the total length (specified length + 5 bytes) of the specified host names or network addresses must be less than 1,258 bytes.</p> <p>In addition to the host name and the IP address, you can use the following format:</p> <p>Netgroup Specify an NIS netgroup.</p>	Required

Properties				Description	Specification
				<p>For example, for @group, only host segment is extracted from the netgroup members.</p> <p>IP network</p> <p>To permit all hosts in the subnetwork to access the NFS share, specify the IP address and the netmask in the following format:</p> <p><i>address/netmask</i></p> <p>The netmask can be specified in dotted decimal format or as continuous masks.</p> <p>DNS domain</p> <p>Specify the name of the DNS domain to which NFS clients belong, with a period (.) added at the beginning of the name.</p> <p>Example: .example.com</p> <p>Wild card</p> <p>To specify all hosts, use an asterisk (*) as a wild card.</p> <p>When the NFS client machine has multiple network interfaces communicating with the HDI system, specify the hosts and networks allowed to access the NFS share in one of the following formats:</p> <ul style="list-style-type: none"> • Use a wild card (*). • Specify the IP addresses of all network interfaces used on the NFS client side. • Specify the host names for all network interfaces used on the NFS client side. • Specify an IP network that contains the IP addresses of all network interfaces used on the NFS client side. • Specify a netgroup that contains the host names for all network interfaces used on the NFS client side. • Specify a DNS domain that contains the host names for all network interfaces used on the NFS client side. 	

Properties			Description	Specification
		isReadOnly	<p>Sets whether to permit the NFS share to be read only.</p> <p>true</p> <p>Specify this value to set the share as read-only.</p> <p>false</p> <p>Specify this value to not set the share as read-only.</p>	Optional
		synchronousWritingSetting	<p>Sets whether to optimize synchronous writing. This item is effective only when the isReadOnly property is false.</p> <p>rw_sync</p> <p>Specify this value to not optimize synchronous writing.</p> <p>rw_sync_opt</p> <p>Specify this value to optimize synchronous writing.</p>	Optional
		anonymousMapping	<p>Sets this property to use mapping for the anonymous user.</p> <p>everyone</p> <p>Specify this value to map all users to the anonymous user.</p> <p>root_only</p> <p>Specify this value to map only the root user to the anonymous user.</p> <p>none</p> <p>Specify this value if mapping to the anonymous user is not to be performed.</p>	Optional
		securityFlavor	<p>Sets the security flavor.</p> <p>sys</p> <p>Specify this value to apply UNIX (AUTH_SYS) authentication.</p> <p>krb5</p> <p>Specify this value to apply Kerberos authentication.</p> <p>krb5i</p> <p>Specify this value to apply data integrity verification in addition to Kerberos authentication.</p>	Optional

Properties				Description	Specification
				krb5p Specify this value to apply data integrity verification and provide privacy in addition to Kerberos authentication.	
				default Specify this value to apply the security flavor value indicated on the NFS Service Management page of the GUI.	

The following shows an example of editing NFS share information by sending a POST method request to the `NFSShares/NFS-share-directory-name` resource.

URI of the resource to which a request is sent

`https://host-name-or-IP-address:9090/mapi/NFSShares/NFS-share-directory-name`

Example of a request XML

```
<?xml version="1.0" encoding="UTF-8" standalone="yes"?>
<NFSShare>
  <anonymousUID>33333</anonymousUID>
  <anonymousGID>33333</anonymousGID>
  <isPortRestrictionEnabled>>false</isPortRestrictionEnabled>
  <isSubtreeCheckEnabled>>false</isSubtreeCheckEnabled>
  <isAccessCheckWithLockRequestEnabled>>false</
isAccessCheckWithLockRequestEnabled>
  <maxRwSize>6</maxRwSize>
  <AllowedHosts>
    <AllowedHost>
      <hostOrAddress>*</hostOrAddress>
      <isReadOnly>>false</isReadOnly>
      <synchronousWritingSetting>rw_sync</
synchronousWritingSetting>
      <anonymousMapping>root_only</anonymousMapping>
      <securityFlavor>sys</securityFlavor>
    </AllowedHost>
  </AllowedHosts>
</NFSShare>
```

The following table describes the status codes output when the method ends.

Table 3-116 Status codes returned when a POST method request is sent to the `NFSShares/NFS-share-directory-name` resource

Status code	Description
200	Execution of the method ended successfully.

Status code	Description
Other codes	Execution of the method ended abnormally. See Table 1-3 HTTP status codes that can be generated when a request terminates abnormally on page 1-9 .

Deleting the specified NFS share by using the DELETE method

You must specify the path name of the shared directory by using the query parameter SHARE-DIRECTORY-NAME.

The shared directory is not deleted even if an NFS share is deleted.

The following table describes the status codes output when the method ends.

Table 3-117 Status codes returned when a DELETE method request is sent to the NFSShares/NFS-share-directory-name resource

Status code	Description
200	Execution of the method ended successfully.
Other codes	Execution of the method ended abnormally. See Table 1-3 HTTP status codes that can be generated when a request terminates abnormally on page 1-9 .

Checking whether the specified NFS share exists by using the HEAD method

You must specify the path name of the shared directory by using the query parameter SHARE-DIRECTORY-NAME.

The following table describes the status codes output when the method ends.

Table 3-118 Status codes returned when a HEAD method request is sent to the NFSShares/NFS-share-directory-name resource

Status code	Description
200	The specified NFS share can be used.
Other codes	Execution of the method ended abnormally. See Table 1-3 HTTP status codes that can be generated when a request terminates abnormally on page 1-9 .

ProcessingNode

ProcessingNode resource overview

You can use the ProcessingNode resource to acquire cluster and node information and to set a host name.

The following table describes the HTTP methods that can be used for the ProcessingNode resource.

Table 3-119 HTTP methods that can be used for the ProcessingNode resource

Resource URI	HTTP method	Supported configurations	Description
/ProcessingNode	GET	Cluster Single node	Acquires cluster and node information.
	POST	Single node	Edits a host name.

ProcessingNode resource

This section describes how to use the ProcessingNode resource.

Acquiring cluster and node information by using the GET method

The following describes how to use the GET method to acquire cluster and node information.

The following table describes the structure of the response XML output when the method ends.

Table 3-120 Structure of the response XML when a GET method request is sent to the ProcessingNode resource

Properties		Number of response XMLs output	Supported configurations	Displayed value when verbose is false
ProcessingNode		1	Cluster Single node	Y
--	SystemConfiguration	1	Cluster Single node	N
--	mode	1	Cluster Single node	N
status		1	Cluster Single node	N
name		1	Cluster Single node	N
LU		1	Cluster	N
--	model	1	Cluster	N
--	serial	1	Cluster	N
--	ldev	1	Cluster	N
PhysicalNode		For cluster configurations: 2	Cluster Single node	Y

Properties		Number of response XMLs output	Supported configurations	Displayed value when verbose is false
		For single-node configurations: 1		
--	location	1	Cluster Single node	N
	hostName	1	Cluster Single node	Y
	physicalNodeName	1	Cluster Single node	N
	status	1	Cluster Single node	N
	managementLANAddress	1	Cluster Single node	N
	managementLANAddressIPv6	1	Cluster Single node	N
	HBLanAddress	1	Cluster Single node	N
	BMCLanAddress	1	Cluster Single node	N
	resourceGroupStatus	1	Cluster Single node	N
	resourceGroupErrorInfo	1	Cluster Single node	N
	runningNode	1	Cluster Single node	N
	serial	1	Cluster Single node	N
	SystemVersion	1	Cluster Single node	N
--	name	1	Cluster Single node	N
	version	1	Cluster Single node	N

Legend: Y: Displayed, N: Not displayed.

The following table describes the properties displayed when a GET method request is sent to the ProcessingNode resource.

Table 3-121 Properties displayed when a GET method request is sent to the ProcessingNode resource

Properties		Description
ProcessingNode		--
--	SystemConfiguration	--
--	mode	Displays the configuration. CLUSTER The system is in a cluster configuration. SINGLE The system is in a single-node configuration.
	status	Displays the status of the cluster. #1 ACTIVE The cluster is running normally. INACTIVE The cluster has stopped. UNKNOWN#2 The status cannot be determined. DISABLE The failover functionality is disabled due to a failure. UNDEF No clusters have been defined or the system is in a single-node configuration.
	name	Displays the cluster name (no more than 22 bytes). A null string is displayed if no clusters have been defined or the system is in a single-node configuration.
	LU	--
--	model	Displays the model of the storage system the shared LU is in.
	serial	Displays the serial number (no more than 16 bytes) of the storage system the shared LU is in. A null string is displayed if no clusters have been configured.
	ldev	Displays the LDEV number (no more than 5 bytes) of the LU assigned to the shared LU. Displays a null string if an LDEV number has not been assigned to the shared LU or if no clusters have been configured.
	PhysicalNode	--
--	location	Displays the unit name (node 0 or node 1). A null string is displayed for the other node when no clusters have been configured.

Properties		Description
	hostName	Displays the host name. UNDEF This is displayed for the other node when no clusters have been configured.
	physicalNodeName	Displays the node name (no more than 22 bytes). A null string is displayed if no clusters have been configured or the system is in a single-node configuration.
	status	Displays the status of the node. #1 UP The node is running normally. DOWN The node has terminated abnormally. INACTIVE The node is in a planned shutdown status. UNKNOWN#2 The status cannot be determined. UNDEF No clusters have been defined or the system is in a single-node configuration.
	managementLANAddress	Displays the IP address of the management LAN. A null string is displayed if the IP address is not set or for the other node when no clusters have been configured.
	managementLANAddressIPv6	Displays the IPv6 address of the management LAN. A null string is displayed if the IP address is not set or for the other node when no clusters have been configured.
	HBLanAddress	Displays the IP address of the heartbeat LAN. A null string is displayed if no clusters have been configured or the system is in a single-node configuration.
	BMCLanAddress	Displays the IP address of the BMC port. A null string is displayed in the following situations: if the IP address is not set, if a BMC port is not connected to an IP switch, or if no clusters have been configured and the address is for the other node. Note: If the node model is D51B-2U, immediately after you use the <code>bmcctl</code> command to set an interface for the BMC port, in some cases <code>0.0.0.0</code> is displayed instead of the set IP address. In such cases, wait a while, and then try again.

Properties		Description
	resourceGroupStatus	<p>Displays the status of the resource group.</p> <p>Online The resource group is running.</p> <p>Online Ready^{#3} The resource group cannot start because the cluster is inactive. This is displayed also when the cluster status is <code>DISABLE</code>.</p> <p>Online Pending The resource group is being started.</p> <p>Online Maintenance^{#3} Monitoring is disabled.</p> <p>Initializing^{#3} The resource group is being initialized.</p> <p>Discovery (exclusivity)^{#3} Online processing is being performed for the resource group before operations begin.</p> <p>Offline The resource group is in the planned shutdown status. This is displayed also when the cluster status is <code>DISABLE</code>.</p> <p>Offline Pending The resource group is being stopped.</p> <p>Internal Error^{#3} An internal error was detected.</p> <p>Partial Online The resources are partially blocked. This is displayed only for a single-node configuration.</p> <p>UNDEF^{#3} No clusters have been defined.</p>
	resourceGroupErrorInfo	<p>Displays error information for the resource group.</p> <p>No error No error has occurred.</p> <p>Internal error - not recoverable^{#3} An irrecoverable internal error has occurred.</p> <p>Monitor activity unknown^{#3} An error occurred during the processing to start or stop the maintenance mode.</p> <p>No available nodes^{#3} A monitoring error was detected on the last failover node.</p> <p>Node not available(exclusivity)^{#3} The HA service is inactive on the node to which the resource group is to be failed over.</p>

Properties		Description
		<p>Node unknown^{#3}</p> <p>The resource group cannot start because the node status is UNKNOWN.</p> <p>Split resource group(exclusivity)^{#3}</p> <p>Duplicate resource groups are running in the cluster.</p> <p>srmd executable error^{#3}</p> <p>An error occurred during start or stop processing.</p> <p>OS error</p> <p>An error occurred during start or stop processing.</p> <p>UNDEF^{#3}</p> <p>No clusters have been defined.</p>
	runningNode	<p>Displays the name (no more than 22 bytes) of the node on which the resource group is running.</p> <p>A null string is displayed if the name is not set, or if the system is in a single-node configuration.</p>
	serial	<p>Displays the serial number (no more than 64 bytes).</p> <p>A null string is displayed if no clusters have been configured or if the node is the other node when communication with the other node is not available.</p>
	SystemVersion	--
--	name	Displays the product name.
	version	Displays the version of the OS (11 bytes).

#1: If an error occurs in the system, the status of cluster and nodes might not be displayed. In this case, collect the error information and contact the maintenance personnel. For details on how to collect error information, see the *Troubleshooting Guide*.

#2: If you execute the method for a stopped node, UNKNOWN is displayed for the status of the cluster and the other node regardless of the actual status. To check the status of the cluster, nodes, and resource groups, execute the method for the running node (the other node). Also, when a cluster starts up, UNKNOWN is displayed until both OSs on the nodes making up the cluster complete startup (for up to 10 minutes).

#3: This is displayed only for a cluster configuration.

The following shows an example of acquiring cluster information by sending a GET method request to the ProcessingNode resource.

URI of the resource to which a request is sent

`https://host-name-or-IP-address:9090/mapi/ProcessingNode`

Response XML example

```
<?xml version="1.0" encoding="UTF-8" standalone="yes"?>
<ProcessingNode>
  <PhysicalNode>
    <hostName>D6BQLNBX</hostName>
  </PhysicalNode>
</ProcessingNode>
```

The following table describes the status codes output when the method ends.

Table 3-122 Status codes returned when a GET method request is sent to the ProcessingNode resource

Status code	Description
200	Execution of the method ended successfully.
Other codes	Execution of the method ended abnormally. See Table 1-3 HTTP status codes that can be generated when a request terminates abnormally on page 1-9 .

Changing a host name by using the POST method

The following table describes the XML structure when a POST method request is sent to the ProcessingNode resource.

Table 3-123 XML structure when a POST method request is sent to the ProcessingNode resource

Properties	Data type	Number of items that can be specified	Supported configurations
ProcessingNode	--	1	Single node
--	PhysicalNode	1	Single node
--	hostName	1	Single node

The following table describes the properties to be specified when sending a POST method request to the ProcessingNode resource.

Table 3-124 Properties used to send a POST method request to the ProcessingNode resource

Properties	Description	Specification
ProcessingNode	--	--
--	PhysicalNode	--
--	hostName	Required

Sets the host name. You can use alphanumeric characters and hyphens (-). The first character must be a letter. You cannot specify a hyphen at the end of the string. The name must be no more than 15 bytes long.

Properties			Description	Specification
			Note that the words reserved by the system cannot be specified regardless of whether upper case or lower case is used. For details about reserved words, see the <i>Administrator's Guide</i> .	

The following shows an example of changing the host name by sending a POST method request to the ProcessingNode resource.

URI of the resource to which a request is sent

`https://host-name-or-IP-address:9090/mapi/ProcessingNode`

Example of a request XML

```
<?xml version="1.0" encoding="UTF-8" standalone="yes"?>
<ProcessingNode>
  <PhysicalNode>
    <hostName>NewHostName</hostName>
  </PhysicalNode>
</ProcessingNode>
```

The following table describes the status codes output when the method ends.

Table 3-125 Status codes returned when a POST method request is sent to the ProcessingNode resource

Status code	Description
200	Execution of the method ended successfully.
Other codes	Execution of the method ended abnormally. See Table 1-3 HTTP status codes that can be generated when a request terminates abnormally on page 1-9 .

Routing

Routing resource overview

You can use the Routing resource to acquire, add, and delete routing information.

The following table describes the HTTP methods that can be used for the Routing resource.

Table 3-126 HTTP methods that can be used for the Routing resource

Resource URI	HTTP method	Supported configurations	Description
/Routings	GET	Cluster Single node	Acquires routing information that is currently set for the interface.
	POST	Cluster Single node	Adds or deletes routing information.

Routing resource

This section describes how to use the Routing resource.

Acquiring the specified routing information by using the GET method

The following table describes the structure of the response XML output when the method ends.

Table 3-127 Structure of the response XML when a GET method request is sent to the Routing resource

Properties		Number of response XMLs output	Supported configurations	Displayed value when verbose is false
Routings		1	Cluster Single node	Y
--	Routing	0 or 1 to <i>n</i>	Cluster Single node	Y
--	name	1	Cluster Single node	Y
--	type	1	Cluster Single node	Y
--	target	1	Cluster Single node	Y
--	netmask	1	Cluster Single node	Y
--	gateway	1	Cluster Single node	Y
--	isReject	1	Cluster Single node	Y
--	mss	0 or 1	Cluster Single node	N

Properties		Number of response XMLs output	Supported configurations	Displayed value when verbose is false
	dhcp	0 or 1	Cluster Single node	N
	RoutingIPv6	0 or 1 to <i>n</i>	Cluster Single node	Y
--	name	1	Cluster Single node	Y
	type	1	Cluster Single node	Y
	target	1	Cluster Single node	Y
	prefixLength	1	Cluster Single node	Y
	gateway	1	Cluster Single node	Y
	isReject	1	Cluster Single node	Y

Legend: *n*: An integer of 2 or more, Y: Displayed, N: Not displayed.

The following table describes the properties displayed when a GET method request is sent to the Routing resource.

Table 3-128 Properties displayed when a GET method request is sent to the Routing resource

Properties		Description
Routings		--
--	Routing	--
	-- name	Displays the name of the interface.
	-- type	Displays the routing destination. net A network is set. host A host is set. default The default route is set.
	target	Displays the routing destination as a host name, an IP address, or a network address. If the default route is set, <code>default</code> is displayed.

Properties		Description
	netmask	Displays the netmask when a network is set as the routing destination. If a host is set, a null string is displayed. If the default route is set, 0.0.0.0 is displayed.
	gateway	Displays the host name or IP address of the gateway. If no gateway is set, a null string is displayed.
	isReject	Displays whether to reject the destination target. true The destination target is rejected. false The destination target is not rejected.
	mss	Displays the maximum segment size for TCP connections over the route by using no more than 5 bytes. If no maximum segment size is set, a null string is displayed. In this case, the value obtained by subtracting 40 from the MTU value set for the interface is set as the maximum segment size in the storage system.
	dhcp	Displays whether DHCP is used to configure routing information. On DHCP is used. Off DHCP is not used.
	RoutingIPv6	--
--	name	Displays the name of the interface.
	type	Displays the method for setting the routing destination. net A network is set. host A host is set. default The default route is set.
	target	Displays a host name, IPv6 address, or network address as the routing destination. If the default route is set, default is displayed.
	prefixLength	Displays the prefix length if a network is set as the routing destination. 128 A host is set. default The default route is set.

Properties		Description
	gateway	Displays the host name or IPv6 address of the gateway. If no gateway is set, a null string is displayed.
	isReject	Displays whether to reject the destination target. true The destination target is rejected. false The destination target is not rejected.

The following shows an example of acquiring routing information by sending a GET method request to the Routing resource.

URI of the resource to which a request is sent

`https://host-name-or-IP-address:9090/mapi/Routings`

Response XML example

```
<?xml version="1.0" encoding="UTF-8" standalone="yes"?>
<Routings>
  <Routing>
    <name>mng0</name>
    <type>default</type>
    <target>default</target>
    <netmask>0.0.0.0</netmask>
    <gateway>192.168.0.1</gateway>
    <isReject>false</isReject>
    <mss></mss>
    <dhcp>Off</dhcp>
  </Routing>
  <RoutingIPv6>
    <name>mng0</name>
    <type>net</type>
    <target>fd1:afcb:44f9:1000::2:0</target>
    <prefixLength>64</prefixLength>
    <gateway>fd1:afcb:44f9:1000::2:1</gateway>
    <isReject>false</isReject>
  </RoutingIPv6>
</Routings>
```

The following table describes the status codes output when the method ends.

Table 3-129 Status codes returned when a GET method request is sent to the Routing resource

Status code	Description
200	Execution of the method ended successfully.
Other codes	Execution of the method ended abnormally. See Table 1-3 HTTP status codes that can be generated when a request terminates abnormally on page 1-9 .

Adding or deleting routing information by using the POST method

The following table describes the XML structure when a POST method request is sent to the Routing resource.

Table 3-130 XML structure when a POST method request is sent to the Routing resource

Properties		Data type	Number of items that can be specified	Supported configurations
Routing		--	1	Cluster Single node
--	operation	String	1	Cluster Single node
	name	String	1	Cluster Single node
	type	String	0 or 1	Cluster Single node
	target	String	0 or 1	Cluster Single node
	netmask	String	0 or 1	Cluster Single node
	gateway	String	0 or 1	Cluster Single node
	isReject	Boolean	0 or 1	Cluster Single node
RoutingIPv6		--	1	Cluster Single node
--	operation	String	1	Cluster Single node
	name	String	1	Cluster Single node
	type	String	0 or 1	Cluster Single node
	target	String	0 or 1	Cluster Single node
	prefixLength	String	0 or 1	Cluster Single node
	gateway	String	0 or 1	Cluster Single node
	isReject	Boolean	0 or 1	Cluster

Properties	Data type	Number of items that can be specified	Supported configurations
			Single node

The following table describes the properties to be specified when sending a POST method request to the Routing resource.

Table 3-131 Properties used to send a POST method request to the Routing resource

Properties	Description	Specification
Routing	--	--
-- operation	Sets the operation to be performed on the routing information. Add Specify this value to add routing information. Delete Specify this value to delete routing information.	Required
name	Sets the name of the interface to which routing information will be added. <ul style="list-style-type: none"> eth<i>number</i> agr<i>number</i> rdn<i>number</i> 	Required
type#1	Sets how the routing destination is set. net Specify this value to set the network as the routing destination. host Specify this value to set the host as the routing destination. default Specify this value to set the default route.	Required if the operation property is set to Add.
target#2	Sets the host name, IP address, or network address of the routing destination.	Required if either of the following conditions is satisfied: <ul style="list-style-type: none"> The operation property is set to Add, and the type property is set to net or host.

Properties		Description	Specification
			<ul style="list-style-type: none"> The <code>operation</code> property is set to <code>Delete</code>.
	<code>netmask#1</code>	Sets the netmask.	Required if the <code>type</code> property is set to <code>net</code> .
	<code>gateway</code>	Sets the host name or IP address of the gateway. If you omit this, no value is set.	<p>If the <code>operation</code> property is set to <code>Add</code>, the <code>gateway</code> property is required when all of the following conditions are met:</p> <ul style="list-style-type: none"> The <code>type</code> property is set to <code>default</code>. The <code>isReject</code> property is set to <code>false</code>. <p>If the <code>operation</code> property is set to <code>Delete</code>, the <code>gateway</code> property is required when a gateway is set.</p>
	<code>isReject</code>	<p>Sets whether a path for the routing information will be rejected.</p> <p><code>true</code> Specify this value to reject a path.</p> <p><code>false#3</code> Specify this value to set a path.</p>	<p>If the following conditions are satisfied, this property must be set to <code>true</code>:</p> <ul style="list-style-type: none"> The <code>type</code> property is set to <code>default</code>. The <code>gateway</code> property is not specified. <p>Can be set if <code>Add</code> is specified for the <code>operation</code> property.</p>
<code>RoutingIPv6</code>		--	--
--	<code>operation</code>	<p>Sets the operation to be performed on the routing information.</p> <p><code>Add</code> Specify this value to add routing information.</p> <p><code>Delete</code> Specify this value to delete routing information.</p>	Required
	<code>name</code>	<p>Sets the name of the interface to which routing information will be added.</p> <ul style="list-style-type: none"> <code>ethnumber</code> <code>agrnumber</code> <code>rdnnumber</code> <code>mng0</code> 	Required
	<code>type</code>	<p>Sets how the routing destination is set.</p> <p><code>net</code></p>	Required if the <code>operation</code> property is set to <code>Add</code> .

Properties	Description	Specification
	<p>Specify this value to set the network as the routing destination.</p> <p>host</p> <p>Specify this value to set the host as the routing destination.</p> <p>default</p> <p>Specify this value to set the default route.</p>	
target	Sets the host name, IPv6 address, or network address of the routing destination.	<p>Required if either of the following conditions is satisfied:</p> <ul style="list-style-type: none"> The operation property is set to Add, and the type property is set to net or host. The operation property is set to Delete.
prefixLength	Sets the prefix length.	Required if the type property is set to net.
gateway	<p>Sets the host name or IPv6 address of the gateway.</p> <p>If no gateway is set, a null string is displayed.</p>	<p>If the operation property is set to Add, the gateway property is required when all of the following conditions are met:</p> <ul style="list-style-type: none"> The type property is set to default. The isReject property is set to false. <p>If the operation property is set to Delete, the gateway property is required when a gateway is set.</p>
isReject	<p>Sets whether a path for the routing information will be rejected.</p> <p>true</p> <p>Specify this value to reject a path.</p> <p>false^{#3}</p> <p>Specify this value to set a path.</p>	<p>If the following conditions are satisfied, this property must be set to true.</p> <ul style="list-style-type: none"> The type property is set to default. The gateway property is not specified. <p>This property can be specified if the operation property is set to Add.</p>

Note:

Do not add multiple instances of routing information that have the same routing target. If this is done, you might not be able to delete the routing information correctly.

Do not set routing information whose settings (except for the gateway setting) are the same as those of existing routing information. If this is done, you might not be able to delete the routing information correctly.

#1:

- If `net` is selected for `type` property, and `0.0.0.0` is specified for `netmask` property, the routing information operates as the default route.
- If `net` is selected for `type` property, and `255.255.255.255` is specified for `netmask` property, the routing information operates the same as when the host is directly specified for the routing target.

#2:

Do not specify the IP addresses shown below as the routing target. These addresses are reserved in the Storage System. If you must specify them, contact our Technical Support Center.

- For IPv4:

`127.0.0.0` to `127.255.255.255`

- For IPv6:

`::ffff:IPv4-address`, `::IPv4-address`, `:::1/128`, `:::/0`, `::/ 128`,
`fe80::/10`, `ff00::/8`

- IP addresses that belong to the same network as the IP address set for the private maintenance port

- IP addresses that belong to the same network as the IP address set for the heartbeat port

You can use the `pmctl` command to view the IP address set for the private maintenance port.

You can use the ProcessingNode resource to view the IP address set for the heartbeat port. For details on the ProcessingNode resource, see [ProcessingNode resource on page 3-204](#).

#3:

This is the default value used when the property is omitted.

The following shows examples of adding routing information by sending a POST method request to the Routing resource.

URI of the resource to which a request is sent

`https://host-name-or-IP-address:9090/mapi/Routings`

Example of a request XML (for IPv4)

```
<?xml version="1.0" encoding="UTF-8" standalone="yes"?>
<Routing>
  <operation>Add</operation>
  <name>eth1</name>
  <type>host</type>
  <target>hitachi.japan.com</target>
  <netmask>255.255.255.0</netmask>
</Routing>
```



```

    <gateway>155.98.31.1</gateway>
    <isReject>>false</isReject>
</Routing>

```

Example of a request XML (for IPv6)

```

<?xml version="1.0" encoding="UTF-8" standalone="yes"?>
<RoutingIPv6>
  <operation>Add</operation>
  <name>eth1</name>
  <type>net</type>
  <prefixLength>64</prefixLength>
  <target>3ffe:0200:0000:010a:0000:0000:0000:0000</target>
  <gateway>3ffe:0200:0000:010a:0000:0000:0000:0001</gateway>
</RoutingIPv6>

```

The following table describes the status codes output when the method ends.

Table 3-132 Status codes returned when a POST method request is sent to the Routing resource

Status code	Description
200	Execution of the method ended successfully.
Other codes	Execution of the method ended abnormally. See Table 1-3 HTTP status codes that can be generated when a request terminates abnormally on page 1-9 .

SystemController

SystemController resource overview

You can use the SystemController resource to control services and OSs.

The following table describes the HTTP methods that can be used for the SystemController resource.

Table 3-133 HTTP methods that can be used for the SystemController resource

Resource URI	HTTP method	Supported configurations	Description
/SystemController	GET	Cluster Single node	Checks whether a service needs to be restarted. In a single-node configuration, this method checks whether a service or the OS needs to be restarted.
	POST	Cluster Single node	Restarts a service. In a single-node configuration, this method restarts a service or the OS.

Resource URI	HTTP method	Supported configurations	Description
/SystemController/OS	GET	Cluster Single node	Checks the startup status of the OS.
	POST	Cluster Single node	Stops the OS on a node. In a single-node configuration, this method restarts or stops the OS on a node.

SystemController resource

This section describes how to use the SystemController resource.

Checking whether the service or OS needs to be restarted by using the GET method

The following table describes the structure of the response XML output when the method ends.

Table 3-134 Structure of the response XML when a GET method request is sent to the SystemController resource

Properties		Number of response XMLs output	Supported configurations	Displayed value when verbose is false
Services		1	Cluster Single node	Y
--	Service	1 to <i>n</i>	Cluster Single node	Y
--	serviceName	1	Cluster Single node	Y
--	isRestart	1	Cluster Single node	Y

Legend: *n*: An integer of 2 or more, Y: Displayed.

The following table describes the properties displayed when a GET method request is sent to the SystemController resource.

Table 3-135 Properties displayed when a GET method request is sent to the SystemController resource

Properties	Description
Services	--

Properties		Description
--	Service	--
--	serviceName	Displays the service name. CIFS CIFS service NFS NFS service FTP FTP service OS OS. This is displayed only for a single-node configuration. SFTP SFTP service TFTP TFTP service
	isRestart	Displays whether the service needs to be restarted. In a single-node configuration, whether the OS needs to be restarted is also displayed. true The service or OS needs to be restarted. false The service or OS does not need to be restarted.

The following shows an example of checking whether the service and OS need to be restarted by sending a GET method request to the SystemController resource.

URI of the resource to which a request is sent

<https://host-name-or-IP-address:9090/mapi/SystemController>

Response XML example

```
<?xml version="1.0" encoding="UTF-8" standalone="yes"?>
<Services>
  <Service>
    <serviceName>CIFS</serviceName>
    <isRestart>true</isRestart>
  </Service>
  <Service>
    <serviceName>NFS</serviceName>
    <isRestart>true</isRestart>
  </Service>
  <Service>
    <serviceName>FTP</serviceName>
    <isRestart>true</isRestart>
  </Service>
  <Service>
    <serviceName>OS</serviceName>
```

```

        <isRestart>true</isRestart>
    </Service>
</Service>
    <Service>
        <serviceName>SFTP</serviceName>
        <isRestart>true</isRestart>
    </Service>
</Service>
    <Service>
        <serviceName>TFTP</serviceName>
        <isRestart>true</isRestart>
    </Service>
</Services>

```

The following table describes the status codes output when the method ends.

Table 3-136 Status codes returned when a GET method request is sent to the SystemController resource

Status code	Description
200	Execution of the method ended successfully.
Other codes	Execution of the method ended abnormally. See Table 1-3 HTTP status codes that can be generated when a request terminates abnormally on page 1-9 .

Restarting the service or OS by using the POST method

The following table describes the XML structure when a POST method request is sent to the SystemController resource.

Table 3-137 XML structure when a POST method request is sent to the SystemController resource

Properties		Data type	Number of items that can be specified	Supported configurations
Services		--	1	Cluster Single node
--	service	--	1 to <i>n</i>	Cluster Single node
--	serviceName	String	1	Cluster Single node
--	isRestart	String	1	Cluster Single node

Legend: *n*: An integer of 2 or more.

The following table describes the properties to be specified when sending a POST method request to the SystemController resource.

Table 3-138 Properties used to send a POST method request to the SystemController resource

Properties		Description	Specification
Services		--	--
--	service	--	--
--	serviceName	<p>Sets the service name.</p> <p>In a single-node configuration, this property sets the service name or OS.</p> <p>CIFS</p> <p>Specify this value to control the CIFS service.</p> <p>NFS</p> <p>Specify this value to control the NFS service.</p> <p>OS</p> <p>Specify this value to control the OS in a single-node configuration.</p> <p>FTP</p> <p>Specify this value to control the FTP service.</p> <p>SFTP</p> <p>Specify this value to control the SFTP service.</p> <p>TFTP</p> <p>Specify this value to control the TFTP service.</p>	Required
--	isRestart	<p>Sets whether to restart the service.</p> <p>In a single-node configuration, this property sets whether to restart the service or OS.</p> <p>true</p> <p>Specify this value to restart a service or the OS.</p> <p>false</p> <p>Specify this value to not restart a service or the OS.</p>	Required

The following shows an example of restarting the service and OS by sending a POST method request to the SystemController resource.

URI of the resource to which a request is sent

`https://host-name-or-IP-address:9090/mapi/SystemController`

Example of a request XML

```
<?xml version="1.0" encoding="UTF-8" standalone="yes"?>
<Services>
  <Service>
    <serviceName>CIFS</serviceName>
    <isRestart>true</isRestart>
  </Service>
  <Service>
    <serviceName>NFS</serviceName>
    <isRestart>true</isRestart>
  </Service>
  <Service>
    <serviceName>OS</serviceName>
    <isRestart>true</isRestart>
  </Service>
  <Service>
    <serviceName>FTP</serviceName>
    <isRestart>true</isRestart>
  </Service>
  <Service>
    <serviceName>SFTP</serviceName>
    <isRestart>true</isRestart>
  </Service>
  <Service>
    <serviceName>TFTP</serviceName>
    <isRestart>true</isRestart>
  </Service>
</Services>
```

The following table describes the status codes output when the method ends.

Table 3-139 Status codes returned when a POST method request is sent to the SystemController resource

Status code	Description
200	Execution of the method ended successfully.
202	The method request was accepted.
Other codes	Execution of the method ended abnormally. See Table 1-3 HTTP status codes that can be generated when a request terminates abnormally on page 1-9 .

SystemController/OS resource

This section describes how to use the SystemController/OS resource.

Using the GET method to check the startup status of the OS

The following table describes the structure of the response XML output when the method ends.

Table 3-140 Structure of the response XML when a GET method request is sent to the SystemController/OS resource

Properties		Number of response XMLs output	Supported configurations	Displayed value when verbose is false
Service		1	Cluster Single node	Y
--	status	1	Cluster Single node	N

Legend: Y: Displayed, N: Not displayed.

The following table describes the properties displayed when a GET method request is sent to the SystemController/OS resource.

Table 3-141 Properties displayed when a GET method request is sent to the SystemController/OS resource

Properties		Description
Service		--
--	status	The OS startup status is displayed. Starting Displayed if the OS is in the process of starting up. Running Displayed if the OS has finished starting up.

The following is an example of sending a GET method request to the SystemController/OS resource to check the OS startup status.

URI of the resource to which a request is sent

`https://host-name-or-IP-address:9090/mapi/SystemController/OS`

Response XML example

```
<?xml version="1.0" encoding="UTF-8" standalone="yes"?>
<Service>
  <status>Running</operation>
</Service>
```

The following table describes the status codes output when the method ends.

Table 3-142 Status codes returned when a GET method request is sent to the SystemController/OS resource

Status code	Description
200	Execution of the method ended successfully.

Status code	Description
Other codes	Execution of the method ended abnormally. See Table 1-3 HTTP status codes that can be generated when a request terminates abnormally on page 1-9 .

Restarting or Stopping the OS on the node by using the POST method

Note:

The request becomes effective only on the node on which it is executed. To stop the OS on a node in a cluster configuration, send the same POST method request to both nodes at the same time. If you do not send the method to both nodes at the same time, a failover might occur.

The following table describes the XML structure when a POST method request is sent to the SystemController/OS resource.

Table 3-143 XML structure when a POST method request is sent to the SystemController/OS resource

Properties	Data type	Number of items that can be specified	Supported configurations	
Service	--	1	Cluster Single node	
--	operation	String	1	Cluster Single node

The following table describes the properties to be specified when sending a POST method request to the SystemController/OS resource.

Table 3-144 Properties used to send a POST method request to the SystemController/OS resource

Properties	Description	Specification
Service	--	--
--	operation	Required
	Sets the operation to be performed for the OS on the node. Reboot Restarts the OS. This can be specified only in a single-node configuration. Shutdown Stops the OS. Execute on both nodes in a cluster configuration.	

The following shows an example of stopping the OS on the node by sending a POST method request to the SystemController/OS resource.

URI of the resource to which a request is sent

`https://host-name-or-IP-address:9090/mapi/SystemController/OS`

Example of a request XML

```
<?xml version="1.0" encoding="UTF-8" standalone="yes"?>
<Service>
  <operation>Shutdown</operation>
</Service>
```

The following table describes the status codes output when the method ends.

Table 3-145 Status codes returned when a POST method request is sent to the SystemController/OS resource

Status code	Description
202	The method request was accepted.
Other codes	Execution of the method ended abnormally. See Table 1-3 HTTP status codes that can be generated when a request terminates abnormally on page 1-9 .

VolumeGroup

VolumeGroup resource overview

You can use the VolumeGroup resource to acquire information about the volume group.

The following table describes the HTTP methods that can be used for the VolumeGroup resource.

Table 3-146 HTTP methods that can be used for the VolumeGroup resource

Resource URI	HTTP method	Supported configurations	Description
/VolumeGroups	GET	Single node	Information about the volume group is acquired.

VolumeGroup resource

This section describes how to use the VolumeGroup resource.

Using the GET method to acquire information about the volume group

The following table describes the structure of the response XML output when the method ends.

Table 3-147 Structure of the response XML when a GET method request is sent to the VolumeGroup resource

Properties		Number of response XMLs output	Supported configurations	Displayed value when verbose is false
VolumeGroups		0 or 1	Single node	Y
--	VolumeGroup	0 or 1 to <i>n</i>	Single node	Y
--	volumeGroupName	0 or 1	Single node	Y
--	totalSizeInGigaByte	0 or 1	Single node	Y
--	freeSizeInGigaByte	0 or 1	Single node	Y
--	deviceStatus	0 or 1	Single node	Y
--	model	0 or 1	Single node	Y
--	serialNumber	0 or 1	Single node	Y
--	autoAssign	0 or 1	Single node	Y

Legend: *n*: An integer of 2 or more, Y: Displayed.

The following table describes the properties displayed when a GET method request is sent to the VolumeGroup resource.

Table 3-148 Properties displayed when a GET method request is sent to the VolumeGroup resource

Properties		Description
VolumeGroups		--
--	VolumeGroup	--
--	volumeGroupName	Displays the name (no more than 16 bytes) of the volume group.
--	totalSizeInGigaByte	Displays the total capacity (as an integer) of the volume group, in GB.
--	freeSizeInGigaByte	Displays the amount of free space (as an integer) in the volume group, in GB.
--	deviceStatus	Displays the status of the LUs in the volume group. normal The LU status is normal. error An error was detected when attempting to access an LU.
--	model	Displays the model name of the storage system that contains the LU. If the LU is stored on an internal hard disk, INTERNAL is displayed.

Properties		Description
	serialNumber	Displays the serial number of the storage system which contains LUs. The number will consist of no more than 16 bytes. If the LU is stored on an internal hard disk, a null string is displayed.
	autoAssign	Displays whether a newly added LU can be assigned to the volume group automatically. enable A newly added LU can be assigned to the volume group automatically. disable A newly added LU cannot be assigned to the volume group automatically.

The following shows an example of acquiring volume group information by sending a GET method request to the VolumeGroup resource.

URI of the resource to which a request is sent

`https://host-name-or-IP-address:9090/mapi/VolumeGroups`

Response XML example

```
<? xml version="1.0" encoding="UTF-8" standalone="yes"?>
<VolumeGroups>
  <VolumeGroup>
    <volumeGroupName>vg0001</volumeGroupName>
    <totalSizeInGigaByte>500</totalSizeInGigaByte>
    <freeSizeInGigaByte>300</freeSizeInGigaByte>
    <deviceStatus>Normal</deviceStatus>
    <model>AMS</model>
    <serialNumber>77010258</serialNumber>
    <autoAssign>enable</autoAssign>
  </VolumeGroup>
</VolumeGroups>
```

The following table describes the status codes output when the method ends.

Table 3-149 Status codes returned when a GET method request is sent to the VolumeGroup resource

Status code	Description
200	Execution of the method ended successfully.
Other codes	Execution of the method ended abnormally. See Table 1-3 HTTP status codes that can be generated when a request terminates abnormally on page 1-9 .

API Usage Examples

This appendix shows examples of using the HDI API.

- [Example of acquiring cluster and node information in a cluster configuration](#)
- [Example of editing the host name in a single-node configuration](#)
- [Example of monitoring the hardware status](#)
- [Example of setting up the network](#)
- [Example of setting HCP information](#)
- [Example of creating a file system in a cluster configuration](#)
- [Example of creating a file system in a single-node configuration](#)
- [Example of deleting a file system](#)
- [Example of stopping the OS in a cluster configuration](#)
- [Example of stopping the OS in a single-node configuration](#)

Example of acquiring cluster and node information in a cluster configuration

This section provides an example of acquiring cluster and node information in a cluster configuration.

Table A-1 Example of acquiring cluster and node information in a cluster configuration

Operation	Resource URI	HTTP method	Reference
1. Acquire the cluster and node information.	/ProcessingNode	GET	Acquiring cluster and node information by using the GET method on page 3-204

1. Acquire the cluster and node information.

Command line:

```
curl -i -l -b  
  api-auth=user-name:password "https://host-name-or-IP-address:  
9090/mapi/ProcessingNode?prettyprint&verbose=true" -k -X GET -H  
"Accept: application/xml"
```

Response:

```
HTTP/1.1 200 OK  
Date: Wed, 27 Apr 2011 23:22:03 GMT  
Server: Cosminexus HTTP Server 09-65 (Unix) mod_jk  
Content-Length: 1751  
X-NODE-APIVersionID: 6.4.4-00  
X-NODE-CompletedOperation: 2  
X-NODE-OperationList: [1]Get node details, [2]Get system details  
Connection: close  
Content-Type: application/xml
```

```
<?xml version="1.0" encoding="UTF-8" standalone="yes"?>  
<ProcessingNode>  
  <SystemConfiguration>  
    <mode>CLUSTER</mode>  
  </SystemConfiguration>  
  <status>ACTIVE</status>  
  <name>cluster</name>  
  <LU>  
    <model>AMS</model>  
    <serial>83016761</serial>  
    <ldev>0</ldev>  
  </LU>  
  <PhysicalNode>  
    <location>node 0</location>  
    <hostName>DT019000037</hostName>  
    <physicalNodeName>DT019000037</physicalNodeName>  
    <status>UP</status>  
    <managementLANAddress>10.213.88.250</managementLANAddress>  
    <HBLanAddress>172.23.212.21</HBLanAddress>  
    <BMCLanAddress>10.213.88.249</BMCLanAddress>  
    <resourceGroupStatus>Online</resourceGroupStatus>
```

```

<resourceGroupErrorInfo>No error</resourceGroupErrorInfo>
<runningNode>DT019000037</runningNode>
<serial>4230MB0-T019000037</serial>
<SystemVersion>
  <name>Hitachi Data Ingestor</name>
  <version>6.4.4-00</version>
</SystemVersion>
</PhysicalNode>
<PhysicalNode>
  <location>node 1</location>
  <hostName>DT019000042</hostName>
  <physicalNodeName>DT019000042</physicalNodeName>
  <status>UP</status>
  <managementLANAddress>10.213.88.251</managementLANAddress>
  <HBLanAddress>172.23.212.25</HBLanAddress>
  <BMCLanAddress>10.213.88.248</BMCLanAddress>
  <resourceGroupStatus>Online</resourceGroupStatus>
  <resourceGroupErrorInfo>No error</resourceGroupErrorInfo>
  <runningNode>DT019000042</runningNode>
  <serial>4230MB0-T019000042</serial>
  <SystemVersion>
    <name></name>
    <version></version>
  </SystemVersion>
</PhysicalNode>
</ProcessingNode>

```

Example of editing the host name in a single-node configuration

This section provides an example of editing the host name in a single-node configuration.

Table A-2 Example of editing the host name in a single-node configuration

Operation	Resource URI	HTTP method	Reference
1. Acquire the node information.	/ProcessingNode	GET	Acquiring cluster and node information by using the GET method on page 3-204
2. Edit the host name.	/ProcessingNode	POST	Changing a host name by using the POST method on page 3-210
3. Check whether the restarting the OS is necessary.	/SystemController	GET	Checking whether the service or OS needs to be restarted by using the GET method on page 3-222
4. If it is necessary to restart the OS, then restart the OS.	/SystemController	POST	Restarting the service or OS by using the POST method on page 3-224

1. Acquire the node information.

Command line:

```
curl -i -l -b
    api-auth=user-name:password "https://host-name-or-IP-address:
9090/mapi/ProcessingNode?prettyprint&verbose=true" -k -X GET -H
"Accept: application/xml"
```

Response:

```
HTTP/1.1 200 OK
Date: Mon, 11 Apr 2011 05:45:24 GMT
Server: Cosminexus HTTP Server 09-65 (Unix) mod_jk
Content-Length: 900
X-NODE-APIVersionID: 6.4.4-00
X-NODE-CompletedOperation: 2
X-NODE-OperationList: [1]Get node details, [2]Get system details
Connection: close
Content-Type: application/xml

<?xml version="1.0" encoding="UTF-8" standalone="yes"?>
<ProcessingNode>
  <SystemConfiguration>
    <mode>SINGLE</mode>
  </SystemConfiguration>
  <status>UNDEF</status>
  <name></name>
  <PhysicalNode>
    <location>node 0</location>
    <hostName>DT999999999</hostName>
    <physicalNodeName></physicalNodeName>
    <status>UNDEF</status>
    <managementLANAddress>10.213.92.194</managementLANAddress>
    <managementLANAddressIPv6></managementLANAddressIPv6>
    <HBLanAddress></HBLanAddress>
    <BMCLanAddress>10.213.92.193</BMCLanAddress>
    <resourceGroupStatus>Online</resourceGroupStatus>
    <resourceGroupErrorInfo>No error</resourceGroupErrorInfo>
    <runningNode></runningNode>
    <serial>9999ZZ9-T999999999</serial>
    <SystemVersion>
      <name>Hitachi Data Ingestor</name>
      <version>6.4.4-00</version>
    </SystemVersion>
  </PhysicalNode>
</ProcessingNode>
```

2. Edit the host name.

```
hostNameset.xml
<?xml version="1.0" encoding="UTF-8" standalone="yes"?>
<ProcessingNode>
  <PhysicalNode>
    <hostName>NewHostName</hostName>
  </PhysicalNode>
</ProcessingNode>
```

Command line:

```
curl -i -l -b
    api-auth=user-name:password "https://host-name-or-IP-address:
```



```
9090/mapi/ProcessingNode" -k -d @hostNameset.xml -X POST -H "Content-Type: application/xml"
```

Response:

```
HTTP/1.1 200 OK
Date: Mon, 11 Apr 2011 05:45:26 GMT
Server: Cosminexus HTTP Server 09-65 (Unix) mod_jk
X-NODE-APIVersionID: 6.4.4-00
X-NODE-CompletedOperation: 1
X-NODE-OperationList: [1]Edit host name
Content-Length: 0
Connection: close
Content-Type: text/plain; charset=iso-8859-1
```

3. Check whether the restarting the OS is necessary.

Command line:

```
curl -i -l -b
    api-auth=user-name:password "https://host-name-or-IP-address:
9090/mapi/SystemController?prettyprint" -k -X GET -H "Content-Type:
application/xml"
```

Response:

```
HTTP/1.1 200 OK
Date: Mon, 11 Apr 2011 05:45:27 GMT
Server: Cosminexus HTTP Server 09-65 (Unix) mod_jk
Content-Length: 495
X-NODE-APIVersionID: 6.4.4-00
X-NODE-CompletedOperation: 1
X-NODE-OperationList: [1]Get service statuses
Connection: close
Content-Type: application/xml
```

```
<Services>
  <Service>
    <serviceName>CIFS</serviceName>
    <isRestart>true</isRestart>
  </Service>
  <Service>
    <serviceName>NFS</serviceName>
    <isRestart>true</isRestart>
  </Service>
  <Service>
    <serviceName>FTP</serviceName>
    <isRestart>true</isRestart>
  </Service>
  <Service>
    <serviceName>OS</serviceName>
    <isRestart>true</isRestart>
  </Service>
  <Service>
    <serviceName>SFTP</serviceName>
    <isRestart>true</isRestart>
  </Service>
  <Service>
    <serviceName>TFTP</serviceName>
    <isRestart>true</isRestart>
  </Service>
</Services>
```

4. If it is necessary to restart the OS, then restart the OS.

```
osReboot.xml
<?xml version="1.0" encoding="UTF-8" standalone="yes"?>
<Services>
  <Service>
    <serviceName>CIFS</serviceName>
    <isRestart>>false</isRestart>
  </Service>
  <Service>
    <serviceName>NFS</serviceName>
    <isRestart>>false</isRestart>
  </Service>
  <Service>
    <serviceName>FTP</serviceName>
    <isRestart>>false</isRestart>
  </Service>
  <Service>
    <serviceName>OS</serviceName>
    <isRestart>>true</isRestart>
  </Service>
  <Service>
    <serviceName>SFTP</serviceName>
    <isRestart>>true</isRestart>
  </Service>
  <Service>
    <serviceName>TFTP</serviceName>
    <isRestart>>true</isRestart>
  </Service>
</Services>
```

Command line:

```
curl -i -l -b
  api-auth=user-name:password "https://host-name-or-IP-address:
9090/mapi/SystemController" -k -d @osReboot.xml -X POST -H "Content-
Type: application/xml"
```

Response:

```
HTTP/1.1 202 Accepted
Date: Mon, 11 Apr 2011 05:45:28 GMT
Server: Cosminexus HTTP Server 09-65 (Unix) mod_jk
X-NODE-APIVersionID: 6.4.4-00
X-NODE-CompletedOperation: 1
X-NODE-OperationList: [1]Restart OS
Connection: close
Transfer-Encoding: chunked
Content-Type: text/html; charset=utf-8
```

```
<html><head><title>202 Accepted</title></head><body><h1>202
Accepted</h1></body></html>
```

Example of monitoring the hardware status

This section provides an example of monitoring the hardware status.

Table A-3 Example of monitoring the hardware status

Operation	Resource URI	HTTP method	Reference
1. Acquire the hardware information.	/Hardware	GET	Acquiring hardware information by using the GET method on page 3-113
2. Acquire the FC path information.	/FCPaths	GET	Acquiring information about the FC path specified in the GET method on page 3-58

1. Acquire the hardware information.

Command line:

```
curl -i -l -b
      api-auth=user-name:password "https://host-name-or-IP-address:
9090/mapi/Hardware?prettyprint" -k -X GET -H "Accept: application/
xml"
```

Response:

```
HTTP/1.1 200 OK
Date: Tue, 12 Apr 2011 05:30:27 GMT
Server: Cosminexus HTTP Server 09-65 (Unix) mod_jk
Content-Length: 7994
X-NODE-APIVersionID: 6.4.4-00
X-NODE-CompletedOperation: 1
X-NODE-OperationList: [1]Get hardware details
Connection: close
Content-Type: application/xml
```

```
<?xml version="1.0" encoding="UTF-8" standalone="yes"?>
<Hardware>
  <PortDetails>
    <PortDetail>
      <status>Up</status>
      <portName>eth1</portName>
      <mediaType>copper</mediaType>
      <linkSpeed>1000Base</linkSpeed>
    </PortDetail>
    <PortDetail>
      <status>Up</status>
      <portName>eth2</portName>
      <mediaType>copper</mediaType>
      <linkSpeed>1000Base</linkSpeed>
    </PortDetail>
    <PortDetail>
      <status>Down</status>
      <portName>eth3</portName>
      <mediaType>copper</mediaType>
      <linkSpeed>Unknown!</linkSpeed>
    </PortDetail>
  </PortDetails>
  <ManagementLans>
    <ManagementLan>
      <status>Up</status>
```

```

        <portName>mng0</portName>
        <mediaType>copper</mediaType>
        <linkSpeed>100Base</linkSpeed>
    </ManagementLan>
</ManagementLans>
<HeartbeatLans>
    <HeartbeatLan>
        <status>Up</status>
        <portName>hb0</portName>
        <mediaType>copper</mediaType>
        <linkSpeed>100Base</linkSpeed>
    </HeartbeatLan>
</HeartbeatLans>
<PrivateMaintenanceLans>
    <PrivateMaintenanceLan>
        <status>Up</status>
        <portName>pm0</portName>
        <mediaType>copper</mediaType>
        <linkSpeed>100Base</linkSpeed>
    </PrivateMaintenanceLan>
    <PrivateMaintenanceLan>
        <status>Down</status>
        <portName>pm1</portName>
        <mediaType>copper</mediaType>
        <linkSpeed>Unknown!</linkSpeed>
    </PrivateMaintenanceLan>
</PrivateMaintenanceLans>
<InternalHDDs>
    <InternalHDD>
        <slotName>0</slotName>
        <status>Normal</status>
        <vendorInformation>size:136.732 GB,raid level:RAID1</
vendorInformation>
    </InternalHDD>
    <InternalHDD>
        <slotName>1</slotName>
        <status>Normal</status>
        <vendorInformation>size:136.732 GB,raid level:RAID1</
vendorInformation>
    </InternalHDD>
</InternalHDDs>
<InternalRAIDBatteries/>
<Memories>
    <Memory>
        <slotName>0</slotName>
        <status>Not Installed</status>
        <vendorInformation>locator:P1C0D1,size:-</
vendorInformation>
    </Memory>
    <Memory>
        <slotName>1</slotName>
        <status>Installed</status>
        <vendorInformation>locator:P1C0D0,size:2048 MB</
vendorInformation>
    </Memory>
    <Memory>
        <slotName>2</slotName>
        <status>Not Installed</status>
        <vendorInformation>locator:P1C1D1,size:-</
vendorInformation>

```

```

        </Memory>
        <Memory>
            <slotName>3</slotName>
            <status>Installed</status>
            <vendorInformation>locator:P1C1D0,size:2048 MB</
vendorInformation>
        </Memory>
        <Memory>
            <slotName>4</slotName>
            <status>Not Installed</status>
            <vendorInformation>locator:P1C2D1,size:-</
vendorInformation>
        </Memory>
        <Memory>
            <slotName>5</slotName>
            <status>Installed</status>
            <vendorInformation>locator:P1C2D0,size:2048 MB</
vendorInformation>
        </Memory>
    </Memories>
    <MemTotals>
        <MemTotal>
            <slotName>0</slotName>
            <size>size:11.5 GB(12.0 GB)</size>
        </MemTotal>
    </MemTotals>
    <PowerSupplies>
        <PowerSupply>
            <powerSupplyName>0</powerSupplyName>
            <status>OK</status>
            <vendorInformation></vendorInformation>
        </PowerSupply>
        <PowerSupply>
            <powerSupplyName>1</powerSupplyName>
            <status>OK</status>
            <vendorInformation></vendorInformation>
        </PowerSupply>
    </PowerSupplies>
    <Fans>
        <Fan>
            <fanName>0</fanName>
            <status>OK</status>
            <vendorInformation></vendorInformation>
        </Fan>
        <Fan>
            <fanName>1</fanName>
            <status>OK</status>
            <vendorInformation></vendorInformation>
        </Fan>
        <Fan>
            <fanName>2</fanName>
            <status>OK</status>
            <vendorInformation></vendorInformation>
        </Fan>
        <Fan>
            <fanName>3</fanName>
            <status>OK</status>
            <vendorInformation></vendorInformation>
        </Fan>
    </Fans>

```

```

    <Temperatures>
      <Temperature>
        <temperatureName>0</temperatureName>
        <status>OK</status>
        <vendorInformation>reading:55 (+/- 0.500) degrees C</
vendorInformation>
      </Temperature>
      <Temperature>
        <temperatureName>1</temperatureName>
        <status>OK</status>
        <vendorInformation>reading:44 (+/- 0.500) degrees C</
vendorInformation>
      </Temperature>
      <Temperature>
        <temperatureName>2</temperatureName>
        <status>OK</status>
        <vendorInformation>reading:42 (+/- 0.500) degrees C</
vendorInformation>
      </Temperature>
    </Temperatures>
    <BMCs>
      <BMC>
        <status>OK</status>
        <connection>OK</connection>
      </BMC>
    </BMCs>
    <Models>
      <Model>
        <manufacturer>HITACHI</manufacturer>
        <product>Compute Rack 210H </product>
      </Model>
    </Models>
    <Serials>
      <Serial>
        <number>4230MB0-T019000037</number>
      </Serial>
    </Serials>
  </Hardware>

```

2. Acquire the FC path information.

Command line:

```

curl -i -l -b
  api-auth=user-name:password "https://host-name-or-IP-address:
9090/mapi/FCPaths?prettyprint" -k -X GET -H "Accept: application/xml"

```

Response:

```

HTTP/1.1 200 OK
Date: Tue, 12 Apr 2011 02:43:12 GMT
Server: Cosminexus HTTP Server 09-65 (Unix) mod_jk
Content-Length: 809
X-NODE-APIVersionID: 6.4.4-00
X-NODE-CompletedOperation: 1
X-NODE-OperationList: [1]Get FC path details
Connection: close
Content-Type: application/xml

```

```

<?xml version="1.0" encoding="UTF-8" standalone="yes"?>
<FCPaths>

```

```

<FCPath>
  <path>path000-0004-1E</path>
  <target>N1-T000</target>
  <hostPort>fc0004</hostPort>
  <hostPortWWN>10000000c98f2992</hostPortWWN>
  <arrayPort>1E</arrayPort>
  <arrayPortWWN>50060e801046889c</arrayPortWWN>
  <model>AMS</model>
  <serial>83016761</serial>
  <status>Online</status>
</FCPath>
<FCPath>
  <path>path000-0005-1F</path>
  <target>N1-T000</target>
  <hostPort>fc0005</hostPort>
  <hostPortWWN>10000000c98f2993</hostPortWWN>
  <arrayPort>1F</arrayPort>
  <arrayPortWWN>50060e801046889d</arrayPortWWN>
  <model>AMS</model>
  <serial>83016761</serial>
  <status>Online</status>
</FCPath>
</FCPaths>

```

Example of setting up the network

This section provides an example of setting up the network.

Table A-4 Example of setting up the network

Operation	Resource URI	HTTP method	Reference
1. Acquire the network interface information.	/NetworkInterfaces	GET	Acquiring network interface information by using the GET method on page 3-156
2. Add a network interface.	/NetworkInterfaces	PUT	Adding a network interface by using the PUT method on page 3-161
3. Check the added network interface.	/NetworkInterfaces/ <i>network-interface-name</i>	HEAD	Checking whether the specified network interface exists by using the HEAD method on page 3-170
4. Acquire the information about the specified network interface.	/NetworkInterfaces/ <i>network-interface-name</i>	GET	Acquiring network interface information by using the GET method on page 3-164
5. Change the information about the specified network interface.	/NetworkInterfaces/ <i>network-interface-name</i>	POST	Changing the network interface information by using the POST method on page 3-166
6. Acquire the routing information.	/Routings	GET	Acquiring the specified routing information by using

Operation	Resource URI	HTTP method	Reference
			the GET method on page 3-212
7. Set the routing information.	/Routings	POST	Adding or deleting routing information by using the POST method on page 3-216

1. Acquire the network interface information.

Command line:

```
curl -i -l -b
    api-auth=user-name:password "https://host-name-or-IP-address:
9090/mapi/NetworkInterfaces?prettyprint&verbose=true" -k -X GET -H
"Accept: application/xml"
```

Response:

```
HTTP/1.1 200 OK
Date: Fri, 24 May 2013 05:05:09 GMT
Server: Cosminexus HTTP Server 09-65 (Unix) mod_jk
Content-Length: 3334
X-NODE-APIVersionID: 6.4.4-00
X-NODE-CompletedOperation: 1
X-NODE-OperationList: [1]Get network interface details
Connection: close
Content-Type: application/xml
```

```
<?xml version="1.0" encoding="UTF-8" standalone="yes"?>
<NetworkInterfaces>
  <NetworkInterface>
    <name>eth0</name>
    <mtu>1500</mtu>
    <netmask></netmask>
    <networkAddress></networkAddress>
    <prefixLength>64</prefixLength>
    <addressPrefix>2000::/64</addressPrefix>
    <dhcp>Off</dhcp>
    <FixedIP>
      <target></target>
      <other></other>
      <targetIPv6>2000::14</targetIPv6>
      <otherIPv6>2000::15</otherIPv6>
    </FixedIP>
    <ServiceIP>
      <target></target>
      <other></other>
      <targetIPv6>2000::16</targetIPv6>
      <otherIPv6>2000::17</otherIPv6>
    </ServiceIP>
  </NetworkInterface>
  <NetworkInterface>
    <name>eth1</name>
    <mtu></mtu>
    <netmask></netmask>
    <networkAddress></networkAddress>
    <prefixLength></prefixLength>
```



```

<addressPrefix></addressPrefix>
<dhcp>Off</dhcp>
<FixedIP>
  <target></target>
  <other></other>
  <targetIPv6></targetIPv6>
  <otherIPv6></otherIPv6>
</FixedIP>
<ServiceIP>
  <target></target>
  <other></other>
  <targetIPv6></targetIPv6>
  <otherIPv6></otherIPv6>
</ServiceIP>
</NetworkInterface>
<NetworkInterface>
  <name>mng0</name>
  <mtu>1500</mtu>
  <netmask>255.255.0.0</netmask>
  <networkAddress>192.168.0.0</networkAddress>
  <prefixLength></prefixLength>
  <addressPrefix></addressPrefix>
  <dhcp>Off</dhcp>
  <FixedIP>
    <target>192.168.2.10</target>
    <other>192.168.2.20</other>
    <targetIPv6></targetIPv6>
    <otherIPv6></otherIPv6>
  </FixedIP>
  <ServiceIP>
    <target>192.168.2.11</target>
    <other>192.168.2.21</other>
    <targetIPv6></targetIPv6>
    <otherIPv6></otherIPv6>
  </ServiceIP>
</NetworkInterface>
</NetworkInterfaces>

```

2. Add a network interface.

```

ifset.xml
<?xml version="1.0" encoding="UTF-8" standalone="yes"?>
<NetworkInterface>
  <name>eth1</name>
  <prefixLength>64</prefixLength>
  <FixedIP>
    <targetIPv6>fdf1:afcb:44f9:1000::2:10</targetIPv6>
    <otherIPv6>fdf1:afcb:44f9:1000::2:20</otherIPv6>
  </FixedIP>
  <ServiceIP>
    <targetIPv6>fdf1:afcb:44f9:1000::2:11</targetIPv6>
    <otherIPv6>fdf1:afcb:44f9:1000::2:21</otherIPv6>
  </ServiceIP>
</NetworkInterface>

```

Command line:

```

curl -i -1 -b
  api-auth=user-name:password "https://host-name-or-IP-address:
9090/mapi/NetworkInterfaces" -k -d @ifset.xml -X PUT -H "Content-
Type: application/xml"

```

Response:

```
HTTP/1.1 200 OK
Date: Fri, 24 May 2013 05:05:12 GMT
Server: Cosminexus HTTP Server 09-65 (Unix) mod_jk
X-NODE-APIVersionID: 6.4.4-00
X-NODE-CompletedOperation: 1
X-NODE-OperationList: [1]Set IPv6 network interface
Content-Length: 0
Connection: close
Content-Type: text/plain; charset=iso-8859-1
```

3. Check the added network interface.

Command line:

```
curl -i -l -b
    api-auth=user-name:password "https://host-name-or-IP-address:
9090/mapi/NetworkInterfaces/eth1" -k -I -X HEAD -H "Content-Type:
application/xml"
```

Response:

```
HTTP/1.1 200 OK
Date: Fri, 24 May 2013 05:05:30 GMT
Server: Cosminexus HTTP Server 09-65 (Unix) mod_jk
Content-Length: 394
X-NODE-APIVersionID: 6.4.4-00
X-NODE-CompletedOperation: 1
X-NODE-OperationList: [1]Get network interface details
Connection: close
Content-Type: application/xml
```

4. Acquire the information about the specified network interface.

Command line:

```
curl -i -l -b
    api-auth=user-name:password "https://host-name-or-IP-address:
9090/mapi/NetworkInterfaces/eth0?prettyprint&verbose=true" -k -X GET
-H "Accept: application/xml"
```

Response:

```
HTTP/1.1 200 OK
Date: Fri, 24 May 2013 05:06:19 GMT
Server: Cosminexus HTTP Server 09-65 (Unix) mod_jk
Content-Length: 708
X-NODE-APIVersionID: 6.4.4-00
X-NODE-CompletedOperation: 1
X-NODE-OperationList: [1]Get network interface details
Connection: close
Content-Type: application/xml
```

```
<?xml version="1.0" encoding="UTF-8" standalone="yes"?>
<NetworkInterface>
  <name>eth0</name>
  <mtu>1500</mtu>
  <netmask></netmask>
  <networkAddress></networkAddress>
  <prefixLength>64</prefixLength>
  <addressPrefix>2000::/64</addressPrefix>
```

```

<dhcp>Off</dhcp>
<FixedIP>
  <target></target>
  <other></other>
  <targetIPv6>2000::14</targetIPv6>
  <otherIPv6>2000::15</otherIPv6>
</FixedIP>
<ServiceIP>
  <target></target>
  <other></other>
  <targetIPv6>2000::16</targetIPv6>
  <otherIPv6>2000::17</otherIPv6>
</ServiceIP>
</NetworkInterface>

```

5. Change the information about the specified network interface.

```

ifmod.xml
<?xml version="1.0" encoding="UTF-8" standalone="yes"?>
<NetworkInterface>
  <netmask>255.255.255.0</netmask>
  <FixedIP>
    <target>10.208.148.100</target>
    <other>10.208.148.101</other>
  </FixedIP>
  <ServiceIP>
    <target>10.208.148.102</target>
    <other>10.208.148.103</other>
  </ServiceIP>
</NetworkInterface>

```

Command line:

```

curl -i -l -b
  api-auth=user-name:password "https://host-name-or-IP-address/
mapi/NetworkInterfaces/eth0" -k -d @ifmod.xml -X POST -H "Content-
Type: application/xml"

```

Response:

```

HTTP/1.1 200 OK
Date: Fri, 24 May 2013 05:06:21 GMT
Server: Cosminexus HTTP Server 09-65 (Unix) mod_jk
X-NODE-APIVersionID: 6.4.4-00
X-NODE-CompletedOperation: 1
X-NODE-OperationList: [1]Edit network interface
Content-Length: 0
Connection: close
Content-Type: text/plain; charset=iso-8859-1

```

6. Acquire the routing information.

Command line:

```

curl -i -l -b
  api-auth=user-name:password "https://host-name-or-IP-address:
9090/mapi/Routings?prettyprint&verbose=true" -k -H "Content-type:
application/xml"

```

Response:

```

HTTP/1.1 200 OK
Date: Fri, 24 May 2013 05:06:29 GMT

```

```
Server: Cosminexus HTTP Server 09-65 (Unix) mod_jk
Content-Length: 617
X-NODE-APIVersionID: 6.4.4-00
X-NODE-CompletedOperation: 1
X-NODE-OperationList: [1]Get routing details
Connection: close
Content-Type: application/xml
```

```
<?xml version="1.0" encoding="UTF-8" standalone="yes"?>
<Routings>
  <Routing>
    <name>mng0</name>
    <type>default</type>
    <target>default</target>
    <netmask>0.0.0.0</netmask>
    <gateway>192.168.0.1</gateway>
    <isReject>>false</isReject>
    <mss></mss>
    <dhcp>Off</dhcp>
  </Routing>
  <RoutingIPv6>
    <name>mng0</name>
    <type>net</type>
    <target>3ffe:200:0:10a::0</target>
    <prefixLength>64</prefixLength>
    <gateway>3ffe:200:0:10a::1</gateway>
    <isReject>>false</isReject>
  </RoutingIPv6>
</Routings>
```

7. Set the routing information.

```
rtsetv6.xml
<?xml version="1.0" encoding="UTF-8" standalone="yes"?>
<RoutingIPv6>
  <operation>Add</operation>
  <name>eth1</name>
  <type>net</type>
  <prefixLength>64</prefixLength>
  <target>3ffe:0200:0000:010a:0000:0000:0000:0000</target>
  <gateway>3ffe:0200:0000:010a:0000:0000:0000:0001</gateway>
</RoutingIPv6>
```

Command line:

```
curl -i -l -b
  api-auth=user-name:password "https://host-name-or-IP-address:
9090/mapi/Routings" -d @rtsetv6.xml -X POST -k -H "Content-Type:
application/xml"
```

Response:

```
HTTP/1.1 200 OK
Date: Fri, 24 May 2013 05:06:29 GMT
Server: Cosminexus HTTP Server 09-65 (Unix) mod_jk
X-NODE-APIVersionID: 6.4.4-00
X-NODE-CompletedOperation: 1
X-NODE-OperationList: [1]Add routing details
Content-Length: 0
Connection: close
Content-Type: text/plain; charset=iso-8859-1
```

Example of setting HCP information

This section provides an example of setting HCP information.

Table A-5 Example of setting HCP information

Operation	Resource URI	HTTP method	Reference
1. Acquire the HCP information.	/HCP	GET	Acquiring the specified HCP information by using the GET method on page 3-126
2. Set the HCP information.	/HCP	POST	Setting or deleting HCP information by using the POST method on page 3-128

1. Acquire the HCP information.

Command line:

```
curl -i -l -b  
    api-auth=user-name:password "https://host-name-or-IP-address:  
9090/mapi/HCP?prettyprint" -k -X GET -H "Accept:application/xml"
```

Response:

```
HTTP/1.1 200 OK  
Date: Wed, 27 May 2015 08:57:03 GMT  
Server: Cosminexus HTTP Server 09-65 (Unix) mod_jk  
Content-Length: 335  
X-NODE-APIVersionID: 6.4.4-00  
X-NODE-CompletedOperation: 1  
X-NODE-OperationList: [1]Get HCP settings  
Connection: close  
Content-Type: application/xml
```

```
<?xml version="1.0" encoding="UTF-8" standalone="yes"?>  
<HCP>  
  <systemName></systemName>  
  <tenantName></tenantName>  
  <externalHcpHostName></externalHcpHostName>  
  <userName></userName>  
  <password></password>  
  <replicaSystemName></replicaSystemName>  
  <externalReplicaHcpHostName></externalReplicaHcpHostName>  
</HCP>
```

2. Set the HCP information.

```
hcpset.xml  
<?xml version="1.0" encoding="UTF-8" standalone="yes"?>  
<HCP>  
  <systemName>hcp7-hsp.f3glinux.rsd.hitachi.co.jp</systemName>  
  <tenantName>tenant01</tenantName>  
  <userName>user123</userName>  
  <password>pass123</password>  
</HCP>
```

Command line:

```
curl -i -l -b
    api-auth=user-name:password "https://host-name-or-IP-address:
9090/mapi/HCP" -k -d @hcpset.xml -X POST -H "Content-Type:
application/xml"
```

Response:

```
HTTP/1.1 200 OK
Date: Wed, 27 May 2015 09:11:37 GMT
Server: Cosminexus HTTP Server 09-65 (Unix) mod_jk
X-NODE-APIVersionID: 6.4.4-00
X-NODE-CompletedOperation: 2
X-NODE-OperationList: [1]Configure HCP settings, [2]Set regular
backup of system settings information
Content-Length: 0
Connection: close
Content-Type: text/plain; charset=iso-8859-1
```

Example of creating a file system in a cluster configuration

This section provides an example of creating a file system in a cluster configuration.

Example of creating a file system that can link with HCP at the file system level in a cluster configuration

Table A-6 Example of creating a file system that can link with HCP at the file system level in a cluster configuration

Operation	Resource URI	HTTP method	Reference
1. Acquire the LU information.	/LUs	GET	Acquiring LU information by using the GET method on page 3-135
2. Acquire the file system information.	/FileSystems	GET	Acquiring file system information by using the GET method on page 3-63
3. Create a file system.	/FileSystems	PUT	Creating a file system by using the PUT method on page 3-76
4. Acquire information about the mount settings of the created file system.	/FileSystems/ <i>file-system-name</i> / MountSetting	GET	Acquiring information about the mount settings of the specified file system by using the GET method on page 3-104
5. Mount the created file system.	/FileSystems/ <i>file-system-name</i> / MountSetting	POST	Editing information about the mount settings of the specified file system by using the POST method on page 3-107

Operation	Resource URI	HTTP method	Reference
6. Acquire the CIFS share information.	/CIFSShares	GET	Acquiring information about all CIFS shares by using the GET method on page 3-8
7. Create a CIFS share.	/CIFSShares	PUT	Adding a CIFS share by using the PUT method on page 3-18
8. Acquire the NFS share information.	/NFSShares	GET	Acquiring information for all NFS shares by using the GET method on page 3-172
9. Create an NFS share.	/NFSShares	PUT	Adding an NFS share by using the PUT method on page 3-177
10. Check whether you can access the namespace.	/HCP/ACCESS	POST	Checking whether the user can access the HCP namespace by using the POST method on page 3-131
11. Acquire the information about the migration tasks.	/MigrationTask	GET	Acquiring information for all migration tasks by using the GET method on page 3-140
12. Set the migration task.	/MigrationTask	PUT	Setting the migration task by using the PUT method on page 3-144

1. Acquire the LU information.

Check the logical units (LUs) to be used for the file system.

Command line:

```
curl -i -l -b
      api-auth=user-name:password "https://host-name-or-IP-address:
9090/mapi/LUs?prettyprint" -k -X GET -H "Accept:application/xml"
```

Response:

```
HTTP/1.1 200 OK
Date: Fri, 10 Oct 2014 05:26:09 GMT
Server: Cosminexus HTTP Server 09-65 (Unix) mod_jk
Content-Length: 10284
X-NODE-APIVersionID: 6.4.4-00
X-NODE-CompletedOperation: 1
X-NODE-OperationList: [1]Get LU details
Connection: close
Content-Type: application/xml

<?xml version="1.0" encoding="UTF-8" standalone="yes"?>
<LUs>
  <LU>
    <deviceFileName>lu0000</deviceFileName>
    <userLUN>0000</userLUN>
    <isExternalDevice>>false</isExternalDevice>
    <target>N0-T000</target>
```

```

    <model>HUS</model>
    <serial>93000079</serial>
    <ldev>3</ldev>
    <type>SATA</type>
    <size>10.000</size>
    <function>Free</function>
    <usedBy></usedBy>
    <rg>000</rg>
    <dp></dp>
    <usedPage></usedPage>
    <pool></pool>
    <freePool></freePool>
    <totalPool></totalPool>
</LU>
<LU>
    <deviceFileName>lu0001</deviceFileName>
    <userLUN>0001</userLUN>
    <isExternalDevice>>false</isExternalDevice>
    <target>N0-T000</target>
    <model>HUS</model>
    <serial>93000079</serial>
    <ldev>6</ldev>
    <type>SATA</type>
    <size>10.000</size>
    <function>Free</function>
    <usedBy></usedBy>
    <rg>000</rg>
    <dp></dp>
    <usedPage></usedPage>
    <pool></pool>
    <freePool></freePool>
    <totalPool></totalPool>
</LU>
<LU>
    <deviceFileName>lu0005</deviceFileName>
    <userLUN>0005</userLUN>
    <isExternalDevice>>false</isExternalDevice>
    <target>N0-T000</target>
    <model>HUS</model>
    <serial>93000079</serial>
    <ldev>13</ldev>
    <type>SATA</type>
    <size>10.000</size>
    <function>Free</function>
    <usedBy></usedBy>
    <rg>000</rg>
    <dp></dp>
    <usedPage></usedPage>
    <pool></pool>
    <freePool></freePool>
    <totalPool></totalPool>
</LU>
<LU>
    <deviceFileName>lu0006</deviceFileName>
    <userLUN>0006</userLUN>
    <isExternalDevice>>false</isExternalDevice>
    <target>N0-T000</target>
    <model>HUS</model>
    <serial>93000079</serial>
    <ldev>15</ldev>

```



```

        <type>SATA</type>
        <size>4.039</size>
        <function>File</function>
        <usedBy>FileSystem</usedBy>
        <rg>000</rg>
        <dp></dp>
        <usedPage></usedPage>
        <pool></pool>
        <freePool></freePool>
        <totalPool></totalPool>
    </LU>
    <LU>
        <deviceFileName>lu0007</deviceFileName>
        <userLUN>0007</userLUN>
        <isExternalDevice>>false</isExternalDevice>
        <target>N0-T000</target>
        <model>HUS</model>
        <serial>93000079</serial>
        <ldev>16</ldev>
        <type>SATA</type>
        <size>10.000</size>
        <function>Free</function>
        <usedBy></usedBy>
        <rg>000</rg>
        <dp></dp>
        <usedPage></usedPage>
        <pool></pool>
        <freePool></freePool>
        <totalPool></totalPool>
    </LU>
</LUs>

```

2. Acquire the file system information.

To determine the file system name and other attributes of the file system that you are creating, check the information about the existing file systems.

Command line:

```

curl -i -l -b
    api-auth=user-name:password "https://host-name-or-IP-address:
9090/mapi/FileSystems?prettyprint&verbose=true" -k -X GET -H
"Accept: application/xml"

```

Response:

```

HTTP/1.1 200 OK
Date: Fri, 10 Oct 2014 05:26:20 GMT
Server: Cosminexus HTTP Server 09-65 (Unix) mod_jk
Content-Length: 2477
X-NODE-APIVersionID: 6.4.4-00
X-NODE-CompletedOperation: 1
X-NODE-OperationList: [1]Get file system details
Connection: close
Content-Type: application/xml

```

```

<?xml version="1.0" encoding="UTF-8" standalone="yes"?>
<FileSystems>
  <FileSystem>
    <fileName>FileSystem</fileName>
    <usage>None</usage>
  
```

```

<deviceStatus>Normal</deviceStatus>
<freeBlocksInMegaBytes>4113.408</freeBlocksInMegaBytes>
<usedBlocksInMegaBytes>4.096</usedBlocksInMegaBytes>
<totalBlocksInMegaBytes>4117.504</totalBlocksInMegaBytes>
<isLvmEnabled>>true</isLvmEnabled>
<fileSystemSizeInGigaByte>4.039</fileSystemSizeInGigaByte>
<isLvmStripingEnabled>>false</isLvmStripingEnabled>
<stripes></stripes>
<stripeSize></stripeSize>
<aclType>Advanced ACL</aclType>
<NamespaceShareSettings>
  <namespaceType>FileSystem</namespaceType>
  <type>Read/Write</type>
  <FQDN></FQDN>
  <externalHcpHostName></externalHcpHostName>
  <user></user>
  <password></password>
  <hcpReplicaHost></hcpReplicaHost>
  <externalReplicaHcpHostName></externalReplicaHcpHostName>
  <hcpNamespace>FileSystem-22ed0908-3d2c-4632-
b6c9-2a6b019787ef</hcpNamespace>
</NamespaceShareSettings>
<UseVersioning>used</UseVersioning>
<periodToHold>7</periodToHold>
<customSchedule>not used</customSchedule>
<customSchedule15Minute>0</customSchedule15Minute>
<customScheduleHourly>0</customScheduleHourly>
<customScheduleDaily>0</customScheduleDaily>
<customScheduleWeekly>0</customScheduleWeekly>
<customScheduleMonthly>0</customScheduleMonthly>
<customScheduleYearly>0</customScheduleYearly>
<isBypassEnabled>>true</isBypassEnabled>
<WormSetting>
  <maxRetention></maxRetention>
  <minRetention></minRetention>
  <isAutoCommitEnabled></isAutoCommitEnabled>
  <commitModeSetting></commitModeSetting>
  <autoCommitPeriod></autoCommitPeriod>
  <defaultRetention></defaultRetention>
  <isWormDeleteEnabled></isWormDeleteEnabled>
  <longestRetention></longestRetention>
</WormSetting>
<MountSetting>
  <isMounted>>true</isMounted>
  <mountStatus>Normal</mountStatus>
  <isReadOnly>>false</isReadOnly>
  <isFileLastAccessTimeRecordingEnabled>>true</
isFileLastAccessTimeRecordingEnabled>
</MountSetting>
<LUs>
  <LU>
    <deviceFileName>lu0006</deviceFileName>
  </LU>
</LUs>
<WorkspaceLUs>
  <Workspace>
    <deviceFileName>lu0007</deviceFileName>
  </Workspace>
  <Workspace>
    <deviceFileName>lu0008</deviceFileName>

```

```

        </Workspace>
    </WorkspaceLUs>
    <LargeFileTransferSetting>
        <largeFileTransfer>Disable</largeFileTransfer>
        <lowerLimitInMegaBytes>100</lowerLimitInMegaBytes>
    </LargeFileTransferSetting>
</FileSystem>
</FileSystems>

```

3. Create a file system.

In this example, you create a file system with the following conditions:

- The file system name is `fs`.
- The ACL type of the file system to be created is Advanced ACL.
- A striped configuration is used.
- The target file system is a WORM file system.

```

fscreate.xml
<?xml version="1.0" encoding="UTF-8" standalone="yes"?>
  <FileSystem>
    <fileName>fs</fileName>
    <aclType>Advanced ACL</aclType>
    <isLvmEnabled>true</isLvmEnabled>
    <stripeSize>64</stripeSize>
    <isLvmStripingEnabled>true</isLvmStripingEnabled>
    <WormSetting>
      <maxRetention>10950-0-0</maxRetention>
      <minRetention>0-0-0</minRetention>
      <isAutoCommitEnabled>false</isAutoCommitEnabled>
    </WormSetting>
    <LUs>
      <LU>
        <deviceFileName>lu00</deviceFileName>
      </LU>
      <LU>
        <deviceFileName>lu01</deviceFileName>
      </LU>
    </LUs>
  </FileSystem>

```

Command line:

```

curl -i -1 -b
      api-auth=user-name:password "https://host-name-or-IP-address:
9090/mapi/FileSystems" -k -d @fscreate.xml -X PUT -H "Content-
Type:application/xml"

```

Response:

```

HTTP/1.1 200 OK
Date: Fri, 10 Oct 2014 05:26:24 GMT
Server: Cosminexus HTTP Server 09-65 (Unix) mod_jk
X-NODE-APIVersionID: 6.4.4-00
X-NODE-CompletedOperation: 1
X-NODE-OperationList: [1]Create file system
Content-Length: 0
Connection: close
Content-Type: text/plain; charset=iso-8859-1

```

4. Acquire information about the mount settings of the created file system.

Use the acquired information to confirm that the file system you created is not mounted.

Command line:

```
curl -i -l -b
      api-auth=user-name:password "https://host-name-or-IP-address:
9090/mapi/FileSystems/fs/MountSetting?prettyprint&verbose=true" -k -
X GET -H "Accept:application/xml"
```

Response:

```
HTTP/1.1 200 OK
Date: Tue, 24 Jun 2014 10:29:36 GMT
Server: Cosminexus HTTP Server 09-65 (Unix) mod_jk
Content-Length: 232
X-NODE-APIVersionID: 6.4.4-00
X-NODE-CompletedOperation: 1
X-NODE-OperationList: [1]Get file system details
Connection: close
Content-Type: application/xml
```

```
<?xml version="1.0" encoding="UTF-8" standalone="yes"?>
<MountSetting>
  <isMounted>>false</isMounted>
  <isReadOnly></isReadOnly>
  <isFileLastAccessTimeRecordingEnabled></
isFileLastAccessTimeRecordingEnabled>
</MountSetting>
```

5. Mount the created file system.

In this example, you mount the file system with the following conditions:

- The file system is mounted in write-enabled mode.
- The last access time of the file system is updated.

```
fsmount.xml
<?xml version="1.0" encoding="UTF-8" standalone="yes"?>
<MountSetting>
  <isMounted>>true</isMounted>
  <isReadOnly>>false</isReadOnly>
  <isFileLastAccessTimeRecordingEnabled>>true</
isFileLastAccessTimeRecordingEnabled>
</MountSetting>
```

Command line:

```
curl -i -l -b
      api-auth=user-name:password "https://host-name-or-IP-address:
9090/mapi/FileSystems/fs/MountSetting" -k -d @fsmount.xml -X POST -H
"Content-Type:application/xml"
```

Response:

```
HTTP/1.1 200 OK
Date: Fri, 10 Oct 2014 05:26:43 GMT
Server: Cosminexus HTTP Server 09-65 (Unix) mod_jk
X-NODE-APIVersionID: 6.4.4-00
```

```
X-NODE-CompletedOperation: 1
X-NODE-OperationList: [1]Mount file system
Content-Length: 0
Connection: close
Content-Type: text/plain; charset=iso-8859-1
```

6. Acquire the CIFS share information.

To determine the CIFS share name and other attributes of the CIFS share that you are creating, check the information about the existing CIFS share.

Command line:

```
curl -i -l -b
    api-auth=user-name:password "https://host-name-or-IP-address:
9090/mapi/CIFSShares?prettyprint&verbose=true" -k -X GET -H
"Accept:application/xml"
```

Response:

```
HTTP/1.1 200 OK
Date: Fri, 10 Oct 2014 05:27:19 GMT
Server: Cosminexus HTTP Server 09-65 (Unix) mod_jk
Content-Length: 2182
X-NODE-APIVersionID: 6.4.4-00
X-NODE-CompletedOperation: 2
X-NODE-OperationList: [1]Get CIFS share details, [2]Test namespace
connection
Connection: close
Content-Type: application/xml

<?xml version="1.0" encoding="UTF-8" standalone="yes"?>
<CIFSShares>
  <CIFSShare>
    <exportPoint>/mnt/FileSystem</exportPoint>
    <cifsShareName>FileSystem</cifsShareName>
    <isAclEnabled>true</isAclEnabled>
    <restrictionTargetHosts></restrictionTargetHosts>
    <isAccessRestrictionAllowed>>false</
isAccessRestrictionAllowed>
    <commentForShare></commentForShare>
    <isReadOnly>>false</isReadOnly>
    <isBrowseEnabled>true</isBrowseEnabled>
    <fileAccessPermissionOfOwner></fileAccessPermissionOfOwner>
    <fileAccessPermissionOfGroup></fileAccessPermissionOfGroup>
    <fileAccessPermissionOfOther></fileAccessPermissionOfOther>
    <directoryAccessPermissionOfOwner></
directoryAccessPermissionOfOwner>
    <directoryAccessPermissionOfGroup></
directoryAccessPermissionOfGroup>
    <directoryAccessPermissionOfOther></
directoryAccessPermissionOfOther>
    <guestAccessPermission>default</guestAccessPermission>
    <diskSynchronizationPolicy>default</
diskSynchronizationPolicy>
    <cifsClientCacheSetting>default</cifsClientCacheSetting>
    <fileTimestampChangeableUsers></fileTimestampChangeableUsers>
    <isHomeDirectoryEnabled>>false</isHomeDirectoryEnabled>
    <aclType>Advanced ACL</aclType>
    <clientAccessPolicy>default</clientAccessPolicy>
    <vssUse>default</vssUse>
```

```

        <cifsClientRoCacheOptimize>default</
cifsClientRoCacheOptimize>
        <accessBasedEnumeration>default</accessBasedEnumeration>
        <smbEncryption>default</smbEncryption>
        <homeDirectoryRoaming>do_not_use</homeDirectoryRoaming>
        <writeDisallowedUsers></writeDisallowedUsers>
        <writeDisallowedGroups></writeDisallowedGroups>
        <writeAllowedUsers></writeAllowedUsers>
        <writeAllowedGroups></writeAllowedGroups>
        <NamespaceShareSettings>
            <type>--</type>
            <FQDN></FQDN>
            <externalHcpHostName></externalHcpHostName>
            <user></user>
            <password></password>
            <hcpReplicaHost></hcpReplicaHost>
            <externalReplicaHcpHostName></externalReplicaHcpHostName>
            <hcpNamespace></hcpNamespace>
        </NamespaceShareSettings>
    </CIFSShare>
</CIFSShares>

```

7. Create a CIFS share.

In this example, you create a CIFS share with the following conditions:

- A new directory is created with the name `/mnt/fs/cifs` as a shared directory.
- The name of the CIFS share is `cifsshare`.
- The last access time of the file system is updated.
- The IP addresses that are not permitted to access the file system are set.
- CIFS clients are permitted to obtain and set ACL settings.
- The CIFS share is created in write-enabled mode.
- Home directory automatic creation is enabled with the CIFS share.
- Encryption is always enabled when the file system is accessed via SMB 3.0.
- The users and groups that are permitted and not permitted to write-access the CIFS share are set.
- Setting an ACL.

```

cifscreate.xml
<?xml version="1.0" encoding="UTF-8" standalone="yes"?>
<CIFSShare>
    <exportPoint>/mnt/fs/cifs</exportPoint>
    <cifsShareName>cifsshare</cifsShareName>
    <isClassicAcl>>false</isClassicAcl>
    <isAclEnabled>>true</isAclEnabled>
    <restrictionTargetHosts>10.213.77.88</restrictionTargetHosts>
    <isAccessRestrictionAllowed>>true</isAccessRestrictionAllowed>
    <commentForShare>cifscomment</commentForShare>
    <isReadOnly>>false</isReadOnly>
    <isBrowseEnabled>>true</isBrowseEnabled>
    <guestAccessPermission>default</guestAccessPermission>
    <diskSynchronizationPolicy>default</diskSynchronizationPolicy>
    <cifsClientCacheSetting>default</cifsClientCacheSetting>

```

```

<isHomeDirectoryEnabled>true</isHomeDirectoryEnabled>
<clientAccessPolicy>default</clientAccessPolicy>
<vssUse>default</vssUse>
<cifsClientRoCacheOptimize>default</cifsClientRoCacheOptimize>
<accessBasedEnumeration>default</accessBasedEnumeration>
<smbEncryption>mandatory</smbEncryption>
<writeDisallowedUsers>user3,user4</writeDisallowedUsers>
<writeDisallowedGroups>group3,group4</writeDisallowedGroups>
<writeAllowedUsers>user1,user2</writeAllowedUsers>
<writeAllowedGroups>group1,group2</writeAllowedGroups>
<DirectorySetup>
  <userName>22222</userName>
  <groupName>11111</groupName>
  <isStickyBit>true</isStickyBit>
  <ownerPermission>rw</ownerPermission>
  <groupPermission>rw</groupPermission>
  <otherPermission>rw</otherPermission>
</DirectorySetup>
<DirectoryACLSettings>
  <DirectoryACLSetting>
    <userGroupAccess>allow</userGroupAccess>
    <name>Everyone</name>
    <accountType>g</accountType>
    <applicationDestination>a</applicationDestination>
    <inheritanceRange>a</inheritanceRange>
    <accessPermission>r</accessPermission>
  </DirectoryACLSetting>
</DirectoryACLSettings>
</CIFSShare>

```

Command line:

```

curl -i -1 -b
  api-auth=user-name:password "https://host-name-or-IP-address:
9090/mapi/CIFSShares" -k -d @cifscreate.xml -X PUT -H "Content-
Type:application/xml"

```

Response:

```

HTTP/1.1 100 Continue

HTTP/1.1 200 OK
Date: Tue, 24 Jun 2014 10:30:20 GMT
Server: Cosminexus HTTP Server 09-65 (Unix) mod_jk
X-NODE-APIVersionID: 6.4.4-00
X-NODE-CompletedOperation: 4
X-NODE-OperationList: [1]Create shared directory, [2]Edit shared
directory, [3]Set ACL, [4]Create CIFS share
Content-Length: 0
Connection: close
Content-Type: text/plain; charset=iso-8859-1

```

8. Acquire the NFS share information.

To determine the NFS share name and other attributes of the NFS share that you are creating, check the information about the existing NFS share.

Command line:

```

curl -i -1 -b
  api-auth=user-name:password "https://host-name-or-IP-address:

```

```
9090/mapi/NFSShares?prettyprint&verbose=true" -k -X GET -H
"Accept:application/xml"
```

Response:

```
HTTP/1.1 200 OK
Date: Fri, 10 Oct 2014 05:27:44 GMT
Server: Cosminexus HTTP Server 09-65 (Unix) mod_jk
Content-Length: 1284
X-NODE-APIVersionID: 6.4.4-00
X-NODE-CompletedOperation: 2
X-NODE-OperationList: [1]Get NFS share details, [2]Test namespace
connection
Connection: close
Content-Type: application/xml
```

```
<?xml version="1.0" encoding="UTF-8" standalone="yes"?>
<NFSShares>
  <NFSShare>
    <exportPoint>/mnt/FileSystem</exportPoint>
    <anonymousUID>65534</anonymousUID>
    <anonymousGID>65534</anonymousGID>
    <isPortRestrictionEnabled>>false</isPortRestrictionEnabled>
    <isSubtreeCheckEnabled>>false</isSubtreeCheckEnabled>
    <isAccessCheckWithLockRequestEnabled>>false</
isAccessCheckWithLockRequestEnabled>
    <aclType>Advanced ACL</aclType>
    <maxRwSize></maxRwSize>
    <NamespaceShareSettings>
      <type>--</type>
      <FQDN></FQDN>
      <externalHcpHostName></externalHcpHostName>
      <user></user>
      <password></password>
      <hcpReplicaHost></hcpReplicaHost>
      <externalReplicaHcpHostName></externalReplicaHcpHostName>
      <hcpNamespace></hcpNamespace>
    </NamespaceShareSettings>
    <AllowedHosts>
      <AllowedHost>
        <hostOrAddress>*</hostOrAddress>
        <isReadOnly>>false</isReadOnly>
        <synchronousWritingSetting>rw_sync</
synchronousWritingSetting>
        <anonymousMapping>root_only</anonymousMapping>
        <securityFlavor>sys</securityFlavor>
      </AllowedHost>
    </AllowedHosts>
  </NFSShare>
</NFSShares>
```

9. Create an NFS share.

In this example, you create an NFS share with the following conditions:

- A new directory is created with the name `/mnt/fs/nfs` as a shared directory.
- The IDs of users and groups that access the NFS share as anonymous users are set.

- The requests that are sent from only Internet ports with port numbers smaller than 1024 are received.
- The maximum transfer length for the NFS share is 5 KB.
- All hosts are permitted to access the NFS share in read-only mode.
- **Setting an ACL.**

nfscreate.xml

```
<?xml version="1.0" encoding="UTF-8" standalone="yes"?>
<NFSShare>
  <exportPoint>/mnt/fs/nfs</exportPoint>
  <anonymousUID>22222</anonymousUID>
  <anonymousGID>22222</anonymousGID>
  <isPortRestrictionEnabled>true</isPortRestrictionEnabled>
  <isSubtreeCheckEnabled>true</isSubtreeCheckEnabled>
  <isAccessCheckWithLockRequestEnabled>true</
isAccessCheckWithLockRequestEnabled>
  <maxRwSize>5</maxRwSize>
  <AllowedHosts>
    <AllowedHost>
      <hostOrAddress>*</hostOrAddress>
      <isReadOnly>true</isReadOnly>
      <synchronousWritingSetting>rw_sync</
synchronousWritingSetting>
      <anonymousMapping>root_only</anonymousMapping>
      <securityFlavor>sys</securityFlavor>
    </AllowedHost>
  </AllowedHosts>
  <DirectorySetup>
    <userName>22222</userName>
    <groupName>11111</groupName>
    <isStickyBit>true</isStickyBit>
    <ownerPermission>rw</ownerPermission>
    <groupPermission>rw</groupPermission>
    <otherPermission>rw</otherPermission>
  </DirectorySetup>
  <DirectoryACLSettings>
    <DirectoryACLSetting>
      <userGroupAccess>allow</userGroupAccess>
      <name>Everyone</name>
      <accountType>g</accountType>
      <applicationDestination>a</applicationDestination>
      <inheritanceRange>a</inheritanceRange>
      <accessPermission>r</accessPermission>
    </DirectoryACLSetting>
  </DirectoryACLSettings>
</NFSShare>
```

Command line:

```
curl -i -l -b
  api-auth=user-name:password "https://host-name-or-IP-address:
9090/mapi/NFSshares" -k -d @nfscreate.xml -X PUT -H "Content-
Type:application/xml"
```

Response:

```
HTTP/1.1 100 Continue
```

```
HTTP/1.1 200 OK
```

```
Date: Fri, 10 Oct 2014 05:27:46 GMT
```

```
Server: Cosminexus HTTP Server 09-65 (Unix) mod_jk
X-NODE-APIVersionID: 6.4.4-00
X-NODE-CompletedOperation: 4
X-NODE-OperationList: [1]Create shared directory, [2]Edit shared
directory, [3]Set ACL, [4]Create NFS share
Content-Length: 0
Connection: close
Content-Type: text/plain; charset=iso-8859-1
```

10. Check whether you can access the namespace.

Confirm that the namespace to be allocated to the file system is accessible.

```
hcpaccess.xml
<?xml version="1.0" encoding="UTF-8" standalone="yes"?>
<HCP>
  <namespaceName>arc-test</namespaceName>
</HCP>
```

Command line:

```
curl -i -l -b
  api-auth=user-name:password "https://host-name-or-IP-address:
9090/mapi/HCP/ACCESS" -k -d @hcpaccess.xml -X POST -H "Content-
Type:application/xml"
```

Response:

```
HTTP/1.1 200 OK
Date: Fri, 10 Oct 2014 05:28:05 GMT
Server: Cosminexus HTTP Server 09-65 (Unix) mod_jk
X-NODE-APIVersionID: 6.4.4-00
X-NODE-CompletedOperation: 1
X-NODE-OperationList: [1]Test namespace connection
Content-Length: 0
Connection: close
Content-Type: text/plain; charset=iso-8859-1
```

11. Acquire the information about the migration tasks.

Check the information about the existing migration tasks.

Command line:

```
curl -i -l -b
  api-auth=user-name:password "https://host-name-or-IP-address:
9090/mapi/MigrationTask?prettyprint&verbose=true" -k -X GET -H
"Accept:application/xml"
```

Response:

```
HTTP/1.1 200 OK
Date: Fri, 10 Oct 2014 05:28:13 GMT
Server: Cosminexus HTTP Server 09-65 (Unix) mod_jk
Content-Length: 741
X-NODE-APIVersionID: 6.4.4-00
X-NODE-CompletedOperation: 3
X-NODE-OperationList: [1]Get migration task information, [2]Get HCP
settings, [3]Get execution results of migration task
Connection: close
Content-Type: application/xml
```

```
<?xml version="1.0" encoding="UTF-8" standalone="yes"?>
```

```

<MigrationTasks>
  <MigrationTask>
    <task-name>migrate_task_FileSystem</task-name>
    <task-priority>10</task-priority>
    <task-comment></task-comment>
    <task-enabled>enabled</task-enabled>
    <task-status>Scheduled (Never executed)</task-status>
    <fileName>FileSystem</fileName>
    <namespace>FileSystem-22ed0908-3d2c-4632-b6c9-2a6b019787ef</
namespace>
    <schedule-start-time>2014-10-11T22:00:00.000+00:00</schedule-
start-time>
    <schedule-interval>1 day</schedule-interval>
    <duration>8</duration>
  </MigrationTask>
</MigrationTasks>

```

12. Set the migration task.

In this example, you set a migration task with the following conditions:

- The task name is `task`.
- The first execution time of the migration task is 22:00 on June 1, 2015, and the execution interval is 5 days.
- The migration task automatically ends after 8 hours.

```

taskset.xml
<?xml version="1.0" encoding="UTF-8" standalone="yes"?>
<MigrationTask>
  <task-name>task</task-name>
  <fileName>fs</fileName>
  <namespace>arc-test</namespace>
  <schedule-start-time>2015-06-01T22:00:00.000+00:00</schedule-
start-time>
  <schedule-interval>5d</schedule-interval>
  <duration>8</duration>
</MigrationTask>

```

Command line:

```

curl -i -l -b
  api-auth=user-name:password "https://host-name-or-IP-address:
9090/mapi/MigrationTask" -k -d @taskset.xml -X PUT -H "Content-
Type:application/xml"

```

Response:

```

HTTP/1.1 200 OK
Date: Fri, 10 Oct 2014 05:28:19 GMT
Server: Cosminexus HTTP Server 09-65 (Unix) mod_jk
X-NODE-APIVersionID: 6.4.4-00
X-NODE-CompletedOperation: 2
X-NODE-OperationList: [1]Configure HCP settings, [2]Create migration
task
Content-Length: 0
Connection: close
Content-Type: text/plain; charset=iso-8859-1

```

Example of editing a file system that can link with HCP at the file system level in a cluster configuration

Table A-7 Example of editing a file system that can link with HCP at the file system level in a cluster configuration

Operation	Resource URI	HTTP method	Reference
1. Obtain information about the file system that you want to edit.	/FileSystems/ <i>file-system-name</i>	GET	Acquiring the specified file system information by using the GET method on page 3-89
2. Edit the information about the file system.	/FileSystems/ <i>file-system-name</i>	POST	Editing information about the specified file system by using the POST method on page 3-94
3. Obtain information about the CIFS share that you want to edit.	/CIFSShares/ <i>CIFS-share-name-encoded-in-Base64</i>	GET	Acquiring CIFS share information by using the GET method on page 3-39
4. Edit the information about the CIFS share.	/CIFSShares/ <i>CIFS-share-name-encoded-in-Base64</i>	POST	Changing CIFS share information by using the POST method on page 3-42
5. Obtain information about the NFS share that you want to edit.	/NFSShares/ <i>NFS-share-directory-name</i>	GET	Acquiring information for the specified NFS share by using the GET method on page 3-192
6. Edit the information about the NFS share.	/NFSShares/ <i>NFS-share-directory-name</i>	POST	Editing NFS share information by using the POST method on page 3-195
7. Obtain information about the migration task that you want to edit.	/MigrationTask/ <i>task-name-encoded-in-Base64</i>	GET	Acquiring information for the specified migration task by using the GET method on page 3-148
8. Edit the migration task.	/MigrationTask/ <i>task-name-encoded-in-Base64</i>	POST	Setting the schedule of the migration task or information about the subtree namespace by using the POST method on page 3-150

1. Obtain information about the file system that you want to edit.

Use this information to check the settings of the file system that you want to edit.

Command line:

```
curl -i -l -b
    api-auth=user-name:password "https://host-name-or-IP-address:
9090/mapi/FileSystems/fs?prettyprint&verbose=true" -k -X GET -H
"Accept:application/xml"
```

Response:

```
HTTP/1.1 200 OK
Date: Fri, 10 Oct 2014 05:26:55 GMT
Server: Cosminexus HTTP Server 09-65 (Unix) mod_jk
Content-Length: 2264
X-NODE-APIVersionID: 6.4.4-00
X-NODE-CompletedOperation: 2
X-NODE-OperationList: [1]Get file system details, [2]Set the Active
File Migration function
Connection: close
Content-Type: application/xml
```

```
<?xml version="1.0" encoding="UTF-8" standalone="yes"?>
<FileSystem>
  <fileName>fs</fileName>
  <usage>WORM</usage>
  <deviceStatus>Normal</deviceStatus>
  <freeBlocksInMegaBytes>20401.152</freeBlocksInMegaBytes>
  <usedBlocksInMegaBytes>4.096</usedBlocksInMegaBytes>
  <totalBlocksInMegaBytes>20405.248</totalBlocksInMegaBytes>
  <isLvmEnabled>true</isLvmEnabled>
  <fileSystemSizeInGigaByte>20.000</fileSystemSizeInGigaByte>
  <isLvmStripingEnabled>true</isLvmStripingEnabled>
  <stripes>2</stripes>
  <stripeSize>64</stripeSize>
  <aclType>Advanced ACL</aclType>
  <NamespaceShareSettings>
    <namespaceType>--</namespaceType>
    <type>--</type>
    <FQDN></FQDN>
    <externalHcpHostName></externalHcpHostName>
    <user></user>
    <password></password>
    <hcpReplicaHost></hcpReplicaHost>
    <externalReplicaHcpHostName></externalReplicaHcpHostName>
    <hcpNamespace></hcpNamespace>
  </NamespaceShareSettings>
  <UseVersioning>used</UseVersioning>
  <periodToHold>7</periodToHold>
  <customSchedule>not used</customSchedule>
  <customSchedule15Minute>0</customSchedule15Minute>
  <customScheduleHourly>0</customScheduleHourly>
  <customScheduleDaily>0</customScheduleDaily>
  <customScheduleWeekly>0</customScheduleWeekly>
  <customScheduleMonthly>0</customScheduleMonthly>
  <customScheduleYearly>0</customScheduleYearly>
  <isBypassEnabled>true</isBypassEnabled>
  <WormSetting>
    <maxRetention>10950-0-0</maxRetention>
    <minRetention>0-0-0</minRetention>
    <isAutoCommitEnabled>false</isAutoCommitEnabled>
    <commitModeSetting></commitModeSetting>
    <autoCommitPeriod></autoCommitPeriod>
    <defaultRetention></defaultRetention>
    <isWormDeleteEnabled>true</isWormDeleteEnabled>
    <longestRetention></longestRetention>
  </WormSetting>
  <MountSetting>
    <isMounted>true</isMounted>
```

```

        <mountStatus>Normal</mountStatus>
        <isReadOnly>>false</isReadOnly>
        <isFileLastAccessTimeRecordingEnabled>>true</
isFileLastAccessTimeRecordingEnabled>
    </MountSetting>
    <LUs>
        <LU>
            <deviceFileName>lu0000</deviceFileName>
        </LU>
        <LU>
            <deviceFileName>lu0001</deviceFileName>
        </LU>
    </LUs>
    <WorkSpaceLUs>
        <WorkSpace>
            <deviceFileName>lu0002</deviceFileName>
        </WorkSpace>
    </WorkSpaceLUs>
    <LargeFileTransferSetting>
        <largeFileTransfer>Disable</largeFileTransfer>
        <lowerLimitInMegaBytes>100</lowerLimitInMegaBytes>
    </LargeFileTransferSetting>
</FileSystem>

```

2. Edit the information about the file system.

In this example, you edit the file system with the following conditions:

- The file system is made into a WORM file system with automatic commitment enabled.
- Logical units are added to expand the file system.

```

fsmod.xml
<?xml version="1.0" encoding="UTF-8" standalone="yes"?>
<FileSystem>
    <WormSetting>
        <isAutoCommitEnabled>>true</isAutoCommitEnabled>
        <commitModeSetting>>manual</commitModeSetting>
        <autoCommitPeriod>0-0-15</autoCommitPeriod>
        <defaultRetention>10950-0-0</defaultRetention>
    </WormSetting>
    <addLUs>
        <LU>
            <deviceFileName>lu05</deviceFileName>
        </LU>
        <LU>
            <deviceFileName>lu07</deviceFileName>
        </LU>
    </addLUs>
</FileSystem>

```

Command line:

```

curl -i -l -b
    api-auth=user-name:password "https://host-name-or-IP-address:
9090/mapi/FileSystems/fs" -k -d @fsmod.xml -X POST -H "Content-
Type:application/xml"

```

Response:

```
HTTP/1.1 200 OK
Date: Fri, 10 Oct 2014 05:26:59 GMT
Server: Cosminexus HTTP Server 09-65 (Unix) mod_jk
X-NODE-APIVersionID: 6.4.4-00
X-NODE-CompletedOperation: 2
X-NODE-OperationList: [1]Expand file system, [2]Edit file system
Content-Length: 0
Connection: close
Content-Type: text/plain; charset=iso-8859-1
```

3. Obtain information about the CIFS share that you want to edit.

Use this information to check the settings of the CIFS share that you want to edit.

Command line:

```
curl -i -l -b
    api-auth=user-name:password "https://host-name-or-IP-address:
9090/mapi/CIFSShares/Y2lmc3NoYXJl?SHARE-DIRECTORY-
NAME=L2ludC9mcy9jaWZz&prettyprint&verbose=true" -k -X GET -H
"Accept:application/xml"
```

Response:

```
HTTP/1.1 200 OK
Date: Fri, 10 Oct 2014 05:27:35 GMT
Server: Cosminexus HTTP Server 09-65 (Unix) mod_jk
Content-Length: 2056
X-NODE-APIVersionID: 6.4.4-00
X-NODE-CompletedOperation: 2
X-NODE-OperationList: [1]Get CIFS share details, [2]Test namespace
connection
Connection: close
Content-Type: application/xml
```

```
<?xml version="1.0" encoding="UTF-8" standalone="yes"?>
<CIFSShare>
  <exportPoint>/mnt/fs/cifs</exportPoint>
  <cifsShareName>cifsshare</cifsShareName>
  <isAclEnabled>>true</isAclEnabled>
  <restrictionTargetHosts>10.213.77.88</restrictionTargetHosts>
  <isAccessRestrictionAllowed>>true</isAccessRestrictionAllowed>
  <commentForShare>cifscomment</commentForShare>
  <isReadOnly>>false</isReadOnly>
  <isBrowseEnabled>>true</isBrowseEnabled>
  <fileAccessPermissionOfOwner></fileAccessPermissionOfOwner>
  <fileAccessPermissionOfGroup></fileAccessPermissionOfGroup>
  <fileAccessPermissionOfOther></fileAccessPermissionOfOther>
  <directoryAccessPermissionOfOwner></
directoryAccessPermissionOfOwner>
  <directoryAccessPermissionOfGroup></
directoryAccessPermissionOfGroup>
  <directoryAccessPermissionOfOther></
directoryAccessPermissionOfOther>
  <guestAccessPermission>default</guestAccessPermission>
  <diskSynchronizationPolicy>default</diskSynchronizationPolicy>
  <cifsClientCacheSetting>default</cifsClientCacheSetting>
  <fileTimestampChangeableUsers></fileTimestampChangeableUsers>
  <isHomeDirectoryEnabled>>true</isHomeDirectoryEnabled>
  <aclType>Advanced ACL</aclType>
```

```

<clientAccessPolicy>default</clientAccessPolicy>
<vssUse>default</vssUse>
<cifsClientRoCacheOptimize>default</cifsClientRoCacheOptimize>
<accessBasedEnumeration>default</accessBasedEnumeration>
<homeDirectoryRoaming>do_not_use</homeDirectoryRoaming>
<smbEncryption>mandatory</smbEncryption>
<writeDisallowedUsers>user3,user4</writeDisallowedUsers>
<writeDisallowedGroups>group3,group4</writeDisallowedGroups>
<writeAllowedUsers>user1,user2</writeAllowedUsers>
<writeAllowedGroups>group1,group2</writeAllowedGroups>
<NamespaceShareSettings>
  <type>--</type>
  <FQDN></FQDN>
  <externalHcpHostName></externalHcpHostName>
  <user></user>
  <password></password>
  <hcpReplicaHost></hcpReplicaHost>
  <externalReplicaHcpHostName></externalReplicaHcpHostName>
  <hcpNamespace></hcpNamespace>
</NamespaceShareSettings>
</CIFSShare>

```

4. Edit the information about the CIFS share.

In this example, you edit the information about the CIFS share with the following conditions:

- Change the name of the CIFS share.
- Enable encryption only if the file system is accessed via SMB 3.0 by a client that supports encryption.
- Change the users and groups that are permitted and not permitted to write-access the CIFS share.

```

cifsmod.xml
<?xml version="1.0" encoding="UTF-8" standalone="yes"?>
<CIFSShare>
  <cifsShareName>cifssharechange</cifsShareName>
  <isClassicAcl>>false</isClassicAcl>
  <isAclEnabled>>true</isAclEnabled>
  <restrictionTargetHosts>10.213.77.88</restrictionTargetHosts>
  <isAccessRestrictionAllowed>>true</isAccessRestrictionAllowed>
  <commentForShare>cifscomment</commentForShare>
  <isReadOnly>>false</isReadOnly>
  <isBrowseEnabled>>true</isBrowseEnabled>
  <guestAccessPermission>default</guestAccessPermission>
  <diskSynchronizationPolicy>default</diskSynchronizationPolicy>
  <cifsClientCacheSetting>default</cifsClientCacheSetting>
  <isHomeDirectoryEnabled>>true</isHomeDirectoryEnabled>
  <clientAccessPolicy>default</clientAccessPolicy>
  <vssUse>default</vssUse>
  <cifsClientRoCacheOptimize>default</cifsClientRoCacheOptimize>
  <accessBasedEnumeration>default</accessBasedEnumeration>
  <smbEncryption>auto</smbEncryption>
  <writeDisallowedUsers>user1,user2</writeDisallowedUsers>
  <writeDisallowedGroups>group1,group2</writeDisallowedGroups>
  <writeAllowedUsers>user3,user4</writeAllowedUsers>
  <writeAllowedGroups>group3,group4</writeAllowedGroups>
</CIFSShare>

```


Command line:

```
curl -i -l -b
    api-auth=user-name:password "https://host-name-or-IP-address:
9090/mapi/CIFSShares/Y2lmc3NoYXJl?SHARE-DIRECTORY-
NAME=L2ludC9mcy9jaWZz" -k -d @cifsmo.xml -X POST -H "Content-
Type:application/xml"
```

Response:

```
HTTP/1.1 100 Continue

HTTP/1.1 200 OK
Date: Fri, 10 Oct 2014 05:27:37 GMT
Server: Cosminexus HTTP Server 09-65 (Unix) mod_jk
X-NODE-APIVersionID: 6.4.4-00
X-NODE-CompletedOperation: 1
X-NODE-OperationList: [1]Edit CIFS share
Content-Length: 0
Connection: close
Content-Type: text/plain; charset=iso-8859-1
```

5. Obtain information about the NFS share that you want to edit.

Use this information to check the settings of the NFS share that you want to edit.

Command line:

```
curl -i -l -b
    api-auth=user-name:password "https://host-name-or-IP-address:
9090/mapi/NFSShares/nfs?SHARE-DIRECTORY-NAME=/mnt/fs/
nfs&prettyprint&verbose=true" -k -X GET -H "Accept:application/xml"
```

Response:

```
HTTP/1.1 200 OK
Date: Fri, 10 Oct 2014 05:27:59 GMT
Server: Cosminexus HTTP Server 09-65 (Unix) mod_jk
Content-Length: 1136
X-NODE-APIVersionID: 6.4.4-00
X-NODE-CompletedOperation: 2
X-NODE-OperationList: [1]Get NFS share details, [2]Test namespace
connection
Connection: close
Content-Type: application/xml
```

```
<?xml version="1.0" encoding="UTF-8" standalone="yes"?>
<NFSShare>
  <exportPoint>/mnt/fs/nfs</exportPoint>
  <anonymousUID>22222</anonymousUID>
  <anonymousGID>22222</anonymousGID>
  <isPortRestrictionEnabled>true</isPortRestrictionEnabled>
  <isSubtreeCheckEnabled>true</isSubtreeCheckEnabled>
  <isAccessCheckWithLockRequestEnabled>true</
isAccessCheckWithLockRequestEnabled>
  <aclType>Advanced ACL</aclType>
  <maxRwSize>5</maxRwSize>
  <NamespaceShareSettings>
    <type>--</type>
    <FQDN></FQDN>
    <externalHcpHostName></externalHcpHostName>
```

```

        <user></user>
        <password></password>
        <hcpReplicaHost></hcpReplicaHost>
        <externalReplicaHcpHostName></externalReplicaHcpHostName>
        <hcpNamespace></hcpNamespace>
    </NamespaceShareSettings>
    <AllowedHosts>
        <AllowedHost>
            <hostOrAddress>*</hostOrAddress>
            <isReadOnly>>true</isReadOnly>
            <synchronousWritingSetting>rw_sync</
synchronousWritingSetting>
            <anonymousMapping>root_only</anonymousMapping>
            <securityFlavor>sys</securityFlavor>
        </AllowedHost>
    </AllowedHosts>
</NFSShare>

```

6. Edit the information about the NFS share.

In this example, you edit the information about the NFS share with the following conditions:

- The IDs of users and groups that access the NFS share as anonymous users are changed.
- Requests sent from all Internet ports are received.
- Whether execute permission (x) is set for subtrees is not checked.
- No permission check is performed for lock requests.
- The maximum transfer length for the NFS share is 5 KB.
- All hosts are permitted to write-access the NFS share.

```

nfsmod.xml
<?xml version="1.0" encoding="UTF-8" standalone="yes"?>
<NFSShare>
    <anonymousUID>33333</anonymousUID>
    <anonymousGID>33333</anonymousGID>
    <isPortRestrictionEnabled>>false</isPortRestrictionEnabled>
    <isSubtreeCheckEnabled>>false</isSubtreeCheckEnabled>
    <isAccessCheckWithLockRequestEnabled>>false</
isAccessCheckWithLockRequestEnabled>
    <maxRwSize>6</maxRwSize>
    <AllowedHosts>
        <AllowedHost>
            <hostOrAddress>*</hostOrAddress>
            <isReadOnly>>false</isReadOnly>
            <synchronousWritingSetting>rw_sync</
synchronousWritingSetting>
            <anonymousMapping>root_only</anonymousMapping>
            <securityFlavor>sys</securityFlavor>
        </AllowedHost>
    </AllowedHosts>
</NFSShare>

```

Command line:

```

curl -i -l -b
    api-auth=user-name:password "https://host-name-or-IP-address:

```

```
9090/mapi/NFSShares/nfs?SHARE-DIRECTORY-NAME=/mnt/fs/nfs" -k -d
@nfsmod.xml -X POST -H "Content-Type:application/xml"
```

Response:

```
HTTP/1.1 200 OK
Date: Fri, 10 Oct 2014 05:28:01 GMT
Server: Cosminexus HTTP Server 09-65 (Unix) mod_jk
X-NODE-APIVersionID: 6.4.4-00
X-NODE-CompletedOperation: 1
X-NODE-OperationList: [1]Edit NFS share
Content-Length: 0
Connection: close
Content-Type: text/plain; charset=iso-8859-1
```

7. Obtain information about the migration task that you want to edit.

Use this information to check the settings of the migration task that you want to edit.

Command line:

```
curl -i -l -b
    api-auth=user-name:password "https://host-name-or-IP-address:
9090/mapi/MigrationTask/cG9saWN5?
prettyprint&verbose=true&filesystemName=fs" -k -X GET -H
"Accept:application/xml"
```

Response:

```
HTTP/1.1 200 OK
Date: Fri, 10 Oct 2014 05:28:51 GMT
Server: Cosminexus HTTP Server 09-65 (Unix) mod_jk
Content-Length: 599
X-NODE-APIVersionID: 6.4.4-00
X-NODE-CompletedOperation: 3
X-NODE-OperationList: [1]Get migration task information, [2]Get HCP
settings, [3]Get execution results of migration task
Connection: close
Content-Type: application/xml
```

```
<?xml version="1.0" encoding="UTF-8" standalone="yes"?>
<MigrationTask>
  <task-name>task</task-name>
  <task-priority>5</task-priority>
  <task-comment></task-comment>
  <task-enabled>enabled</task-enabled>
  <task-status>Scheduled(Never executed)</task-status>
  <filesystemName>fs</filesystemName>
  <namespace>arc-test</namespace>
  <schedule-start-time>2015-06-02T07:00:00.000+00:00</schedule-
start-time>
  <schedule-interval>5 days</schedule-interval>
  <duration>8</duration>
</MigrationTask>
```

8. Edit the migration task.

In this example, you edit the migration task with the following conditions:

- The first execution time of the migration task is 22:00 on June 1, 2015, and the execution interval is 1 weeks.

```
taskmod.xml
<?xml version="1.0" encoding="UTF-8" standalone="yes"?>
<MigrationTask>
  <fileName>fs</fileName>
  <start-time>2015-06-01T22:00:00.000+00:00</start-time>
  <interval>1w</interval>
  <duration>8</duration>
</MigrationTask>
```

Command line:

```
curl -i -l -b
  api-auth=user-name:password "https://host-name-or-IP-address:
9090/mapi/MigrationTask/dGFzaw==" -k -d @taskmod.xml -X POST -H
"Content-Type:application/xml"
```

Response:

```
HTTP/1.1 200 OK
Date: Fri, 10 Oct 2014 05:28:57 GMT
Server: Cosminexus HTTP Server 09-65 (Unix) mod_jk
X-NODE-APIVersionID: 6.4.4-00
X-NODE-CompletedOperation: 1
X-NODE-OperationList: [1]Edit migration task
Content-Length: 0
Connection: close
Content-Type: text/plain; charset=iso-8859-1
```

Example of creating a file system that can link with HCP at the share level in a cluster configuration

Table A-8 Example of creating a file system that can link with HCP at the share level in a cluster configuration

Operation	Resource URI	HTTP method	Reference
1. Acquire the LU information.	/LUs	GET	Acquiring LU information by using the GET method on page 3-135
2. Acquire the file system information.	/FileSystems	GET	Acquiring file system information by using the GET method on page 3-63
3. Create a file system.	/FileSystems	PUT	Creating a file system by using the PUT method on page 3-76
4. Acquire information about the mount settings of the created file system.	/FileSystems/ <i>file-system-name</i> / MountSetting	GET	Acquiring information about the mount settings of the specified file system by using the GET method on page 3-104

Operation	Resource URI	HTTP method	Reference
5. Mount the created file system.	/FileSystems/ <i>file-system-name</i> /MountSetting	POST	Editing information about the mount settings of the specified file system by using the POST method on page 3-107
6. Acquire the CIFS share information.	/CIFSShares	GET	Acquiring information about all CIFS shares by using the GET method on page 3-8
7. Create a CIFS share.	/CIFSShares	PUT	Adding a CIFS share by using the PUT method on page 3-18
8. Acquire the NFS share information.	/NFSShares	GET	Acquiring information for all NFS shares by using the GET method on page 3-172
9. Create an NFS share.	/NFSShares	PUT	Adding an NFS share by using the PUT method on page 3-177
10. Check whether you can access the namespace.	/HCP/ACCESS	POST	Checking whether the user can access the HCP namespace by using the POST method on page 3-131
11. Acquire the information about the migration task.	/MigrationTask	GET	Acquiring information for all migration tasks by using the GET method on page 3-140
12. Set a migration task, and allocate the namespace to the file share.	/MigrationTask	PUT	Setting the migration task by using the PUT method on page 3-144
13. Check whether you can access the namespace (when setting multiple subtree namespaces).	/HCP/ACCESS	POST	Checking whether the user can access the HCP namespace by using the POST method on page 3-131
14. Allocate the namespace to the file share (when setting multiple subtree namespaces).	/MigrationTask/ <i>task-name-encoded-in-Base64</i>	POST	Setting the schedule of the migration task or information about the subtree namespace by using the POST method on page 3-150

1. Acquire the LU information.

Check the logical units (LUs) to be used for the file system.

Command line:

```
curl -i -l -b
    api-auth=user-name:password "https://host-name-or-IP-address:
9090/mapi/LUs?prettyprint" -k -X GET -H "Accept:application/xml"
```

Response:

```
HTTP/1.1 200 OK
Date: Fri, 10 Oct 2014 05:33:55 GMT
Server: Cosminexus HTTP Server 09-65 (Unix) mod_jk
Content-Length: 10284
X-NODE-APIVersionID: 6.4.4-00
X-NODE-CompletedOperation: 1
X-NODE-OperationList: [1]Get LU details
Connection: close
Content-Type: application/xml
```

```
<?xml version="1.0" encoding="UTF-8" standalone="yes"?>
<LUs>
  <LU>
    <deviceFileName>lu0000</deviceFileName>
    <userLUN>0000</userLUN>
    <isExternalDevice>>false</isExternalDevice>
    <target>N0-T000</target>
    <model>HUS</model>
    <serial>93000079</serial>
    <ldev>3</ldev>
    <type>SATA</type>
    <size>10.000</size>
    <function>Free</function>
    <usedBy></usedBy>
    <rg>000</rg>
    <dp></dp>
    <usedPage></usedPage>
    <pool></pool>
    <freePool></freePool>
    <totalPool></totalPool>
  </LU>
  <LU>
    <deviceFileName>lu0001</deviceFileName>
    <userLUN>0001</userLUN>
    <isExternalDevice>>false</isExternalDevice>
    <target>N0-T000</target>
    <model>HUS</model>
    <serial>93000079</serial>
    <ldev>6</ldev>
    <type>SATA</type>
    <size>10.000</size>
    <function>Free</function>
    <usedBy></usedBy>
    <rg>000</rg>
    <dp></dp>
    <usedPage></usedPage>
    <pool></pool>
    <freePool></freePool>
    <totalPool></totalPool>
  </LU>
  <LU>
    <deviceFileName>lu0006</deviceFileName>
    <userLUN>0006</userLUN>
    <isExternalDevice>>false</isExternalDevice>
    <target>N0-T000</target>
    <model>HUS</model>
    <serial>93000079</serial>
    <ldev>15</ldev>
```

```

        <type>SATA</type>
        <size>4.039</size>
        <function>File</function>
        <usedBy>FileSystem</usedBy>
        <rg>000</rg>
        <dp></dp>
        <usedPage></usedPage>
        <pool></pool>
        <freePool></freePool>
        <totalPool></totalPool>
    </LU>
</LUs>

```

2. Acquire the file system information.

To determine the file system name and other attributes of the file system that you are creating, check the information about the existing file systems.

Command line:

```

curl -i -l -b
    api-auth=user-name:password "https://host-name-or-IP-address:
9090/mapi/FileSystems?prettyprint&verbose=true" -k -X GET -H
"Accept:application/xml"

```

Response:

```

HTTP/1.1 200 OK
Date: Fri, 10 Oct 2014 05:34:06 GMT
Server: Cosminexus HTTP Server 09-65 (Unix) mod_jk
Content-Length: 2477
X-NODE-APIVersionID: 6.4.4-00
X-NODE-CompletedOperation: 2
X-NODE-OperationList: [1]Get file system details, [2]Set the Active
File Migration function
Connection: close
Content-Type: application/xml

```

```

<?xml version="1.0" encoding="UTF-8" standalone="yes"?>
<FileSystems>
  <FileSystem>
    <fileName>FileSystem</fileName>
    <usage>None</usage>
    <deviceStatus>Normal</deviceStatus>
    <freeBlocksInMegaBytes>4113.408</freeBlocksInMegaBytes>
    <usedBlocksInMegaBytes>4.096</usedBlocksInMegaBytes>
    <totalBlocksInMegaBytes>4117.504</totalBlocksInMegaBytes>
    <isLvmEnabled>true</isLvmEnabled>
    <fileSystemSizeInGigaByte>4.039</fileSystemSizeInGigaByte>
    <isLvmStripingEnabled>false</isLvmStripingEnabled>
    <stripes></stripes>
    <stripeSize></stripeSize>
    <aclType>Advanced ACL</aclType>
    <NamespaceShareSettings>
      <namespaceType>FileSystem</namespaceType>
      <type>Read/Write</type>
      <FQDN></FQDN>
      <externalHcpHostName></externalHcpHostName>
      <user></user>
      <password></password>
      <hcpReplicaHost></hcpReplicaHost>
    </NamespaceShareSettings>
  </FileSystem>
</FileSystems>

```

```

        <externalReplicaHcpHostName></externalReplicaHcpHostName>
        <hcpNamespace>FileSystem-22ed0908-3d2c-4632-
b6c9-2a6b019787ef</hcpNamespace>
    </NamespaceShareSettings>
    <UseVersioning>used</UseVersioning>
    <periodToHold>7</periodToHold>
    <customSchedule>not used</customSchedule>
    <customSchedule15Minute>0</customSchedule15Minute>
    <customScheduleHourly>0</customScheduleHourly>
    <customScheduleDaily>0</customScheduleDaily>
    <customScheduleWeekly>0</customScheduleWeekly>
    <customScheduleMonthly>0</customScheduleMonthly>
    <customScheduleYearly>0</customScheduleYearly>
    <isBypassEnabled>true</isBypassEnabled>
    <WormSetting>
        <maxRetention></maxRetention>
        <minRetention></minRetention>
        <isAutoCommitEnabled></isAutoCommitEnabled>
        <commitModeSetting></commitModeSetting>
        <autoCommitPeriod></autoCommitPeriod>
        <defaultRetention></defaultRetention>
        <isWormDeleteEnabled></isWormDeleteEnabled>
        <longestRetention></longestRetention>
    </WormSetting>
    <MountSetting>
        <isMounted>true</isMounted>
        <mountStatus>Normal</mountStatus>
        <isReadOnly>false</isReadOnly>
        <isFileLastAccessTimeRecordingEnabled>true</
isFileLastAccessTimeRecordingEnabled>
    </MountSetting>
    <LUs>
        <LU>
            <deviceFileName>lu0006</deviceFileName>
        </LU>
    </LUs>
    <WorkSpaceLUs>
        <WorkSpace>
            <deviceFileName>lu0007</deviceFileName>
        </WorkSpace>
    </WorkSpaceLUs>
    <LargeFileTransferSetting>
        <largeFileTransfer>Disable</largeFileTransfer>
        <lowerLimitInMegaBytes>100</lowerLimitInMegaBytes>
    </LargeFileTransferSetting>
</FileSystem>
</FileSystems>

```

3. Create a file system.

In this example, you create a file system with the following conditions:

- Create only one share.
- The file system name is `fs`.
- The ACL type of the file system to be created is Advanced ACL.

- The data in the file system is not synchronized with another HDI system via a linked HCP system.
- Allow clients to access the past version of files migrated to the HCP system.
- The retention period for the past version of files that are migrated to the HCP system is 7 days.
- The target file system is a WORM file system.

```

fscreate.xml
<?xml version="1.0" encoding="UTF-8" standalone="yes"?>
<FileSystem>
  <fileName>fs</fileName>
  <aclType>Advanced ACL</aclType>
  <NamespaceShareSettings>
    <namespaceType>Subtree</namespaceType>
    <type>Read/Write</type>
  </NamespaceShareSettings>
  <UseVersioning>used</UseVersioning>
  <periodToHold>7</periodToHold>
  <isBypassEnabled>true</isBypassEnabled>
  <WormSetting>
    <maxRetention>infinite</maxRetention>
    <minRetention>0-0-0</minRetention>
    <isAutoCommitEnabled>true</isAutoCommitEnabled>
    <commitModeSetting>manual</commitModeSetting>
    <autoCommitPeriod>0-0-15</autoCommitPeriod>
    <defaultRetention>10950-0-0</defaultRetention>
  </WormSetting>
  <LUs>
    <LU>
      <deviceFileName>lu0000</deviceFileName>
    </LU>
  </LUs>
</FileSystem>

```

Command line:

```

curl -i -1 -b
  api-auth=user-name:password "https://host-name-or-IP-address:
9090/mapi/FileSystems" -k -d @fscreate.xml -X PUT -H "Content-
Type:application/xml"

```

Response:

```

HTTP/1.1 200 OK
Date: Fri, 10 Oct 2014 05:34:10 GMT
Server: Cosminexus HTTP Server 09-65 (Unix) mod_jk
X-NODE-APIVersionID: 6.4.4-00
X-NODE-CompletedOperation: 2
X-NODE-OperationList: [1]Create file system, [2]Set namespace type
Content-Length: 0
Connection: close
Content-Type: text/plain; charset=iso-8859-1

```

4. Acquire information about the mount settings of the created file system.

Use the acquired information to confirm that the file system you created is not mounted.

Command line:

```
curl -i -l -b
  api-auth=user-name:password "https://host-name-or-IP-address:
9090/mapi/FileSystems/fs/MountSetting?prettyprint" -k -X GET -H
"Accept:application/xml"
```

Response:

```
HTTP/1.1 200 OK
Date: Fri, 10 Oct 2014 05:34:26 GMT
Server: Cosminexus HTTP Server 09-65 (Unix) mod_jk
Content-Length: 232
X-NODE-APIVersionID: 6.4.4-00
X-NODE-CompletedOperation: 1
X-NODE-OperationList: [1]Get file system details
Connection: close
Content-Type: application/xml
```

```
<?xml version="1.0" encoding="UTF-8" standalone="yes"?>
<MountSetting>
  <isMounted>>false</isMounted>
  <isReadOnly></isReadOnly>
  <isFileLastAccessTimeRecordingEnabled></
isFileLastAccessTimeRecordingEnabled>
</MountSetting>
```

5. Mount the created file system.

In this example, you mount the file system with the following conditions:

- The file system is mounted in write-enabled mode.
- The last access time of the file system is updated.

```
fsmount.xml
<?xml version="1.0" encoding="UTF-8" standalone="yes"?>
<MountSetting>
  <isMounted>>true</isMounted>
  <isReadOnly>>false</isReadOnly>
  <isFileLastAccessTimeRecordingEnabled>>true</
isFileLastAccessTimeRecordingEnabled>
</MountSetting>
```

Command line:

```
curl -i -l -b
  api-auth=user-name:password "https://host-name-or-IP-address:
9090/mapi/FileSystems/fs/MountSetting" -k -d @fsmount.xml -X POST -H
"Content-Type:application/xml"
```

Response:

```
HTTP/1.1 200 OK
Date: Fri, 10 Oct 2014 05:34:30 GMT
Server: Cosminexus HTTP Server 09-65 (Unix) mod_jk
X-NODE-APIVersionID: 6.4.4-00
X-NODE-CompletedOperation: 1
X-NODE-OperationList: [1]Mount file system
Content-Length: 0
Connection: close
Content-Type: text/plain; charset=iso-8859-1
```

6. Acquire the CIFS share information.

To determine the CIFS share name and other attributes of the CIFS share that you are creating, check the information about the existing CIFS share.

Command line:

```
curl -i -l -b
    api-auth=user-name:password "https://host-name-or-IP-address:
9090/mapi/CIFSShares?prettyprint&verbose=true" -k -X GET -H
"Accept:application/xml"
```

Response:

```
HTTP/1.1 200 OK
Date: Fri, 10 Oct 2014 05:35:06 GMT
Server: Cosminexus HTTP Server 09-65 (Unix) mod_jk
Content-Length: 2182
X-NODE-APIVersionID: 6.4.4-00
X-NODE-CompletedOperation: 2
X-NODE-OperationList: [1]Get CIFS share details, [2]Test namespace
connection
Connection: close
Content-Type: application/xml

<?xml version="1.0" encoding="UTF-8" standalone="yes"?>
<CIFSShares>
  <CIFSShare>
    <exportPoint>/mnt/FileSystem</exportPoint>
    <cifsShareName>FileSystem</cifsShareName>
    <isAclEnabled>true</isAclEnabled>
    <restrictionTargetHosts></restrictionTargetHosts>
    <isAccessRestrictionAllowed>false</
isAccessRestrictionAllowed>
    <commentForShare></commentForShare>
    <isReadOnly>false</isReadOnly>
    <isBrowseEnabled>true</isBrowseEnabled>
    <fileAccessPermissionOfOwner></fileAccessPermissionOfOwner>
    <fileAccessPermissionOfGroup></fileAccessPermissionOfGroup>
    <fileAccessPermissionOfOther></fileAccessPermissionOfOther>
    <directoryAccessPermissionOfOwner></
directoryAccessPermissionOfOwner>
    <directoryAccessPermissionOfGroup></
directoryAccessPermissionOfGroup>
    <directoryAccessPermissionOfOther></
directoryAccessPermissionOfOther>
    <guestAccessPermission>default</guestAccessPermission>
    <diskSynchronizationPolicy>default</
diskSynchronizationPolicy>
    <cifsClientCacheSetting>default</cifsClientCacheSetting>
    <fileTimestampChangeableUsers></fileTimestampChangeableUsers>
    <isHomeDirectoryEnabled>false</isHomeDirectoryEnabled>
    <aclType>Advanced ACL</aclType>
    <clientAccessPolicy>default</clientAccessPolicy>
    <vssUse>default</vssUse>
    <cifsClientRoCacheOptimize>default</
cifsClientRoCacheOptimize>
    <accessBasedEnumeration>default</accessBasedEnumeration>
    <homeDirectoryRoaming>do_not_use</homeDirectoryRoaming>
    <smbEncryption>default</smbEncryption>
    <writeDisallowedUsers></writeDisallowedUsers>
```

```

    <writeDisallowedGroups></writeDisallowedGroups>
    <writeAllowedUsers></writeAllowedUsers>
    <writeAllowedGroups></writeAllowedGroups>
    <NamespaceShareSettings>
      <type>--</type>
      <FQDN></FQDN>
      <externalHcpHostName></externalHcpHostName>
      <user></user>
      <password></password>
      <hcpReplicaHost></hcpReplicaHost>
      <externalReplicaHcpHostName></externalReplicaHcpHostName>
      <hcpNamespace></hcpNamespace>
    </NamespaceShareSettings>
  </CIFSShare>
</CIFSShares>

```

7. Create a CIFS share.

In this example, you create a CIFS share with the following conditions:

- A new directory is created with the name `/mnt/fs/cifs` as a shared directory.
- The name of the CIFS share is `cifsshare`.
- The last access time of the file system is updated.
- No access limitation is imposed.
- CIFS clients are permitted to obtain and set ACL settings.
- The CIFS share is created in write-enabled mode.
- Home directory automatic creation is enabled with the CIFS share.
- Encryption is always enabled when the file system is accessed via SMB 3.0.
- The users and groups that are permitted and not permitted to write-access the CIFS share are set.
- Setting an ACL.

```

cifscreeate.xml
<?xml version="1.0" encoding="UTF-8" standalone="yes"?>
<CIFSShare>
  <exportPoint>/mnt/fs/cifs</exportPoint>
  <cifsShareName>cifsshare</cifsShareName>
  <isClassicAcl>>false</isClassicAcl>
  <isAclEnabled>>true</isAclEnabled>
  <restrictionTargetHosts>0.0.0.0/0</restrictionTargetHosts>
  <isAccessRestrictionAllowed>>true</isAccessRestrictionAllowed>
  <commentForShare>cifscomment</commentForShare>
  <isReadOnly>>false</isReadOnly>
  <isBrowseEnabled>>true</isBrowseEnabled>
  <guestAccessPermission>default</guestAccessPermission>
  <diskSynchronizationPolicy>default</diskSynchronizationPolicy>
  <cifsClientCacheSetting>default</cifsClientCacheSetting>
  <isHomeDirectoryEnabled>>true</isHomeDirectoryEnabled>
  <clientAccessPolicy>default</clientAccessPolicy>
  <vssUse>default</vssUse>
  <cifsClientRoCacheOptimize>default</cifsClientRoCacheOptimize>
  <accessBasedEnumeration>default</accessBasedEnumeration>
  <smbEncryption>auto</smbEncryption>

```

```

<writeDisallowedUsers></writeDisallowedUsers>
<writeDisallowedGroups>group3,group4</writeDisallowedGroups>
<writeAllowedUsers>user1,user2</writeAllowedUsers>
<writeAllowedGroups>group1,group2</writeAllowedGroups>
<DirectorySetup>
  <userName>22222</userName>
  <groupName>11111</groupName>
  <isStickyBit>true</isStickyBit>
  <ownerPermission>rw</ownerPermission>
  <groupPermission>rw</groupPermission>
  <otherPermission>rw</otherPermission>
</DirectorySetup>
<DirectoryACLSettings>
  <DirectoryACLSetting>
    <userGroupAccess>allow</userGroupAccess>
    <name>Everyone</name>
    <accountType>g</accountType>
    <applicationDestination>a</applicationDestination>
    <inheritanceRange>a</inheritanceRange>
    <accessPermission>r</accessPermission>
  </DirectoryACLSetting>
</DirectoryACLSettings>
</CIFSShare>

```

Command line:

```

curl -i -l -b
  api-auth=user-name:password "https://host-name-or-IP-address:
9090/mapi/CIFSShares" -k -d @cifscreate.xml -X PUT -H "Content-
Type:application/xml"

```

Response:

```

HTTP/1.1 100 Continue

HTTP/1.1 200 OK
Date: Fri, 10 Oct 2014 05:35:08 GMT
Server: Cosminexus HTTP Server 09-65 (Unix) mod_jk
X-NODE-APIVersionID: 6.4.4-00
X-NODE-CompletedOperation: 4
X-NODE-OperationList: [1]Create shared directory, [2]Edit shared
directory, [3]Set ACL, [4]Create CIFS share
Content-Length: 0
Connection: close
Content-Type: text/plain; charset=iso-8859-1

```

8. Acquire the NFS share information.

To determine the NFS share name and other attributes of the NFS share that you are creating, check the information about the existing NFS share.

Command line:

```

curl -i -l -b
  api-auth=user-name:password "https://host-name-or-IP-address:
9090/mapi/NFSShares?prettyprint&verbose=true" -k -X GET -H
"Accept:application/xml"

```

Response:

```

HTTP/1.1 200 OK
Date: Fri, 10 Oct 2014 05:35:31 GMT
Server: Cosminexus HTTP Server 09-65 (Unix) mod_jk

```

```
Content-Length: 1284
X-NODE-APIVersionID: 6.4.4-00
X-NODE-CompletedOperation: 2
X-NODE-OperationList: [1]Get NFS share details, [2]Test namespace
connection
Connection: close
Content-Type: application/xml
```

```
<?xml version="1.0" encoding="UTF-8" standalone="yes"?>
<NFSShares>
  <NFSShare>
    <exportPoint>/mnt/FileSystem</exportPoint>
    <anonymousUID>65534</anonymousUID>
    <anonymousGID>65534</anonymousGID>
    <isPortRestrictionEnabled>>false</isPortRestrictionEnabled>
    <isSubtreeCheckEnabled>>false</isSubtreeCheckEnabled>
    <isAccessCheckWithLockRequestEnabled>>false</
isAccessCheckWithLockRequestEnabled>
    <aclType>Advanced ACL</aclType>
    <maxRwSize></maxRwSize>
    <NamespaceShareSettings>
      <type>--</type>
      <FQDN></FQDN>
      <externalHcpHostName></externalHcpHostName>
      <user></user>
      <password></password>
      <hcpReplicaHost></hcpReplicaHost>
      <externalReplicaHcpHostName></externalReplicaHcpHostName>
      <hcpNamespace></hcpNamespace>
    </NamespaceShareSettings>
    <AllowedHosts>
      <AllowedHost>
        <hostOrAddress>*</hostOrAddress>
        <isReadOnly>>false</isReadOnly>
        <synchronousWritingSetting>rw_sync</
synchronousWritingSetting>
        <anonymousMapping>root_only</anonymousMapping>
        <securityFlavor>sys</securityFlavor>
      </AllowedHost>
    </AllowedHosts>
  </NFSShare>
</NFSShares>
```

9. Create an NFS share.

In this example, you create an NFS share with the following conditions:

- A new directory is created with the name `/mnt/fs/nfs` as a shared directory.
- The IDs of users and groups that access the NFS share as anonymous users are set.
- The requests that are sent from only Internet ports with port numbers smaller than 1024 are received.
- Whether the execute permission (x) is set for subtrees is checked.
- A permission check is performed for lock requests.
- The maximum transfer length for the NFS share is 5 KB.

- All hosts are permitted to access the NFS share in read-only mode.
- Setting an ACL.

```
nfscreate.xml
<?xml version="1.0" encoding="UTF-8" standalone="yes"?>
<NFSShare>
  <exportPoint>/mnt/fs/nfs</exportPoint>
  <anonymousUID>22222</anonymousUID>
  <anonymousGID>22222</anonymousGID>
  <isPortRestrictionEnabled>>true</isPortRestrictionEnabled>
  <isSubtreeCheckEnabled>>true</isSubtreeCheckEnabled>
  <isAccessCheckWithLockRequestEnabled>>true</
isAccessCheckWithLockRequestEnabled>
  <maxRwSize>5</maxRwSize>
  <AllowedHosts>
    <AllowedHost>
      <hostOrAddress>*</hostOrAddress>
      <isReadOnly>>true</isReadOnly>
      <synchronousWritingSetting>rw_sync</
synchronousWritingSetting>
      <anonymousMapping>root_only</anonymousMapping>
      <securityFlavor>sys</securityFlavor>
    </AllowedHost>
  </AllowedHosts>
  <DirectorySetup>
    <userName>22222</userName>
    <groupName>11111</groupName>
    <isStickyBit>true</isStickyBit>
    <ownerPermission>rw</ownerPermission>
    <groupPermission>rw</groupPermission>
    <otherPermission>rw</otherPermission>
  </DirectorySetup>
  <DirectoryACLSettings>
    <DirectoryACLSetting>
      <userGroupAccess>allow</userGroupAccess>
      <name>Everyone</name>
      <accountType>g</accountType>
      <applicationDestination>a</applicationDestination>
      <inheritanceRange>a</inheritanceRange>
      <accessPermission>r</accessPermission>
    </DirectoryACLSetting>
  </DirectoryACLSettings>
</NFSShare>
```

Command line:

```
curl -i -l -b
  api-auth=user-name:password api-auth==user-name:password
"https://host-name-or-IP-address:9090/mapi/NFSShares" -k -d
@nfscreate.xml -X PUT -H "Content-Type:application/xml"
```

Response:

```
HTTP/1.1 100 Continue

HTTP/1.1 200 OK
Date: Fri, 10 Oct 2014 05:35:33 GMT
Server: Cosminexus HTTP Server 09-65 (Unix) mod_jk
X-NODE-APIVersionID: 6.4.4-00
X-NODE-CompletedOperation: 4
X-NODE-OperationList: [1]Create shared directory, [2]Edit shared
```

```
directory, [3]Set ACL, [4]Create NFS share
Content-Length: 0
Connection: close
Content-Type: text/plain; charset=iso-8859-1
```

10. Check whether you can access the namespace.

Confirm that the namespace to be allocated to the file share is accessible.

```
hcppaccess.xml
<?xml version="1.0" encoding="UTF-8" standalone="yes"?>
<HCP>
  <namespaceName>subtree-namespace1</namespaceName>
</HCP>
```

Command line:

```
curl -i -l -b
  api-auth=user-name:password "https://host-name-or-IP-address:
9090/mapi/HCP/ACCESS" -k -d @hcppaccess.xml -X POST -H "Content-Type:
application/xml"
```

Response:

```
HTTP/1.1 200 OK
Date: Fri, 10 Oct 2014 05:35:55 GMT
Server: Cosminexus HTTP Server 09-65 (Unix) mod_jk
X-NODE-APIVersionID: 6.4.4-00
X-NODE-CompletedOperation: 1
X-NODE-OperationList: [1]Test namespace connection
Content-Length: 0
Connection: close
Content-Type: text/plain; charset=iso-8859-1
```

11. Acquire the information about the migration tasks.

Check the information about the existing migration tasks.

Command line:

```
curl -i -l -b
  api-auth=user-name:password "https://host-name-or-IP-address:
9090/mapi/MigrationTask?prettyprint&verbose=true" -k -X GET -H
"Accept:application/xml"
```

Response:

```
HTTP/1.1 200 OK
Date: Fri, 10 Oct 2014 05:35:59 GMT
Server: Cosminexus HTTP Server 09-65 (Unix) mod_jk
Content-Length: 741
X-NODE-APIVersionID: 6.4.4-00
X-NODE-CompletedOperation: 3
X-NODE-OperationList: [1]Get migration task information, [2]Get HCP
settings, [3]Get execution results of migration task
Connection: close
Content-Type: application/xml
```

```
<?xml version="1.0" encoding="UTF-8" standalone="yes"?>
<MigrationTasks>
  <MigrationTask>
    <task-name>migrate_task_FileSystem</task-name>
    <task-priority>5</task-priority>
```



```

        <task-comment></task-comment>
        <task-enabled>enabled</task-enabled>
        <task-status>Scheduled(Never executed)</task-status>
        <fileName>FileSystem</fileName>
        <namespace>FileSystem-22ed0908-3d2c-4632-b6c9-2a6b019787ef</
namespace>
        <schedule-start-time>2014-10-11T22:00:00.000+00:00</schedule-
start-time>
        <schedule-interval>1 day</schedule-interval>
        <duration>8</duration>
    </MigrationTask>
</MigrationTasks>

```

12. Set a migration task, and allocate the namespace to the file share.

In this example, you set a migration task with the following conditions:

- The task name is `task`.
- The first execution time of the migration task is 22:00 on June 1, 2015, and the execution interval is 5 days.
- The migration task automatically ends after 8 hours.

```

taskset_0520.xml
<?xml version="1.0" encoding="UTF-8" standalone="yes"?>
<MigrationTask>
    <task-name>task</task-name>
    <fileName>fs</fileName>
    <Namespaces>
        <namespace>
            <name>subtree-namespace1</name>
            <directory>cifs</directory>
            <namespaceQuota>on</namespaceQuota>
        </namespace>
    </Namespaces>
    <schedule-start-time>2015-06-01T22:00:00.000+00:00</schedule-
start-time>
    <schedule-interval>5d</schedule-interval>
    <duration>8</duration>
</MigrationTask>

```

Command line:

```

curl -i -1 -b
    api-auth=user-name:password "https://host-name-or-IP-address:
9090/mapi/MigrationTask" -k -d @taskset_0520.xml -X PUT -H "Content-
Type:application/xml"

```

Response:

```

HTTP/1.1 200 OK
Date: Thu, 05 Mar 2015 03:10:02 GMT
Server: Cosminexus HTTP Server 09-65 (Unix) mod_jk
X-NODE-APIVersionID: 6.4.4-00
X-NODE-CompletedOperation: 2
X-NODE-OperationList: [1]Configure HCP settings, [2]Create migration
task
Content-Length: 0
Connection: close
Content-Type: text/plain; charset=iso-8859-1

```

13. Check whether you can access the namespace (when setting multiple subtree namespaces).

Confirm that the namespace to be allocated to the file share is accessible.

```
hcpaccess_c_0520.xml
<?xml version="1.0" encoding="UTF-8" standalone="yes"?>
<HCP>
  <namespaceName>subtree-namespace2</namespaceName>
</HCP>
```

Command line:

```
curl -i -l -b
      api-auth=user-name:password "https://host-name-or-IP-address:
9090/mapi/HCP/ACCESS" -k -d @hcpaccess_c_0520.xml -X POST -H
"Content-Type: application/xml"
```

Response:

```
HTTP/1.1 200 OK
Date: Thu, 28 May 2015 05:44:20 GMT
Server: Cosminexus HTTP Server 09-65 (Unix) mod_jk
X-NODE-APIVersionID: 6.4.4-00
X-NODE-CompletedOperation: 1
X-NODE-OperationList: [1]Test namespace connection
Content-Length: 0
Connection: close
Content-Type: text/plain; charset=iso-8859-1
```

14. Allocate the namespace to the file share (when setting multiple subtree namespaces).

In this example, you allocate the namespace with the following conditions:

- The capacity is limited based on the hard quota of the namespace.

```
taskmod_c_0520.xml
<?xml version="1.0" encoding="UTF-8" standalone="yes"?>
<MigrationTask>
  <fileSystemName>fs</fileSystemName>
  <Namespaces>
    <namespace>
      <name>subtree-namespace2</name>
      <directory>nfs</directory>
      <namespaceQuota>on</namespaceQuota>
    </namespace>
  </Namespaces>
</MigrationTask>
```

Command line:

```
curl -i -l -b
      api-auth=user-name:password "https://host-name-or-IP-address:
9090/mapi/MigrationTask/dGFzaw==" -k -d @taskmod_c_0520.xml -X POST -
H "Content-Type:application/xml"
```

Response:

```
HTTP/1.1 200 OK
Date: Thu, 28 May 2015 05:51:06 GMT
Server: Cosminexus HTTP Server 09-65 (Unix) mod_jk
X-NODE-APIVersionID: 6.4.4-00
X-NODE-CompletedOperation: 1
```

X-NODE-OperationList: [1]Edit migration task
 Content-Length: 0
 Connection: close
 Content-Type: text/plain; charset=iso-8859-1

Example of editing a file system that can link with HCP at the share level in a cluster configuration

Table A-9 Example of editing a file system that can link with HCP at the share level in a cluster configuration

Operation	Resource URI	HTTP method	Reference
1. Obtain information about the file system that you want to edit.	/FileSystems/ <i>file-system-name</i>	GET	Acquiring the specified file system information by using the GET method on page 3-89
2. Edit the information about the file system.	/FileSystems/ <i>file-system-name</i>	POST	Editing information about the specified file system by using the POST method on page 3-94
3. Obtain information about the CIFS share that you want to edit.	/CIFSShares/ <i>CIFS-share-name-encoded-in-Base64</i>	GET	Acquiring CIFS share information by using the GET method on page 3-39
4. Edit the information about the CIFS share.	/CIFSShares/ <i>CIFS-share-name-encoded-in-Base64</i>	POST	Changing CIFS share information by using the POST method on page 3-42
5. Obtain information about the NFS share that you want to edit.	/NFSShares/ <i>NFS-share-directory-name</i>	GET	Acquiring information for the specified NFS share by using the GET method on page 3-192
6. Edit the information about the NFS share.	/NFSShares/ <i>NFS-share-directory-name</i>	POST	Editing NFS share information by using the POST method on page 3-195
7. Check whether you can access the namespace.	/HCP/ACCESS	POST	Checking whether the user can access the HCP namespace by using the POST method on page 3-131
8. Obtain information about the migration task that you want to edit.	/MigrationTask/ <i>task-name-encoded-in-Base64</i>	GET	Acquiring information for the specified migration task by using the GET method on page 3-148
9. Edit the migration task.	/MigrationTask/ <i>task-name-encoded-in-Base64</i>	POST	Setting the schedule of the migration task or information about the subtree namespace by using the POST method on page 3-150

1. Obtain information about the file system that you want to edit.

Use this information to check the settings of the file system that you want to edit.

Command line:

```
curl -i -l -b
      api-auth=user-name:password "https://host-name-or-IP-address:
9090/mapi/FileSystems/fs?prettyprint&verbose=true" -k -X GET -H
"Accept:application/xml"
```

Response:

```
HTTP/1.1 200 OK
Date: Fri, 10 Oct 2014 05:34:48 GMT
Server: Cosminexus HTTP Server 09-65 (Unix) mod_jk
Content-Length: 2209
X-NODE-APIVersionID: 6.4.4-00
X-NODE-CompletedOperation: 2
X-NODE-OperationList: [1]Get file system details, [2]Set the Active
File Migration function
Connection: close
Content-Type: application/xml
```

```
<?xml version="1.0" encoding="UTF-8" standalone="yes"?>
<FileSystem>
  <fileName>fs</fileName>
  <usage>WORM</usage>
  <deviceStatus>Normal</deviceStatus>
  <freeBlocksInMegaBytes>10192.896</freeBlocksInMegaBytes>
  <usedBlocksInMegaBytes>4.096</usedBlocksInMegaBytes>
  <totalBlocksInMegaBytes>10196.992</totalBlocksInMegaBytes>
  <isLvmEnabled>true</isLvmEnabled>
  <fileSystemSizeInGigaByte>10.000</fileSystemSizeInGigaByte>
  <isLvmStripingEnabled>>false</isLvmStripingEnabled>
  <stripes></stripes>
  <stripeSize></stripeSize>
  <aclType>Advanced ACL</aclType>
  <NamespaceShareSettings>
    <namespaceType>Subtree</namespaceType>
    <type>Read/Write</type>
    <FQDN></FQDN>
    <externalHcpHostName></externalHcpHostName>
    <user></user>
    <password></password>
    <hcpReplicaHost></hcpReplicaHost>
    <externalReplicaHcpHostName></externalReplicaHcpHostName>
    <hcpNamespace></hcpNamespace>
  </NamespaceShareSettings>
  <UseVersioning>used</UseVersioning>
  <periodToHold>7</periodToHold>
  <customSchedule>not used</customSchedule>
  <customSchedule15Minute>0</customSchedule15Minute>
  <customScheduleHourly>0</customScheduleHourly>
  <customScheduleDaily>0</customScheduleDaily>
  <customScheduleWeekly>0</customScheduleWeekly>
  <customScheduleMonthly>0</customScheduleMonthly>
  <customScheduleYearly>0</customScheduleYearly>
  <isBypassEnabled>true</isBypassEnabled>
  <WormSetting>
```

```

        <maxRetention>infinite</maxRetention>
        <minRetention>0-0-0</minRetention>
        <isAutoCommitEnabled>true</isAutoCommitEnabled>
        <commitModeSetting>manual</commitModeSetting>
        <autoCommitPeriod>0-0-15</autoCommitPeriod>
        <defaultRetention>10950-0-0</defaultRetention>
        <isWormDeleteEnabled>true</isWormDeleteEnabled>
        <longestRetention></longestRetention>
    </WormSetting>
    <MountSetting>
        <isMounted>true</isMounted>
        <mountStatus>Normal</mountStatus>
        <isReadOnly>false</isReadOnly>
        <isFileLastAccessTimeRecordingEnabled>true</
isFileLastAccessTimeRecordingEnabled>
    </MountSetting>
    <LUs>
        <LU>
            <deviceFileName>lu0000</deviceFileName>
        </LU>
    </LUs>
    <WorkspaceLUs>
        <Workspace>
            <deviceFileName>lu0002</deviceFileName>
        </Workspace>
    </WorkspaceLUs>
    <LargeFileTransferSetting>
        <largeFileTransfer>Disable</largeFileTransfer>
        <lowerLimitInMegaBytes>100</lowerLimitInMegaBytes>
    </LargeFileTransferSetting>
</FileSystem>

```

2. Edit the information about the file system.

In this example, you add logical units (LUs) to expand the file system.

```

fsmod.xml
<?xml version="1.0" encoding="UTF-8" standalone="yes"?>
<FileSystem>
    <addLUs>
        <LU>
            <deviceFileName>lu0001</deviceFileName>
        </LU>
    </addLUs>
</FileSystem>

```

Command line:

```

curl -i -l -b
    api-auth=user-name:password "https://host-name-or-IP-address:
9090/mapi/FileSystems/fs" -k -d @fsmod.xml -X POST -H "Content-
Type:application/xml"

```

Response:

```

HTTP/1.1 200 OK
Date: Fri, 10 Oct 2014 05:34:52 GMT
Server: Cosminexus HTTP Server 09-65 (Unix) mod_jk
X-NODE-APIVersionID: 6.4.4-00
X-NODE-CompletedOperation: 2
X-NODE-OperationList: [1]Expand file system, [2]Set namespace type
Content-Length: 0

```

```
Connection: close
Content-Type: text/plain; charset=iso-8859-1
```

3. Obtain information about the CIFS share that you want to edit.

Use this information to check the settings of the CIFS share that you want to edit.

Command line:

```
curl -i -l -b
      api-auth=user-name:password "https://host-name-or-IP-address:
9090/mapi/CIFSShares/Y2lmc3NoYXJl?SHARE-DIRECTORY-
NAME=L2ludC9mcy9jaWZz&prettyprint&verbose=true" -k -X GET -H
"Accept:application/xml"
```

Response:

```
HTTP/1.1 200 OK
Date: Fri, 10 Oct 2014 05:35:22 GMT
Server: Cosminexus HTTP Server 09-65 (Unix) mod_jk
Content-Length: 2042
X-NODE-APIVersionID: 6.4.4-00
X-NODE-CompletedOperation: 2
X-NODE-OperationList: [1]Get CIFS share details, [2]Test namespace
connection
Connection: close
Content-Type: application/xml
```

```
<?xml version="1.0" encoding="UTF-8" standalone="yes"?>
<CIFSShare>
  <exportPoint>/mnt/fs/cifs</exportPoint>
  <cifsShareName>cifsshare</cifsShareName>
  <isAclEnabled>true</isAclEnabled>
  <restrictionTargetHosts>0.0.0.0/0</restrictionTargetHosts>
  <isAccessRestrictionAllowed>true</isAccessRestrictionAllowed>
  <commentForShare>cifscomment</commentForShare>
  <isReadOnly>>false</isReadOnly>
  <isBrowseEnabled>true</isBrowseEnabled>
  <fileAccessPermissionOfOwner></fileAccessPermissionOfOwner>
  <fileAccessPermissionOfGroup></fileAccessPermissionOfGroup>
  <fileAccessPermissionOfOther></fileAccessPermissionOfOther>
  <directoryAccessPermissionOfOwner></
directoryAccessPermissionOfOwner>
  <directoryAccessPermissionOfGroup></
directoryAccessPermissionOfGroup>
  <directoryAccessPermissionOfOther></
directoryAccessPermissionOfOther>
  <guestAccessPermission>default</guestAccessPermission>
  <diskSynchronizationPolicy>default</diskSynchronizationPolicy>
  <cifsClientCacheSetting>default</cifsClientCacheSetting>
  <fileTimestampChangeableUsers></fileTimestampChangeableUsers>
  <isHomeDirectoryEnabled>true</isHomeDirectoryEnabled>
  <aclType>Advanced ACL</aclType>
  <clientAccessPolicy>default</clientAccessPolicy>
  <vssUse>default</vssUse>
  <cifsClientRoCacheOptimize>default</cifsClientRoCacheOptimize>
  <accessBasedEnumeration>default</accessBasedEnumeration>
  <homeDirectoryRoaming>do_not_use</homeDirectoryRoaming>
  <smbEncryption>auto</smbEncryption>
  <writeDisallowedUsers></writeDisallowedUsers>
```

```

<writeDisallowedGroups>group3,group4</writeDisallowedGroups>
<writeAllowedUsers>user1,user2</writeAllowedUsers>
<writeAllowedGroups>group1,group2</writeAllowedGroups>
<NamespaceShareSettings>
  <type>--</type>
  <FQDN></FQDN>
  <externalHcpHostName></externalHcpHostName>
  <user></user>
  <password></password>
  <hcpReplicaHost></hcpReplicaHost>
  <externalReplicaHcpHostName></externalReplicaHcpHostName>
  <hcpNamespace></hcpNamespace>
</NamespaceShareSettings>
</CIFSShare>

```

4. Edit the information about the CIFS share.

In this example, you edit the information about the CIFS share with the following conditions:

- Change the name of the CIFS share.
- Communication with CIFS clients is not encrypted.

```

cifsmo.xml
<?xml version="1.0" encoding="UTF-8" standalone="yes"?>
<CIFSShare>
  <cifsShareName>cifssharechange</cifsShareName>
  <isClassicAcl>>false</isClassicAcl>
  <isAclEnabled>>true</isAclEnabled>
  <restrictionTargetHosts>0.0.0.0/0</restrictionTargetHosts>
  <isAccessRestrictionAllowed>>true</isAccessRestrictionAllowed>
  <commentForShare>cifscomment</commentForShare>
  <isReadOnly>>false</isReadOnly>
  <isBrowseEnabled>>true</isBrowseEnabled>
  <guestAccessPermission>default</guestAccessPermission>
  <diskSynchronizationPolicy>default</diskSynchronizationPolicy>
  <cifsClientCacheSetting>default</cifsClientCacheSetting>
  <isHomeDirectoryEnabled>>true</isHomeDirectoryEnabled>
  <clientAccessPolicy>default</clientAccessPolicy>
  <vssUse>default</vssUse>
  <cifsClientRoCacheOptimize>default</cifsClientRoCacheOptimize>
  <accessBasedEnumeration>default</accessBasedEnumeration>
  <smbEncryption>disable</smbEncryption>
</CIFSShare>

```

Command line:

```

curl -i -l -b
  api-auth=user-name:password "https://host-name-or-IP-address:
9090/mapi/CIFSShares/Y2lmc3NoYXJl?SHARE-DIRECTORY-
NAME=L2ludC9mcy9jaWZz" -k -d @cifsmo.xml -X POST -H "Content-
Type:application/xml"

```

Response:

```

HTTP/1.1 200 OK
Date: Fri, 10 Oct 2014 05:35:24 GMT
Server: Cosminexus HTTP Server 09-65 (Unix) mod_jk
X-NODE-APIVersionID: 6.4.4-00
X-NODE-CompletedOperation: 1
X-NODE-OperationList: [1]Edit CIFS share

```

```
Content-Length: 0
Connection: close
Content-Type: text/plain; charset=iso-8859-1
```

5. Obtain information about the NFS share that you want to edit.

Use this information to check the settings of the NFS share that you want to edit.

Command line:

```
curl -i -l -b
      api-auth=user-name:password "https://host-name-or-IP-address:
9090/mapi/NFSShares/nfs?SHARE-DIRECTORY-NAME=/mnt/fs/
nfs&prettyprint&verbose=true" -k -X GET -H "Accept:application/xml"
```

Response:

```
HTTP/1.1 200 OK
Date: Fri, 10 Oct 2014 05:35:46 GMT
Server: Cosminexus HTTP Server 09-65 (Unix) mod_jk
Content-Length: 1136
X-NODE-APIVersionID: 6.4.4-00
X-NODE-CompletedOperation: 2
X-NODE-OperationList: [1]Get NFS share details, [2]Test namespace
connection
Connection: close
Content-Type: application/xml
```

```
<?xml version="1.0" encoding="UTF-8" standalone="yes"?>
<NFSShare>
  <exportPoint>/mnt/fs/nfs</exportPoint>
  <anonymousUID>22222</anonymousUID>
  <anonymousGID>22222</anonymousGID>
  <isPortRestrictionEnabled>true</isPortRestrictionEnabled>
  <isSubtreeCheckEnabled>true</isSubtreeCheckEnabled>
  <isAccessCheckWithLockRequestEnabled>true</
isAccessCheckWithLockRequestEnabled>
  <aclType>Advanced ACL</aclType>
  <maxRwSize>5</maxRwSize>
  <NamespaceShareSettings>
    <type>--</type>
    <FQDN></FQDN>
    <externalHcpHostName></externalHcpHostName>
    <user></user>
    <password></password>
    <hcpReplicaHost></hcpReplicaHost>
    <externalReplicaHcpHostName></externalReplicaHcpHostName>
    <hcpNamespace></hcpNamespace>
  </NamespaceShareSettings>
  <AllowedHosts>
    <AllowedHost>
      <hostOrAddress>*</hostOrAddress>
      <isReadOnly>true</isReadOnly>
      <synchronousWritingSetting>rw_sync</
synchronousWritingSetting>
      <anonymousMapping>root_only</anonymousMapping>
      <securityFlavor>sys</securityFlavor>
    </AllowedHost>
  </AllowedHosts>
</NFSShare>
```


6. Edit the information about the NFS share.

In this example, you edit the information about the NFS share with the following conditions:

- The IDs of users and groups that access the NFS share as anonymous users are changed.
- Requests sent from all Internet ports are received.
- Whether execute permission (x) is set for subtrees is not checked.
- No permission check is performed for lock requests.
- The maximum transfer length for the NFS share is 5 KB.
- Read-only mode is not set.

```
nfsmod.xml
<?xml version="1.0" encoding="UTF-8" standalone="yes"?>
<NFSShare>
  <anonymousUID>33333</anonymousUID>
  <anonymousGID>33333</anonymousGID>
  <isPortRestrictionEnabled>>false</isPortRestrictionEnabled>
  <isSubtreeCheckEnabled>>false</isSubtreeCheckEnabled>
  <isAccessCheckWithLockRequestEnabled>>false</
isAccessCheckWithLockRequestEnabled>
  <maxRwSize>6</maxRwSize>
  <AllowedHosts>
    <AllowedHost>
      <hostOrAddress>*</hostOrAddress>
      <isReadOnly>>false</isReadOnly>
      <synchronousWritingSetting>rw_sync</
synchronousWritingSetting>
      <anonymousMapping>root_only</anonymousMapping>
      <securityFlavor>sys</securityFlavor>
    </AllowedHost>
  </AllowedHosts>
</NFSShare>
```

Command line:

```
curl -i -l -b
  api-auth=user-name:password "https://host-name-or-IP-address:
9090/mapi/NFSShares/nfs?SHARE-DIRECTORY-NAME=/mnt/fs/nfs" -k -d
@nfsmod.xml -X POST -H "Content-Type:application/xml"
```

Response:

```
HTTP/1.1 200 OK
Date: Fri, 10 Oct 2014 05:35:48 GMT
Server: Cosminexus HTTP Server 09-65 (Unix) mod_jk
X-NODE-APIVersionID: 6.4.4-00
X-NODE-CompletedOperation: 1
X-NODE-OperationList: [1]Edit NFS share
Content-Length: 0
Connection: close
Content-Type: text/plain; charset=iso-8859-1
```

7. Check whether you can access the namespace.

Confirm that the namespace to be allocated to the file share is accessible.

```
hcpaccess2.xml
<?xml version="1.0" encoding="UTF-8" standalone="yes"?>
<HCP>
  <namespaceName>subtree-namespace2</namespaceName>
</HCP>
```

Command line:

```
curl -i -l -b
  api-auth=user-name:password "https://host-name-or-IP-address:
9090/mapi/HCP/ACCESS" -k -d @hcpaccess2.xml -X POST -H "Content-
Type: application/xml"
```

Response:

```
HTTP/1.1 200 OK
Date: Thu, 05 Mar 2015 03:16:35 GMT
Server: Cosminexus HTTP Server 09-65 (Unix) mod_jk
X-NODE-APIVersionID: 6.4.4-00
X-NODE-CompletedOperation: 1
X-NODE-OperationList: [1]Test namespace connection
Content-Length: 0
Connection: close
Content-Type: text/plain; charset=iso-8859-1
```

8. Obtain information about the migration task that you want to edit.

Check the information about the existing migration tasks.

Command line:

```
curl -i -l -b
  api-auth=user-name:password "https://host-name-or-IP-address:
9090/mapi/MigrationTask/dGFzaw==?
prettyprint&verbose=true&filesystemName=fs" -k -X GET -H
"Accept:application/xml"
```

Response:

```
HTTP/1.1 200 OK
Date: Thu, 05 Mar 2015 03:14:32 GMT
Server: Cosminexus HTTP Server 09-65 (Unix) mod_jk
Content-Length: 790
X-NODE-APIVersionID: 6.4.4-00
X-NODE-CompletedOperation: 3
X-NODE-OperationList: [1]Get migration task information, [2]Get HCP
settings, [3]Get execution results of migration task
Connection: close
Content-Type: application/xml
```

```
<?xml version="1.0" encoding="UTF-8" standalone="yes"?>
<MigrationTask>
  <task-name>task</task-name>
  <task-priority>5</task-priority>
  <task-comment></task-comment>
  <task-enabled>enabled</task-enabled>
  <task-status>Scheduled(Never executed)</task-status>
  <filesystemName>fs</filesystemName>
  <namespace></namespace>
  <Namespaces>
    <namespace>
```

```

        <name>subtree-namespace1</name>
        <directory>cifs</directory>
        <namespaceQuota>on</namespaceQuota>
    </namespace>
</Namespaces>
<schedule-start-time>2015-06-02T07:00:00.000+00:00</schedule-
start-time>
    <schedule-interval>5 days</schedule-interval>
    <duration>8</duration>
</MigrationTask>

```

9. Edit the migration task.

In this example, you edit the migration task with the following conditions:

- Capacity limitation based on the hard quota of the namespace is not imposed.

```

taskymod_0520_2.xml
<?xml version="1.0" encoding="UTF-8" standalone="yes"?>
<MigrationTask>
    <fileSystemName>fs</fileSystemName>
    <Namespaces>
        <namespace>
            <name>subtree-namespace2</name>
            <directory>cifs</directory>
            <namespaceQuota>off</namespaceQuota>
        </namespace>
    </Namespaces>
</MigrationTask>

```

Command line:

```

curl -i -1 -b
    api-auth=user-name:password "https://host-name-or-IP-address:
9090/mapi/MigrationTask/dGFzaw==" -k -d @taskymod_0520_2.xml -X POST
-H "Content-Type:application/xml"

```

Response:

```

HTTP/1.1 200 OK
Date: Thu, 05 Mar 2015 03:20:52 GMT
Server: Cosminexus HTTP Server 09-65 (Unix) mod_jk
X-NODE-APIVersionID: 6.4.4-00
X-NODE-CompletedOperation: 1
X-NODE-OperationList: [1]Edit migration task
Content-Length: 0
Connection: close
Content-Type: text/plain; charset=iso-8859-1

```

Example of creating a file system in a single-node configuration

This section provides an example of creating a file system in a single-node configuration.

Example of creating a file system that can link with HCP at the file system level in a single node configuration

Table A-10 Example of creating a file system that can link with HCP at the file system level in a single node configuration

Operation	Resource URI	HTTP method	Reference
1. Acquire the volume group information.	/VolumeGroups	GET	Using the GET method to acquire information about the volume group on page 3-229
2. Acquire the file system information.	/FileSystems	GET	Acquiring file system information by using the GET method on page 3-63
3. Create a file system.	/FileSystems	PUT	Creating a file system by using the PUT method on page 3-76
4. Acquire information about the mount settings of the created file system.	/FileSystems/ <i>file-system-name</i> / MountSetting	GET	Acquiring information about the mount settings of the specified file system by using the GET method on page 3-104
5. Mount the created file system.	/FileSystems/ <i>file-system-name</i> / MountSetting	POST	Editing information about the mount settings of the specified file system by using the POST method on page 3-107
6. Acquire the CIFS share information.	/CIFSShares	GET	Acquiring information about all CIFS shares by using the GET method on page 3-8
7. Create a CIFS share.	/CIFSShares	PUT	Adding a CIFS share by using the PUT method on page 3-18
8. Acquire the NFS share information.	/NFSShares	GET	Acquiring information for all NFS shares by using the GET method on page 3-172
9. Create an NFS share.	/NFSShares	PUT	Adding an NFS share by using the PUT method on page 3-177
10. Check whether you can access the namespace.	/HCP/ACCESS	POST	Checking whether the user can access the HCP namespace by using the POST method on page 3-131
11. Acquire the information about the migration task.	/MigrationTask	GET	Acquiring information for all migration tasks by using the GET method on page 3-140
12. Set the migration task.	/MigrationTask	PUT	Setting the migration task by using the PUT method on page 3-144

1. Acquire the volume group information.

Check the volume group to be used for the file system.

Command line:

```
curl -i -l -b
    api-auth=user-name:password "https://host-name-or-IP-address:
9090/mapi/VolumeGroups?prettyprint" -k -X GET -H "Accept:application/
xml"
```

Response:

```
HTTP/1.1 200 OK
Date: Fri, 10 Oct 2014 01:00:42 GMT
Server: Cosminexus HTTP Server 09-65 (Unix) mod_jk
Content-Length: 435
X-NODE-APIVersionID: 6.4.4-00
X-NODE-CompletedOperation: 1
X-NODE-OperationList: [1]Get volume group details
Connection: close
Content-Type: application/xml
```

```
<?xml version="1.0" encoding="UTF-8" standalone="yes"?>
<VolumeGroups>
  <VolumeGroup>
    <volumeGroupName>vg0</volumeGroupName>
    <totalSizeInGigaByte>3554</totalSizeInGigaByte>
    <freeSizeInGigaByte>3553</freeSizeInGigaByte>
    <deviceStatus>Normal</deviceStatus>
    <model>INTERNAL</model>
    <serialNumber></serialNumber>
    <autoAssign>enable</autoAssign>
  </VolumeGroup>
</VolumeGroups>
```

2. Acquire the file system information.

To determine the file system name and other attributes of the file system that you are creating, check the information about the existing file systems.

Command line:

```
curl -i -l -b
    api-auth=user-name:password "https://host-name-or-IP-address:
9090/mapi/FileSystems?prettyprint&verbose=true" -k -X GET -H
"Accept:application/xml"
```

Response:

```
HTTP/1.1 200 OK
Date: Fri, 10 Oct 2014 01:00:45 GMT
Server: Cosminexus HTTP Server 09-65 (Unix) mod_jk
Content-Length: 2234
X-NODE-APIVersionID: 6.4.4-00
X-NODE-CompletedOperation: 2
X-NODE-OperationList: [1]Get file system details, [2]Set the Active
File Migration function
Connection: close
Content-Type: application/xml
```

```
<?xml version="1.0" encoding="UTF-8" standalone="yes"?>
```

```

<FileSystems>
  <FileSystem>
    <fileName>FileSystem</fileName>
    <usage>None</usage>
    <deviceStatus></deviceStatus>
    <freeBlocksInMegaBytes>1009.664</freeBlocksInMegaBytes>
    <usedBlocksInMegaBytes>4.096</usedBlocksInMegaBytes>
    <totalBlocksInMegaBytes>1013.76</totalBlocksInMegaBytes>
    <volumeGroupName>vg0</volumeGroupName>
    <fileSystemSizeInGigaByte>1.000</fileSystemSizeInGigaByte>
    <workSpaceSizeInGigaByte>2.000</workSpaceSizeInGigaByte>
    <aclType>Advanced ACL</aclType>
    <NamespaceShareSettings>
      <namespaceType>FileSystem</namespaceType>
      <type>Read/Write</type>
      <FQDN></FQDN>
      <externalHcpHostName></externalHcpHostName>
      <user></user>
      <password></password>
      <hcpReplicaHost></hcpReplicaHost>
      <externalReplicaHcpHostName></externalReplicaHcpHostName>
      <hcpNamespace>FileSystem-65423f12-
b9ca-4904-9c1b-094e0691af95</hcpNamespace>
    </NamespaceShareSettings>
    <UseVersioning>used</UseVersioning>
    <periodToHold>7</periodToHold>
    <customSchedule>not used</customSchedule>
    <customSchedule15Minute>0</customSchedule15Minute>
    <customScheduleHourly>0</customScheduleHourly>
    <customScheduleDaily>0</customScheduleDaily>
    <customScheduleWeekly>0</customScheduleWeekly>
    <customScheduleMonthly>0</customScheduleMonthly>
    <customScheduleYearly>0</customScheduleYearly>
    <isBypassEnabled>true</isBypassEnabled>
    <WormSetting>
      <maxRetention></maxRetention>
      <minRetention></minRetention>
      <isAutoCommitEnabled></isAutoCommitEnabled>
      <commitModeSetting></commitModeSetting>
      <autoCommitPeriod></autoCommitPeriod>
      <defaultRetention></defaultRetention>
      <isWormDeleteEnabled></isWormDeleteEnabled>
      <longestRetention></longestRetention>
    </WormSetting>
    <MountSetting>
      <isMounted>true</isMounted>
      <mountStatus>Normal</mountStatus>
      <isReadOnly>false</isReadOnly>
      <isFileLastAccessTimeRecordingEnabled>true</
isFileLastAccessTimeRecordingEnabled>
    </MountSetting>
    <LargeFileTransferSetting>
      <largeFileTransfer>Disable</largeFileTransfer>
      <lowerLimitInMegaBytes>100</lowerLimitInMegaBytes>
    </LargeFileTransferSetting>
  </FileSystem>
</FileSystems>

```

3. Create a file system.

In this example, you create a file system with the following conditions:

- The file system name is `fs`.
- The ACL type of the file system to be created is Advanced ACL.
- The capacity of the file system is 10 GB.
- The target file system is a WORM file system.

```
fscreate_single.xml
<?xml version="1.0" encoding="UTF-8" standalone="yes"?>
<FileSystem>
  <fileSystemName>fs</fileSystemName>
  <aclType>Advanced ACL</aclType>
  <fileSystemSizeInGigaByte>10</fileSystemSizeInGigaByte>
  <volumeGroupName>vg0</volumeGroupName>
  <WormSetting>
    <maxRetention>10950-0-0</maxRetention>
    <minRetention>0-0-0</minRetention>
    <isAutoCommitEnabled>>false</isAutoCommitEnabled>
  </WormSetting>
</FileSystem>
```

Command line:

```
curl -i -l -b
      api-auth=user-name:password "https://host-name-or-IP-address:
9090/mapi/FileSystems" -k -d @fscreate_single.xml -X PUT -H "Content-
Type:application/xml"
```

Response:

```
HTTP/1.1 200 OK
Date: Fri, 10 Oct 2014 01:00:46 GMT
Server: Cosminexus HTTP Server 09-65 (Unix) mod_jk
X-NODE-APIVersionID: 6.4.4-00
X-NODE-CompletedOperation: 1
X-NODE-OperationList: [1]Create file system
Content-Length: 0
Connection: close
Content-Type: text/plain; charset=iso-8859-1
```

4. Acquire information about the mount settings of the created file system.

Use the acquired information to confirm that the file system you created is not mounted.

Command line:

```
curl -i -l -b
      api-auth=user-name:password "https://host-name-or-IP-address:
9090/mapi/FileSystems/fs/MountSetting?prettyprint" -k -X GET -H
"Accept:application/xml"
```

Response:

```
HTTP/1.1 200 OK
Date: Fri, 10 Oct 2014 01:00:49 GMT
Server: Cosminexus HTTP Server 09-65 (Unix) mod_jk
Content-Length: 232
```

```
X-NODE-APIVersionID: 6.4.4-00
X-NODE-CompletedOperation: 1
X-NODE-OperationList: [1]Get file system details
Connection: close
Content-Type: application/xml
```

```
<?xml version="1.0" encoding="UTF-8" standalone="yes"?>
<MountSetting>
  <isMounted>>false</isMounted>
  <isReadOnly></isReadOnly>
  <isFileLastAccessTimeRecordingEnabled></
isFileLastAccessTimeRecordingEnabled>
</MountSetting>
```

5. Mount the created file system.

In this example, you mount the file system with the following conditions:

- The file system is mounted in write-enabled mode.
- The last access time of the file system is updated.

```
fsmount.xml
<?xml version="1.0" encoding="UTF-8" standalone="yes"?>
<MountSetting>
  <isMounted>>true</isMounted>
  <isReadOnly>>false</isReadOnly>
  <isFileLastAccessTimeRecordingEnabled>>true</
isFileLastAccessTimeRecordingEnabled>
</MountSetting>
```

Command line:

```
curl -i -l -b
  api-auth=user-name:password "https://host-name-or-IP-address:
9090/mapi/FileSystems/fs/MountSetting" -k -d @fsmount.xml -X POST -H
"Content-Type:application/xml"
```

Response:

```
HTTP/1.1 200 OK
Date: Fri, 10 Oct 2014 01:00:50 GMT
Server: Cosminexus HTTP Server 09-65 (Unix) mod_jk
X-NODE-APIVersionID: 6.4.4-00
X-NODE-CompletedOperation: 1
X-NODE-OperationList: [1]Mount file system
Content-Length: 0
Connection: close
Content-Type: text/plain; charset=iso-8859-1
```

6. Acquire the CIFS share information.

To determine the CIFS share name and other attributes of the CIFS share that you are creating, check the information about the existing CIFS share.

Command line:

```
curl -i -l -b
  api-auth=user-name:password "https://host-name-or-IP-address:
9090/mapi/CIFSShares?prettyprint&verbose=true" -k -X GET -H
"Accept:application/xml"
```


Response:

```
HTTP/1.1 200 OK
Date: Fri, 10 Oct 2014 01:01:02 GMT
Server: Cosminexus HTTP Server 09-65 (Unix) mod_jk
Content-Length: 2191
X-NODE-APIVersionID: 6.4.4-00
X-NODE-CompletedOperation: 2
X-NODE-OperationList: [1]Get CIFS share details, [2]Test namespace
connection
Connection: close
Content-Type: application/xml
```

```
<?xml version="1.0" encoding="UTF-8" standalone="yes"?>
<CIFSShares>
  <CIFSShare>
    <exportPoint>/mnt/FileSystem</exportPoint>
    <cifsShareName>FileSystem</cifsShareName>
    <isAclEnabled>true</isAclEnabled>
    <restrictionTargetHosts>0.0.0.0</restrictionTargetHosts>
    <isAccessRestrictionAllowed>>false</
isAccessRestrictionAllowed>
    <commentForShare></commentForShare>
    <isReadOnly>>false</isReadOnly>
    <isBrowseEnabled>true</isBrowseEnabled>
    <fileAccessPermissionOfOwner></fileAccessPermissionOfOwner>
    <fileAccessPermissionOfGroup></fileAccessPermissionOfGroup>
    <fileAccessPermissionOfOther></fileAccessPermissionOfOther>
    <directoryAccessPermissionOfOwner></
directoryAccessPermissionOfOwner>
    <directoryAccessPermissionOfGroup></
directoryAccessPermissionOfGroup>
    <directoryAccessPermissionOfOther></
directoryAccessPermissionOfOther>
    <guestAccessPermission>default</guestAccessPermission>
    <diskSynchronizationPolicy>default</
diskSynchronizationPolicy>
    <cifsClientCacheSetting>default</cifsClientCacheSetting>
    <fileTimestampChangeableUsers></fileTimestampChangeableUsers>
    <isHomeDirectoryEnabled>>false</isHomeDirectoryEnabled>
    <aclType>Advanced ACL</aclType>
    <clientAccessPolicy>default</clientAccessPolicy>
    <vssUse>default</vssUse>
    <cifsClientRoCacheOptimize>default</
cifsClientRoCacheOptimize>
    <accessBasedEnumeration>default</accessBasedEnumeration>
    <homeDirectoryRoaming>do_not_use</homeDirectoryRoaming>
    <smbEncryption>mandatory</smbEncryption>
    <writeDisallowedUsers></writeDisallowedUsers>
    <writeDisallowedGroups></writeDisallowedGroups>
    <writeAllowedUsers></writeAllowedUsers>
    <writeAllowedGroups></writeAllowedGroups>
    <NamespaceShareSettings>
      <type>--</type>
      <FQDN></FQDN>
      <externalHcpHostName></externalHcpHostName>
      <user></user>
      <password></password>
      <hcpReplicaHost></hcpReplicaHost>
      <externalReplicaHcpHostName></externalReplicaHcpHostName>
```

```

        <hcpNamespace></hcpNamespace>
    </NamespaceShareSettings>
</CIFSShare>
</CIFSShares>

```

7. Create a CIFS share.

In this example, you create a CIFS share with the following conditions:

- A new directory is created with the name `/mnt/fs/cifs` as a shared directory.
- The name of the CIFS share is `cifsshare`.
- The last access time of the file system is updated.
- Access limitation by IP address is not imposed.
- CIFS clients are permitted to obtain and set ACL settings.
- The CIFS share is created in write-enabled mode.
- Home directory automatic creation is enabled with the CIFS share.
- Encryption is always enabled when the file system is accessed via SMB 3.0.
- The users and groups that are permitted and not permitted to write-access the CIFS share are set.
- Setting an ACL.

```

cifscreeate.xml
<?xml version="1.0" encoding="UTF-8" standalone="yes"?>
<CIFSShare>
  <exportPoint>/mnt/fs/cifs</exportPoint>
  <cifsShareName>cifsshare</cifsShareName>
  <isClassicAcl>>false</isClassicAcl>
  <isAclEnabled>>true</isAclEnabled>
  <restrictionTargetHosts>10.213.77.88</restrictionTargetHosts>
  <isAccessRestrictionAllowed>>true</isAccessRestrictionAllowed>
  <commentForShare>cifscomment</commentForShare>
  <isReadOnly>>false</isReadOnly>
  <isBrowseEnabled>>true</isBrowseEnabled>
  <guestAccessPermission>default</guestAccessPermission>
  <diskSynchronizationPolicy>default</diskSynchronizationPolicy>
  <cifsClientCacheSetting>default</cifsClientCacheSetting>
  <isHomeDirectoryEnabled>>true</isHomeDirectoryEnabled>
  <clientAccessPolicy>default</clientAccessPolicy>
  <vssUse>default</vssUse>
  <cifsClientRoCacheOptimize>default</cifsClientRoCacheOptimize>
  <accessBasedEnumeration>default</accessBasedEnumeration>
  <smbEncryption>default</smbEncryption>
  <writeDisallowedUsers>user3,user4</writeDisallowedUsers>
  <writeDisallowedGroups>group3,group4</writeDisallowedGroups>
  <writeAllowedUsers>user1,user2</writeAllowedUsers>
  <writeAllowedGroups>group1,group2</writeAllowedGroups>
  <DirectorySetup>
    <userName>22222</userName>
    <groupName>11111</groupName>
    <isStickyBit>true</isStickyBit>
    <ownerPermission>rw</ownerPermission>
    <groupPermission>rw</groupPermission>
    <otherPermission>rw</otherPermission>
  </DirectorySetup>
</CIFSShare>

```

```

</DirectorySetup>
<DirectoryACLSettings>
  <DirectoryACLSetting>
    <userGroupAccess>allow</userGroupAccess>
    <name>Everyone</name>
    <accountType>g</accountType>
    <applicationDestination>a</applicationDestination>
    <inheritanceRange>a</inheritanceRange>
    <accessPermission>r</accessPermission>
  </DirectoryACLSetting>
</DirectoryACLSettings>
</CIFSShare>

```

Command line:

```

curl -i -1 -b
  api-auth=user-name:password "https://host-name-or-IP-address:
9090/mapi/CIFSShares" -k -d @cifscreate.xml -X PUT -H "Content-
Type:application/xml"

```

Response:

```

HTTP/1.1 100 Continue

HTTP/1.1 200 OK
Date: Fri, 10 Oct 2014 01:01:03 GMT
Server: Cosminexus HTTP Server 09-65 (Unix) mod_jk
X-NODE-APIVersionID: 6.4.4-00
X-NODE-CompletedOperation: 4
X-NODE-OperationList: [1]Create shared directory, [2]Edit shared
directory, [3]Set ACL, [4]Create CIFS share
Content-Length: 0
Connection: close
Content-Type: text/plain; charset=iso-8859-1

```

8. Acquire the NFS share information.

To determine the NFS share name and other attributes of the NFS share that you are creating, check the information about the existing NFS share.

Command line:

```

curl -i -1 -b
  api-auth=user-name:password "https://host-name-or-IP-address:
9090/mapi/NFSShares?prettyprint&verbose=true" -k -X GET -H
"Accept:application/xml"

```

Response:

```

HTTP/1.1 200 OK
Date: Fri, 10 Oct 2014 01:01:17 GMT
Server: Cosminexus HTTP Server 09-65 (Unix) mod_jk
Content-Length: 1284
X-NODE-APIVersionID: 6.4.4-00
X-NODE-CompletedOperation: 2
X-NODE-OperationList: [1]Get NFS share details, [2]Test namespace
connection
Connection: close
Content-Type: application/xml

<?xml version="1.0" encoding="UTF-8" standalone="yes"?>
<NFSShares>
  <NFSShare>

```

```

    <exportPoint>/mnt/FileSystem</exportPoint>
    <anonymousUID>65534</anonymousUID>
    <anonymousGID>65534</anonymousGID>
    <isPortRestrictionEnabled>>false</isPortRestrictionEnabled>
    <isSubtreeCheckEnabled>>false</isSubtreeCheckEnabled>
    <isAccessCheckWithLockRequestEnabled>>false</
isAccessCheckWithLockRequestEnabled>
    <aclType>Advanced ACL</aclType>
    <maxRwSize></maxRwSize>
    <NamespaceShareSettings>
      <type>--</type>
      <FQDN></FQDN>
      <externalHcpHostName></externalHcpHostName>
      <user></user>
      <password></password>
      <hcpReplicaHost></hcpReplicaHost>
      <externalReplicaHcpHostName></externalReplicaHcpHostName>
      <hcpNamespace></hcpNamespace>
    </NamespaceShareSettings>
    <AllowedHosts>
      <AllowedHost>
        <hostOrAddress>*</hostOrAddress>
        <isReadOnly>>false</isReadOnly>
        <synchronousWritingSetting>rw_sync</
synchronousWritingSetting>
        <anonymousMapping>root_only</anonymousMapping>
        <securityFlavor>sys</securityFlavor>
      </AllowedHost>
    </AllowedHosts>
  </NFSShare>
</NFSShares>

```

9. Create an NFS share.

In this example, you create an NFS share with the following conditions:

- A new directory is created with the name `/mnt/fs/nfs` as a shared directory.
- The IDs of users and groups that access the NFS share as anonymous users are set.
- The requests that are sent from only Internet ports with port numbers smaller than 1024 are received.
- The maximum transfer length for the NFS share is 5 KB.
- All hosts are permitted to access the NFS share in read-only mode.
- Setting an ACL.

```

nfscreeate.xml
<?xml version="1.0" encoding="UTF-8" standalone="yes"?>
<NFSShare>
  <exportPoint>/mnt/fs/nfs</exportPoint>
  <anonymousUID>22222</anonymousUID>
  <anonymousGID>22222</anonymousGID>
  <isPortRestrictionEnabled>>true</isPortRestrictionEnabled>
  <isSubtreeCheckEnabled>>true</isSubtreeCheckEnabled>
  <isAccessCheckWithLockRequestEnabled>>true</
isAccessCheckWithLockRequestEnabled>
  <maxRwSize>5</maxRwSize>

```

```

    <AllowedHosts>
      <AllowedHost>
        <hostOrAddress>*</hostOrAddress>
        <isReadOnly>>true</isReadOnly>
        <synchronousWritingSetting>rw_sync</
synchronousWritingSetting>
        <anonymousMapping>root_only</anonymousMapping>
        <securityFlavor>sys</securityFlavor>
      </AllowedHost>
    </AllowedHosts>
    <DirectorySetup>
      <userName>22222</userName>
      <groupName>11111</groupName>
      <isStickyBit>>true</isStickyBit>
      <ownerPermission>rw</ownerPermission>
      <groupPermission>rw</groupPermission>
      <otherPermission>rw</otherPermission>
    </DirectorySetup>
    <DirectoryACLSettings>
      <DirectoryACLSetting>
        <userGroupAccess>allow</userGroupAccess>
        <name>Everyone</name>
        <accountType>g</accountType>
        <applicationDestination>a</applicationDestination>
        <inheritanceRange>a</inheritanceRange>
        <accessPermission>r</accessPermission>
      </DirectoryACLSetting>
    </DirectoryACLSettings>
  </NFSShare>

```

Command line:

```

curl -i -l -b
  api-auth=user-name:password "https://host-name-or-IP-address:
9090/mapi/NFSShares" -k -d @nfscreate.xml -X PUT -H "Content-
Type:application/xml"

```

Response:

```

HTTP/1.1 100 Continue

HTTP/1.1 200 OK
Date: Fri, 10 Oct 2014 01:01:19 GMT
Server: Cosminexus HTTP Server 09-65 (Unix) mod_jk
X-NODE-APIVersionID: 6.4.4-00
X-NODE-CompletedOperation: 4
X-NODE-OperationList: [1]Create shared directory, [2]Edit shared
directory, [3]Set ACL, [4]Create NFS share
Content-Length: 0
Connection: close
Content-Type: text/plain; charset=iso-8859-1

```

10. Check whether you can access the namespace.

Confirm that the namespace to be allocated to the file system is accessible.

```

hcpaccess.xml
<?xml version="1.0" encoding="UTF-8" standalone="yes"?>
<HCP>
  <namespaceName>arc-test</namespaceName>
</HCP>

```

Command line:

```
curl -i -l -b
  api-auth=user-name:password "https://host-name-or-IP-address:
9090/mapi/HCP/ACCESS" -k -d @hcpaccess.xml -X POST -H "Content-
Type:application/xml"
```

Response:

```
HTTP/1.1 200 OK
Date: Fri, 10 Oct 2014 01:01:29 GMT
Server: Cosminexus HTTP Server 09-65 (Unix) mod_jk
X-NODE-APIVersionID: 6.4.4-00
X-NODE-CompletedOperation: 1
X-NODE-OperationList: [1]Test namespace connection
Content-Length: 0
Connection: close
Content-Type: text/plain; charset=iso-8859-1
```

11. Acquire the information about the migration task.

Check the information about the existing migration tasks.

Command line:

```
curl -i -l -b
  api-auth=user-name:password "https://host-name-or-IP-address:
9090/mapi/MigrationTask?prettyprint&verbose=true" -k -X GET -H
"Accept:application/xml"
```

Response:

```
HTTP/1.1 200 OK
Date: Fri, 10 Oct 2014 01:01:32 GMT
Server: Cosminexus HTTP Server 09-65 (Unix) mod_jk
Content-Length: 727
X-NODE-APIVersionID: 6.4.4-00
X-NODE-CompletedOperation: 3
X-NODE-OperationList: [1]Get migration task information, [2]Get HCP
settings, [3]Get execution results of migration task
Connection: close
Content-Type: application/xml
```

```
<?xml version="1.0" encoding="UTF-8" standalone="yes"?>
<MigrationTasks>
  <MigrationTask>
    <task-name>FileSystem</task-name>
    <task-priority>5</task-priority>
    <task-comment></task-comment>
    <task-enabled>enabled</task-enabled>
    <task-status>Scheduled(Never executed)</task-status>
    <fileName>FileSystem</fileName>
    <namespace>FileSystem-65423f12-b9ca-4904-9c1b-094e0691af95</
namespace>
    <schedule-start-time>2014-10-11T22:00:00.000+00:00</schedule-
start-time>
    <schedule-interval>1 day</schedule-interval>
    <duration>8</duration>
  </MigrationTask>
</MigrationTasks>
```

12. Set the migration task.

In this example, you set a migration task with the following conditions:

- The task name is `task`.
- The first execution time of the migration task is 22:00 on June 1, 2015, and the execution interval is 5 days.
- The migration task automatically ends after 8 hours.

```
taskset.xml
<?xml version="1.0" encoding="UTF-8" standalone="yes"?>
<MigrationTask>
  <task-name>task</task-name>
  <fileSystemName>fs</fileSystemName>
  <namespace>arc-test</namespace>
  <schedule-start-time>2015-06-01T22:00:00.000+00:00</schedule-
start-time>
  <schedule-interval>5d</schedule-interval>
  <duration>8</duration>
</MigrationTask>
```

Command line:

```
curl -i -l -b
  api-auth=user-name:password "https://host-name-or-IP-address:
9090/mapi/MigrationTask" -k -d @taskset.xml -X PUT -H "Content-
Type:application/xml"
```

Response:

```
HTTP/1.1 200 OK
Date: Fri, 10 Oct 2014 01:01:33 GMT
Server: Cosminexus HTTP Server 09-65 (Unix) mod_jk
X-NODE-APIVersionID: 6.4.4-00
X-NODE-CompletedOperation: 2
X-NODE-OperationList: [1]Configure HCP settings, [2]Create migration
task
Content-Length: 0
Connection: close
Content-Type: text/plain; charset=iso-8859-1
```

Example of editing a file system that can link with HCP at the file system level in a single node configuration

Table A-11 Example of editing a file system that can link with HCP at the file system level in a single node configuration

Operation	Resource URI	HTTP method	Reference
1. Obtain information about the file system that you want to edit.	<code>/FileSystems/<i>file-system-name</i></code>	GET	Acquiring the specified file system information by using the GET method on page 3-89
2. Edit the information about the file system.	<code>/FileSystems/<i>file-system-name</i></code>	POST	Editing information about the specified file system by using the POST method on page 3-94

Operation	Resource URI	HTTP method	Reference
3. Obtain information about the CIFS share that you want to edit.	/CIFSShares/ <i>CIFS-share-name-encoded-in-Base64</i>	GET	Acquiring CIFS share information by using the GET method on page 3-39
4. Edit the information about the CIFS share.	/CIFSShares/ <i>CIFS-share-name-encoded-in-Base64</i>	POST	Changing CIFS share information by using the POST method on page 3-42
5. Obtain information about the NFS share that you want to edit.	/NFSShares/ <i>NFS-share-directory-name</i>	GET	Acquiring information for the specified NFS share by using the GET method on page 3-192
6. Edit the information about the NFS share.	/NFSShares/ <i>NFS-share-directory-name</i>	POST	Editing NFS share information by using the POST method on page 3-195
7. Obtain information about the migration task that you want to edit.	/MigrationTask/ <i>task-name-encoded-in-Base64</i>	GET	Acquiring information for the specified migration task by using the GET method on page 3-148
8. Edit the information about the migration task.	/MigrationTask/ <i>task-name-encoded-in-Base64</i>	POST	Setting the schedule of the migration task or information about the subtree namespace by using the POST method on page 3-150

1. Obtain information about the file system that you want to edit.

Use this information to check the settings of the file system that you want to edit.

Command line:

```
curl -i -l -b
    api-auth=user-name:password "https://host-name-or-IP-address:
9090/mapi/FileSystems/fs?prettyprint&verbose=true" -k -X GET -H
"Accept:application/xml"
```

Response:

```
HTTP/1.1 200 OK
Date: Fri, 10 Oct 2014 01:00:55 GMT
Server: Cosminexus HTTP Server 09-65 (Unix) mod_jk
Content-Length: 1972
X-NODE-APIVersionID: 6.4.4-00
X-NODE-CompletedOperation: 2
X-NODE-OperationList: [1]Get file system details, [2]Set the Active
File Migration function
Connection: close
Content-Type: application/xml
```

```
<?xml version="1.0" encoding="UTF-8" standalone="yes"?>
<FileSystem>
  <fileName>fs</fileName>
  <usage>WORM</usage>
```



```

<deviceStatus></deviceStatus>
<freeBlocksInMegaBytes>10225.664</freeBlocksInMegaBytes>
<usedBlocksInMegaBytes>4.096</usedBlocksInMegaBytes>
<totalBlocksInMegaBytes>10229.76</totalBlocksInMegaBytes>
<volumeGroupName>vg0</volumeGroupName>
<fileSystemSizeInGigaByte>10.000</fileSystemSizeInGigaByte>
<workSpaceSizeInGigaByte>5.000</workSpaceSizeInGigaByte>
<aclType>Advanced ACL</aclType>
<NamespaceShareSettings>
  <namespaceType>--</namespaceType>
  <type>--</type>
  <FQDN></FQDN>
  <externalHcpHostName></externalHcpHostName>
  <user></user>
  <password></password>
  <hcpReplicaHost></hcpReplicaHost>
  <externalReplicaHcpHostName></externalReplicaHcpHostName>
  <hcpNamespace></hcpNamespace>
</NamespaceShareSettings>
<UseVersioning>used</UseVersioning>
<periodToHold>7</periodToHold>
<customSchedule>not used</customSchedule>
<customSchedule15Minute>0</customSchedule15Minute>
<customScheduleHourly>0</customScheduleHourly>
<customScheduleDaily>0</customScheduleDaily>
<customScheduleWeekly>0</customScheduleWeekly>
<customScheduleMonthly>0</customScheduleMonthly>
<customScheduleYearly>0</customScheduleYearly>
<isBypassEnabled>true</isBypassEnabled>
<WormSetting>
  <maxRetention>10950-0-0</maxRetention>
  <minRetention>0-0-0</minRetention>
  <isAutoCommitEnabled>false</isAutoCommitEnabled>
  <commitModeSetting></commitModeSetting>
  <autoCommitPeriod></autoCommitPeriod>
  <defaultRetention></defaultRetention>
  <isWormDeleteEnabled>true</isWormDeleteEnabled>
  <longestRetention></longestRetention>
</WormSetting>
<MountSetting>
  <isMounted>true</isMounted>
  <mountStatus>Normal</mountStatus>
  <isReadOnly>false</isReadOnly>
  <isFileLastAccessTimeRecordingEnabled>true</
isFileLastAccessTimeRecordingEnabled>
</MountSetting>
<LargeFileTransferSetting>
  <largeFileTransfer>Disable</largeFileTransfer>
  <lowerLimitInMegaBytes>100</lowerLimitInMegaBytes>
</LargeFileTransferSetting>
</FileSystem>

```

2. Edit the information about the file system.

In this example, you edit the file system with the following conditions:

- The file system is made into a WORM file system with automatic commitment enabled.

```

fsmod_single.xml
<?xml version="1.0" encoding="UTF-8" standalone="yes"?>
<FileSystem>
  <WormSetting>
    <isAutoCommitEnabled>>true</isAutoCommitEnabled>
    <commitModeSetting>>manual</commitModeSetting>
    <autoCommitPeriod>0-0-15</autoCommitPeriod>
    <defaultRetention>10950-0-0</defaultRetention>
  </WormSetting>
  <expandFileSystemSize>10</expandFileSystemSize>
</FileSystem>

```

Command line:

```

curl -i -l -b
  api-auth=user-name:password "https://host-name-or-IP-address:
9090/mapi/FileSystems/fs" -k -d @fsmod_single.xml -X POST -H
"Content-Type:application/xml"

```

Response:

```

HTTP/1.1 200 OK
Date: Fri, 10 Oct 2014 01:00:56 GMT
Server: Cosminexus HTTP Server 09-65 (Unix) mod_jk
X-NODE-APIVersionID: 6.4.4-00
X-NODE-CompletedOperation: 2
X-NODE-OperationList: [1]Expand file system, [2]Edit file system
Content-Length: 0
Connection: close
Content-Type: text/plain; charset=iso-8859-1

```

3. Obtain information about the CIFS share that you want to edit.

Use this information to check the settings of the CIFS share that you want to edit.

Command line:

```

curl -i -l -b
  api-auth=user-name:password "https://host-name-or-IP-address:
9090/mapi/CIFSShares/Y2lmc3NoYXJl?SHARE-DIRECTORY-
NAME=L2ludC9mcy9jaWZz&prettyprint&verbose=true" -k -X GET -H
"Accept:application/xml"

```

Response:

```

HTTP/1.1 200 OK
Date: Fri, 10 Oct 2014 01:01:11 GMT
Server: Cosminexus HTTP Server 09-65 (Unix) mod_jk
Content-Length: 2056
X-NODE-APIVersionID: 6.4.4-00
X-NODE-CompletedOperation: 2
X-NODE-OperationList: [1]Get CIFS share details, [2]Test namespace
connection
Connection: close
Content-Type: application/xml

```

```

<?xml version="1.0" encoding="UTF-8" standalone="yes"?>
<CIFSShare>
  <exportPoint>/mnt/fs/cifs</exportPoint>
  <cifsShareName>cifsshare</cifsShareName>
  <isAclEnabled>true</isAclEnabled>
  <restrictionTargetHosts>10.213.77.88</restrictionTargetHosts>

```

```

    <isAccessRestrictionAllowed>true</isAccessRestrictionAllowed>
    <commentForShare>cifscomment</commentForShare>
    <isReadOnly>>false</isReadOnly>
    <isBrowseEnabled>true</isBrowseEnabled>
    <fileAccessPermissionOfOwner></fileAccessPermissionOfOwner>
    <fileAccessPermissionOfGroup></fileAccessPermissionOfGroup>
    <fileAccessPermissionOfOther></fileAccessPermissionOfOther>
    <directoryAccessPermissionOfOwner></
directoryAccessPermissionOfOwner>
    <directoryAccessPermissionOfGroup></
directoryAccessPermissionOfGroup>
    <directoryAccessPermissionOfOther></
directoryAccessPermissionOfOther>
    <guestAccessPermission>default</guestAccessPermission>
    <diskSynchronizationPolicy>default</diskSynchronizationPolicy>
    <cifsClientCacheSetting>default</cifsClientCacheSetting>
    <fileTimestampChangeableUsers></fileTimestampChangeableUsers>
    <isHomeDirectoryEnabled>true</isHomeDirectoryEnabled>
    <aclType>Advanced ACL</aclType>
    <clientAccessPolicy>default</clientAccessPolicy>
    <vssUse>default</vssUse>
    <cifsClientRoCacheOptimize>default</cifsClientRoCacheOptimize>
    <accessBasedEnumeration>default</accessBasedEnumeration>
    <homeDirectoryRoaming>do_not_use</homeDirectoryRoaming>
    <smbEncryption>default</smbEncryption>
    <writeDisallowedUsers>user3,user4</writeDisallowedUsers>
    <writeDisallowedGroups>group3,group4</writeDisallowedGroups>
    <writeAllowedUsers>user1,user2</writeAllowedUsers>
    <writeAllowedGroups>group1,group2</writeAllowedGroups>
    <NamespaceShareSettings>
      <type>--</type>
      <FQDN></FQDN>
      <externalHcpHostName></externalHcpHostName>
      <user></user>
      <password></password>
      <hcpReplicaHost></hcpReplicaHost>
      <externalReplicaHcpHostName></externalReplicaHcpHostName>
      <hcpNamespace></hcpNamespace>
    </NamespaceShareSettings>
  </CIFSShare>

```

4. Edit the information about the CIFS share.

In this example, you edit the information about the CIFS share with the following conditions:

- Change the name of the CIFS share.
- Enable encryption only if the file system is accessed via SMB 3.0 by a client that supports encryption.
- Change the users and groups that are permitted and not permitted to write-access the CIFS share.

```

cifsmo d.xml
<?xml version="1.0" encoding="UTF-8" standalone="yes"?>
<CIFSShare>
  <cifsShareName>cifssharechange</cifsShareName>
  <isClassicAcl>>false</isClassicAcl>
  <isAclEnabled>>true</isAclEnabled>

```

```

    <restrictionTargetHosts>10.213.77.88</restrictionTargetHosts>
    <isAccessRestrictionAllowed>true</isAccessRestrictionAllowed>
    <commentForShare>cifscomment</commentForShare>
    <isReadOnly>>false</isReadOnly>
    <isBrowseEnabled>true</isBrowseEnabled>
    <guestAccessPermission>default</guestAccessPermission>
    <diskSynchronizationPolicy>default</diskSynchronizationPolicy>
    <cifsClientCacheSetting>default</cifsClientCacheSetting>
    <isHomeDirectoryEnabled>true</isHomeDirectoryEnabled>
    <clientAccessPolicy>default</clientAccessPolicy>
    <vssUse>default</vssUse>
    <cifsClientRoCacheOptimize>default</cifsClientRoCacheOptimize>
    <accessBasedEnumeration>default</accessBasedEnumeration>
    <smbEncryption>default</smbEncryption>
    <writeDisallowedUsers>user1,user2</writeDisallowedUsers>
    <writeDisallowedGroups>group1,group2</writeDisallowedGroups>
    <writeAllowedUsers>user3,user4</writeAllowedUsers>
    <writeAllowedGroups>group3,group4</writeAllowedGroups>
</CIFSShare>

```

Command line:

```

curl -i -l -b
    api-auth=user-name:password "https://host-name-or-IP-address:
9090/mapi/CIFSShares/Y2lmc3NoYXJl?SHARE-DIRECTORY-
NAME=L2ludC9mcy9jaWZz" -k -d @cifsmo.xml -X POST -H "Content-
Type:application/xml"

```

Response:

```

HTTP/1.1 100 Continue

HTTP/1.1 200 OK
Date: Fri, 10 Oct 2014 01:01:13 GMT
Server: Cosminexus HTTP Server 09-65 (Unix) mod_jk
X-NODE-APIVersionID: 6.4.4-00
X-NODE-CompletedOperation: 1
X-NODE-OperationList: [1]Edit CIFS share
Content-Length: 0
Connection: close
Content-Type: text/plain; charset=iso-8859-1

```

5. Obtain information about the NFS share that you want to edit.

Use this information to check the settings of the NFS share that you want to edit.

Command line:

```

curl -i -l -b
    api-auth=user-name:password "https://host-name-or-IP-address:
9090/mapi/NFSShares/nfs?SHARE-DIRECTORY-NAME=/mnt/fs/
nfs&prettyprint&verbose=true" -k -X GET -H "Accept:application/xml"

```

Response:

```

HTTP/1.1 200 OK
Date: Fri, 10 Oct 2014 01:01:26 GMT
Server: Cosminexus HTTP Server 09-65 (Unix) mod_jk
Content-Length: 1136
X-NODE-APIVersionID: 6.4.4-00
X-NODE-CompletedOperation: 2
X-NODE-OperationList: [1]Get NFS share details, [2]Test namespace

```

```
connection
Connection: close
Content-Type: application/xml
```

```
<?xml version="1.0" encoding="UTF-8" standalone="yes"?>
<NFSShare>
  <exportPoint>/mnt/fs/nfs</exportPoint>
  <anonymousUID>22222</anonymousUID>
  <anonymousGID>22222</anonymousGID>
  <isPortRestrictionEnabled>true</isPortRestrictionEnabled>
  <isSubtreeCheckEnabled>true</isSubtreeCheckEnabled>
  <isAccessCheckWithLockRequestEnabled>true</
isAccessCheckWithLockRequestEnabled>
  <aclType>Advanced ACL</aclType>
  <maxRwSize>5</maxRwSize>
  <NamespaceShareSettings>
    <type>--</type>
    <FQDN></FQDN>
    <externalHcpHostName></externalHcpHostName>
    <user></user>
    <password></password>
    <hcpReplicaHost></hcpReplicaHost>
    <externalReplicaHcpHostName></externalReplicaHcpHostName>
    <hcpNamespace></hcpNamespace>
  </NamespaceShareSettings>
  <AllowedHosts>
    <AllowedHost>
      <hostOrAddress>*</hostOrAddress>
      <isReadOnly>true</isReadOnly>
      <synchronousWritingSetting>rw_sync</
synchronousWritingSetting>
      <anonymousMapping>root_only</anonymousMapping>
      <securityFlavor>sys</securityFlavor>
    </AllowedHost>
  </AllowedHosts>
</NFSShare>
```

6. Edit the information about the NFS share.

In this example, you edit the information about the NFS share with the following conditions:

- The IDs of users and groups that access the NFS share as anonymous users are changed.
- Requests sent from all Internet ports are received.
- Whether execute permission (x) is set for subtrees is not checked.
- No permission check is performed for lock requests.
- The maximum transfer length for the NFS share is 6 KB.
- All hosts are permitted to write-access the NFS share.

```
nfsmod.xml
<?xml version="1.0" encoding="UTF-8" standalone="yes"?>
<NFSShare>
  <anonymousUID>33333</anonymousUID>
  <anonymousGID>33333</anonymousGID>
  <isPortRestrictionEnabled>false</isPortRestrictionEnabled>
  <isSubtreeCheckEnabled>false</isSubtreeCheckEnabled>
```

```

    <isAccessCheckWithLockRequestEnabled>>false</
isAccessCheckWithLockRequestEnabled>
    <maxRwSize>6</maxRwSize>
    <AllowedHosts>
      <AllowedHost>
        <hostOrAddress>*</hostOrAddress>
        <isReadOnly>>false</isReadOnly>
        <synchronousWritingSetting>rw_sync</
synchronousWritingSetting>
        <anonymousMapping>root_only</anonymousMapping>
        <securityFlavor>sys</securityFlavor>
      </AllowedHost>
    </AllowedHosts>
  </NFSShare>

```

Command line:

```

curl -i -l -b
    api-auth=user-name:password "https://host-name-or-IP-address:
9090/mapi/NFSShares/nfs?SHARE-DIRECTORY-NAME=/mnt/fs/nfs" -k -d
@nfsmod.xml -X POST -H "Content-Type:application/xml"

```

Response:

```

HTTP/1.1 200 OK
Date: Fri, 10 Oct 2014 01:01:27 GMT
Server: Cosminexus HTTP Server 09-65 (Unix) mod_jk
X-NODE-APIVersionID: 6.4.4-00
X-NODE-CompletedOperation: 1
X-NODE-OperationList: [1]Edit NFS share
Content-Length: 0
Connection: close
Content-Type: text/plain; charset=iso-8859-1

```

7. Obtain information about the migration task that you want to edit.

Use this information to check the settings of the migration task that you want to edit.

Command line:

```

curl -i -l -b
    api-auth=user-name:password "https://host-name-or-IP-address:
9090/mapi/MigrationTask/dGFzaw==?
prettyprint&verbose=true&filesystemName=fs" -k -X GET -H
"Accept:application/xml"

```

Response:

```

HTTP/1.1 200 OK
Date: Fri, 10 Oct 2014 01:01:49 GMT
Server: Cosminexus HTTP Server 09-65 (Unix) mod_jk
Content-Length: 599
X-NODE-APIVersionID: 6.4.4-00
X-NODE-CompletedOperation: 3
X-NODE-OperationList: [1]Get migration task information, [2]Get HCP
settings, [3]Get execution results of migration task
Connection: close
Content-Type: application/xml

```

```

<?xml version="1.0" encoding="UTF-8" standalone="yes"?>

```

```

<MigrationTask>
  <task-name>task</task-name>
  <task-priority>5</task-priority>
  <task-status>Scheduled(Never executed)</task-status>
  <task-comment></task-comment>
  <fileName>fs</fileName>
  <task-enabled>enabled</task-enabled>
  <namespace>arc-test</namespace>
  <schedule-start-time>2015-06-02T07:00:00.000+00:00</schedule-
start-time>
  <schedule-interval>5 days</schedule-interval>
  <duration>8</duration>
</MigrationTask>

```

8. Edit the information about the migration task.

In this example, you edit the migration task with the following conditions:

- The first execution time of the migration task is 22:00 on June 1, 2015, and the execution interval is 1 weeks.

```

taskmod.xml
<?xml version="1.0" encoding="UTF-8" standalone="yes"?>
<MigrationTask>
  <fileName>fs</fileName>
  <schedule-start-time>2015-06-01T22:00:00.000+00:00</schedule-
start-time>
  <schedule-interval>1w</schedule-interval>
  <duration>8</duration>
</MigrationTask>

```

Command line:

```

curl -i -1 -b
  api-auth=user-name:password "https://host-name-or-IP-address:
9090/mapi/MigrationTask/dGFzaw==" -k -d @taskmod.xml -X POST -H
"Content-Type:application/xml"

```

Response:

```

HTTP/1.1 200 OK
Date: Fri, 10 Oct 2014 01:01:50 GMT
Server: Cosminexus HTTP Server 09-65 (Unix) mod_jk
X-NODE-APIVersionID: 6.4.4-00
X-NODE-CompletedOperation: 1
X-NODE-OperationList: [1]Edit migration task
Content-Length: 0
Connection: close
Content-Type: text/plain; charset=iso-8859-1

```

Example of creating a file system that can link with HCP at the share level in a single node configuration

Table A-12 Example of creating a file system that can link with HCP at the share level in a single node configuration

Operation	Resource URI	HTTP method	Reference
1. Acquire the volume group information.	/VolumeGroups	GET	Using the GET method to acquire information about the volume group on page 3-229
2. Acquire the file system information.	/FileSystems	GET	Acquiring file system information by using the GET method on page 3-63
3. Create a file system.	/FileSystems	PUT	Creating a file system by using the PUT method on page 3-76
4. Acquire information about the mount settings of the created file system.	/FileSystems/ <i>file-system-name</i> / MountSetting	GET	Acquiring information about the mount settings of the specified file system by using the GET method on page 3-104
5. Mount the created file system.	/FileSystems/ <i>file-system-name</i> / MountSetting	POST	Editing information about the mount settings of the specified file system by using the POST method on page 3-107
6. Acquire the CIFS share information.	/CIFSShares	GET	Acquiring information about all CIFS shares by using the GET method on page 3-8
7. Create a CIFS share.	/CIFSShares	PUT	Adding a CIFS share by using the PUT method on page 3-18
8. Acquire the NFS share information.	/NFSShares	GET	Acquiring information for all NFS shares by using the GET method on page 3-172
9. Create an NFS share.	/NFSShares	PUT	Adding an NFS share by using the PUT method on page 3-177
10. Check whether you can access the namespace.	/HCP/ACCESS	POST	Checking whether the user can access the HCP namespace by using the POST method on page 3-131
11. Acquire the information about the migration task.	/MigrationTask	GET	Acquiring information for all migration tasks by using the GET method on page 3-140
12. Set a migration task, and allocate the	/MigrationTask	PUT	Setting the migration task by using the PUT method on page 3-144

Operation	Resource URI	HTTP method	Reference
namespace to the file share.			
13. Check whether you can access the namespace (when setting multiple subtree namespaces).	/HCP/ACCESS	POST	Checking whether the user can access the HCP namespace by using the POST method on page 3-131
14. Allocate the namespace to the file share (when setting multiple subtree namespaces).	/MigrationTask/ <i>task-name-encoded-in-Base64</i>	POST	Setting the schedule of the migration task or information about the subtree namespace by using the POST method on page 3-150

1. Acquire the volume group information.

Check the volume group to be used for the file system.

Command line:

```
curl -i -l -b
    api-auth=user-name:password "https://host-name-or-IP-address:
9090/mapi/VolumeGroups?prettyprint" -k -X GET -H "Accept:application/
xml"
```

Response:

```
HTTP/1.1 200 OK
Date: Fri, 10 Oct 2014 01:12:12 GMT
Server: Cosminexus HTTP Server 09-65 (Unix) mod_jk
Content-Length: 435
X-NODE-APIVersionID: 6.4.4-00
X-NODE-CompletedOperation: 1
X-NODE-OperationList: [1]Get volume group details
Connection: close
Content-Type: application/xml
```

```
<?xml version="1.0" encoding="UTF-8" standalone="yes"?>
<VolumeGroups>
  <VolumeGroup>
    <volumeGroupName>vg0</volumeGroupName>
    <totalSizeInGigaByte>3554</totalSizeInGigaByte>
    <freeSizeInGigaByte>3553</freeSizeInGigaByte>
    <deviceStatus>Normal</deviceStatus>
    <model>INTERNAL</model>
    <serialNumber></serialNumber>
    <autoAssign>enable</autoAssign>
  </VolumeGroup>
</VolumeGroups>
```

2. Acquire the file system information.

To determine the file system name and other attributes of the file system that you are creating, check the information about the existing file systems.

Command line:

```
curl -i -l -b
  api-auth=user-name:password "https://host-name-or-IP-address:
9090/mapi/FileSystems?prettyprint&verbose=true" -k -X GET -H
"Accept:application/xml"
```

Response:

```
HTTP/1.1 200 OK
Date: Fri, 10 Oct 2014 01:12:15 GMT
Server: Cosminexus HTTP Server 09-65 (Unix) mod_jk
Content-Length: 2234
X-NODE-APIVersionID: 6.4.4-00
X-NODE-CompletedOperation: 2
X-NODE-OperationList: [1]Get file system details, [2]Set the Active
File Migration function
Connection: close
Content-Type: application/xml
```

```
<?xml version="1.0" encoding="UTF-8" standalone="yes"?>
<FileSystems>
  <FileSystem>
    <fileName>FileSystem</fileName>
    <usage>None</usage>
    <deviceStatus></deviceStatus>
    <freeBlocksInMegaBytes>1009.664</freeBlocksInMegaBytes>
    <usedBlocksInMegaBytes>4.096</usedBlocksInMegaBytes>
    <totalBlocksInMegaBytes>1013.76</totalBlocksInMegaBytes>
    <volumeGroupName>vg0</volumeGroupName>
    <fileSystemSizeInGigaByte>1.000</fileSystemSizeInGigaByte>
    <workSpaceSizeInGigaByte>2.000</workSpaceSizeInGigaByte>
    <aclType>Advanced ACL</aclType>
    <NamespaceShareSettings>
      <namespaceType>FileSystem</namespaceType>
      <type>Read/Write</type>
      <FQDN></FQDN>
      <externalHcpHostName></externalHcpHostName>
      <user></user>
      <password></password>
      <hcpReplicaHost></hcpReplicaHost>
      <externalReplicaHcpHostName></externalReplicaHcpHostName>
      <hcpNamespace>FileSystem-65423f12-
b9ca-4904-9c1b-094e0691af95</hcpNamespace>
    </NamespaceShareSettings>
    <UseVersioning>used</UseVersioning>
    <periodToHold>7</periodToHold>
    <customSchedule>not used</customSchedule>
    <customSchedule15Minute>0</customSchedule15Minute>
    <customScheduleHourly>0</customScheduleHourly>
    <customScheduleDaily>0</customScheduleDaily>
    <customScheduleWeekly>0</customScheduleWeekly>
    <customScheduleMonthly>0</customScheduleMonthly>
    <customScheduleYearly>0</customScheduleYearly>
    <isBypassEnabled>true</isBypassEnabled>
    <WormSetting>
      <maxRetention></maxRetention>
      <minRetention></minRetention>
      <isAutoCommitEnabled></isAutoCommitEnabled>
      <commitModeSetting></commitModeSetting>
      <autoCommitPeriod></autoCommitPeriod>
```

```

        <defaultRetention></defaultRetention>
        <isWormDeleteEnabled></isWormDeleteEnabled>
        <longestRetention></longestRetention>
    </WormSetting>
    <MountSetting>
        <isMounted>true</isMounted>
        <mountStatus>Normal</mountStatus>
        <isReadOnly>false</isReadOnly>
        <isFileLastAccessTimeRecordingEnabled>true</
isFileLastAccessTimeRecordingEnabled>
    </MountSetting>
    <LargeFileTransferSetting>
        <largeFileTransfer>Disable</largeFileTransfer>
        <lowerLimitInMegaBytes>100</lowerLimitInMegaBytes>
    </LargeFileTransferSetting>
</FileSystem>
</FileSystems>

```

3. Create a file system.

In this example, you create a file system with the following conditions:

- The file system name is `fs`.
- The ACL type of the file system to be created is Advanced ACL.
- The capacity of the file system is 10 GB.
- The data in the file system is not synchronized with another HDI system via a linked HCP system.
- Allow clients to access the past version of files migrated to the HCP system.
- The retention period for the past version of files that are migrated to the HCP system is 7 days.
- The target file system is a WORM file system.

```

fscreate_single.xml
<?xml version="1.0" encoding="UTF-8" standalone="yes"?>
<FileSystem>
    <fileName>fs</fileName>
    <aclType>Advanced ACL</aclType>
    <fileSystemSizeInGigaByte>10</fileSystemSizeInGigaByte>
    <NamespaceShareSettings>
        <namespaceType>Subtree</namespaceType>
        <type>Read/Write</type>
    </NamespaceShareSettings>
    <UseVersioning>used</UseVersioning>
    <periodToHold>7</periodToHold>
    <isBypassEnabled>true</isBypassEnabled>
    <WormSetting>
        <maxRetention>infinite</maxRetention>
        <minRetention>0-0-0</minRetention>
        <isAutoCommitEnabled>true</isAutoCommitEnabled>
        <commitModeSetting>manual</commitModeSetting>
        <autoCommitPeriod>0-0-15</autoCommitPeriod>
        <defaultRetention>10950-0-0</defaultRetention>
    </WormSetting>
</FileSystem>

```

Command line:

```
curl -i -l -b
  api-auth=user-name:password "https://host-name-or-IP-address:
9090/mapi/FileSystems" -k -d @fscreate_single.xml -X PUT -H "Content-
Type:application/xml"
```

Response:

```
HTTP/1.1 200 OK
Date: Fri, 10 Oct 2014 01:12:16 GMT
Server: Cosminexus HTTP Server 09-65 (Unix) mod_jk
X-NODE-APIVersionID: 6.4.4-00
X-NODE-CompletedOperation: 3
X-NODE-OperationList: [1]Get volume group details, [2]Create file
system, [3]Set namespace type
Content-Length: 0
Connection: close
Content-Type: text/plain; charset=iso-8859-1
```

4. Acquire information about the mount settings of the created file system.

Use the acquired information to confirm that the file system you created is not mounted.

Command line:

```
curl -i -l -b
  api-auth=user-name:password "https://host-name-or-IP-address:
9090/mapi/FileSystems/fs/MountSetting?prettyprint" -k -X GET -H
"Accept:application/xml"
```

Response:

```
HTTP/1.1 200 OK
Date: Fri, 10 Oct 2014 01:12:22 GMT
Server: Cosminexus HTTP Server 09-65 (Unix) mod_jk
Content-Length: 232
X-NODE-APIVersionID: 6.4.4-00
X-NODE-CompletedOperation: 1
X-NODE-OperationList: [1]Get file system details
Connection: close
Content-Type: application/xml
```

```
<?xml version="1.0" encoding="UTF-8" standalone="yes"?>
<MountSetting>
  <isMounted>>false</isMounted>
  <isReadOnly></isReadOnly>
  <isFileLastAccessTimeRecordingEnabled></
isFileLastAccessTimeRecordingEnabled>
</MountSetting>
```

5. Mount the created file system.

In this example, you mount the file system with the following conditions:

- The file system is mounted in write-enabled mode.
- The last access time of the file system is updated.

```
fsmount.xml
<?xml version="1.0" encoding="UTF-8" standalone="yes"?>
```

```
<MountSetting>
  <isMounted>true</isMounted>
  <isReadOnly>>false</isReadOnly>
  <isFileLastAccessTimeRecordingEnabled>true</
isFileLastAccessTimeRecordingEnabled>
</MountSetting>
```

Command line:

```
curl -i -l -b
  api-auth=user-name:password "https://host-name-or-IP-address:
9090/mapi/FileSystems/fs/MountSetting" -k -d @fsmount.xml -X POST -H
"Content-Type:application/xml"
```

Response:

```
HTTP/1.1 200 OK
Date: Fri, 10 Oct 2014 01:12:23 GMT
Server: Cosminexus HTTP Server 09-65 (Unix) mod_jk
X-NODE-APIVersionID: 6.4.4-00
X-NODE-CompletedOperation: 1
X-NODE-OperationList: [1]Mount file system
Content-Length: 0
Connection: close
Content-Type: text/plain; charset=iso-8859-1
```

6. Acquire the CIFS share information.

To determine the CIFS share name and other attributes of the CIFS share that you are creating, check the information about the existing CIFS share.

Command line:

```
curl -i -l -b
  api-auth=user-name:password "https://host-name-or-IP-address:
9090/mapi/CIFSShares?prettyprint&verbose=true" -k -X GET -H
"Accept:application/xml"
```

Response:

```
HTTP/1.1 200 OK
Date: Fri, 10 Oct 2014 01:12:36 GMT
Server: Cosminexus HTTP Server 09-65 (Unix) mod_jk
Content-Length: 2191
X-NODE-APIVersionID: 6.4.4-00
X-NODE-CompletedOperation: 2
X-NODE-OperationList: [1]Get CIFS share details, [2]Test namespace
connection
Connection: close
Content-Type: application/xml
```

```
<?xml version="1.0" encoding="UTF-8" standalone="yes"?>
<CIFSShares>
  <CIFSShare>
    <exportPoint>/mnt/FileSystem</exportPoint>
    <cifsShareName>FileSystem</cifsShareName>
    <isAclEnabled>true</isAclEnabled>
    <restrictionTargetHosts>0.0.0.0/0</restrictionTargetHosts>
    <isAccessRestrictionAllowed>>false</
isAccessRestrictionAllowed>
    <commentForShare></commentForShare>
    <isReadOnly>>false</isReadOnly>
    <isBrowseEnabled>true</isBrowseEnabled>
```

```

        <fileAccessPermissionOfOwner></fileAccessPermissionOfOwner>
        <fileAccessPermissionOfGroup></fileAccessPermissionOfGroup>
        <fileAccessPermissionOfOther></fileAccessPermissionOfOther>
        <directoryAccessPermissionOfOwner></
directoryAccessPermissionOfOwner>
        <directoryAccessPermissionOfGroup></
directoryAccessPermissionOfGroup>
        <directoryAccessPermissionOfOther></
directoryAccessPermissionOfOther>
        <guestAccessPermission>default</guestAccessPermission>
        <diskSynchronizationPolicy>default</
diskSynchronizationPolicy>
        <cifsClientCacheSetting>default</cifsClientCacheSetting>
        <fileTimestampChangeableUsers></fileTimestampChangeableUsers>
        <isHomeDirectoryEnabled>>false</isHomeDirectoryEnabled>
        <aclType>Advanced ACL</aclType>
        <clientAccessPolicy>default</clientAccessPolicy>
        <vssUse>default</vssUse>
        <cifsClientRoCacheOptimize>default</
cifsClientRoCacheOptimize>
        <accessBasedEnumeration>default</accessBasedEnumeration>
        <homeDirectoryRoaming>do_not_use</homeDirectoryRoaming>
        <smbEncryption>default</smbEncryption>
        <writeDisallowedUsers></writeDisallowedUsers>
        <writeDisallowedGroups></writeDisallowedGroups>
        <writeAllowedUsers></writeAllowedUsers>
        <writeAllowedGroups></writeAllowedGroups>
        <NamespaceShareSettings>
            <type>--</type>
            <FQDN></FQDN>
            <externalHcpHostName></externalHcpHostName>
            <user></user>
            <password></password>
            <hcpReplicaHost></hcpReplicaHost>
            <externalReplicaHcpHostName></externalReplicaHcpHostName>
            <hcpNamespace></hcpNamespace>
        </NamespaceShareSettings>
    </CIFSShare>
</CIFSShares>

```

7. Create a CIFS share.

In this example, you create a CIFS share with the following conditions:

- A new directory is created with the name `/mnt/fs/cifs` as a shared directory.
- The name of the CIFS share is `cifsshare`.
- The last access time of the file system is updated.
- No access limitation is imposed.
- CIFS clients are permitted to obtain and set ACL settings.
- The CIFS share is created in write-enabled mode.
- Home directory automatic creation is enabled with the CIFS share.
- The users and groups that are permitted and not permitted to write-access the CIFS share are set.

- **Setting an ACL.**

```
cifscreate.xml
<?xml version="1.0" encoding="UTF-8" standalone="yes"?>
<CIFSShare>
  <exportPoint>/mnt/fs/cifs</exportPoint>
  <cifsShareName>cifsshare</cifsShareName>
  <isClassicAcl>>false</isClassicAcl>
  <isAclEnabled>>true</isAclEnabled>
  <restrictionTargetHosts>0.0.0.0/0</restrictionTargetHosts>
  <isAccessRestrictionAllowed>>true</isAccessRestrictionAllowed>
  <commentForShare>cifscomment</commentForShare>
  <isReadOnly>>false</isReadOnly>
  <isBrowseEnabled>>true</isBrowseEnabled>
  <guestAccessPermission>default</guestAccessPermission>
  <diskSynchronizationPolicy>default</diskSynchronizationPolicy>
  <cifsClientCacheSetting>default</cifsClientCacheSetting>
  <isHomeDirectoryEnabled>>true</isHomeDirectoryEnabled>
  <clientAccessPolicy>default</clientAccessPolicy>
  <vssUse>default</vssUse>
  <cifsClientRoCacheOptimize>default</cifsClientRoCacheOptimize>
  <accessBasedEnumeration>default</accessBasedEnumeration>
  <smbEncryption>default</smbEncryption>
  <writeDisallowedUsers></writeDisallowedUsers>
  <writeDisallowedGroups>group3,group4</writeDisallowedGroups>
  <writeAllowedUsers>user1,user2</writeAllowedUsers>
  <writeAllowedGroups>group1,group2</writeAllowedGroups>
  <DirectorySetup>
    <userName>22222</userName>
    <groupName>11111</groupName>
    <isStickyBit>>true</isStickyBit>
    <ownerPermission>rw</ownerPermission>
    <groupPermission>rw</groupPermission>
    <otherPermission>rw</otherPermission>
  </DirectorySetup>
  <DirectoryACLSettings>
    <DirectoryACLSetting>
      <userGroupAccess>allow</userGroupAccess>
      <name>Everyone</name>
      <accountType>g</accountType>
      <applicationDestination>a</applicationDestination>
      <inheritanceRange>a</inheritanceRange>
      <accessPermission>r</accessPermission>
    </DirectoryACLSetting>
  </DirectoryACLSettings>
</CIFSShare>
```

Command line:

```
curl -i -1 -b
  api-auth=user-name:password "https://host-name-or-IP-address:
9090/mapi/CIFSShares" -k -d @cifscreate.xml -X PUT -H "Content-
Type:application/xml"
```

Response:

```
HTTP/1.1 100 Continue
```

```
HTTP/1.1 200 OK
```

```
Date: Fri, 10 Oct 2014 01:12:38 GMT
Server: Cosminexus HTTP Server 09-65 (Unix) mod_jk
X-NODE-APIVersionID: 6.4.4-00
```

```
X-NODE-CompletedOperation: 4
X-NODE-OperationList: [1]Create shared directory, [2]Edit shared
directory, [3]Set ACL, [4]Create CIFS share
Content-Length: 0
Connection: close
Content-Type: text/plain; charset=iso-8859-1
```

8. Acquire the NFS share information.

To determine the NFS share name and other attributes of the NFS share that you are creating, check the information about the existing NFS share.

Command line:

```
curl -i -l -b
  api-auth=user-name:password "https://host-name-or-IP-address:
9090/mapi/NFSShares?prettyprint&verbose=true" -k -X GET -H
"Accept:application/xml"
```

Response:

```
HTTP/1.1 200 OK
Date: Fri, 10 Oct 2014 01:12:52 GMT
Server: Cosminexus HTTP Server 09-65 (Unix) mod_jk
Content-Length: 1284
X-NODE-APIVersionID: 6.4.4-00
X-NODE-CompletedOperation: 2
X-NODE-OperationList: [1]Get NFS share details, [2]Test namespace
connection
Connection: close
Content-Type: application/xml

<?xml version="1.0" encoding="UTF-8" standalone="yes"?>
<NFSShares>
  <NFSShare>
    <exportPoint>/mnt/FileSystem</exportPoint>
    <anonymousUID>65534</anonymousUID>
    <anonymousGID>65534</anonymousGID>
    <isPortRestrictionEnabled>>false</isPortRestrictionEnabled>
    <isSubtreeCheckEnabled>>false</isSubtreeCheckEnabled>
    <isAccessCheckWithLockRequestEnabled>>false</
isAccessCheckWithLockRequestEnabled>
    <aclType>Advanced ACL</aclType>
    <maxRwSize></maxRwSize>
    <NamespaceShareSettings>
      <type>--</type>
      <FQDN></FQDN>
      <externalHcpHostName></externalHcpHostName>
      <user></user>
      <password></password>
      <hcpReplicaHost></hcpReplicaHost>
      <externalReplicaHcpHostName></externalReplicaHcpHostName>
      <hcpNamespace></hcpNamespace>
    </NamespaceShareSettings>
    <AllowedHosts>
      <AllowedHost>
        <hostOrAddress>*</hostOrAddress>
        <isReadOnly>>false</isReadOnly>
        <synchronousWritingSetting>rw_sync</
synchronousWritingSetting>
        <anonymousMapping>root_only</anonymousMapping>
```



```

        <securityFlavor>sys</securityFlavor>
    </AllowedHost>
</AllowedHosts>
</NFSShare>
</NFSShares>

```

9. Create an NFS share.

In this example, you create an NFS share with the following conditions:

- A new directory is created with the name `/mnt/fs/nfs` as a shared directory.
- The IDs of users and groups that access the NFS share as anonymous users are set.
- The requests that are sent from only Internet ports with port numbers smaller than 1024 are received.
- Whether the execute permission (x) is set for subtrees is checked.
- A permission check is performed for lock requests.
- The maximum transfer length for the NFS share is 5 KB.
- All hosts are permitted to access the NFS share in read-only mode.
- Setting an ACL.

```

nfscreate.xml
<?xml version="1.0" encoding="UTF-8" standalone="yes"?>
<NFSShare>
    <exportPoint>/mnt/fs/nfs</exportPoint>
    <anonymousUID>22222</anonymousUID>
    <anonymousGID>22222</anonymousGID>
    <isPortRestrictionEnabled>true</isPortRestrictionEnabled>
    <isSubtreeCheckEnabled>true</isSubtreeCheckEnabled>
    <isAccessCheckWithLockRequestEnabled>true</
isAccessCheckWithLockRequestEnabled>
    <maxRwSize>5</maxRwSize>
    <AllowedHosts>
        <AllowedHost>
            <hostOrAddress>*</hostOrAddress>
            <isReadOnly>true</isReadOnly>
            <synchronousWritingSetting>rw_sync</
synchronousWritingSetting>
            <anonymousMapping>root_only</anonymousMapping>
            <securityFlavor>sys</securityFlavor>
        </AllowedHost>
    </AllowedHosts>
    <DirectorySetup>
        <userName>22222</userName>
        <groupName>11111</groupName>
        <isStickyBit>true</isStickyBit>
        <ownerPermission>rw</ownerPermission>
        <groupPermission>rw</groupPermission>
        <otherPermission>rw</otherPermission>
    </DirectorySetup>
    <DirectoryACLSettings>
        <DirectoryACLSetting>
            <userGroupAccess>allow</userGroupAccess>
            <name>Everyone</name>
            <accountType>g</accountType>

```

```

        <applicationDestination>a</applicationDestination>
        <inheritanceRange>a</inheritanceRange>
        <accessPermission>r</accessPermission>
    </DirectoryACLSetting>
</DirectoryACLSettings>
</NFSShare>

```

Command line:

```

curl -i -l -b
    api-auth=user-name:password "https://host-name-or-IP-address:
9090/mapi/NFSShares" -k -d @nfscshare.xml -X PUT -H "Content-
Type:application/xml"

```

Response:

```
HTTP/1.1 100 Continue
```

```

HTTP/1.1 200 OK
Date: Fri, 10 Oct 2014 01:12:53 GMT
Server: Cosminexus HTTP Server 09-65 (Unix) mod_jk
X-NODE-APIVersionID: 6.4.4-00
X-NODE-CompletedOperation: 4
X-NODE-OperationList: [1]Create shared directory, [2]Edit shared
directory, [3]Set ACL, [4]Create NFS share
Content-Length: 0
Connection: close
Content-Type: text/plain; charset=iso-8859-1

```

10. Check whether you can access the namespace.

Confirm that the namespace to be allocated to the file share is accessible.

```

hcpaccess.xml
<?xml version="1.0" encoding="UTF-8" standalone="yes"?>
<HCP>
    <namespaceName>subtree-namespace1</namespaceName>
</HCP>

```

Command line:

```

curl -i -l -b
    api-auth=user-name:password "https://host-name-or-IP-address:
9090/mapi/HCP/ACCESS" -k -d @hcpaccess.xml -X POST -H "Content-Type:
application/xml"

```

Response:

```

HTTP/1.1 200 OK
Date: Fri, 10 Oct 2014 01:13:04 GMT
Server: Cosminexus HTTP Server 09-65 (Unix) mod_jk
X-NODE-APIVersionID: 6.4.4-00
X-NODE-CompletedOperation: 1
X-NODE-OperationList: [1]Test namespace connection
Content-Length: 0
Connection: close
Content-Type: text/plain; charset=iso-8859-1

```

11. Acquire the information about the migration tasks.

Check the information about the existing migration tasks.

Command line:

```
curl -i -l -b
    api-auth=user-name:password "https://host-name-or-IP-address:
9090/mapi/MigrationTask?prettyprint&verbose=true" -k -X GET -H
"Accept:application/xml"
```

Response:

```
HTTP/1.1 200 OK
Date: Fri, 10 Oct 2014 01:13:06 GMT
Server: Cosminexus HTTP Server 09-65 (Unix) mod_jk
Content-Length: 727
X-NODE-APIVersionID: 6.4.4-00
X-NODE-CompletedOperation: 3
X-NODE-OperationList: [1]Get migration task information, [2]Get HCP
settings, [3]Get execution results of migration task
Connection: close
Content-Type: application/xml
```

```
<?xml version="1.0" encoding="UTF-8" standalone="yes"?>
<MigrationTasks>
  <MigrationTask>
    <task-name>FileSystem</task-name>
    <task-priority>5</task-priority>
    <task-comment></task-comment>
    <task-enabled>enabled</task-enabled>
    <task-status>Scheduled (Never executed)</task-status>
    <fileName>FileSystem</fileName>
    <namespace>FileSystem-65423f12-b9ca-4904-9c1b-094e0691af95</
namespace>
    <schedule-start-time>2014-10-11T22:00:00.000+00:00</schedule-
start-time>
    <schedule-interval>1 day</schedule-interval>
    <duration>8</duration>
  </MigrationTask>
</MigrationTasks>
```

12. Set a migration task, and allocate the namespace to the file share.

In this example, you set a migration task with the following conditions:

- The task name is `task`.
- The first execution time of the migration task is 22:00 on June 1, 2015, and the execution interval is 5 days.
- The migration task automatically ends after 8 hours.

```
taskset_0520.xml
<?xml version="1.0" encoding="UTF-8" standalone="yes"?>
<MigrationTask>
  <task-name>task</task-name>
  <fileName>fs</fileName>
  <Namespaces>
    <namespace>
      <name>subtree-namespace1</name>
      <directory>cifs</directory>
      <namespaceQuota>on</namespaceQuota>
    </namespace>
  </Namespaces>
  <schedule-start-time>2015-06-01T22:00:00.000+00:00</schedule-
```

```
start-time>
  <schedule-interval>5d</schedule-interval>
  <duration>8</duration>
</MigrationTask>
```

Command line:

```
curl -i -l -b
  api-auth=user-name:password "https://host-name-or-IP-address:
9090/mapi/MigrationTask" -k -d @taskset_0520.xml -X PUT -H "Content-
Type:application/xml"
```

Response:

```
HTTP/1.1 200 OK
Date: Thu, 05 Mar 2015 03:10:02 GMT
Server: Cosminexus HTTP Server 09-65 (Unix) mod_jk
X-NODE-APIVersionID: 6.4.4-00
X-NODE-CompletedOperation: 2
X-NODE-OperationList: [1]Configure HCP settings, [2]Create migration
task
Content-Length: 0
Connection: close
Content-Type: text/plain; charset=iso-8859-1
```

13. Check whether you can access the namespace (when setting multiple subtree namespaces).

Confirm that the namespace to be allocated to the file share is accessible.

```
hcpaccess_0520.xml
<?xml version="1.0" encoding="UTF-8" standalone="yes"?>
<HCP>
  <namespaceName>arc-test2</namespaceName>
</HCP>
```

Command line:

```
curl -i -l -b
  api-auth=user-name:password "https://10.213.136.122:9090/
mapi/HCP/ACCESS" -k -d @hcpaccess_0520.xml -X POST -H "Content-
Type:application/xml"
```

Response:

```
HTTP/1.1 200 OK
Date: Wed, 27 May 2015 10:57:52 GMT
Server: Cosminexus HTTP Server 09-65 (Unix) mod_jk
X-NODE-APIVersionID: 6.4.4-00
X-NODE-CompletedOperation: 1
X-NODE-OperationList: [1]Test namespace connection
Content-Length: 0
Connection: close
Content-Type: text/plain; charset=iso-8859-1
```

14. Allocate the namespace to the file share (when setting multiple subtree namespaces).

In this example, you allocate the namespace with the following conditions:

- The capacity is limited based on the hard quota of the namespace.

```

taskmod_0520.xml
<?xml version="1.0" encoding="UTF-8" standalone="yes"?>
<MigrationTask>
  <fileName>fs</fileName>
  <Namespaces>
    <namespace>
      <name>arc-test2</name>
      <directory>nfs</directory>
      <namespaceQuota>on</namespaceQuota>
    </namespace>
  </Namespaces>
</MigrationTask>

```

Command line:

```

curl -i -l -b
      api-auth=user-name:password "https://10.213.136.122:9090/mapi/
MigrationTask/dGFzaw==" -k -d @taskmod_0520.xml -X POST -H "Content-
Type:application/xml"

```

Response:

```

HTTP/1.1 200 OK
Date: Wed, 27 May 2015 11:14:04 GMT
Server: Cosminexus HTTP Server 09-65 (Unix) mod_jk
X-NODE-APIVersionID: 6.4.4-00
X-NODE-CompletedOperation: 1
X-NODE-OperationList: [1]Configure HCP settings
Content-Length: 0
Connection: close
Content-Type: text/plain; charset=iso-8859-1

```

Example of editing a file system that can link with HCP at the share level in a single node configuration

Table A-13 Example of editing a file system that can link with HCP at the share level in a single node configuration

Operation	Resource URI	HTTP method	Reference
1. Obtain information about the file system that you want to edit.	/FileSystems/ <i>file-system-name</i>	GET	Acquiring the specified file system information by using the GET method on page 3-89
2. Edit the information about the file system.	/FileSystems/ <i>file-system-name</i>	POST	Editing information about the specified file system by using the POST method on page 3-94
3. Obtain information about the CIFS share that you want to edit.	/CIFSShares/ <i>CIFS-share-name-encoded-in-Base64</i>	GET	Acquiring CIFS share information by using the GET method on page 3-39
4. Edit the information about the CIFS share.	/CIFSShares/ <i>CIFS-share-name-encoded-in-Base64</i>	POST	Changing CIFS share information by using the POST method on page 3-42

Operation	Resource URI	HTTP method	Reference
5. Obtain information about the NFS share that you want to edit.	/NFSShares/ <i>NFS-share-directory-name</i>	GET	Acquiring information for the specified NFS share by using the GET method on page 3-192
6. Edit the information about the NFS share.	/NFSShares/ <i>NFS-share-directory-name</i>	POST	Editing NFS share information by using the POST method on page 3-195
7. Check whether you can access the namespace.	/HCP/ACCESS	POST	Checking whether the user can access the HCP namespace by using the POST method on page 3-131
8. Obtain information about the migration task that you want to edit.	/MigrationTask/ <i>task-name-encoded-in-Base64</i>	GET	Acquiring information for the specified migration task by using the GET method on page 3-148
9. Edit the information about the migration task.	/MigrationTask/ <i>task-name-encoded-in-Base64</i>	POST	Setting the schedule of the migration task or information about the subtree namespace by using the POST method on page 3-150

1. Obtain information about the file system that you want to edit.

Use this information to check the settings of the file system that you want to edit.

Command line:

```
curl -i -l -b
      api-auth=user-name:password "https://host-name-or-IP-address:
9090/mapi/FileSystems/fs?prettyprint&verbose=true" -k -X GET -H
"Accept:application/xml"
```

Response:

```
HTTP/1.1 200 OK
Date: Fri, 10 Oct 2014 01:12:32 GMT
Server: Cosminexus HTTP Server 09-65 (Unix) mod_jk
Content-Length: 1997
X-NODE-APIVersionID: 6.4.4-00
X-NODE-CompletedOperation: 2
X-NODE-OperationList: [1]Get file system details, [2]Set the Active
File Migration function
Connection: close
Content-Type: application/xml
```

```
<?xml version="1.0" encoding="UTF-8" standalone="yes"?>
<FileSystem>
  <fileName>fs</fileName>
  <usage>WORM</usage>
  <deviceStatus></deviceStatus>
  <freeBlocksInMegaBytes>10224.64</freeBlocksInMegaBytes>
```

```

<usedBlocksInMegaBytes>4.096</usedBlocksInMegaBytes>
<totalBlocksInMegaBytes>10229.76</totalBlocksInMegaBytes>
<volumeGroupName>vg0</volumeGroupName>
<fileSystemSizeInGigaByte>10.000</fileSystemSizeInGigaByte>
<workSpaceSizeInGigaByte>2.000</workSpaceSizeInGigaByte>
<aclType>Advanced ACL</aclType>
<NamespaceShareSettings>
  <namespaceType>Subtree</namespaceType>
  <type>Read/Write</type>
  <FQDN></FQDN>
  <externalHcpHostName></externalHcpHostName>
  <user></user>
  <password></password>
  <hcpReplicaHost></hcpReplicaHost>
  <externalReplicaHcpHostName></externalReplicaHcpHostName>
  <hcpNamespace></hcpNamespace>
</NamespaceShareSettings>
<UseVersioning>used</UseVersioning>
<periodToHold>7</periodToHold>
<customSchedule>not used</customSchedule>
<customSchedule15Minute>0</customSchedule15Minute>
<customScheduleHourly>0</customScheduleHourly>
<customScheduleDaily>0</customScheduleDaily>
<customScheduleWeekly>0</customScheduleWeekly>
<customScheduleMonthly>0</customScheduleMonthly>
<customScheduleYearly>0</customScheduleYearly>
<isBypassEnabled>true</isBypassEnabled>
<WormSetting>
  <maxRetention>infinite</maxRetention>
  <minRetention>0-0-0</minRetention>
  <isAutoCommitEnabled>true</isAutoCommitEnabled>
  <commitModeSetting>manual</commitModeSetting>
  <autoCommitPeriod>0-0-15</autoCommitPeriod>
  <defaultRetention>10950-0-0</defaultRetention>
  <isWormDeleteEnabled>true</isWormDeleteEnabled>
  <longestRetention></longestRetention>
</WormSetting>
<MountSetting>
  <isMounted>true</isMounted>
  <mountStatus>Normal</mountStatus>
  <isReadOnly>false</isReadOnly>
  <isFileLastAccessTimeRecordingEnabled>true</
isFileLastAccessTimeRecordingEnabled>
</MountSetting>
<LargeFileTransferSetting>
  <largeFileTransfer>Disable</largeFileTransfer>
  <lowerLimitInMegaBytes>100</lowerLimitInMegaBytes>
</LargeFileTransferSetting>
</FileSystem>

```

2. Edit the information about the file system.

In this example, you expand the file system.

```

fsmod_single.xml
<?xml version="1.0" encoding="UTF-8" standalone="yes"?>
<FileSystem>
  <expandFileSystemSize>10</expandFileSystemSize>
</FileSystem>

```

Command line:

```
curl -i -l -b
  api-auth=user-name:password "https://host-name-or-IP-address:
9090/mapi/FileSystems/fs" -k -d @fsmod_single.xml -X POST -H
"Content-Type:application/xml"
```

Response:

```
HTTP/1.1 200 OK
Date: Fri, 10 Oct 2014 01:12:33 GMT
Server: Cosminexus HTTP Server 09-65 (Unix) mod_jk
X-NODE-APIVersionID: 6.4.4-00
X-NODE-CompletedOperation: 1
X-NODE-OperationList: [1]Expand file system
Content-Length: 0
Connection: close
Content-Type: text/plain; charset=iso-8859-1
```

3. Obtain information about the CIFS share that you want to edit.

Use this information to check the settings of the CIFS share that you want to edit.

Command line:

```
curl -i -l -b
  api-auth=user-name:password "https://host-name-or-IP-address:
9090/mapi/CIFSShares/Y2lmc3NoYXJl?SHARE-DIRECTORY-
NAME=L2ludC9mcy9jaWZz&prettyprint&verbose=true" -k -X GET -H
"Accept:application/xml"
```

Response:

```
HTTP/1.1 200 OK
Date: Fri, 10 Oct 2014 01:12:46 GMT
Server: Cosminexus HTTP Server 09-65 (Unix) mod_jk
Content-Length: 2042
X-NODE-APIVersionID: 6.4.4-00
X-NODE-CompletedOperation: 2
X-NODE-OperationList: [1]Get CIFS share details, [2]Test namespace
connection
Connection: close
Content-Type: application/xml
```

```
<?xml version="1.0" encoding="UTF-8" standalone="yes"?>
<CIFSShare>
  <exportPoint>/mnt/fs/cifs</exportPoint>
  <cifsShareName>cifsshare</cifsShareName>
  <isAclEnabled>true</isAclEnabled>
  <restrictionTargetHosts>0.0.0.0/0</restrictionTargetHosts>
  <isAccessRestrictionAllowed>true</isAccessRestrictionAllowed>
  <commentForShare>cifscomment</commentForShare>
  <isReadOnly>>false</isReadOnly>
  <isBrowseEnabled>true</isBrowseEnabled>
  <fileAccessPermissionOfOwner></fileAccessPermissionOfOwner>
  <fileAccessPermissionOfGroup></fileAccessPermissionOfGroup>
  <fileAccessPermissionOfOther></fileAccessPermissionOfOther>
  <directoryAccessPermissionOfOwner></
directoryAccessPermissionOfOwner>
  <directoryAccessPermissionOfGroup></
directoryAccessPermissionOfGroup>
```



```

    <directoryAccessPermissionOfOther></
directoryAccessPermissionOfOther>
    <guestAccessPermission>default</guestAccessPermission>
    <diskSynchronizationPolicy>default</diskSynchronizationPolicy>
    <cifsClientCacheSetting>default</cifsClientCacheSetting>
    <fileTimestampChangeableUsers></fileTimestampChangeableUsers>
    <isHomeDirectoryEnabled>true</isHomeDirectoryEnabled>
    <aclType>Advanced ACL</aclType>
    <clientAccessPolicy>default</clientAccessPolicy>
    <vssUse>default</vssUse>
    <cifsClientRoCacheOptimize>default</cifsClientRoCacheOptimize>
    <accessBasedEnumeration>default</accessBasedEnumeration>
    <homeDirectoryRoaming>do_not_use</homeDirectoryRoaming>
    <smbEncryption>default</smbEncryption>
    <writeDisallowedUsers></writeDisallowedUsers>
    <writeDisallowedGroups>group3,group4</writeDisallowedGroups>
    <writeAllowedUsers>user1,user2</writeAllowedUsers>
    <writeAllowedGroups>group1,group2</writeAllowedGroups>
    <NamespaceShareSettings>
      <type>--</type>
      <FQDN></FQDN>
      <externalHcpHostName></externalHcpHostName>
      <user></user>
      <password></password>
      <hcpReplicaHost></hcpReplicaHost>
      <externalReplicaHcpHostName></externalReplicaHcpHostName>
      <hcpNamespace></hcpNamespace>
    </NamespaceShareSettings>
  </CIFSShare>

```

4. Edit the information about the CIFS share.

In this example, you edit the information about the CIFS share with the following conditions:

- Change the name of the CIFS share.
- Communication with CIFS clients is not encrypted.

```

cifsmod.xml
<?xml version="1.0" encoding="UTF-8" standalone="yes"?>
<CIFSShare>
  <cifsShareName>cifssharechange</cifsShareName>
  <isClassicAcl>false</isClassicAcl>
  <isAclEnabled>true</isAclEnabled>
  <restrictionTargetHosts>0.0.0.0/0</restrictionTargetHosts>
  <isAccessRestrictionAllowed>true</isAccessRestrictionAllowed>
  <commentForShare>cifscomment</commentForShare>
  <isReadOnly>false</isReadOnly>
  <isBrowseEnabled>true</isBrowseEnabled>
  <guestAccessPermission>default</guestAccessPermission>
  <diskSynchronizationPolicy>default</diskSynchronizationPolicy>
  <cifsClientCacheSetting>default</cifsClientCacheSetting>
  <isHomeDirectoryEnabled>true</isHomeDirectoryEnabled>
  <clientAccessPolicy>default</clientAccessPolicy>
  <vssUse>default</vssUse>
  <cifsClientRoCacheOptimize>default</cifsClientRoCacheOptimize>
  <accessBasedEnumeration>default</accessBasedEnumeration>
  <smbEncryption>disable</smbEncryption>
</CIFSShare>

```

Command line:

```
curl -i -l -b
  api-auth=user-name:password "https://host-name-or-IP-address:
9090/mapi/CIFSShares/Y2lmc3NoYXJl?SHARE-DIRECTORY-
NAME=L2ludC9mcy9jaWZz" -k -d @cifsmo.xml -X POST -H "Content-
Type:application/xml"
```

Response:

```
HTTP/1.1 200 OK
Date: Fri, 10 Oct 2014 01:12:48 GMT
Server: Cosminexus HTTP Server 09-65 (Unix) mod_jk
X-NODE-APIVersionID: 6.4.4-00
X-NODE-CompletedOperation: 1
X-NODE-OperationList: [1]Edit CIFS share
Content-Length: 0
Connection: close
Content-Type: text/plain; charset=iso-8859-1
```

5. Obtain information about the NFS share that you want to edit.

Use this information to check the settings of the NFS share that you want to edit.

Command line:

```
curl -i -l -b
  api-auth=user-name:password "https://host-name-or-IP-address:
9090/mapi/NFSShares/nfs?SHARE-DIRECTORY-NAME=/mnt/fs/
nfs&prettyprint&verbose=true" -k -X GET -H "Accept:application/xml"
```

Response:

```
HTTP/1.1 200 OK
Date: Fri, 10 Oct 2014 01:13:00 GMT
Server: Cosminexus HTTP Server 09-65 (Unix) mod_jk
Content-Length: 1136
X-NODE-APIVersionID: 6.4.4-00
X-NODE-CompletedOperation: 2
X-NODE-OperationList: [1]Get NFS share details, [2]Test namespace
connection
Connection: close
Content-Type: application/xml
```

```
<?xml version="1.0" encoding="UTF-8" standalone="yes"?>
<NFSShare>
  <exportPoint>/mnt/fs/nfs</exportPoint>
  <anonymousUID>22222</anonymousUID>
  <anonymousGID>22222</anonymousGID>
  <isPortRestrictionEnabled>true</isPortRestrictionEnabled>
  <isSubtreeCheckEnabled>true</isSubtreeCheckEnabled>
  <isAccessCheckWithLockRequestEnabled>true</
isAccessCheckWithLockRequestEnabled>
  <aclType>Advanced ACL</aclType>
  <maxRwSize>5</maxRwSize>
  <NamespaceShareSettings>
    <type>--</type>
    <FQDN></FQDN>
    <externalHcpHostName></externalHcpHostName>
    <user></user>
    <password></password>
```

```

        <hcpReplicaHost></hcpReplicaHost>
        <externalReplicaHcpHostName></externalReplicaHcpHostName>
        <hcpNamespace></hcpNamespace>
    </NamespaceShareSettings>
    <AllowedHosts>
        <AllowedHost>
            <hostOrAddress>*</hostOrAddress>
            <isReadOnly>>true</isReadOnly>
            <synchronousWritingSetting>rw_sync</
synchronousWritingSetting>
            <anonymousMapping>root_only</anonymousMapping>
            <securityFlavor>sys</securityFlavor>
        </AllowedHost>
    </AllowedHosts>
</NFSShare>

```

6. Edit the information about the NFS share.

In this example, you edit the information about the NFS share with the following conditions:

- The IDs of users and groups that access the NFS share as anonymous users are changed.
- Requests sent from all Internet ports are received.
- Whether execute permission (x) is set for subtrees is not checked.
- No permission check is performed for lock requests.
- The maximum transfer length for the NFS share is 5 KB.
- Permitting read access and write access for the NFS share

nfsmod.xml

```

<?xml version="1.0" encoding="UTF-8" standalone="yes"?>
<NFSShare>
    <anonymousUID>33333</anonymousUID>
    <anonymousGID>33333</anonymousGID>
    <isPortRestrictionEnabled>>false</isPortRestrictionEnabled>
    <isSubtreeCheckEnabled>>false</isSubtreeCheckEnabled>
    <isAccessCheckWithLockRequestEnabled>>false</
isAccessCheckWithLockRequestEnabled>
    <maxRwSize>6</maxRwSize>
    <AllowedHosts>
        <AllowedHost>
            <hostOrAddress>*</hostOrAddress>
            <isReadOnly>>false</isReadOnly>
            <synchronousWritingSetting>rw_sync</
synchronousWritingSetting>
            <anonymousMapping>root_only</anonymousMapping>
            <securityFlavor>sys</securityFlavor>
        </AllowedHost>
    </AllowedHosts>
</NFSShare>

```

Command line:

```

curl -i -l -b
    api-auth=user-name:password "https://host-name-or-IP-address:
9090/mapi/NFSShares/nfs?SHARE-DIRECTORY-NAME=/mnt/fs/nfs" -k -d
@nfsmod.xml -X POST -H "Content-Type:application/xml"

```

Response:

```
HTTP/1.1 200 OK
Date: Fri, 10 Oct 2014 01:13:02 GMT
Server: Cosminexus HTTP Server 09-65 (Unix) mod_jk
X-NODE-APIVersionID: 6.4.4-00
X-NODE-CompletedOperation: 1
X-NODE-OperationList: [1]Edit NFS share
Content-Length: 0
Connection: close
Content-Type: text/plain; charset=iso-8859-1
```

7. Check whether you can access the namespace.

Confirm that the namespace to be allocated to the file share is accessible.

```
hcpaccess2.xml
<?xml version="1.0" encoding="UTF-8" standalone="yes"?>
<HCP>
  <namespaceName>subtree-namespace2</namespaceName>
</HCP>
```

Command line:

```
curl -i -l -b
  api-auth=user-name:password "https://host-name-or-IP-address:
9090/mapi/HCP/ACCESS" -k -d @hcpaccess2.xml -X POST -H "Content-
Type: application/xml"
```

Response:

```
HTTP/1.1 200 OK
Date: Thu, 05 Mar 2015 03:16:35 GMT
Server: Cosminexus HTTP Server 09-65 (Unix) mod_jk
X-NODE-APIVersionID: 6.4.4-00
X-NODE-CompletedOperation: 1
X-NODE-OperationList: [1]Test namespace connection
Content-Length: 0
Connection: close
Content-Type: text/plain; charset=iso-8859-1
```

8. Obtain information about the migration task that you want to edit.

Check the information about the existing migration tasks.

Command line:

```
curl -i -l -b
  api-auth=user-name:password "https://host-name-or-IP-address:
9090/mapi/MigrationTask/dGFzaw==?
prettyprint&verbose=true&filesystemName=fs" -k -X GET -H
"Accept:application/xml"
```

Response:

```
HTTP/1.1 200 OK
Date: Thu, 05 Mar 2015 03:14:32 GMT
Server: Cosminexus HTTP Server 09-65 (Unix) mod_jk
Content-Length: 790
X-NODE-APIVersionID: 6.4.4-00
X-NODE-CompletedOperation: 3
X-NODE-OperationList: [1]Get migration task information, [2]Get HCP
```

settings, [3]Get execution results of migration task
Connection: close
Content-Type: application/xml

```
<?xml version="1.0" encoding="UTF-8" standalone="yes"?>
<MigrationTask>
  <task-name>task</task-name>
  <task-priority>5</task-priority>
  <task-comment></task-comment>
  <task-enabled>enabled</task-enabled>
  <task-status>Scheduled(Never executed)</task-status>
  <fileName>fs</fileName>
  <namespace></namespace>
  <Namespaces>
    <namespace>
      <name>subtree-namespace1</name>
      <directory>cifs</directory>
      <namespaceQuota>on</namespaceQuota>
    </namespace>
  </Namespaces>
  <schedule-start-time>2015-06-02T07:00:00.000+00:00</schedule-
start-time>
  <schedule-interval>5 days</schedule-interval>
  <duration>8</duration>
</MigrationTask>
```

9. Edit the information about the migration task.

In this example, you edit the migration task with the following conditions:

- Capacity limitation based on the hard quota of the namespace is not imposed.

```
taskmod_0520_2.xml
<?xml version="1.0" encoding="UTF-8" standalone="yes"?>
<MigrationTask>
  <fileName>fs</fileName>
  <Namespaces>
    <namespace>
      <name>subtree-namespace2</name>
      <directory>cifs</directory>
      <namespaceQuota>off</namespaceQuota>
    </namespace>
  </Namespaces>
</MigrationTask>
```

Command line:

```
curl -i -l -b
  api-auth=user-name:password "https://host-name-or-IP-address:
9090/mapi/MigrationTask/dGFzaw==" -k -d @taskmod_0520_2.xml -X POST -
H "Content-Type:application/xml"
```

Response:

```
HTTP/1.1 200 OK
Date: Thu, 05 Mar 2015 03:20:52 GMT
Server: Cosminexus HTTP Server 09-65 (Unix) mod_jk
X-NODE-APIVersionID: 6.4.4-00
X-NODE-CompletedOperation: 1
X-NODE-OperationList: [1]Configure HCP settings
Content-Length: 0
```

Example of deleting a file system

This section provides an example of deleting a file system.

Table A-14 Example of deleting a file system

Operation	Resource URI	HTTP method	Reference
1. Check whether the specified migration task exists.	/MigrationTask/ <i>task-name-encoded-in-Base64</i>	GET	Acquiring information for the specified migration task by using the GET method on page 3-148
2. Delete the specified migration task.	/MigrationTask/ <i>task-name-encoded-in-Base64</i>	DELETE	Deleting task information by using the DELETE method on page 3-155
3. Check whether the specified CIFS share exists.	/CIFSShares/ <i>CIFS-share-name-encoded-in-Base64</i>	HEAD	Checking whether the specified CIFS share exists by using the HEAD method on page 3-56
4. Delete the specified CIFS share.	/CIFSShares/ <i>CIFS-share-name-encoded-in-Base64</i>	DELETE	Deleting the specified CIFS share by using the DELETE method on page 3-55
5. Check whether the specified NFS share exists.	/NFSShares/ <i>NFS-share-directory-name</i>	HEAD	Checking whether the specified NFS share exists by using the HEAD method on page 3-203
6. Delete the specified NFS share.	/NFSShares/ <i>NFS-share-directory-name</i>	DELETE	Deleting the specified NFS share by using the DELETE method on page 3-203
7. Check whether the specified file system exists.	/FileSystems/ <i>file-system-name</i>	HEAD	Checking whether the specified file system exists by using the HEAD method on page 3-104
8. Unmount the specified file system.	/FileSystems/ <i>file-system-name</i> / MountSetting	POST	Editing information about the mount settings of the specified file system by using the POST method on page 3-107
9. Delete the specified file system.	/FileSystems/ <i>file-system-name</i>	DELETE	Deleting the specified file system by using the DELETE method on page 3-104

1. Check whether the specified migration task exists.

Command line:

```
curl -i -l -b
  api-auth=user-name:password "https://host-name-or-IP-address:
```

```
9090/mapi/MigrationTask/cG9saWN5" -k -X HEAD -H "Accept: application/xml"
```

Response:

```
HTTP/1.1 200 OK
Date: Mon, 11 Apr 2011 05:38:52 GMT
Server: Cosminexus HTTP Server 09-65 (Unix) mod_jk
Content-Length: 492
X-NODE-APIVersionID: 6.4.4-00
X-NODE-CompletedOperation: 2
X-NODE-OperationList: [1]Get migration policy details, [2]Get HCP settings
Connection: close
Content-Type: application/xml
```

2. Delete the specified migration task.

Command line:

```
curl -i -l -b
    api-auth=user-name:password "https://host-name-or-IP-address:
9090/mapi/MigrationTask/cG9saWN5" -k -X DELETE -H "Accept:
application/xml"
```

Response:

```
HTTP/1.1 200 OK
Date: Mon, 11 Apr 2011 05:38:58 GMT
Server: Cosminexus HTTP Server 09-65 (Unix) mod_jk
X-NODE-APIVersionID: 6.4.4-00
X-NODE-CompletedOperation: 1
X-NODE-OperationList: [1]Delete migration policy
Content-Length: 0
Connection: close
Content-Type: text/plain; charset=iso-8859-1
```

3. Check whether the specified CIFS share exists.

Command line:

```
curl -i -l -b
    api-auth=user-name:password "https://host-name-or-IP-address:
9090/mapi/CIFSShares/Y2lmc3NoYXJlY2hhbmdl?SHARE-DIRECTORY-
NAME=L2ludC9mcy9jaWZz" -k -X HEAD -H "Accept: application/xml"
```

Response:

```
HTTP/1.1 200 OK
Date: Mon, 11 Apr 2011 05:39:02 GMT
Server: Cosminexus HTTP Server 09-65 (Unix) mod_jk
Content-Length: 1499
X-NODE-APIVersionID: 6.4.4-00
X-NODE-CompletedOperation: 1
X-NODE-OperationList: [1]Get CIFS share details
Connection: close
Content-Type: application/xml
```

4. Delete the specified CIFS share.

Command line:

```
curl -i -l -b
    api-auth=user-name:password "https://host-name-or-IP-address:
9090/mapi/CIFSShares/Y2lmc3NoYXJlY2hhbmdl?SHARE-DIRECTORY-
NAME=L2ludC9mcy9jaWZz" -k -X DELETE -H "Accept: application/xml"
```

Response:

```
HTTP/1.1 200 OK
Date: Mon, 11 Apr 2011 05:39:03 GMT
Server: Cosminexus HTTP Server 09-65 (Unix) mod_jk
X-NODE-APIVersionID: 6.4.4-00
X-NODE-CompletedOperation: 1
X-NODE-OperationList: [1]Delete CIFS share
Content-Length: 0
Connection: close
Content-Type: text/plain; charset=iso-8859-1
```

5. Check whether the specified NFS share exists.

Command line:

```
curl -i -l -b
    api-auth=user-name:password "https://host-name-or-IP-address:
9090/mapi/NFSShares/nfs?SHARE-DIRECTORY-NAME=/mnt/fs/nfs" -k -X HEAD
-H "Accept: application/xml"
```

Response:

```
HTTP/1.1 200 OK
Date: Mon, 11 Apr 2011 05:39:05 GMT
Server: Cosminexus HTTP Server 09-65 (Unix) mod_jk
Content-Length: 658
X-NODE-APIVersionID: 6.4.4-00
X-NODE-CompletedOperation: 1
X-NODE-OperationList: [1]Get NFS share details
Connection: close
Content-Type: application/xml
```

6. Delete the specified NFS share.

Command line:

```
curl -i -l -b
    api-auth=user-name:password "https://host-name-or-IP-address:
9090/mapi/NFSShares/nfs?SHARE-DIRECTORY-NAME=/mnt/fs/nfs" -k -X
DELETE -H "Accept: application/xml"
```

Response:

```
HTTP/1.1 200 OK
Date: Mon, 11 Apr 2011 05:39:07 GMT
Server: Cosminexus HTTP Server 09-65 (Unix) mod_jk
X-NODE-APIVersionID: 6.4.4-00
X-NODE-CompletedOperation: 1
X-NODE-OperationList: [1]Delete NFS share
Content-Length: 0
Connection: close
Content-Type: text/plain; charset=iso-8859-1
```

7. Check whether the specified file system exists.

Command line:


```
curl -i -l -b
    api-auth=user-name:password "https://host-name-or-IP-address:
9090/mapi/FileSystems/fs/" -k -X HEAD -H "Content-Type: application/
xml"
```

Response:

```
HTTP/1.1 200 OK
Date: Mon, 11 Apr 2011 05:39:11 GMT
Server: Cosminexus HTTP Server 09-65 (Unix) mod_jk
Content-Length: 685
X-NODE-APIVersionID: 6.4.4-00
X-NODE-CompletedOperation: 1
X-NODE-OperationList: [1]Get file system details
Connection: close
Content-Type: application/xml
```

8. Unmount the specified file system.

```
fsumount.xml
<?xml version="1.0" encoding="UTF-8" standalone="yes"?>
<MountSetting>
    <isMounted>>false</isMounted>
    <isReadOnly>>false</isReadOnly>
    <isFileLastAccessTimeRecordingEnabled>>true</
isFileLastAccessTimeRecordingEnabled>
</MountSetting>
```

Command line:

```
curl -i -l -b
    api-auth=user-name:password "https://host-name-or-IP-address:
9090/mapi/FileSystems/fs/MountSetting" -k -d @fsumount.xml -X POST -
H "Content-Type: application/xml"
```

Response:

```
HTTP/1.1 200 OK
Date: Mon, 11 Apr 2011 05:39:14 GMT
Server: Cosminexus HTTP Server 09-65 (Unix) mod_jk
X-NODE-APIVersionID: 6.4.4-00
X-NODE-CompletedOperation: 1
X-NODE-OperationList: [1]Unmount file system
Content-Length: 0
Connection: close
Content-Type: text/plain; charset=iso-8859-1
```

9. Delete the specified file system.

Command line:

```
curl -i -l -b
    api-auth=user-name:password "https://host-name-or-IP-address:
9090/mapi/FileSystems/fs/" -k -X DELETE -H "Content-Type:
application/xml"
```

Response:

```
HTTP/1.1 200 OK
Date: Mon, 11 Apr 2011 05:39:27 GMT
Server: Cosminexus HTTP Server 09-65 (Unix) mod_jk
X-NODE-APIVersionID: 6.4.4-00
X-NODE-CompletedOperation: 1
```

```
X-NODE-OperationList: [1]Delete file system
Content-Length: 0
Connection: close
Content-Type: text/plain; charset=iso-8859-1
```

Example of stopping the OS in a cluster configuration

This section provides an example of stopping the OS in a cluster configuration.

Stop the OS on the requested node.

Table A-15 Example of stopping the OS in a cluster configuration

Operation	Resource URI	HTTP method	Reference
1. Stop the OS running on one of the nodes.	/SystemController/OS	POST	Restarting or Stopping the OS on the node by using the POST method on page 3-228
2. Stop the OS on the other node in the cluster.	/SystemController/OS	POST	Restarting or Stopping the OS on the node by using the POST method on page 3-228

1. Stop the OS running on one of the nodes.

```
osShutdown.xml
<?xml version="1.0" encoding="UTF-8" standalone="yes"?>
<Service>
  <operation>Shutdown</operation>
</Service>
```

Command line:

```
curl -i -l -b
  api-auth=user-name:password "https://host-name-or-IP-address-of-
  one-node:9090/mapi/SystemController/OS -k -d @osShutdown.xml -X POST
  -H Content-Type: application/xml
```

Response:

```
HTTP/1.1 202 Accepted
Date: Tue, 12 Apr 2011 13:21:18 GMT
Server: Cosminexus HTTP Server 09-65 (Unix) mod_jk
X-NODE-APIVersionID: 6.4.4-00
X-NODE-CompletedOperation: 1
X-NODE-OperationList: [1]Shutdown OS
Connection: close
Transfer-Encoding: chunked
Content-Type: text/html; charset=utf-8

<html><head><title>202 Accepted</title></head><body><h1>202
Accepted</h1></body></html>
```

2. Stop the OS on the other node in the cluster.

```
osShutdown.xml
<?xml version="1.0" encoding="UTF-8" standalone="yes"?>
```

```
<Service>
  <operation>Shutdown</operation>
</Service>
```

Command line:

```
curl -i -l -b
  api-auth=user-name:password "https://host-name-or-IP-address-of-
  other-node:9090/mapi/SystemController/OS -k -d @osShutdown.xml -X
  POST -H Content-Type: application/xml
```

Response:

```
HTTP/1.1 202 Accepted
Date: Tue, 12 Apr 2011 13:21:19 GMT
Server: Cosminexus HTTP Server 09-65 (Unix) mod_jk
X-NODE-APIVersionID: 6.4.4-00
X-NODE-CompletedOperation: 1
X-NODE-OperationList: [1]Shutdown OS
Connection: close
Transfer-Encoding: chunked
Content-Type: text/html;charset=utf-8
```

```
<html><head><title>202 Accepted</title></head><body><h1>202
Accepted</h1></body></html>
```

Example of stopping the OS in a single-node configuration

This section provides an example of stopping the OS in a single-node configuration.

Table A-16 Example of stopping the OS in a single-node configuration

Operation	Resource URI	HTTP method	Reference
1. Stop the OS.	/SystemController/OS	POST	Restarting or Stopping the OS on the node by using the POST method on page 3-228

1. Stop the OS.

```
osShutdown.xml
<?xml version="1.0" encoding="UTF-8" standalone="yes"?>
<Service>
  <operation>Shutdown</operation>
</Service>
```

Command line:

```
curl -i -l -b
  api-auth=user-name:password "https://host-name-or-IP-address:
  9090/mapi/SystemController/OS" -k -d @osShutdown.xml -X POST -H
  "Content-Type: application/xml"
```

Response:

```
HTTP/1.1 202 Accepted
Date: Mon, 11 Apr 2011 14:37:18 GMT
Server: Cosminexus HTTP Server 09-65 (Unix) mod_jk
```

X-NODE-APIVersionID: 6.4.4-00
X-NODE-CompletedOperation: 1
X-NODE-OperationList: [1]Shutdown OS
Connection: close
Transfer-Encoding: chunked
Content-Type: text/html;charset=utf-8

```
<html><head><title>202 Accepted</title></head><body><h1>202  
Accepted</h1></body></html>
```


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