

Hitachi NAS File Storage

NAS File OS v14.9.7900 or higher

API v9.0.0

REST API Reference

This document describes the File Storage Native REST API for the Hitachi NAS Platform.

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Preface

You can use the Hitachi NAS File Storage REST API to administer Hitachi storage systems using standard HTTP protocol operations.

This REST API provides a consistent interface for client applications.

Note: The API calls and examples shown in this document have been automatically generated from the OpenAPI specification for the Hitachi NAS File Storage REST API, and while every effort has been taken to ensure the examples are correct, there may be instances where an invalid combination of parameters or response attributes are shown. Making requests to the REST server will produce the correct response, and an error will be generated if the wrong combination of parameters are supplied in a request.

Intended audience

This document is for REST API server application developers who want to integrate with supported Hitachi storage systems.

Application developers are expected to have a basic knowledge of Hitachi storage system administration and a basic understanding of the functionality they are attempting to manage.

For more details about HNAS functionality, consult the documentation at https://knowledge.hitachivantara.com/Documents/Storage/NAS_Platform

Software version

The version of the REST API is 09.0.0.

Document revision history

Revision	Date	Description
9.0.0	December 2023	First release of File Storage REST API version 9. Added major new functional areas. Most existing functional areas remain the same as version 8, but Object Replication has some functional changes that affect existing APIs.

Document conventions

This document uses the following typographic convention:

Convention	Description
Bold	<ul style="list-style-type: none">Indicates text in a window, including window titles, menus, menu options, buttons, fields, and labels. Example: Click OK.Indicates emphasized words in list items.
<i>Italic</i>	<ul style="list-style-type: none">Indicates a document title or emphasized words in text.Indicates a variable, which is a placeholder for actual text provided by the user or for output by the system. Example <code>pairdisplay -g group</code>
Monospace	Indicates text that is displayed on screen or entered by the user. Example: <code>pairdisplay -g oradb</code>
< > angle brackets	Indicates variables in the following scenarios: <ul style="list-style-type: none">Variables are not clearly separated from the surrounding text or from other variables. Example: <code>Status-<report-name><file-version>.csv</code>Variables in headings.

Comments

Please send comments to doc.comments@hitachivantara.com. Include the document title and number, including the revision level (for example, -07), and refer to specific sections and paragraphs whenever possible. All comments become the property of Hitachi Vantara LLC.

Thank you!

Hardware and software requirements

This section describes the hardware and software required to support the REST API server.

Ports used by the REST API server

The REST API server uses the TCP port 8444 for HTTPS communication.

Hitachi file storage firmware requirements

The firmware requirements are the following:

- VSP Fx00 models, VSP Gx00 models, and Nx00 with NAS OS 14.9.7900 or higher
- HNAS with NAS OS 14.9.7900 or higher

Acquiring the correct IP address

All requests to the REST API server must be sent via a publicly accessible admin services IP address. This address is not the address of the SMU, but will normally be the same address that the SMU uses to communicate with the system it is managing.

Hitachi NAS Platform

Either obtain the address from the **Managed Server** settings on the SMU associated with the system or using the HNAS CLI interface and use the `evsipaddr -l` command to obtain a list of all IP addresses. Any address associated with an EVS type of **admin** can be used, as long as it is accessible from the client that will be making REST requests.

VSP N series and VSP Gx00 and Fx00 with NAS modules

Any accessible admin services address can be used in the same way as for the NAS Platform, and additionally the controller addresses can also be used.

The controller addresses can be obtained via the service processor (SVP) and are described as the **GUM IP addresses** or from the SMU associated with the system, from the **IP Addresses** page in the **Network Configuration** section. The addresses are at the top of the page, under the **Unified Management IP Addresses** heading.

Authenticating with the REST API server

Credentials can be either a user/password combination or an API key. Access via API key is the preferred method, and keys can be generated as follows:

Procedure

1. Log in to the HNAS CLI as an administrative user.
2. Create a new API key with the `apikey-create` command. API keys are created with full access to all APIs by default.

```
system1:$ apikey-create "development"  
Please make a note of this new API Key, as it is not possible to display the full  
key again.  
Only the prefix and description can be displayed in the future.
```

```
New key:  xIAdbgTNVP.Nj2TOgxiOYgpTu2kjjzEGS4QmIJIeLmF3aXKg6FhY9vC
```

Note: It is the user's responsibility to store this created key to be used in all API requests. There is no way to recover the API key if it is lost except to create a new one.

3. To list, enable/disable or delete an API key, use the `apikey-list`, `apikey-update`, and `apikey-delete` commands. API keys can be restricted to read-only using the `apikey-update` command.
4. Subsequently, you can use the created API key to replace user/password authentication.

For example, suppose your API key is

"QA3RIPLHbk.B6.pfg8YCeeK07BhTy3UC48VlJ8teTg28nNmWEHl77". Then, you can use a custom HTTP header "X-API-Key:

QA3RIPLHbk.B6.pfg8YCeeK07BhTy3UC48VlJ8teTg28nNmWEHl77" in your request for authentication. The API key is the recommended authentication method because it provides better security by enforcing authentication for each request. See more details in the **Required custom HTTP headers** section.

Note: Traditional user/password authentication is still supported for backward compatibility purposes. Create a new user name **User1** with the password **Password** through the following CLI command:

```
system1:$ user add User1 Password SUPERVISOR
```

To restrict any new users to read-only access, create them at **USER** level instead of **SUPERVISOR**. This is only possible on HNAS systems and not VSP Unified systems.

A user cannot be deleted unless and until all valid login sessions associated with that user have ended. The typical idle timeout session time is about 30 minutes.

API common specifications

This chapter describes various topics that are common to all API calls.

Resource URI format

Resources can be accessed using the following URI formats.

- *<host>* := IP address / host name of the REST API server.
- *<port>* := port number of the REST API server.
- *<resources>* := resources that are managed by the REST API server. They are always in plural format; for example, ports, logical-units.
- *<resource-id>* := if specified, identifies the resource as managed by the REST API server. REST API server supports applicable create, read, update, and delete (CRUD) operations for each resource.

Example of a URI:

```
https://10.20.30.40:8444/v9/storage/filesystems/865A1E306B0D4EE700000000000000000
```

HTTP methods

The REST API server supports the following HTTP methods.

Operation	Guidelines
GET	Retrieves resource information
POST	<ul style="list-style-type: none">• Creates new resources• Performs actions on resources
PUT/PATCH	Updates existing resource
DELETE	Deletes a resource instance

Note: When the credentials supplied allow read-only access, only HTTP GET requests are supported.

Non-CRUD operations

Some storage actions cannot be completed using the create, read, update, and delete (CRUD) operations. In general, a POST operation is performed for non-CRUD actions on a resource. For example, to format a file system, the request URI is:

```
POST <Base_URI>/v9/storage/filesystems/{filesystemId}/format
```

The request body is:

```
{"blockSize": 4}
```

Required custom HTTP headers

Either of the following custom headers are required by all operations.

Name	Description
X-API-Key	API key to access the storage system. This is the recommended authentication method that provides better security. To create and manage an API key, check details in the Authenticating with the REST API server section.
X-Subsystem-User X-Subsystem-Password	User name and password to access the storage system. It should be used if an API key is not available. Users are encouraged to use the API key method. When both API key and user/password headers are included, the user/password is ignored.

Optional custom HTTP headers

The following custom headers are optional by all operations and the main purpose is for auditing and profiling.

Name	Description
X-Forwarded-For	IP of the REST API client. This is mainly for the purposes of auditing and profiling. Even though it is not required, users are encouraged to voluntarily provide their IP in this header.
X-Forwarded-For-User	REST API user name. This is not necessarily the user used in authentication. It is only for the purposes of auditing and profiling.

HTTP status codes

The REST API server responds with the following status codes, which are defined in RFC2616.

Status code	Status name	Description
200	OK	Resource retrieved successfully.
201	Created	Resource created successfully.
204	No Content	Resource edited or deleted successfully.
303	See Other	The resource ID has been changed.
400	Bad Request	Missing or invalid request contents.

401	Unauthorized	Unauthorized – the supplied credentials are invalid
403	Forbidden	Operation forbidden by access level.
404	Not Found	Requested resource not found.
500	Internal Server Error	Internal error originated from storage sub-system or REST API server.

Storage system error response

In cases when an error is thrown by the storage system, the REST API server provides the error code and error message in the response body as shown in the example below.

`errorDetail` shows low-level subsystem error details, which might include additional details on the failure cause.

```
{
  "errorCode": 1081345,
  "errorDetail": {
    "detail": "",
    "fault": "",
    "fileName": "RestApiFilesystemSnapshots.cpp",
    "function": "GetSnapshots",
    "lineNumber": 203,
    "message": "The file system was not found",
    "reason": "The file system was not found",
    "returnedValue": 0,
    "subCode": 336
  },
  "errorMsg": "Cannot find the object of the operation on the device"
}
```

Basic data types

The data types are JSON data types:

Data type	Definitions
boolean	True or false
number	Signed/unsigned integer, fraction, exponent
string	Text
array	Array of JSON objects
object	Arbitrary JSON object

Large numbers

Some object models contain unsigned 64 bit numbers, which can cause problems with some clients being able to interpret them.

It is possible to configure the REST API server to return large, unsigned 64 bit numbers within quotes - the default for v9 is to quote large numbers.

To view or change the state of large number quoting, use the following HNAS CLI command:

```
$: rest-server-quote-large-numbers
```

Inventory of supported APIs

A GET operation to `https://<host>:<port>/v9/` will return a simple HTML page that lists all supported REST API server operations and the parameters they take.

```
curl -k -H "X-API-Key:sample-api-key" https://10.20.30.40:8444/v9/
```

Or, for more detailed information about the supported API calls, the parameters they take, and the expected responses, a JSON formatted OpenAPI specification document can be generated using the following command:

```
curl -k -H "X-API-Key:sample-api-key" https://10.20.30.40:8444/v9/storage/openapi/openapi.json > openapi.json
```

The JSON file produced can be loaded into third party tools and used to view the documentation, along with examples, or client code can be automatically generated in various different languages.

Checking minor API version

When making requests to the REST API server, the major version is included as part of the URI. But it is possible for a client to determine the minor version of a successful API call response by checking the headers returned to the client.

The minor value should be checked if the documentation states that there has been a change in behaviour or an updated object model between minor versions but within the same major API version.

The version is made up of the following components:

```
<API major version>.<API minor version>.<API revision>.<software build>.<software minor version>
```

The following example is for REST API v9.0.0 running on a system that is running software release 14.9.7910.00.

```
Server: REST API Server/09.0.0.7910.00
```

Requests that fail due to a bad URI or insufficient privileges will not include the version in the response.

Input and output format

The REST API server only supports JSON input/output format.

As a general rule, if objects have an ObjectID associated with them, and they are to be used as input parameters, either the ID or the ObjectID will be accepted as the parameter. For example, any functions that require a virtualServerId parameter should accept a value of "1" or "313a3a3a3a3a3a303a3a3a4f49445f24232140255f56", as they represent the same object within the system.

Note: ObjectID values are not a fixed length, and the length may vary depending on which type of object they identify.

Where API calls require input parameters, in some cases, these can be supplied as query parameters, rather than needing to supply them within the request body. For example, the following two examples are equivalent:

```
curl -k -H "X-Api-Key:sample-api-key"  
"https://10.20.30.40:8444/v9/storage/filesystems/7B26385AE28B0C030000000000000000" -X  
DELETE -d '{"force":true}'
```

```
curl -k -H "X-Api-Key:sample-api-key"  
"https://10.20.30.40:8444/v9/storage/filesystems/7B26385AE28B0C030000000000000000?forc  
e=true" -X DELETE
```

This approach is only appropriate for simple input parameters and should not generally be used for parameters that contain spaces, or other characters that need to be encoded or escaped within a URL, as they may produce unexpected results.

JSON requires escaping of the following characters if they are supplied as part of an input, and they will be escaped in the same way if returned as part of an API response - not all characters are necessarily allowed when supplying parameters:

- Backspace to be replaced with \b
- Form Feed to be replaced with \f
- Newline to be replaced with \n
- Carriage Return to be replaced with \r
- Tab to be replaced with \t
- Double Quote to be replaced with \"
- Backslash to be replaced with \\

Paging output

Output paging is supported for GET ALL API operations (for example, Get all file storage system statistics). It is possible to specify the page size (number of items) returned, and the page (an offset into the total results) that is to be returned. This functionality should be used if the expected number of items to be returned may be excessive for a single response.

The following examples demonstrate the use:

```
GET <base_URI>/v9/storage/statistics/CONTEXT_ALL?pageSize=4&page=1
```

The first example would return the first 4 items associated with the **CONTEXT_ALL** statistics. While the next example would return items 5 to 8 associated with the **CONTEXT_ALL** statistics:

```
GET <base_URI>/v9/storage/statistics/CONTEXT_ALL?pageSize=4&page=2
```

Sort output

Sorting is controlled by the top-level scalar (of type boolean, number, or string) attributes. The REST API server does not support either multi-level or nesting sort operations. The REST API server only supports sorting for the GET ALL API operations (for example, Get all storage pools).

The format of ascending order sort has the following syntax:

```
sort=<attribute_name>
```

The format of descending order sort has the following syntax:

```
sort=-<attribute_name>
```

Note: If output sorting is specified when output paging is being used, the sorting will only be applied to the returned results, and not to the full set of results.

Sample request – return the list of nodes, reverse sorted by nodeId

```
curl -vk -H "X-Api-Key:sample-api-key"  
"https://10.20.30.40:8444/v9/storage/nodes?sort=-nodeId"
```

Sample response

```
{  
  "nodes": [  
    {  
      "UUID": "b2e122e0-3016-11d5-9001-f03c9491cf19",  
      "firmwareVersion": "14.9.7913.00",  
      "hardware": "NAS Platform",  
      "ipAddresses": [  
        "192.168.0.191",  
        "10.251.52.1"  
      ],  
      "model": "N800",  
      "name": "G800-443037-2",  
      "nodeId": 2,  
      "objectId": "323a3a3a3a3a3a303a3a3a4f49445f24232140255f56",  
      "serial": "443037",  
      "status": "ONLINE",  
      "uptime": "1 day 20 hours 2 minutes 4 seconds",  
      "uptimeInSeconds": "158524"  
    },  
    {  
      "UUID": "bbd85dd2-3016-11d5-9001-040403000307",
```

```

    "firmwareVersion": "14.9.7913.00",
    "hardware": "NAS Platform",
    "ipAddresses": [
      "192.168.0.190",
      "10.251.48.1"
    ],
    "model": "N800",
    "name": "G800-443037-1",
    "nodeId": 1,
    "objectId": "313a3a3a3a3a3a303a3a3a4f49445f24232140255f56",
    "serial": "443037",
    "status": "ONLINE",
    "uptime": "1 day 20 hours 1 minute 38 seconds",
    "uptimeInSeconds": "158498"
  }
]
}

```

Filter output

Filtering is used to narrow the result set and can be used at the same time as result sorting and paging.

The REST API server only supports filtering of top-level scalar attributes and does not support multi-level or nesting filters. Filtering is only supported for GET ALL API operations. The following filter operators are supported: =, !=, <, >, >=, and <=. To filter multiple attributes, use the AND (&) operator to connect them.

Sample request – return 4 events (pageSize) which have an eventId greater or equal to 9000

```

curl -vk -H "X-API-Key:sample-api-key"
"https://10.20.30.40:8444/v9/storage/nodes/1/events?eventId>=9000&pageSize=4"

```

Sample response

```

{
  "events": [
    {
      "category": "SYSTEM",
      "clusterNodeId": 1,
      "eventId": 9702,
      "severity": "INFO",
      "text": "The live file system usage has returned to normal for Span16FS on EVS ch-storage-1-s (ID=1).",
      "timeStamp": "1696946009"
    },
    {
      "category": "SYSTEM",
      "clusterNodeId": 1,
      "eventId": 9700,
      "severity": "WARNING",
      "text": "The live file system usage exceeds 90% for Span16FS on EVS ch-storage-1-s (ID=1).",
      "timeStamp": "1696946005"
    },
    {
      "category": "SYSTEM",

```

```

    "clusterNodeId": 1,
    "eventId": 9708,
    "severity": "INFO",
    "text": "Total file system usage has returned to normal for Span16FS on EVS ch-
storage-1-s (ID=1).",
    "timeStamp": "1696945909"
  },
  {
    "category": "SYSTEM",
    "clusterNodeId": 1,
    "eventId": 9702,
    "severity": "INFO",
    "text": "The live file system usage has returned to normal for Span16FS on EVS
ch-storage-1-s (ID=1).",
    "timeStamp": "1696945909"
  }
]
}

```

Output embedded

The REST API server supports embedding for single-level associations.

For example, system drives have associations with a storage pool (as shown in the following example).

Note: Without the embed keyword or with the notation embed=false, the output does not display data associated with the systemDrives keyword. The REST API server supports embedding only for the GET API operation of a single resource (for example, a storage pool).

Sample request – get details for virtual server 1, with extra embedded details

```

curl -vk -H "X-API-Key:sample-api-key"
"https://10.20.30.40:8444/v9/storage/virtual-servers/1?embed=true"

```

Sample response

```

{
  "virtualServer": {
    "UUID": "f6ab0b4c-9e21-11d6-901e-755295714a90",
    "ipAddresses": [
      "10.20.30.40"
    ],
    "isEnabled": true,
    "name": "ch-storage-1-s",
    "nodes": [
      {
        "UUID": "e3187fec-9e21-11d6-9001-755295714a90",
        "firmwareVersion": "14.9.7914.00",
        "hardware": "NAS Platform",
        "ipAddresses": [
          "172.27.50.110"
        ],
        "model": "HNAS 5200",
        "name": "ch-storage-1",
        "nodeId": 1,
        "objectId": "313a3a3a3a3a3a303a3a3a4f49445f24232140255f56",

```

```
    "serial": "C1E1KW1922002",
    "status": "ONLINE",
    "uptime": "17 hours 57 minutes 54 seconds",
    "uptimeInSeconds": "64674"
  }
  ],
  "objectId": "313a3a3a3a3a3a303a3a3a4f49445f24232140255f56",
  "status": "ONLINE",
  "type": "File services",
  "virtualServerId": 1
}
}
```

Clustering Resource

The clustering resource provides functions to allow a cluster to be created and managed.

Clustering Object Model

The object model describing this resource contains the following objects.

discoveredNode - Discovered server nodes

Attribute	JSON type	Data type	Description
UUID	string	string	Universally unique ID
clusterName	string	string	Cluster name that the node belongs to
ipAddress	string	string	IP address - generally IPv4 and IPv6 are supported in most cases
nodeName	string	string	Name of the discovered node
status	string	string	Status of current operation in progress. Possible values are: - INVALID - UNKNOWN - UP - ONLINE - NOT_UP - DEAD - DORMANT
type	string	string	Model family type of the node

discoveredQuorumDevice - Discovered quorum device

Attribute	JSON type	Data type	Description
UUID	string	string	Universally unique ID
name	string	string	Name of the quorum device
quorumIpAddress	string	string	IPv4 address of quorum device
status	string	string	Status of the quorum device. Possible values are: - UNKNOWN - UNCONFIGURED - CONFIGURED - GRANTED - OWNED - PNODE_NOTUP - MISCONFIGURED

quorumDevice - Quorum device details

Attribute	JSON type	Data type	Description
UUID	string	string	Universally unique ID
clusterSafe	boolean	boolean	True if the cluster is considered to be robust and healthy
name	string	string	Name of the quorum device
quorumIpAddress	string	string	IPv4 address of quorum device
status	string	string	Status of the quorum device. Possible values are: - UNKNOWN - UNCONFIGURED - CONFIGURED - GRANTED - OWNED - PNODE_NOTUP - MISCONFIGURED

Get Quorum Device

Get the quorum device that is used by the current cluster.

HTTP request syntax (URI)

```
GET <base_uri>/v9/storage/clustering/quorum-device
```

Return Codes

Code	Data	Description
200	quorumDevice	quorumDevice object successfully retrieved
500	Error message	Internal Server Error

Any HTTP status code other than 200 indicates that the API did not complete successfully.

Sample request:

```
curl -k -H "X-API-Key:sample-api-key" -X GET  
"https://10.20.30.40:8444/v9/storage/clustering/quorum-device"
```

Sample response:

```
HTTP/1.1 200 OK  
{  
  "quorumDevice": {  
    "UUID": "14ea72ac-a546-11d6-9001-0bef787b2638",  
    "clusterSafe": false,  
    "name": "Manager1",  
    "quorumIpAddress": "10.1.2.3",  
    "status": "UNKNOWN"  }  
}
```



```
}  
}
```

Set Quorum Device

Set the quorum device that is used by the current cluster.

For a cluster to be robust, it must have a quorum device, without a quorum device, it is considered degraded. The quorum device can only be set when there is currently no quorum set, and the cluster is degraded.

HTTP request syntax (URI)

```
POST <base_uri>/v9/storage/clustering/quorum-device
```

Parameters

Parameter	Type	Required	Data Type	Description
quorumIpAddress	body	Y	string	IPv4 address of quorum device

Return Codes

Code	Data	Description
204	No Data	Operation successfully completed
400	Error message	Bad Request
401	No Data	Unauthorized
403	Error message	Forbidden - the client does not have the required permissions to perform the operation
500	Error message	Internal Server Error

Any HTTP status code other than 204 indicates that the API did not complete successfully.

Sample request:

```
curl -k -H "X-API-Key:sample-api-key" -X POST  
"https://10.20.30.40:8444/v9/storage/clustering/quorum-device" -d  
'{"quorumIpAddress": "10.1.2.3"}'
```

Sample response:

```
HTTP/1.1 204 No Content
```

Delete Quorum Device

Deletes the current quorum device that is being used by the cluster. Once the quorum device is deleted, the cluster will be considered degraded and should have a new quorum device configured as soon as possible.

HTTP request syntax (URI)

```
DELETE <base_uri>/v9/storage/clustering/quorum-device
```

Return Codes

Code	Data	Description
204	No Data	Operation successfully completed
401	No Data	Unauthorized
403	Error message	Forbidden - the client does not have the required permissions to perform the operation
500	Error message	Internal Server Error

Any HTTP status code other than 204 indicates that the API did not complete successfully.

Sample request:

```
curl -k -H "X-API-Key:sample-api-key" -X DELETE  
"https://10.20.30.40:8444/v9/storage/clustering/quorum-device"
```

Sample response:

```
HTTP/1.1 204 No Content
```

Get Quorum Device List

Get a list of available quorum devices that are visible to the cluster. This list is the quorum devices that could be used when converting a standalone system from a single node into a cluster.

HTTP request syntax (URI)

```
GET <base_uri>/v9/storage/clustering/quorum-list
```

Return Codes

Code	Data	Description
200	discoveredQuorumDevices	List of discoveredQuorumDevice objects successfully retrieved
500	Error message	Internal Server Error

Any HTTP status code other than 200 indicates that the API did not complete successfully.

Sample request:

```
curl -k -H "X-API-Key:sample-api-key" -X GET  
"https://10.20.30.40:8444/v9/storage/clustering/quorum-list"
```

Sample response:

```
HTTP/1.1 200 OK  
{  
  "discoveredQuorumDevices": [  
    {  
      "name": "quorum-device-1",  
      "type": "NFS",  
      "path": "/mnt/cluster/quorum-device-1",  
      "status": "OK",  
      "isDefault": true  
    },  
    {  
      "name": "quorum-device-2",  
      "type": "NFS",  
      "path": "/mnt/cluster/quorum-device-2",  
      "status": "OK",  
      "isDefault": false  
    }  
  ]  
}
```

```
{
  "UUID": "14ea72ac-a546-11d6-9001-0bef787b2638",
  "name": "Manager2",
  "quorumIpAddress": "10.1.2.3",
  "status": "UNKNOWN"
}
]
```

Discovered Node List

Get a list of available nodes that are visible to the cluster, but not part of the current cluster.

HTTP request syntax (URI)

```
GET <base_uri>/v9/storage/clustering/node-list
```

Return Codes

Code	Data	Description
200	discoveredNodes	List of discoveredNode objects successfully retrieved
500	Error message	Internal Server Error

Any HTTP status code other than 200 indicates that the API did not complete successfully.

Sample request:

```
curl -k -H "X-API-Key:sample-api-key" -X GET
"https://10.20.30.40:8444/v9/storage/clustering/node-list"
```

Sample response:

```
HTTP/1.1 200 OK
{
  "discoveredNodes": [
    {
      "UUID": "14ea72ac-a546-11d6-9001-0bef787b2638",
      "clusterName": "Cluster1",
      "ipAddress": "10.1.2.3",
      "nodeName": "Node1",
      "status": "INVALID",
      "type": "abcdefg"
    }
  ]
}
```

Join An Existing Cluster

Add a standalone gateway node to an existing cluster. To join a cluster, a node needs to have a node IP address configured in addition to a management IP address. The

useAdminVnodeAsPnodeAddress option allows the management address to be used as the node address once the node joins the cluster.

Once configured to join the cluster, a reboot of the joining node is required, and any existing configuration on the joining node will be erased.

HTTP request syntax (URI)

```
POST <base_uri>/v9/storage/file-devices/join-cluster
```

Parameters

Parameter	Type	Required	Data Type	Description
clusterName	body	Y	string	Name for the cluster to create or join
existingIpAddress	body	N	string	IP address of a node within the cluster
useAdminVnodeAsPnodeAddress	body	N	boolean	Convert the admin IP address to the cluster node address

Return Codes

Code	Data	Description
204	No Data	Operation successfully completed
400	Error message	Bad Request
401	No Data	Unauthorized
403	Error message	Forbidden - the client does not have the required permissions to perform the operation
500	Error message	Internal Server Error

Any HTTP status code other than 204 indicates that the API did not complete successfully.

Sample request:

```
curl -k -H "X-API-Key:sample-api-key" -X POST  
"https://10.20.30.40:8444/v9/storage/file-devices/join-cluster" -d  
'{"clusterName": "Cluster1", "existingIpAddress": "10.1.2.3",  
"useAdminVnodeAsPnodeAddress": false}'
```

Sample response:

```
HTTP/1.1 204 No Content
```

Upgrade To A Cluster

When first configured, the system will be a standalone server. To improve resilience, nodes can be combined into a cluster. Upgrading to a cluster involves assigning a cluster name, and a quorum device.

HTTP request syntax (URI)

POST <base_uri>/v9/storage/file-devices/upgrade-to-cluster

Parameters

Parameter	Type	Required	Data Type	Description
clusterName	body	Y	string	Name for the cluster to create or join
quorumIpAddress	body	Y	string	IPv4 address of quorum device

Return Codes

Code	Data	Description
204	No Data	Operation successfully completed
400	Error message	Bad Request
401	No Data	Unauthorized
403	Error message	Forbidden - the client does not have the required permissions to perform the operation
500	Error message	Internal Server Error

Any HTTP status code other than 204 indicates that the API did not complete successfully.

Sample request:

```
curl -k -H "X-API-Key:sample-api-key" -X POST  
"https://10.20.30.40:8444/v9/storage/file-devices/upgrade-to-cluster" -d  
'{"clusterName": "Cluster1", "quorumIpAddress": "10.1.2.3"}'
```

Sample response:

HTTP/1.1 204 No Content

Delete A Cluster Node

A cluster is made up from multiple nodes, and a quorum device. If a node is no longer needed as part of a cluster, it can be deleted. Once deleted, the node will revert to a default configuration and will need to be reconfigured manually.

HTTP request syntax (URI)

DELETE <base_uri>/v9/storage/nodes/{nodeId}

Parameters

Parameter	Type	Required	Data Type	Description
nodeId	path	Y	string or integer	Either a node object ID or a cluster node ID

Return Codes

Code	Data	Description
204	No Data	Operation successfully completed

400	Error message	Bad Request
401	No Data	Unauthorized
403	Error message	Forbidden - the client does not have the required permissions to perform the operation
404	Error message	Not Found - a resource specified was not found
500	Error message	Internal Server Error

Any HTTP status code other than 204 indicates that the API did not complete successfully.

Sample request:

```
curl -k -H "X-Api-Key:sample-api-key" -X DELETE
"https://10.20.30.40:8444/v9/storage/nodes/1"
```

Sample response:

```
HTTP/1.1 204 No Content
```

Rename A Cluster Node

Change the name of a cluster node.

Changing the cluster node name will trigger creation of a new self-signed SSL/TLS certificate for the HTTPS management server. However, if the system has a custom certificate it will not be affected, but you may want to consider updating it to match the new domain name.

HTTP request syntax (URI)

```
PATCH <base_uri>/v9/storage/nodes/{nodeId}
```

Parameters

Parameter	Type	Required	Data Type	Description
nodeId	path	Y	string or integer	Either a node object ID or a cluster node ID
name	body	Y	string	Name to associate with the item

Return Codes

Code	Data	Description
204	No Data	Operation successfully completed
400	Error message	Bad Request
401	No Data	Unauthorized
403	Error message	Forbidden - the client does not have the required permissions to perform the operation
404	Error message	Not Found - a resource specified was not found
500	Error message	Internal Server Error

Any HTTP status code other than 204 indicates that the API did not complete successfully.

Sample request:

```
curl -k -H "X-API-Key:sample-api-key" -X PATCH  
"https://10.20.30.40:8444/v9/storage/nodes/1" -d '{"name": "Name2"}'
```

Sample response:

```
HTTP/1.1 204 No Content
```

Data Migration Resource

The data migration resource provides functions to allow the management of data migration to the cloud.

Data Migration Object Model

The object model describing this resource contains the following objects.

dataMigrationAccount - Data migration account

Attribute	JSON type	Data type	Description
accountId	string	string	ID of the account
description	string	string	A description associated with the item
inUse	boolean	boolean	True indicates that the account is in use by one or more data migration destinations
name	string	string	Name of the data migration account
objectId	string	string	Unique ID of the object
password	string	string	Password associated with the user name
serverName	string	string	Either the fully-qualified name of the cloud storage server, address of the namespace that hosts the data, an endpoint, or blank if not account does not require it
userName	string	string	User name used to authenticate with the data migration target
vendor	string	string	Vendor associated with the data migration account. Possible values are: - HCP - AMAZON_S3 - TEST - CLEVERSAFE - AZURE - HCP_S_SERIES - HCS - HCP_S3

dataMigrationDestination - Data migration destination

Attribute	JSON type	Data type	Description
accountId	string	string	ID of the account
accountName	string	string	Name of the data migration account
description	string	string	A description associated with the item

destinationId	string	string	ID of the destination
encryptInTransit	boolean	boolean	True indicates that the data will be encrypted in transit
inUse	boolean	boolean	True indicates that the destination is in use by one or more data migration paths
name	string	string	Name of the data migration destination
objectId	string	string	Unique ID of the object
pathAtDestination	string	string	Path on the cloud where the data will be archived

dataMigrationPath - Data migration path

Attribute	JSON type	Data type	Description
destination	array	dataMigrationSecondaryPath	List of data migration destination paths
externalControl	boolean	boolean	True indicates that the target is under external control
filesystemId	string	string	ID of the file system
filesystemLabel	string	string	Label of the file system
generateHash	boolean	boolean	True indicates that a hash value is generated for each file as it is migrated
isCloud	boolean	boolean	True indicates that the path identifies a cloud destination
isExternal	boolean	boolean	True indicates that the path is external to the system
isOffline	boolean	boolean	True indicates that the target is offline
objectId	string	string	Unique ID of the object
state	string	string	State of data migration path. Possible values are: - UNDEFINED - NO_MIGRATED_FILES - MIGRATED_FILES - MIGRATED_FILES_VIA_VOLUME_PATH - MIGRATION_IN_PROGRESS - TARGET_INVALID
targetIsRAIN	boolean	boolean	The target has Redundant Array of Independent Nodes (RAIN) behavior
targetIsWORM	boolean	boolean	The target has Write Once Read Many (WORM) behavior

useIgnoreFile	boolean	boolean	True indicates that an ignore file should be used if present on the external target
virtualServerId	integer	integer	ID of the virtual server. 0 = management virtual server 255 = not assigned to virtual server
virtualVolumeId	integer	integer	ID of the virtual volume
virtualVolumeName	string	string	Name of the virtual volume
virtualVolumeObjectId	string	string	Object ID of the virtual volume

dataMigrationPolicy - Data migration policy

Attribute	JSON type	Data type	Description
accountId	string	string	ID of the account
destinationId	string	string	ID of the destination
destinationName	string	string	Data migration destination name
name	string	string	Name of the data migration policy
objectId	string	string	Unique ID of the object
policyId	string	string	ID of the policy
rules	array	dataMigrationPolicyRule	Rules and corresponding threshold values that trigger the rules
sourceFileSystemId	string	string	File system ID of the source file system
sourceFileSystemLabel	string	string	Label of the source file system
virtualServerId	integer	integer	ID of the virtual server. 0 = management virtual server 255 = not assigned to virtual server

dataMigrationPolicyRule - Data migration policy rule

Attribute	JSON type	Data type	Description
name	string	string	Name of the data migration policy rule
objectId	string	string	Unique ID of the object
ruleId	string	string	ID of the rule
threshold	integer	integer	Specifies when the rule is applied

dataMigrationReport - Data migration report

Attribute	JSON type	Data type	Description
-----------	-----------	-----------	-------------

bytesTransferred	integer	integer	Number of transferred bytes
destinationId	string	string	ID of the destination
detailedLogNodeId	integer	integer	Cluster node ID of the node which contains the log file
detailedLogPath	string	string	Internal path of the detailed log file
endTime	integer	integer	End time of the operation in posix time format
failedFiles	integer	integer	The number of files which could not be migrated
filesTransferred	integer	integer	The number of files that were successfully migrated
log	string	string	Log file contents if logIncluded is true, otherwise blank
maxDurationTime	integer	integer	Maximum duration that the data migration was scheduled to run for. 0 indicates there is no maximum duration
originalVirtualServerId	integer	integer	ID of the virtual server when the replication was started. The file system may have been migrated to another virtual server since the replication completed
policyId	string	string	ID of the policy
policyName	string	string	Name of the policy
policyObjectId	string	string	Object ID of the policy
reportId	integer	integer	Data Migration report ID
returnCode	integer	integer	Error code returned if the data migration did not complete successfully. A value of 0 indicates success
ruleUsed	object	dataMigrationPolicyRule	object of type dataMigrationPolicyRule
runType	string	string	Type of data migration run. Possible values are: - INVALID - NORMAL - SIMULATION
scheduleId	integer	integer	ID of the schedule
scheduleObjectId	string	string	Object ID of the schedule
scheduleRunType	string	string	The type of schedule, and how it will run. Possible values are: - SIMULATION_ONLY - ONCE_ONLY - DAILY - WEEKLY

sourceAfter	integer	integer	Size of data on the source file system in bytes, after the data migration was run
sourceBefore	integer	integer	Size of data on the source file system in bytes, before the data migration was run
sourceFilesystemCapacity	integer	integer	Capacity of the source file system in bytes
sourceFilesystemId	string	string	File system ID of the source file system
sourceFilesystemLabel	string	string	Label of the source file system
sourceSnapshotAfter	integer	integer	Size of the source snapshot in bytes, after the data migration was run
sourceSnapshotBefore	integer	integer	Size of the source snapshot in bytes, before the data migration was run
startTime	integer	integer	Start time of the operation in posix time format
status	string	string	Status of the data migration run. Possible values are: - INVALID - STARTING - RUNNING - STOPPING - STOPPED - COMPLETED - FAILED - FAILED_TO_STOP
statusReason	string	string	Indicates the current status of the data migration. Possible values are: - NONE - STOPPED_BY_USER - MAX_DURATION_REACHED - VOLUME_UNMOUNTED - SERVER_RESET - FAILED_TO_START
targetAfter	integer	integer	Size of data on the target in bytes, after the data migration was run
targetBefore	integer	integer	Size of data on the target in bytes, before the data migration was run
virtualServerId	integer	integer	ID of the virtual server. 0 = management virtual server 255 = not assigned to virtual server

dataMigrationRule - Data migration rule

Attribute	JSON type	Data type	Description
-----------	-----------	-----------	-------------

description	string	string	A description associated with the item
inUseByPolicies	boolean	boolean	True indicates that the rule is in use by one or more data migration policies
isCaseSensitive	boolean	boolean	True indicates that the rule is case sensitive
name	string	string	Name of the data migration rule
objectId	string	string	Unique ID of the object
rule	string	string	The logic that makes up the rule. The syntax is described elsewhere
ruleId	string	string	ID of the rule

dataMigrationSchedule - Data migration schedule

Attribute	JSON type	Data type	Description
errorLogged	boolean	boolean	True indicates that some form of error occurred when the schedule executed
initialRunTime	integer	integer	Initial time that the data migration schedule will start - posix time format
isEnabled	boolean	boolean	True if enabled, false for disabled
maxDurationInSeconds	integer	integer	Maximum duration that a data migration should run for. 0 indicates there is no maximum duration
nextRunTime	integer	integer	Time of next run schedule in posix time format
objectId	string	string	Unique ID of the object
policyId	string	string	ID of the policy
policyObjectId	string	string	Object ID of the policy
runType	string	string	Type of data migration run. Possible values are: - SIMULATION_ONLY - ONCE_ONLY - DAILY - WEEKLY
scheduleId	integer	integer	ID of the schedule
virtualServerId	integer	integer	ID of the virtual server. 0 = management virtual server 255 = not assigned to virtual server

dataMigrationSecondaryPath - Data migration secondary path

Attribute	JSON type	Data type	Description
destinationId	string	string	ID of the destination
filesystemId	string	string	ID of the file system

filesystemLabel	string	string	Label of the file system
name	string	string	Assigned name
state	string	string	State of data migration secondary path
uri	string	string	URI of the newly created or updated object

Get Data Migration Accounts

Get data migration accounts.

HTTP request syntax (URI)

```
GET <base_uri>/v9/storage/data-migration/accounts
```

Return Codes

Code	Data	Description
200	dataMigrationAccounts	List of dataMigrationAccount objects successfully retrieved
500	Error message	Internal Server Error

Any HTTP status code other than 200 indicates that the API did not complete successfully.

Sample request:

```
curl -k -H "X-Api-Key:sample-api-key" -X GET
"https://10.20.30.40:8444/v9/storage/data-migration/accounts"
```

Sample response:

```
HTTP/1.1 200 OK
{
  "dataMigrationAccounts": [
    {
      "accountId": "bc526470-c2c9-11d4-9000-040402000106",
      "description": "This is the description",
      "inUse": false,
      "name": "Account1",
      "objectId": "333a3a3a3a3a3a303a3a3a4f49445f24232140255f56",
      "password": "pa$$word",
      "serverName": "abcdefg",
      "userName": "User1",
      "vendor": "HCP"
    }
  ]
}
```

Get Data Migration Account

Get data migration account.

HTTP request syntax (URI)

```
GET <base_uri>/v9/storage/data-migration/accounts/{dataMigrationAccountId}
```

Parameters

Parameter	Type	Required	Data Type	Description
dataMigrationAccountId	path	Y	string	Either the ID of the data migration account or the object ID of the data migration account

Return Codes

Code	Data	Description
200	dataMigrationAccount	dataMigrationAccount object successfully retrieved
400	Error message	Bad Request
404	Error message	Not Found - a resource specified was not found
500	Error message	Internal Server Error

Any HTTP status code other than 200 indicates that the API did not complete successfully.

Sample request:

```
curl -k -H "X-API-Key:sample-api-key" -X GET  
"https://10.20.30.40:8444/v9/storage/data-  
migration/accounts/32383732643333382d353564332d313164392d393030332d3062656637  
383762323633383a3a3a303a3a3a4f49445f24232140255f56"
```

Sample response:

```
HTTP/1.1 200 OK  
{  
  "dataMigrationAccount": {  
    "accountId": "bc526470-c2c9-11d4-9000-040402000106",  
    "description": "This is the description",  
    "inUse": false,  
    "name": "Account1",  
    "objectId": "333a3a3a3a3a3a303a3a3a4f49445f24232140255f56",  
    "password": "pa$$word",  
    "serverName": "abcdefg",  
    "userName": "User1",  
    "vendor": "HCP"  
  }  
}
```

Create A Data Migration Account

Create a data migration account.

HTTP request syntax (URI)

```
POST <base_uri>/v9/storage/data-migration/accounts
```

Parameters

Parameter	Type	Required	Data Type	Description
description	body	N	string	Description to associated with the item
name	body	Y	string	Name to associate with the item
password	body	Y	string	Password associated with the user name
serverName	body	N	string	The fully-qualified name of the cloud storage server if it necessary to be specified. For HCP and HCPS3 providers this should be the address of the namespace that will host data for this account. For S3 and IBMCloud providers this should be an endpoint. AmazonS3, Azure, Test accounts do not require this option to be set
userName	body	Y	string	User name
vendor	body	Y	string	Vendor associated with the data migration account. Possible values are: - HCP - AMAZON_S3 - TEST - CLEVERSAFE - AZURE - HCP_S_SERIES - HCS - HCP_S3

Return Codes

Code	Data	Description
201	dataMigrationAccount	Successfully created new item
400	Error message	Bad Request
401	No Data	Unauthorized
403	Error message	Forbidden - the client does not have the required permissions to perform the operation
500	Error message	Internal Server Error

Any HTTP status code other than 201 indicates that the API did not complete successfully.

Sample request:


```
curl -k -H "X-Api-Key:sample-api-key" -X POST
"https://10.20.30.40:8444/v9/storage/data-migration/accounts" -d
'{"description": "This is the description", "name": "Name2", "password":
"pa$$word", "serverName": "abcdefg", "userName": "User1", "vendor": "HCP"}'
```

Sample response:

```
HTTP/1.1 201 Created
{
  "dataMigrationAccount": {
    "accountId": "bc526470-c2c9-11d4-9000-040402000106",
    "description": "This is the description",
    "inUse": false,
    "name": "Account1",
    "objectId": "333a3a3a3a3a3a303a3a3a4f49445f24232140255f56",
    "password": "pa$$word",
    "serverName": "abcdefg",
    "userName": "User1",
    "vendor": "HCP"
  },
  "uri": "https://10.20.30.40:8444/v9/storage/data-
migration/accounts/333a3a3a3a3a3a303a3a3a4f49445f24232140255f56"
}
```

Update A Data Migration Account

Update a data migration account.

HTTP request syntax (URI)

```
PATCH <base_uri>/v9/storage/data-migration/accounts/{dataMigrationAccountId}
```

Parameters

Parameter	Type	Required	Data Type	Description
dataMigrationAccountId	path	Y	string	Either the ID of the data migration account or the object ID of the data migration account
description	body	N	string	Description to associated with the item
name	body	N	string	Name to associate with the item
password	body	N	string	Password associated with the user name
serverName	body	N	string	The fully-qualified name of the cloud storage server if it necessary to be specified. For HCP and HCPS3 providers this should be the address of the namespace that will host data for this account. For S3 and IBMCloud providers this should be an

				endpoint. AmazonS3, Azure, Test accounts do not require this option to be set
userName	body	N	string	User name
vendor	body	N	string	Vendor associated with the data migration account. Possible values are: - HCP - AMAZON_S3 - TEST - CLEVERSAFE - AZURE - HCP_S_SERIES - HCS - HCP_S3

Return Codes

Code	Data	Description
204	No Data	Operation successfully completed
400	Error message	Bad Request
401	No Data	Unauthorized
403	Error message	Forbidden - the client does not have the required permissions to perform the operation
404	Error message	Not Found - a resource specified was not found
500	Error message	Internal Server Error

Any HTTP status code other than 204 indicates that the API did not complete successfully.

Sample request:

```
curl -k -H "X-API-Key:sample-api-key" -X PATCH
"https://10.20.30.40:8444/v9/storage/data-
migration/accounts/32383732643333382d353564332d313164392d393030332d3062656637
383762323633383a3a3a303a3a3a4f49445f24232140255f56" -d '{"description": "This
is the description", "name": "Name2", "password": "pa$$word", "serverName":
"abcdefg", "userName": "User1", "vendor": "HCP"}'
```

Sample response:

```
HTTP/1.1 204 No Content
```

Delete Data Migration Account

Delete data migration account.

HTTP request syntax (URI)

```
DELETE <base_uri>/v9/storage/data-migration/accounts/{dataMigrationAccountId}
```

Parameters

Parameter	Type	Required	Data Type	Description
dataMigrationAccountId	path	Y	string	Either the ID of the data migration account or the object ID of the data migration account

Return Codes

Code	Data	Description
204	No Data	Operation successfully completed
400	Error message	Bad Request
401	No Data	Unauthorized
403	Error message	Forbidden - the client does not have the required permissions to perform the operation
404	Error message	Not Found - a resource specified was not found
500	Error message	Internal Server Error

Any HTTP status code other than 204 indicates that the API did not complete successfully.

Sample request:

```
curl -k -H "X-API-Key:sample-api-key" -X DELETE
"https://10.20.30.40:8444/v9/storage/data-
migration/accounts/32383732643333382d353564332d313164392d393030332d3062656637
383762323633383a3a3a303a3a3a4f49445f24232140255f56"
```

Sample response:

```
HTTP/1.1 204 No Content
```

Get Data Migration Destinations

Get data migration destinations.

HTTP request syntax (URI)

```
GET <base_uri>/v9/storage/data-migration/destinations
```

Return Codes

Code	Data	Description
200	dataMigrationDestinations	List of dataMigrationDestination objects successfully retrieved
500	Error message	Internal Server Error

Any HTTP status code other than 200 indicates that the API did not complete successfully.

Sample request:

```
curl -k -H "X-API-Key:sample-api-key" -X GET
"https://10.20.30.40:8444/v9/storage/data-migration/destinations"
```

Sample response:

```
HTTP/1.1 200 OK
{
  "dataMigrationDestinations": [
    {
      "accountId": "bc526470-c2c9-11d4-9000-040402000106",
      "accountName": "account1",
      "description": "This is the description",
      "destinationId": "bc526470-c2c9-11d4-9000-040402000106",
      "encryptInTransit": false,
      "inUse": false,
      "name": "Destination1",
      "objectId": "333a3a3a3a3a303a3a3a4f49445f24232140255f56",
      "pathAtDestination": "abcdefg"
    }
  ]
}
```

Get Data Migration Destination

Get data migration destination.

HTTP request syntax (URI)

```
GET <base_uri>/v9/storage/data-
migration/destinations/{dataMigrationDestinationId}
```

Parameters

Parameter	Type	Required	Data Type	Description
dataMigrationDestinationId	path	Y	string	Either the ID of the data migration destination or the object ID of the data migration destination

Return Codes

Code	Data	Description
200	dataMigrationDestination	dataMigrationDestination object successfully retrieved
400	Error message	Bad Request
404	Error message	Not Found - a resource specified was not found
500	Error message	Internal Server Error

Any HTTP status code other than 200 indicates that the API did not complete successfully.

Sample request:

```
curl -k -H "X-API-Key:sample-api-key" -X GET
"https://10.20.30.40:8444/v9/storage/data-
migration/destinations/32383732643333382d353564332d313164392d393030332d306265
6637383762323633383a3a3a303a3a3a4f49445f24232140255f56"
```

Sample response:

```
HTTP/1.1 200 OK
{
  "dataMigrationDestination": {
    "accountId": "bc526470-c2c9-11d4-9000-040402000106",
    "accountName": "account1",
    "description": "This is the description",
    "destinationId": "bc526470-c2c9-11d4-9000-040402000106",
    "encryptInTransit": false,
    "inUse": false,
    "name": "Destination1",
    "objectId": "333a3a3a3a3a303a3a3a4f49445f24232140255f56",
    "pathAtDestination": "abcdefg"
  }
}
```

Create A Data Migration Destination

Create a data migration destination.

HTTP request syntax (URI)

```
POST <base_uri>/v9/storage/data-migration/destinations
```

Parameters

Parameter	Type	Required	Data Type	Description
accountId	body	Y	string	ID of the account
description	body	N	string	Description to associated with the item
encryptInTransit	body	N	boolean	True indicates that the data will be encrypted in transit
name	body	Y	string	Name to associate with the item
pathAtDestination	body	Y	string	Path on the cloud where the data will be archived. For Amazon S3 this should be of the form bucket/subfolder where bucket should pre-exist on the target and subfolder is optional. For HCP, HCPS3 and Test providers it is a subfolder that should pre-exist on the target. For Azure provider it is a container that should pre-exist on the target

Return Codes

Code	Data	Description
201	dataMigrationDestination	Successfully created new item
400	Error message	Bad Request
401	No Data	Unauthorized
403	Error message	Forbidden - the client does not have the required permissions to perform the operation
500	Error message	Internal Server Error

Any HTTP status code other than 201 indicates that the API did not complete successfully.

Sample request:

```
curl -k -H "X-API-Key:sample-api-key" -X POST
"https://10.20.30.40:8444/v9/storage/data-migration/destinations" -d
'{"accountId": "bc526470-c2c9-11d4-9000-040402000106", "description": "This
is the description", "encryptInTransit": false, "name": "Name2",
"pathAtDestination": "abcdefg"}'
```

Sample response:

```
HTTP/1.1 201 Created
{
  "dataMigrationDestination": {
    "accountId": "bc526470-c2c9-11d4-9000-040402000106",
    "accountName": "account1",
    "description": "This is the description",
    "destinationId": "bc526470-c2c9-11d4-9000-040402000106",
    "encryptInTransit": false,
    "inUse": false,
    "name": "Destination1",
    "objectId": "333a3a3a3a3a3a303a3a3a4f49445f24232140255f56",
    "pathAtDestination": "abcdefg"
  },
  "uri": "https://10.20.30.40:8444/v9/storage/data-
migration/destinations/333a3a3a3a3a3a303a3a3a4f49445f24232140255f56"
}
```

Update A Data Migration Destination

Update a data migration destination.

HTTP request syntax (URI)

```
PATCH <base_uri>/v9/storage/data-
migration/destinations/{dataMigrationDestinationId}
```

Parameters

Parameter	Type	Required	Data Type	Description
-----------	------	----------	-----------	-------------

dataMigrationDestinationId	path	Y	string	Either the ID of the data migration destination or the object ID of the data migration destination
accountId	body	N	string	ID of the account
description	body	N	string	Description to associated with the item
encryptInTransit	body	N	boolean	True indicates that the data will be encrypted in transit
name	body	N	string	Name to associate with the item
pathAtDestination	body	N	string	Path on the cloud where the data will be archived. For Amazon S3 this should be of the form bucket/subfolder where bucket should pre-exist on the target and subfolder is optional. For HCP, HCPS3 and Test providers it is a subfolder that should pre-exist on the target. For Azure provider it is a container that should pre-exist on the target

Return Codes

Code	Data	Description
204	No Data	Operation successfully completed
400	Error message	Bad Request
401	No Data	Unauthorized
403	Error message	Forbidden - the client does not have the required permissions to perform the operation
404	Error message	Not Found - a resource specified was not found
500	Error message	Internal Server Error

Any HTTP status code other than 204 indicates that the API did not complete successfully.

Sample request:

```
curl -k -H "X-API-Key:sample-api-key" -X PATCH
"https://10.20.30.40:8444/v9/storage/data-
migration/destinations/32383732643333382d353564332d313164392d393030332d306265
6637383762323633383a3a3a303a3a3a4f49445f24232140255f56" -d '{"accountId":
"bc526470-c2c9-11d4-9000-040402000106", "description": "This is the
description", "encryptInTransit": false, "name": "Name2",
"pathAtDestination": "abcdefg"}'
```

Sample response:

```
HTTP/1.1 204 No Content
```

Delete Data Migration Destination

Delete data migration destination.

HTTP request syntax (URI)

```
DELETE <base_uri>/v9/storage/data-migration/destinations/{dataMigrationDestinationId}
```

Parameters

Parameter	Type	Required	Data Type	Description
dataMigrationDestinationId	path	Y	string	Either the ID of the data migration destination or the object ID of the data migration destination

Return Codes

Code	Data	Description
204	No Data	Operation successfully completed
400	Error message	Bad Request
401	No Data	Unauthorized
403	Error message	Forbidden - the client does not have the required permissions to perform the operation
404	Error message	Not Found - a resource specified was not found
500	Error message	Internal Server Error

Any HTTP status code other than 204 indicates that the API did not complete successfully.

Sample request:

```
curl -k -H "X-API-Key:sample-api-key" -X DELETE "https://10.20.30.40:8444/v9/storage/data-migration/destinations/32383732643333382d353564332d313164392d393030332d3062656637383762323633383a3a3a303a3a3a4f49445f24232140255f56"
```

Sample response:

```
HTTP/1.1 204 No Content
```

Get Data Migration Paths

Get data migration paths.

HTTP request syntax (URI)

```
GET <base_uri>/v9/storage/data-migration/paths
```

Return Codes

Code	Data	Description
200	dataMigrationPaths	List of dataMigrationPath objects successfully retrieved
500	Error message	Internal Server Error

Any HTTP status code other than 200 indicates that the API did not complete successfully.

Sample request:

```
curl -k -H "X-Api-Key:sample-api-key" -X GET  
"https://10.20.30.40:8444/v9/storage/data-migration/paths"
```

Sample response:

```
HTTP/1.1 200 OK  
{  
  "dataMigrationPaths": [  
    {  
      "destination": [  
        {  
          "destinationId": "bc526470-c2c9-11d4-9000-040402000106",  
          "filesystemId": "7B263DFD1D71E65A0000000000000000",  
          "filesystemLabel": "Filesystem1",  
          "name": "Name2",  
          "state": "abcdefg",  
          "uri": "abcdefg"  
        }  
      ],  
      "externalControl": false,  
      "filesystemId": "7B263DFD1D71E65A0000000000000000",  
      "filesystemLabel": "Filesystem1",  
      "generateHash": false,  
      "isCloud": false,  
      "isExternal": false,  
      "isOffline": false,  
      "objectId": "333a3a3a3a3a3a303a3a3a4f49445f24232140255f56",  
      "state": "UNDEFINED",  
      "targetIsRAIN": false,  
      "targetIsWORM": false,  
      "useIgnoreFile": false,  
      "virtualServerId": 1,  
      "virtualVolumeId": "646464",  
      "virtualVolumeName": "vv1",  
      "virtualVolumeObjectId":  
      "313a3a3a3037354541443946454641423445423930303030303030303030303030303030303030303030303a3a  
3a323a3a3a303a3a3a4f49445f24232140255f56"  
    }  
  ]  
}
```

Get Data Migration Path

Get data migration path.

HTTP request syntax (URI)

```
GET <base_uri>/v9/storage/data-migration/paths/{dataMigrationPathObjectId}
```

Parameters

Parameter	Type	Required	Data Type	Description
dataMigrationPathObjectId	path	Y	string	Object ID of the data migration path

Return Codes

Code	Data	Description
200	dataMigrationPath	dataMigrationPath object successfully retrieved
400	Error message	Bad Request
404	Error message	Not Found - a resource specified was not found
500	Error message	Internal Server Error

Any HTTP status code other than 200 indicates that the API did not complete successfully.

Sample request:

```
curl -k -H "X-API-Key:sample-api-key" -X GET  
"https://10.20.30.40:8444/v9/storage/data-  
migration/paths/323a3a3a303a3a3a339314346313035423644463836324334303030303030  
30303030303030303030303a3a3a313a3a3a4f49445f24232140255f56"
```

Sample response:

```
HTTP/1.1 200 OK  
{  
  "dataMigrationPath": {  
    "destination": [  
      {  
        "destinationId": "bc526470-c2c9-11d4-9000-040402000106",  
        "filesystemId": "7B263DFD1D71E65A0000000000000000",  
        "filesystemLabel": "Filesystem1",  
        "name": "Name2",  
        "state": "abcdefg",  
        "uri": "abcdefg"  
      }  
    ],  
    "externalControl": false,  
    "filesystemId": "7B263DFD1D71E65A0000000000000000",  
    "filesystemLabel": "Filesystem1",  
    "generateHash": false,  
    "isCloud": false,  
    "isExternal": false,  
    "isOffline": false,  
    "objectId": "333a3a3a3a3a3a303a3a3a4f49445f24232140255f56",  
    "state": "UNDEFINED",  
  }  
}
```



```
curl -k -H "X-API-Key:sample-api-key" -X POST
"https://10.20.30.40:8444/v9/storage/data-migration/paths/external" -d
'{"dataMigrationDestinationId":
"32383732643333382d353564332d313164392d3930303332d3062656637383762323633383a3a
3a303a3a3a4f49445f24232140255f56", "isCloud": false, "name": "Name2",
"sourceFilesystemId": "7B263DFFFD71E65A0000000000000000", "target":
"abcdefg", "virtualVolumeObjectId":
"313a3a3a3037354541443946454641423445423930303030303030303030303030303030303a3a
3a323a3a3a303a3a3a4f49445f24232140255f56"}'
```

Sample response:

```
HTTP/1.1 201 Created
{
  "dataMigrationPath": {
    "destination": [
      {
        "destinationId": "bc526470-c2c9-11d4-9000-040402000106",
        "filesystemId": "7B263DFD1D71E65A0000000000000000",
        "filesystemLabel": "Filesystem1",
        "name": "Name2",
        "state": "abcdefg",
        "uri": "abcdefg"
      }
    ],
    "externalControl": false,
    "filesystemId": "7B263DFD1D71E65A0000000000000000",
    "filesystemLabel": "Filesystem1",
    "generateHash": false,
    "isCloud": false,
    "isExternal": false,
    "isOffline": false,
    "objectId": "333a3a3a3a3a3a303a3a3a4f49445f24232140255f56",
    "state": "UNDEFINED",
    "targetIsRAIN": false,
    "targetIsWORM": false,
    "useIgnoreFile": false,
    "virtualServerId": 1,
    "virtualVolumeId": "646464",
    "virtualVolumeName": "vv1",
    "virtualVolumeObjectId":
"313a3a3a3037354541443946454641423445423930303030303030303030303030303030303a3a
3a323a3a3a303a3a3a4f49445f24232140255f56"
  },
  "uri": "https://10.20.30.40:8444/v9/storage/data-
migration/paths/333a3a3a3a3a3a303a3a3a4f49445f24232140255f56"
}
```

Create An Internal Data Migration Path

Create an internal data migration path.

HTTP request syntax (URI)

POST <base_uri>/v9/storage/data-migration/paths/internal

Parameters

Parameter	Type	Required	Data Type	Description
sourceFileSystemId	body	N	string	File system ID of the source file system
targetFileSystemId	body	Y	string	File system ID of the target file system
virtualVolumeObjectId	body	N	string	Object ID of the virtual volume

Return Codes

Code	Data	Description
201	dataMigrationPath	Successfully created new item
400	Error message	Bad Request
401	No Data	Unauthorized
403	Error message	Forbidden - the client does not have the required permissions to perform the operation
500	Error message	Internal Server Error

Any HTTP status code other than 201 indicates that the API did not complete successfully.

Sample request:

```
curl -k -H "X-API-Key:sample-api-key" -X POST
"https://10.20.30.40:8444/v9/storage/data-migration/paths/internal" -d
'{"sourceFileSystemId": "7B263DFFFD71E65A0000000000000000",
"targetFileSystemId": "7B263DFD1D71E88A0000000000000000",
"virtualVolumeObjectId":
"313a3a3a30373545414439464546414234454239303030303030303030303030303030303030303030303a3a
3a323a3a3a303a3a3a4f49445f24232140255f56"}'
```

Sample response:

```
HTTP/1.1 201 Created
{
  "dataMigrationPath": {
    "destination": [
      {
        "destinationId": "bc526470-c2c9-11d4-9000-040402000106",
        "filesystemId": "7B263DFD1D71E65A0000000000000000",
        "filesystemLabel": "Filesystem1",
        "name": "Name2",
        "state": "abcdefg",
        "uri": "abcdefg"
      }
    ],
    "externalControl": false,
    "filesystemId": "7B263DFD1D71E65A0000000000000000",
    "filesystemLabel": "Filesystem1",
    "generateHash": false,
    "isCloud": false,
```

```

    "isExternal": false,
    "isOffline": false,
    "objectId": "333a3a3a3a3a3a3a303a3a3a4f49445f24232140255f56",
    "state": "UNDEFINED",
    "targetIsRAIN": false,
    "targetIsWORM": false,
    "useIgnoreFile": false,
    "virtualServerId": 1,
    "virtualVolumeId": "646464",
    "virtualVolumeName": "vv1",
    "virtualVolumeObjectId":
    "313a3a3a30373545414439464546414234454239303030303030303030303030303030303030303030303a3a
    3a323a3a3a303a3a3a4f49445f24232140255f56"
  },
  "uri": "https://10.20.30.40:8444/v9/storage/data-
  migration/paths/333a3a3a3a3a3a3a303a3a3a4f49445f24232140255f56"
}

```

Delete Data Migration Path

Delete data migration path.

HTTP request syntax (URI)

```
DELETE <base_uri>/v9/storage/data-migration/paths/{dataMigrationPathObjectId}
```

Parameters

Parameter	Type	Required	Data Type	Description
dataMigrationPathObjectId	path	Y	string	Object ID of the data migration path

Return Codes

Code	Data	Description
204	No Data	Operation successfully completed
400	Error message	Bad Request
401	No Data	Unauthorized
403	Error message	Forbidden - the client does not have the required permissions to perform the operation
404	Error message	Not Found - a resource specified was not found
500	Error message	Internal Server Error

Any HTTP status code other than 204 indicates that the API did not complete successfully.

Sample request:

```

curl -k -H "X-API-Key:sample-api-key" -X DELETE
"https://10.20.30.40:8444/v9/storage/data-

```

```
migration/paths/323a3a3a303a3a3a339314346313035423644463836324334303030303030  
30303030303030303030303a3a3a313a3a3a4f49445f24232140255f56"
```

Sample response:

HTTP/1.1 204 No Content

Get Data Migration Policies

Get data migration policies.

HTTP request syntax (URI)

```
GET <base_uri>/v9/storage/data-migration/policies
```

Return Codes

Code	Data	Description
200	dataMigrationPolicies	List of dataMigrationPolicy objects successfully retrieved
500	Error message	Internal Server Error

Any HTTP status code other than 200 indicates that the API did not complete successfully.

Sample request:

```
curl -k -H "X-API-Key:sample-api-key" -X GET  
"https://10.20.30.40:8444/v9/storage/data-migration/policies"
```

Sample response:

HTTP/1.1 200 OK

```
{  
  "dataMigrationPolicies": [  
    {  
      "accountId": "bc526470-c2c9-11d4-9000-040402000106",  
      "destinationId": "bc526470-c2c9-11d4-9000-040402000106",  
      "destinationName": "Destination1",  
      "name": "Policy1",  
      "objectId": "333a3a3a3a3a3a303a3a3a4f49445f24232140255f56",  
      "policyId": "296f15f2-af39-11d9-98a9-0bef787b2638",  
      "rules": [  
        {  
          "name": "Rule1",  
          "objectId": "333a3a3a3a3a3a303a3a3a4f49445f24232140255f56",  
          "ruleId": "20020ecc-623e-11d9-9003-0bef787b2638",  
          "threshold": 12345  
        }  
      ],  
      "sourceFilesystemId": "7B263DFFFD71E65A0000000000000000",  
      "sourceFilesystemLabel": "Filesystem2",  
      "virtualServerId": 1  
    }  
  ]  
}
```

```
]
}
```

Get Data Migration Policies For A Virtual Server

Get data migration policies for a virtual server.

HTTP request syntax (URI)

```
GET <base_uri>/v9/storage/virtual-servers/{virtualServerId}/data-
migration/policies
```

Parameters

Parameter	Type	Required	Data Type	Description
virtualServerId	path	Y	string or integer	Either the virtual server ID or the object ID of the virtual server

Return Codes

Code	Data	Description
200	dataMigrationPolicies	List of dataMigrationPolicy objects successfully retrieved
400	Error message	Bad Request
404	Error message	Not Found - a resource specified was not found
500	Error message	Internal Server Error

Any HTTP status code other than 200 indicates that the API did not complete successfully.

Sample request:

```
curl -k -H "X-Api-Key:sample-api-key" -X GET
"https://10.20.30.40:8444/v9/storage/virtual-servers/1/data-
migration/policies"
```

Sample response:

```
HTTP/1.1 200 OK
{
  "dataMigrationPolicies": [
    {
      "accountId": "bc526470-c2c9-11d4-9000-040402000106",
      "destinationId": "bc526470-c2c9-11d4-9000-040402000106",
      "destinationName": "Destination1",
      "name": "Policy1",
      "objectId": "333a3a3a3a3a3a3a303a3a3a4f49445f24232140255f56",
      "policyId": "296f15f2-af39-11d9-98a9-0bef787b2638",
      "rules": [
        {
          "name": "Rule1",
          "objectId": "333a3a3a3a3a3a3a303a3a3a4f49445f24232140255f56",
          "ruleId": "20020ecc-623e-11d9-9003-0bef787b2638",
```



```

        "threshold": 12345
      }
    ],
    "sourceFilesystemId": "7B263DFFFD71E65A0000000000000000",
    "sourceFilesystemLabel": "Filesystem2",
    "virtualServerId": 1
  }
]
}

```

Get Data Migration Policy

Get data migration policy.

HTTP request syntax (URI)

```
GET <base_uri>/v9/storage/data-
migration/policies/{dataMigrationPolicyObjectId}
```

Parameters

Parameter	Type	Required	Data Type	Description
dataMigrationPolicyObjectId	path	Y	string	Object ID of the data migration policy

Return Codes

Code	Data	Description
200	dataMigrationPolicy	dataMigrationPolicy object successfully retrieved
400	Error message	Bad Request
404	Error message	Not Found - a resource specified was not found
500	Error message	Internal Server Error

Any HTTP status code other than 200 indicates that the API did not complete successfully.

Sample request:

```
curl -k -H "X-API-Key:sample-api-key" -X GET
"https://10.20.30.40:8444/v9/storage/data-
migration/policies/323a3a3a393143463130354236444638363243343030303030303030
303030303030303a3a3a303a3a3a4f49445f24232140255f56"
```

Sample response:

```
HTTP/1.1 200 OK
{
  "dataMigrationPolicy": {
    "accountId": "bc526470-c2c9-11d4-9000-040402000106",
    "destinationId": "bc526470-c2c9-11d4-9000-040402000106",
    "destinationName": "Destination1",
    "name": "Policy1",
    "objectId": "333a3a3a3a3a3a303a3a3a4f49445f24232140255f56",

```

```

"policyId": "296f15f2-af39-11d9-98a9-0bef787b2638",
"rules": [
  {
    "name": "Rule1",
    "objectId": "333a3a3a3a3a3a303a3a3a4f49445f24232140255f56",
    "ruleId": "20020ecc-623e-11d9-9003-0bef787b2638",
    "threshold": 12345
  }
],
"sourceFilesystemId": "7B263DFFFD71E65A0000000000000000",
"sourceFilesystemLabel": "Filesystem2",
"virtualServerId": 1
}
}

```

Create A Data Migration Policy

Create a data migration policy.

HTTP request syntax (URI)

POST <base_uri>/v9/storage/data-migration/policies

Parameters

Parameter	Type	Required	Data Type	Description
dataMigrationDestinationId	body	Y	string	Either the ID of the data migration destination or the object ID of the data migration destination
name	body	Y	string	Name to associate with the item
rules	body	Y	array	Rules and corresponding threshold values that trigger the rules
sourceFilesystemId	body	Y	string	File system ID of the source file system

Return Codes

Code	Data	Description
201	dataMigrationPolicy	Successfully created new item
400	Error message	Bad Request
401	No Data	Unauthorized
403	Error message	Forbidden - the client does not have the required permissions to perform the operation
500	Error message	Internal Server Error

Any HTTP status code other than 201 indicates that the API did not complete successfully.

Sample request:

```
curl -k -H "X-API-Key:sample-api-key" -X POST
"https://10.20.30.40:8444/v9/storage/data-migration/policies" -d
'{"dataMigrationDestinationId":
"32383732643333382d353564332d313164392d393030332d3062656637383762323633383a3a
3a303a3a3a4f49445f24232140255f56", "name": "Name2", "rules": [ {"rule":
"Rule1", "threshold": 12345} ], "sourceFilesystemId":
"7B263DFFFD71E65A0000000000000000"}'
```

Sample response:

```
HTTP/1.1 201 Created
{
  "dataMigrationPolicy": {
    "accountId": "bc526470-c2c9-11d4-9000-040402000106",
    "destinationId": "bc526470-c2c9-11d4-9000-040402000106",
    "destinationName": "Destination1",
    "name": "Policy1",
    "objectId": "333a3a3a3a3a303a3a3a4f49445f24232140255f56",
    "policyId": "296f15f2-af39-11d9-98a9-0bef787b2638",
    "rules": [
      {
        "name": "Rule1",
        "objectId": "333a3a3a3a3a303a3a3a4f49445f24232140255f56",
        "ruleId": "20020ecc-623e-11d9-9003-0bef787b2638",
        "threshold": 12345
      }
    ],
    "sourceFilesystemId": "7B263DFFFD71E65A0000000000000000",
    "sourceFilesystemLabel": "Filesystem2",
    "virtualServerId": 1
  },
  "uri": "https://10.20.30.40:8444/v9/storage/data-
migration/policies/333a3a3a3a3a303a3a3a4f49445f24232140255f56"
}
```

Update A Data Migration Policy

Update a data migration policy.

HTTP request syntax (URI)

```
PATCH <base_uri>/v9/storage/data-
migration/policies/{dataMigrationPolicyObjectId}
```

Parameters

Parameter	Type	Required	Data Type	Description
dataMigrationPolicyObjectId	path	Y	string	Object ID of the data migration policy
dataMigrationDestinationId	body	N	string	Either the ID of the data migration destination or the

				object ID of the data migration destination
force	body	N	boolean	Whether to force the operation, should it fail
name	body	N	string	Name to associate with the item
rules	body	N	array	Rules and corresponding threshold values that trigger the rules
sourceFileSystemId	body	N	string	File system ID of the source file system

Return Codes

Code	Data	Description
204	No Data	Operation successfully completed
400	Error message	Bad Request
401	No Data	Unauthorized
403	Error message	Forbidden - the client does not have the required permissions to perform the operation
404	Error message	Not Found - a resource specified was not found
500	Error message	Internal Server Error

Any HTTP status code other than 204 indicates that the API did not complete successfully.

Sample request:

```
curl -k -H "X-Api-Key:sample-api-key" -X PATCH
"https://10.20.30.40:8444/v9/storage/data-
migration/policies/323a3a3a39314346313035423644463836324334303030303030303030
303030303030303a3a3a303a3a3a4f49445f24232140255f56" -d
'{"dataMigrationDestinationId":
"32383732643333382d353564332d313164392d393030332d3062656637383762323633383a3a
3a303a3a3a4f49445f24232140255f56", "force": false, "name": "Name2", "rules":
[ {"rule": "Rule1", "threshold": 12345} ], "sourceFileSystemId":
"7B263DFFFD71E65A000000000000000000"}'
```

Sample response:

```
HTTP/1.1 204 No Content
```

Delete Data Migration Policy

Delete data migration policy.

HTTP request syntax (URI)

```
DELETE <base_uri>/v9/storage/data-
migration/policies/{dataMigrationPolicyObjectId}
```

Parameters

Parameter	Type	Required	Data Type	Description
dataMigrationPolicyObjectId	path	Y	string	Object ID of the data migration policy
force	query	N	boolean	Whether to force the operation, should it fail
preserveHistory	query	N	boolean	Preserve the logs of the replication policy

Return Codes

Code	Data	Description
204	No Data	Operation successfully completed
400	Error message	Bad Request
401	No Data	Unauthorized
403	Error message	Forbidden - the client does not have the required permissions to perform the operation
404	Error message	Not Found - a resource specified was not found
500	Error message	Internal Server Error

Any HTTP status code other than 204 indicates that the API did not complete successfully.

Sample request:

```
curl -k -H "X-API-Key:sample-api-key" -X DELETE
"https://10.20.30.40:8444/v9/storage/data-
migration/policies/323a3a3a39314346313035423644463836324334303030303030303030
303030303030303a3a3a303a3a3a4f49445f24232140255f56?force=false&preserveHistor
y=false"
```

Sample response:

```
HTTP/1.1 204 No Content
```

Get Data Migration Rules

Get data migration rules.

HTTP request syntax (URI)

```
GET <base_uri>/v9/storage/data-migration/rules
```

Return Codes

Code	Data	Description
200	dataMigrationRules	List of dataMigrationRule objects successfully retrieved

500	Error message	Internal Server Error
-----	---------------	-----------------------

Any HTTP status code other than 200 indicates that the API did not complete successfully.

Sample request:

```
curl -k -H "X-Api-Key:sample-api-key" -X GET
"https://10.20.30.40:8444/v9/storage/data-migration/rules"
```

Sample response:

```
HTTP/1.1 200 OK
{
  "dataMigrationRules": [
    {
      "description": "MP3 rule",
      "inUseByPolicies": false,
      "isCaseSensitive": false,
      "name": "Rule1",
      "objectId": "333a3a3a3a3a3a3a303a3a3a4f49445f24232140255f56",
      "rule": "INCLUDE (<FILENAME *.mp3>)",
      "ruleId": "20020ecc-623e-11d9-9003-0bef787b2638"
    }
  ]
}
```

Get Data Migration Rule

Get data migration rule.

HTTP request syntax (URI)

```
GET <base_uri>/v9/storage/data-migration/rules/{dataMigrationRuleId}
```

Parameters

Parameter	Type	Required	Data Type	Description
dataMigrationRuleId	path	Y	string	Either the ID of the data migration rule or the object ID of the data migration rule

Return Codes

Code	Data	Description
200	dataMigrationRule	dataMigrationRule object successfully retrieved
400	Error message	Bad Request
404	Error message	Not Found - a resource specified was not found
500	Error message	Internal Server Error

Any HTTP status code other than 200 indicates that the API did not complete successfully.

Sample request:

```
curl -k -H "X-API-Key:sample-api-key" -X GET
"https://10.20.30.40:8444/v9/storage/data-
migration/rules/32303032306563632d363233652d313164392d393030332d3062656637383
762323633383a3a3a303a3a3a4f49445f24232140255f56"
```

Sample response:

```
HTTP/1.1 200 OK
{
  "dataMigrationRule": {
    "description": "MP3 rule",
    "inUseByPolicies": false,
    "isCaseSensitive": false,
    "name": "Rule1",
    "objectId": "333a3a3a3a3a3a303a3a3a4f49445f24232140255f56",
    "rule": "INCLUDE (<FILENAME *.mp3>)",
    "ruleId": "20020ecc-623e-11d9-9003-0bef787b2638"
  }
}
```

Create A Data Migration Rule

Create a data migration rule.

HTTP request syntax (URI)

```
POST <base_uri>/v9/storage/data-migration/rules
```

Parameters

Parameter	Type	Required	Data Type	Description
description	body	N	string	Description to associated with the item
isCaseSensitive	body	N	boolean	True indicates that the rule is case sensitive
name	body	Y	string	Name to associate with the item
rule	body	Y	string	The logic that makes up the rule. The syntax is described elsewhere

Return Codes

Code	Data	Description
201	dataMigrationRule	Successfully created new item
400	Error message	Bad Request
401	No Data	Unauthorized
403	Error message	Forbidden - the client does not have the required permissions to perform the operation
500	Error message	Internal Server Error

Any HTTP status code other than 201 indicates that the API did not complete successfully.

Sample request:

```
curl -k -H "X-Api-Key:sample-api-key" -X POST
"https://10.20.30.40:8444/v9/storage/data-migration/rules" -d
'{"description": "This is the description", "isCaseSensitive": false, "name":
"Name2", "rule": "INCLUDE (<FILENAME *.mp3>)"}'
```

Sample response:

```
HTTP/1.1 201 Created
{
  "dataMigrationRule": {
    "description": "MP3 rule",
    "inUseByPolicies": false,
    "isCaseSensitive": false,
    "name": "Rule1",
    "objectId": "333a3a3a3a3a3a303a3a3a4f49445f24232140255f56",
    "rule": "INCLUDE (<FILENAME *.mp3>)",
    "ruleId": "20020ecc-623e-11d9-9003-0bef787b2638"
  },
  "uri": "https://10.20.30.40:8444/v9/storage/data-
migration/rules/333a3a3a3a3a3a303a3a3a4f49445f24232140255f56"
}
```

Update A Data Migration Rule

Update a data migration rule.

HTTP request syntax (URI)

```
PATCH <base_uri>/v9/storage/data-migration/rules/{dataMigrationRuleId}
```

Parameters

Parameter	Type	Required	Data Type	Description
dataMigrationRuleId	path	Y	string	Either the ID of the data migration rule or the object ID of the data migration rule
description	body	N	string	Description to associated with the item
isCaseSensitive	body	N	boolean	True indicates that the rule is case sensitive
name	body	N	string	Name to associate with the item
rule	body	N	string	The logic that makes up the rule. The syntax is described elsewhere

Return Codes

Code	Data	Description
204	No Data	Operation successfully completed

400	Error message	Bad Request
401	No Data	Unauthorized
403	Error message	Forbidden - the client does not have the required permissions to perform the operation
404	Error message	Not Found - a resource specified was not found
500	Error message	Internal Server Error

Any HTTP status code other than 204 indicates that the API did not complete successfully.

Sample request:

```
curl -k -H "X-Api-Key:sample-api-key" -X PATCH
"https://10.20.30.40:8444/v9/storage/data-
migration/rules/32303032306563632d363233652d313164392d393030332d3062656637383
762323633383a3a3a303a3a3a4f49445f24232140255f56" -d '{"description": "This is
the description", "isCaseSensitive": false, "name": "Name2", "rule": "INCLUDE
(<FILENAME *.mp3>)"}'
```

Sample response:

```
HTTP/1.1 204 No Content
```

Delete Data Migration Rule

Delete data migration rule.

HTTP request syntax (URI)

```
DELETE <base_uri>/v9/storage/data-migration/rules/{dataMigrationRuleId}
```

Parameters

Parameter	Type	Required	Data Type	Description
dataMigrationRuleId	path	Y	string	Either the ID of the data migration rule or the object ID of the data migration rule

Return Codes

Code	Data	Description
204	No Data	Operation successfully completed
400	Error message	Bad Request
401	No Data	Unauthorized
403	Error message	Forbidden - the client does not have the required permissions to perform the operation
404	Error message	Not Found - a resource specified was not found
500	Error message	Internal Server Error

Any HTTP status code other than 204 indicates that the API did not complete successfully.

Sample request:

```
curl -k -H "X-API-Key:sample-api-key" -X DELETE
"https://10.20.30.40:8444/v9/storage/data-
migration/rules/32303032306563632d363233652d313164392d393030332d3062656637383
762323633383a3a3a303a3a3a4f49445f24232140255f56"
```

Sample response:

```
HTTP/1.1 204 No Content
```

Get Data Migration Schedules

Get data migration schedules.

HTTP request syntax (URI)

```
GET <base_uri>/v9/storage/data-migration/schedules
```

Return Codes

Code	Data	Description
200	dataMigrationSchedules	List of dataMigrationSchedule objects successfully retrieved
500	Error message	Internal Server Error

Any HTTP status code other than 200 indicates that the API did not complete successfully.

Sample request:

```
curl -k -H "X-API-Key:sample-api-key" -X GET
"https://10.20.30.40:8444/v9/storage/data-migration/schedules"
```

Sample response:

```
HTTP/1.1 200 OK
{
  "dataMigrationSchedules": [
    {
      "errorLogged": false,
      "initialRunTime": 12345,
      "isEnabled": false,
      "maxDurationInSeconds": 12345,
      "nextRunTime": 12345,
      "objectId": "333a3a3a3a3a3a303a3a3a4f49445f24232140255f56",
      "policyId": "296f15f2-af39-11d9-98a9-0bef787b2638",
      "policyObjectId":
"313a3a3a30653834353530382d623365352d313164392d393830312d30626566373837623236
33383a3a3a303a3a3a4f49445f24232140255f56",
      "runType": "SIMULATION_ONLY",
      "scheduleId": 7,
      "virtualServerId": 1
    }
  ]
}
```

```
]
}
```

Get Data Migration Schedules For A Virtual Server

Get data migration schedules for a virtual server.

HTTP request syntax (URI)

```
GET <base_uri>/v9/storage/virtual-servers/{virtualServerId}/data-
migration/schedules
```

Parameters

Parameter	Type	Required	Data Type	Description
virtualServerId	path	Y	string or integer	Either the virtual server ID or the object ID of the virtual server

Return Codes

Code	Data	Description
200	dataMigrationSchedules	List of dataMigrationSchedule objects successfully retrieved
400	Error message	Bad Request
404	Error message	Not Found - a resource specified was not found
500	Error message	Internal Server Error

Any HTTP status code other than 200 indicates that the API did not complete successfully.

Sample request:

```
curl -k -H "X-API-Key:sample-api-key" -X GET
"https://10.20.30.40:8444/v9/storage/virtual-servers/1/data-
migration/schedules"
```

Sample response:

```
HTTP/1.1 200 OK
{
  "dataMigrationSchedules": [
    {
      "errorLogged": false,
      "initialRunTime": 12345,
      "isEnabled": false,
      "maxDurationInSeconds": 12345,
      "nextRunTime": 12345,
      "objectId": "333a3a3a3a3a3a303a3a3a4f49445f24232140255f56",
      "policyId": "296f15f2-af39-11d9-98a9-0bef787b2638",
      "policyObjectId":
"313a3a3a30653834353530382d623365352d313164392d393830312d30626566373837623236
33383a3a3a303a3a3a4f49445f24232140255f56",
      "runType": "SIMULATION_ONLY",
```



```

    "isEnabled": false,
    "maxDurationInSeconds": 12345,
    "nextRunTime": 12345,
    "objectId": "333a3a3a3a3a3a303a3a3a4f49445f24232140255f56",
    "policyId": "296f15f2-af39-11d9-98a9-0bef787b2638",
    "policyObjectId":
"313a3a3a30653834353530382d623365352d313164392d393830312d30626566373837623236
33383a3a3a303a3a3a4f49445f24232140255f56",
    "runType": "SIMULATION_ONLY",
    "scheduleId": 7,
    "virtualServerId": 1
  }
}

```

Create A Data Migration Schedule

Create a data migration schedule.

HTTP request syntax (URI)

POST <base_uri>/v9/storage/data-migration/schedules

Parameters

Parameter	Type	Required	Data Type	Description
dataMigrationPolicyObjectId	body	Y	string	Object ID of the data migration policy
initialRunTime	body	Y	integer	Initial time that the data migration schedule will start - posix time format
isEnabled	body	N	boolean	True if enabled, false for disabled
maxDurationInSeconds	body	N	integer	Maximum duration that a data migration should run for. 0 indicates there is no maximum duration
runType	body	Y	string	Type of data migration run. Possible values are: - SIMULATION_ONLY - ONCE_ONLY - DAILY - WEEKLY

Return Codes

Code	Data	Description
201	dataMigrationSchedule	Successfully created new item
400	Error message	Bad Request
401	No Data	Unauthorized

403	Error message	Forbidden - the client does not have the required permissions to perform the operation
500	Error message	Internal Server Error

Any HTTP status code other than 201 indicates that the API did not complete successfully.

Sample request:

```
curl -k -H "X-API-Key:sample-api-key" -X POST
"https://10.20.30.40:8444/v9/storage/data-migration/schedules" -d
'{"dataMigrationPolicyObjectId":
"323a3a3a393143463130354236444638363243343030303030303030303030303030303030303030303a3a
3a303a3a3a4f49445f24232140255f56", "initialRunTime": 12345, "isEnabled":
false, "maxDurationInSeconds": 12345, "runType": "SIMULATION_ONLY"}'
```

Sample response:

```
HTTP/1.1 201 Created
{
  "dataMigrationSchedule": {
    "errorLogged": false,
    "initialRunTime": 12345,
    "isEnabled": false,
    "maxDurationInSeconds": 12345,
    "nextRunTime": 12345,
    "objectId": "333a3a3a3a3a3a303a3a3a4f49445f24232140255f56",
    "policyId": "296f15f2-af39-11d9-98a9-0bef787b2638",
    "policyObjectId":
    "313a3a3a30653834353530382d623365352d313164392d393830312d30626566373837623236
    33383a3a3a303a3a3a4f49445f24232140255f56",
    "runType": "SIMULATION_ONLY",
    "scheduleId": 7,
    "virtualServerId": 1
  },
  "uri": "https://10.20.30.40:8444/v9/storage/data-
migration/schedules/333a3a3a3a3a3a303a3a3a4f49445f24232140255f56"
}
```

Create Data Migration Schedule For A Data Migration Policy

Create data migration schedule for a data migration policy.

HTTP request syntax (URI)

```
POST <base_uri>/v9/storage/data-
migration/policies/{dataMigrationPolicyObjectId}/schedules
```

Parameters

Parameter	Type	Required	Data Type	Description
-----------	------	----------	-----------	-------------


```

    "policyObjectId":
    "313a3a3a30653834353530382d623365352d313164392d393830312d30626566373837623236
    33383a3a3a303a3a3a4f49445f24232140255f56",
    "runType": "SIMULATION_ONLY",
    "scheduleId": 7,
    "virtualServerId": 1
  },
  "uri": "https://10.20.30.40:8444/v9/storage/data-migration/
  schedules/333a3a3a3a3a3a303a3a3a4f49445f24232140255f56"
}

```

Update A Data Migration Schedule

Update a data migration schedule.

HTTP request syntax (URI)

```
PATCH <base_uri>/v9/storage/data-
migration/schedules/{dataMigrationScheduleObjectId}
```

Parameters

Parameter	Type	Required	Data Type	Description
dataMigrationScheduleObjectId	path	Y	string	Object ID of the data migration schedule
initialRunTime	body	N	integer	Initial time that the data migration schedule will start - posix time format
isEnabled	body	N	boolean	True if enabled, false for disabled
maxDurationInSeconds	body	N	integer	Maximum duration that a data migration should run for. 0 indicates there is no maximum duration
runType	body	N	string	Type of data migration run. Possible values are: - SIMULATION_ONLY - ONCE_ONLY - DAILY - WEEKLY

Return Codes

Code	Data	Description
204	No Data	Operation successfully completed
400	Error message	Bad Request
401	No Data	Unauthorized
403	Error message	Forbidden - the client does not have the required permissions to perform the operation

Parameters

Parameter	Type	Required	Data Type	Description
logIncluded	query	N	boolean	True to include full log details

Return Codes

Code	Data	Description
200	dataMigrationReports	List of dataMigrationReport objects successfully retrieved
400	Error message	Bad Request
500	Error message	Internal Server Error

Any HTTP status code other than 200 indicates that the API did not complete successfully.

Sample request:

```
curl -k -H "X-Api-Key:sample-api-key" -X GET
"https://10.20.30.40:8444/v9/storage/data-
migration/history?logIncluded=false"
```

Sample response:

```
HTTP/1.1 200 OK
{
  "dataMigrationReports": [
    {
      "bytesTransferred": 12345,
      "destinationId": "bc526470-c2c9-11d4-9000-040402000106",
      "detailedLogNodeId": 12345,
      "detailedLogPath": "abcdefg",
      "endTime": 12345,
      "failedFiles": 12345,
      "filesTransferred": 12345,
      "log": "abcdefg",
      "maxDurationTime": 12345,
      "originalVirtualServerId": 1,
      "policyId": "296f15f2-af39-11d9-98a9-0bef787b2638",
      "policyName": "Policy1",
      "policyObjectId":
"313a3a3a30653834353530382d623365352d313164392d393830312d30626566373837623236
33383a3a3a303a3a3a4f49445f24232140255f56",
      "reportId": 12345,
      "returnCode": 12345,
      "ruleUsed": {
        "name": "Rule1",
        "objectId": "333a3a3a3a3a3a303a3a3a4f49445f24232140255f56",
        "ruleId": "20020ecc-623e-11d9-9003-0bef787b2638",
        "threshold": 12345
      },
      "runType": "INVALID",
      "scheduleId": 7,
      "scheduleObjectId":
"34333738323531652d623431322d313164392d393836652d3062656637383762323633383a3a
3a313a3a3a313a3a3a303a3a3a4f49445f24232140255f56",
      "scheduleRunType": "SIMULATION_ONLY",
```

```

    "sourceAfter": 12345,
    "sourceBefore": 12345,
    "sourceFilesystemCapacity": 12345,
    "sourceFilesystemId": "7B263DFFFD71E65A0000000000000000",
    "sourceFilesystemLabel": "Filesystem2",
    "sourceSnapshotAfter": 12345,
    "sourceSnapshotBefore": 12345,
    "startTime": 12345,
    "status": "INVALID",
    "statusReason": "NONE",
    "targetAfter": 12345,
    "targetBefore": 12345,
    "virtualServerId": 1
  }
]
}

```

Get Data Migration Detailed Report File

Download more details about the migrated and failed files for a data migration. The filename should be derived from the detailedLogPath from the dataMigrationReport. The detailedLogPath forms the prefix, which should have _list.gz appended to retrieve a list of migrated files and _failed.gz to retrieve a list of files which failed to migrate.

The filename should be of the form DM2CL_REPORT3_S2_P3d3bf0ee-6247-11d9-9003-0bef787b2638_list.gz

Note: This API call returns a binary attachment on success, rather than JSON formatted output. JSON formatted errors are returned in the same way as other API calls. The attachment is a compressed zip file.

HTTP request syntax (URI)

```
GET <base_uri>/v9/storage/data-migration/history/reports
```

Parameters

Parameter	Type	Required	Data Type	Description
filename	query	Y	string	The filename should be derived from the detailedLogPath from the dataMigrationReport. The detailedLogPath forms the prefix - append _list.gz to retrieve a list of migrated files or append _failed.gz to retrieve a list of files which failed to migrate
nodeId	query	Y	string or integer	Either a node object ID or a cluster node ID

Return Codes

Code	Data	Description
200	File attachment	Successfully retrieved file

400	Error message	Bad Request
500	Error message	Internal Server Error

Any HTTP status code other than 200 indicates that the API did not complete successfully.

Sample request:

```
curl -k -H "X-API-Key:sample-api-key" -X GET
"https://10.20.30.40:8444/v9/storage/data-
migration/history/reports?filename=DM2CL_REPORT3_S2_P3d3bf0ee-6247-11d9-9003-
0bef787b2638_list.gz&nodeId=1" > output_file
```

Get Data Migration History Reports For A File System

Get data migration history reports for a file system.

HTTP request syntax (URI)

```
GET <base_uri>/v9/storage/filesystems/{filesystemId}/data-migration/history
```

Parameters

Parameter	Type	Required	Data Type	Description
filesystemId	path	Y	string	Either the file system ID or the object ID of the file system
logIncluded	query	N	boolean	True to include full log details

Return Codes

Code	Data	Description
200	dataMigrationReports	List of dataMigrationReport objects successfully retrieved
400	Error message	Bad Request
404	Error message	Not Found - a resource specified was not found
500	Error message	Internal Server Error

Any HTTP status code other than 200 indicates that the API did not complete successfully.

Sample request:

```
curl -k -H "X-API-Key:sample-api-key" -X GET
"https://10.20.30.40:8444/v9/storage/filesystems/7B263DFD1D71E65A00000000000000
0000/data-migration/history?logIncluded=false"
```

Sample response:

```
HTTP/1.1 200 OK
{
  "dataMigrationReports": [
    {
      "bytesTransferred": 12345,
```

```

"destinationId": "bc526470-c2c9-11d4-9000-040402000106",
"detailedLogNodeId": 12345,
"detailedLogPath": "abcdefg",
"endTime": 12345,
"failedFiles": 12345,
"filesTransferred": 12345,
"log": "abcdefg",
"maxDurationTime": 12345,
"originalVirtualServerId": 1,
"policyId": "296f15f2-af39-11d9-98a9-0bef787b2638",
"policyName": "Policy1",
"policyObjectId":
"313a3a3a30653834353530382d623365352d313164392d393830312d30626566373837623236
33383a3a3a303a3a3a4f49445f24232140255f56",
"reportId": 12345,
"returnCode": 12345,
"ruleUsed": {
  "name": "Rule1",
  "objectId": "333a3a3a3a3a3a303a3a3a4f49445f24232140255f56",
  "ruleId": "20020ecc-623e-11d9-9003-0bef787b2638",
  "threshold": 12345
},
"runType": "INVALID",
"scheduleId": 7,
"scheduleObjectId":
"34333738323531652d623431322d313164392d393836652d3062656637383762323633383a3a
3a313a3a3a313a3a3a303a3a3a4f49445f24232140255f56",
"scheduleRunType": "SIMULATION_ONLY",
"sourceAfter": 12345,
"sourceBefore": 12345,
"sourceFilesystemCapacity": 12345,
"sourceFilesystemId": "7B263DFFFD71E65A0000000000000000",
"sourceFilesystemLabel": "Filesystem2",
"sourceSnapshotAfter": 12345,
"sourceSnapshotBefore": 12345,
"startTime": 12345,
"status": "INVALID",
"statusReason": "NONE",
"targetAfter": 12345,
"targetBefore": 12345,
"virtualServerId": 1
}
]
}

```

Get Recent Data Migration History Reports For A File System

Get recent data migration history reports for a file system.

HTTP request syntax (URI)


```
GET <base_uri>/v9/storage/filesystems/{filesystemId}/data-migration/history/recent
```

Parameters

Parameter	Type	Required	Data Type	Description
filesystemId	path	Y	string	Either the file system ID or the object ID of the file system

Return Codes

Code	Data	Description
200	dataMigrationReports	List of dataMigrationReport objects successfully retrieved
400	Error message	Bad Request
404	Error message	Not Found - a resource specified was not found
500	Error message	Internal Server Error

Any HTTP status code other than 200 indicates that the API did not complete successfully.

Sample request:

```
curl -k -H "X-API-Key:sample-api-key" -X GET  
"https://10.20.30.40:8444/v9/storage/filesystems/7B263DFD1D71E65A00000000000000  
0000/data-migration/history/recent"
```

Sample response:

```
HTTP/1.1 200 OK  
{  
  "dataMigrationReports": [  
    {  
      "bytesTransferred": 12345,  
      "destinationId": "bc526470-c2c9-11d4-9000-040402000106",  
      "detailedLogNodeId": 12345,  
      "detailedLogPath": "abcdefg",  
      "endTime": 12345,  
      "failedFiles": 12345,  
      "filesTransferred": 12345,  
      "log": "abcdefg",  
      "maxDurationTime": 12345,  
      "originalVirtualServerId": 1,  
      "policyId": "296f15f2-af39-11d9-98a9-0bef787b2638",  
      "policyName": "Policy1",  
      "policyObjectId":  
"313a3a3a30653834353530382d623365352d313164392d393830312d30626566373837623236  
33383a3a3a303a3a3a4f49445f24232140255f56",  
      "reportId": 12345,  
      "returnCode": 12345,  
      "ruleUsed": {  
        "name": "Rule1",  
        "objectId": "333a3a3a3a3a3a303a3a3a4f49445f24232140255f56",  
        "ruleId": "20020ecc-623e-11d9-9003-0bef787b2638",  
        "threshold": 12345  
      },  
    },  
  ],  
}
```

```

    "runType": "INVALID",
    "scheduleId": 7,
    "scheduleObjectId":
"34333738323531652d623431322d313164392d393836652d3062656637383762323633383a3a
3a313a3a3a313a3a3a303a3a3a4f49445f24232140255f56",
    "scheduleRunType": "SIMULATION_ONLY",
    "sourceAfter": 12345,
    "sourceBefore": 12345,
    "sourceFilesystemCapacity": 12345,
    "sourceFilesystemId": "7B263DFFFD71E65A0000000000000000",
    "sourceFilesystemLabel": "Filesystem2",
    "sourceSnapshotAfter": 12345,
    "sourceSnapshotBefore": 12345,
    "startTime": 12345,
    "status": "INVALID",
    "statusReason": "NONE",
    "targetAfter": 12345,
    "targetBefore": 12345,
    "virtualServerId": 1
  }
]
}

```

Get Data Migration History Reports For Virtual Server

Get data migration history reports for virtual server.

HTTP request syntax (URI)

```
GET <base_uri>/v9/storage/virtual-servers/{virtualServerId}/data-
migration/history
```

Parameters

Parameter	Type	Required	Data Type	Description
virtualServerId	path	Y	string or integer	Either the virtual server ID or the object ID of the virtual server
logIncluded	query	N	boolean	True to include full log details

Return Codes

Code	Data	Description
200	dataMigrationReports	List of dataMigrationReport objects successfully retrieved
400	Error message	Bad Request
404	Error message	Not Found - a resource specified was not found
500	Error message	Internal Server Error

Any HTTP status code other than 200 indicates that the API did not complete successfully.

Sample request:

```
curl -k -H "X-API-Key:sample-api-key" -X GET
"https://10.20.30.40:8444/v9/storage/virtual-servers/1/data-
migration/history?logIncluded=false"
```

Sample response:

```
HTTP/1.1 200 OK
{
  "dataMigrationReports": [
    {
      "bytesTransferred": 12345,
      "destinationId": "bc526470-c2c9-11d4-9000-040402000106",
      "detailedLogNodeId": 12345,
      "detailedLogPath": "abcdefg",
      "endTime": 12345,
      "failedFiles": 12345,
      "filesTransferred": 12345,
      "log": "abcdefg",
      "maxDurationTime": 12345,
      "originalVirtualServerId": 1,
      "policyId": "296f15f2-af39-11d9-98a9-0bef787b2638",
      "policyName": "Policy1",
      "policyObjectId":
"313a3a3a30653834353530382d623365352d313164392d393830312d30626566373837623236
33383a3a3a303a3a3a4f49445f24232140255f56",
      "reportId": 12345,
      "returnCode": 12345,
      "ruleUsed": {
        "name": "Rule1",
        "objectId": "333a3a3a3a3a3a303a3a3a4f49445f24232140255f56",
        "ruleId": "20020ecc-623e-11d9-9003-0bef787b2638",
        "threshold": 12345
      },
      "runType": "INVALID",
      "scheduleId": 7,
      "scheduleObjectId":
"34333738323531652d623431322d313164392d393836652d3062656637383762323633383a3a
3a313a3a3a313a3a3a303a3a3a4f49445f24232140255f56",
      "scheduleRunType": "SIMULATION_ONLY",
      "sourceAfter": 12345,
      "sourceBefore": 12345,
      "sourceFilesystemCapacity": 12345,
      "sourceFilesystemId": "7B263DFFFD71E65A0000000000000000",
      "sourceFilesystemLabel": "Filesystem2",
      "sourceSnapshotAfter": 12345,
      "sourceSnapshotBefore": 12345,
      "startTime": 12345,
      "status": "INVALID",
      "statusReason": "NONE",
      "targetAfter": 12345,
      "targetBefore": 12345,
      "virtualServerId": 1
    }
  ]
}
```

Get Recent Data Migration History Reports For Virtual Server

Get recent data migration history reports for virtual server.

HTTP request syntax (URI)

```
GET <base_uri>/v9/storage/virtual-servers/{virtualServerId}/data-migration/history/recent
```

Parameters

Parameter	Type	Required	Data Type	Description
virtualServerId	path	Y	string or integer	Either the virtual server ID or the object ID of the virtual server

Return Codes

Code	Data	Description
200	dataMigrationReports	List of dataMigrationReport objects successfully retrieved
400	Error message	Bad Request
404	Error message	Not Found - a resource specified was not found
500	Error message	Internal Server Error

Any HTTP status code other than 200 indicates that the API did not complete successfully.

Sample request:

```
curl -k -H "X-API-Key:sample-api-key" -X GET  
"https://10.20.30.40:8444/v9/storage/virtual-servers/1/data-migration/history/recent"
```

Sample response:

```
HTTP/1.1 200 OK  
{  
  "dataMigrationReports": [  
    {  
      "bytesTransferred": 12345,  
      "destinationId": "bc526470-c2c9-11d4-9000-040402000106",  
      "detailedLogNodeId": 12345,  
      "detailedLogPath": "abcdefg",  
      "endTime": 12345,  
      "failedFiles": 12345,  
      "filesTransferred": 12345,  
      "log": "abcdefg",  
      "maxDurationTime": 12345,  
      "originalVirtualServerId": 1,  
      "policyId": "296f15f2-af39-11d9-98a9-0bef787b2638",  
      "policyName": "Policy1",
```

```

    "policyObjectId":
"313a3a3a30653834353530382d623365352d313164392d393830312d30626566373837623236
33383a3a3a303a3a3a4f49445f24232140255f56",
    "reportId": 12345,
    "returnCode": 12345,
    "ruleUsed": {
      "name": "Rule1",
      "objectId": "333a3a3a3a3a3a303a3a3a4f49445f24232140255f56",
      "ruleId": "20020ecc-623e-11d9-9003-0bef787b2638",
      "threshold": 12345
    },
    "runType": "INVALID",
    "scheduleId": 7,
    "scheduleObjectId":
"34333738323531652d623431322d313164392d393836652d3062656637383762323633383a3a
3a313a3a3a313a3a3a303a3a3a4f49445f24232140255f56",
    "scheduleRunType": "SIMULATION_ONLY",
    "sourceAfter": 12345,
    "sourceBefore": 12345,
    "sourceFilesystemCapacity": 12345,
    "sourceFilesystemId": "7B263DFFFD71E65A0000000000000000",
    "sourceFilesystemLabel": "Filesystem2",
    "sourceSnapshotAfter": 12345,
    "sourceSnapshotBefore": 12345,
    "startTime": 12345,
    "status": "INVALID",
    "statusReason": "NONE",
    "targetAfter": 12345,
    "targetBefore": 12345,
    "virtualServerId": 1
  }
]
}

```

Get Data Migration Policy History Reports

Get data migration policy history reports.

HTTP request syntax (URI)

```
GET <base_uri>/v9/storage/data-
migration/policies/{dataMigrationPolicyObjectId}/history
```

Parameters

Parameter	Type	Required	Data Type	Description
dataMigrationPolicyObjectId	path	Y	string	Object ID of the data migration policy
logIncluded	query	N	boolean	True to include full log details

Return Codes

Code	Data	Description
------	------	-------------

200	dataMigrationReports	List of dataMigrationReport objects successfully retrieved
400	Error message	Bad Request
404	Error message	Not Found - a resource specified was not found
500	Error message	Internal Server Error

Any HTTP status code other than 200 indicates that the API did not complete successfully.

Sample request:

```
curl -k -H "X-API-Key:sample-api-key" -X GET
"https://10.20.30.40:8444/v9/storage/data-
migration/policies/323a3a3a39314346313035423644463836324334303030303030303030
303030303030303a3a3a303a3a3a4f49445f24232140255f56/history?logIncluded=false"
```

Sample response:

```
HTTP/1.1 200 OK
{
  "dataMigrationReports": [
    {
      "bytesTransferred": 12345,
      "destinationId": "bc526470-c2c9-11d4-9000-040402000106",
      "detailedLogNodeId": 12345,
      "detailedLogPath": "abcdefg",
      "endTime": 12345,
      "failedFiles": 12345,
      "filesTransferred": 12345,
      "log": "abcdefg",
      "maxDurationTime": 12345,
      "originalVirtualServerId": 1,
      "policyId": "296f15f2-af39-11d9-98a9-0bef787b2638",
      "policyName": "Policy1",
      "policyObjectId":
"313a3a3a30653834353530382d623365352d313164392d393830312d30626566373837623236
33383a3a3a303a3a3a4f49445f24232140255f56",
      "reportId": 12345,
      "returnCode": 12345,
      "ruleUsed": {
        "name": "Rule1",
        "objectId": "333a3a3a3a3a3a303a3a3a4f49445f24232140255f56",
        "ruleId": "20020ecc-623e-11d9-9003-0bef787b2638",
        "threshold": 12345
      },
      "runType": "INVALID",
      "scheduleId": 7,
      "scheduleObjectId":
"34333738323531652d623431322d313164392d393836652d3062656637383762323633383a3a
3a313a3a3a313a3a3a303a3a3a4f49445f24232140255f56",
      "scheduleRunType": "SIMULATION_ONLY",
      "sourceAfter": 12345,
      "sourceBefore": 12345,
      "sourceFilesystemCapacity": 12345,
      "sourceFilesystemId": "7B263DFFFD71E65A0000000000000000",
      "sourceFilesystemLabel": "Filesystem2",
```

```

    "sourceSnapshotAfter": 12345,
    "sourceSnapshotBefore": 12345,
    "startTime": 12345,
    "status": "INVALID",
    "statusReason": "NONE",
    "targetAfter": 12345,
    "targetBefore": 12345,
    "virtualServerId": 1
  }
]
}

```

Get Recent Data Migration Policy History Reports

Get recent data migration policy history reports.

HTTP request syntax (URI)

```
GET <base_uri>/v9/storage/data-migration/policies/{dataMigrationPolicyObjectId}/history/recent
```

Parameters

Parameter	Type	Required	Data Type	Description
dataMigrationPolicyObjectId	path	Y	string	Object ID of the data migration policy

Return Codes

Code	Data	Description
200	dataMigrationReports	List of dataMigrationReport objects successfully retrieved
400	Error message	Bad Request
404	Error message	Not Found - a resource specified was not found
500	Error message	Internal Server Error

Any HTTP status code other than 200 indicates that the API did not complete successfully.

Sample request:

```
curl -k -H "X-API-Key:sample-api-key" -X GET
"https://10.20.30.40:8444/v9/storage/data-migration/policies/323a3a3a393143463130354236444638363243343030303030303030303030303030303030303a3a3a303a3a3a4f49445f24232140255f56/history/recent"
```

Sample response:

```
HTTP/1.1 200 OK
{
  "dataMigrationReports": [
    {
      "bytesTransferred": 12345,
```

```

    "destinationId": "bc526470-c2c9-11d4-9000-040402000106",
    "detailedLogNodeId": 12345,
    "detailedLogPath": "abcdefg",
    "endTime": 12345,
    "failedFiles": 12345,
    "filesTransferred": 12345,
    "log": "abcdefg",
    "maxDurationTime": 12345,
    "originalVirtualServerId": 1,
    "policyId": "296f15f2-af39-11d9-98a9-0bef787b2638",
    "policyName": "Policy1",
    "policyObjectId":
"313a3a3a30653834353530382d623365352d313164392d393830312d30626566373837623236
33383a3a3a303a3a3a4f49445f24232140255f56",
    "reportId": 12345,
    "returnCode": 12345,
    "ruleUsed": {
      "name": "Rule1",
      "objectId": "333a3a3a3a3a3a303a3a3a4f49445f24232140255f56",
      "ruleId": "20020ecc-623e-11d9-9003-0bef787b2638",
      "threshold": 12345
    },
    "runType": "INVALID",
    "scheduleId": 7,
    "scheduleObjectId":
"34333738323531652d623431322d313164392d393836652d3062656637383762323633383a3a
3a313a3a3a313a3a3a303a3a3a4f49445f24232140255f56",
    "scheduleRunType": "SIMULATION_ONLY",
    "sourceAfter": 12345,
    "sourceBefore": 12345,
    "sourceFilesystemCapacity": 12345,
    "sourceFilesystemId": "7B263DFFFD71E65A0000000000000000",
    "sourceFilesystemLabel": "Filesystem2",
    "sourceSnapshotAfter": 12345,
    "sourceSnapshotBefore": 12345,
    "startTime": 12345,
    "status": "INVALID",
    "statusReason": "NONE",
    "targetAfter": 12345,
    "targetBefore": 12345,
    "virtualServerId": 1
  }
]
}

```

Delete Data Migration Policy History Report

Delete data migration policy history report.

HTTP request syntax (URI)

```
DELETE <base_uri>/v9/storage/data-
migration/policies/{dataMigrationPolicyObjectId}/history/{reportId}
```


Sample request:

```
curl -k -H "X-API-Key:sample-api-key" -X DELETE  
"https://10.20.30.40:8444/v9/storage/data-migration/history"
```

Sample response:

```
HTTP/1.1 204 No Content
```

Event Details Resource

The event details resource provides details about system events.

Event Details Object Model

The object model describing this resource contains the following objects.

eventDetails - Event cause and resolution details

Attribute	JSON type	Data type	Description
cause	string	string	Why the event is likely to have occurred
eventId	integer	integer	ID of the event
resolution	string	string	What can be done to resolve the issue

Get All Event Causes And Resolutions

Get the cause and resolution for all event IDs. The cause and resolution for an event does not change for any specific software version, and so can be safely stored and re-used by a client.

HTTP request syntax (URI)

```
GET <base_uri>/v9/storage/event-details
```

Return Codes

Code	Data	Description
200	eventDetails	List of eventDetails objects successfully retrieved
500	Error message	Internal Server Error

Any HTTP status code other than 200 indicates that the API did not complete successfully.

Sample request:

```
curl -k -H "X-API-Key:sample-api-key" -X GET  
"https://10.20.30.40:8444/v9/storage/event-details"
```

Sample response:

```
HTTP/1.1 200 OK  
{  
  "eventDetails": [  
    {  
      "cause": "A test event was requested",  
      "eventId": 9998,  
      "resolution": "No action required"  
    }  
  ]  
}
```

```
]
}
```

Get Event Cause And Resolution

Get the cause and resolution for a specific event ID.

HTTP request syntax (URI)

```
GET <base_uri>/v9/storage/event-details/{eventId}
```

Parameters

Parameter	Type	Required	Data Type	Description
eventId	path	Y	integer	ID of the event

Return Codes

Code	Data	Description
200	eventDetails	eventDetails object successfully retrieved
400	Error message	Bad Request
404	Error message	Not Found - a resource specified was not found
500	Error message	Internal Server Error

Any HTTP status code other than 200 indicates that the API did not complete successfully.

Sample request:

```
curl -k -H "X-API-Key:sample-api-key" -X GET
"https://10.20.30.40:8444/v9/storage/event-details/9998"
```

Sample response:

```
HTTP/1.1 200 OK
{
  "eventDetails": {
    "cause": "A test event was requested",
    "eventId": 9998,
    "resolution": "No action required"
  }
}
```

File Devices Resource

The file devices resource enables you to obtain important information about the storage system. Key information includes the cluster unique identifier, number of nodes, and the firmware version.

File Devices Object Model

The object model describing this resource contains the following objects.

accessConfig - Access configuration

Attribute	JSON type	Data type	Description
allowedHosts	array	string	A list of hosts allowed to access the specific management interface. The host values can be either IP address or valid DNS names
idleConnectionTimeout	integer	integer	Idle connection timeout in seconds
isEnabled	boolean	boolean	True if enabled, false for disabled
isEvslpAddressAllowed	boolean	boolean	True if the management service can be accessed via file serving IP addresses in addition to the specific management addresses
maxAllowedConnections	integer	integer	Number of allowed simultaneous connections
maxSupportedConnections	integer	integer	Maximum number of supported connections that can be configured
port	integer	integer	Port that the management service listens on
restrictHosts	boolean	boolean	True indicates that access is restricted to only the hosts in the allowed hosts list
type	string	string	Management access type

accessLevel - Access level

Attribute	JSON type	Data type	Description
accessLevel	string	string	Access level allowed for the user current user. If accessType is USER, possible values are [USER SUPERVISOR DEV] If accessType is APIKEY, possible values are a combination of any of the following values [full-access native-rest-all native-rest-read other-all]
accessType	string	string	Authentication type being used. Possible values are:

			- APIKEY - USER
--	--	--	--------------------

aggregateInterface - Aggregate network interface

Attribute	JSON type	Data type	Description
interfaces	array	interface	An array of interface objects, that identify the physical ports that are used by the aggregate interface
larpEnabled	boolean	boolean	True indicates that 802.3ad link management protocol (LACP) will be used on the interface
loadBalance	string	string	Load balancing algorithm that the will be used for links that include multiple ports. Possible values are: - INVALID - NORMAL - ROUND_ROBIN
name	string	string	Name of the aggregate interface
objectId	string	string	Unique ID of the object

apiKey - API key

Attribute	JSON type	Data type	Description
completeKey	string	string	Complete API key - the value is partially obscured in all responses except when a new key is created. This is the only time the full key is shown, and a note should be taken of it at the point of creation
description	string	string	Memorable description associated with the API key
objectId	string	string	Unique ID of the object
prefix	string	string	The prefix of the complete API key
restApiAccess	string	string	Access level for REST API access . Possible values are: - READ_ONLY - FULL_CONTROL - NO_ACCESS
soapApiAccess	string	string	Access level for SOAP API access . Possible values are: - FULL_CONTROL - NO_ACCESS
state	string	string	State of the API key. Possible values are: - ENABLED - DISABLED

			- INVALID - EXPIRED
--	--	--	------------------------

emailProfile - Email alert profile

Attribute	JSON type	Data type	Description
discloseDetails	boolean	boolean	Disclose details in the emails (IP addresses, etc)
excludeAttachments	boolean	boolean	Excludes attachments for this profile
htmlFormat	boolean	boolean	Send status and alert emails in HTML format
ignoreNdmpEvents	boolean	boolean	Ignore NDMP events in emails which are sent immediately
isEnabled	boolean	boolean	True if enabled, false for disabled
maxEmailLength	integer	integer	Maximum possible email length, in bytes
name	string	string	Assigned name
notificationFrequencyInfo	string	string	Frequency to send Information severity alerts . Possible values are: - SUMMARY - IMMEDIATELY - NEVER
notificationFrequencySevere	string	string	Frequency to send Severe severity alerts . Possible values are: - SUMMARY - IMMEDIATELY - NEVER
notificationFrequencyWarning	string	string	Frequency to send Warning severity alerts . Possible values are: - SUMMARY - IMMEDIATELY - NEVER
objectId	string	string	Unique ID of the object
recipients	array	string	A list of email addresses that will receive emails for this profile
sendDailyStatusEmails	boolean	boolean	True indicates that daily status emails will be sent
sendEmptyEmails	boolean	boolean	True indicates that summary emails will still be sent, even if there are no new alerts
summaryTimes	array	string	List of times that summary emails will be sent. Times must be of the form HH:MM. Two summary times can be specified

text	string	string	Arbitrary text that will be included at the beginning of each email
uuEncode	boolean	boolean	True indicates that diagnostic email attachments will be uuencoded before sending

ethernetInterface - Ethernet interface details

Attribute	JSON type	Data type	Description
isAdminVirtualServerIpAllowed	boolean	boolean	True if the interface can be used to host the admin virtual server
isAdvancedIpConfigAllowed	boolean	boolean	True if advanced IP address configuration is allowed
isAggregationAllowed	boolean	boolean	True indicates that the port can be used when creating aggregate interfaces
isClusterNodeIpAllowed	boolean	boolean	True if the interface can be used for a cluster node IP address
isVirtualServerIpAllowed	boolean	boolean	True if the interface can be used to host file services virtual server IP addresses
name	string	string	Name of the ethernet interface

feature - Licensable feature

Attribute	JSON type	Data type	Description
data	string	string	Any additional data associated with the feature
featureId	integer	integer	ID of the feature
name	string	string	Name of the feature

fileStorageDeviceInfo - NAS system details

Attribute	JSON type	Data type	Description
clusterUUID	string	string	UUID of the cluster
contact	string	string	Contact details for the system
firmwareVersion	string	string	Firmware version running on the cluster or node
isCluster	boolean	boolean	True if the system is a cluster
licenses	array	string	Contains a list of the names of the licenses applied for the system

location	string	string	User configured location of the system or device
model	string	string	Model of the cluster/system
name	string	string	Assigned name
nodeCount	integer	integer	Number of nodes in the cluster
storageHealth	string	string	Health of the cluster. Possible values are: - ROBUST - DEGRADED - CRITICAL - UNKNOWN
vendor	string	string	Vendor of system

hardwareStatus - Hardware status

Attribute	JSON type	Data type	Description
componentId	string	string	Component ID
componentType	string	string	Type of hardware component that the status refers to. Possible values are: - CLUSTER - NODE - FAN - POWER_SUPPLY - BATTERY - TEMPERATURE - SYSTEM_LU - MANAGEMENT_NETWORK - DATA_NETWORK - ICC - STORAGE_PATH - SMU - QUORUM_DEVICE - NVDIMM
displayName	string	string	Name of component
overallStatus	string	string	Status of the component. The status is based on the component and the status of any sub components. Possible values are: - OK - WARNING - ERROR - UNKNOWN
statusStrings	array	string	A list of status strings. For components that report anything other than OK, there may be one or more separate issues reported here
subComponents	array	hardwareStatus	A list of hardwareStatus objects. This list contains the status of any sub components

interface - Physical interface

Attribute	JSON type	Data type	Description
port	string	string	Name of a physical port
status	string	string	Status of the port. Possible values are: <ul style="list-style-type: none">- DOWN- DETACHED- WAITING- ATTACHED- ACTOR_CHURN- PARTNER_CHURN- CHURN- STANDBY- UP- FAILOVER

licenseKey - License key

Attribute	JSON type	Data type	Description
created	string	string	Creation date of the key
expires	string	string	Date that the license key will expire, or blank if the key does not expire
features	array	feature	An array of feature objects that are covered by the license key
isExpired	boolean	boolean	True if the license key is expired
licenseKey	string	string	License key text

licensedFeature - Licensed feature

Attribute	JSON type	Data type	Description
data	string	string	Any additional data associated with the feature
featureId	integer	integer	ID of the feature
isDisabled	boolean	boolean	True indicates that the feature is disabled
isLicensed	boolean	boolean	True indicates that the feature is licensed
name	string	string	Name of the feature

loginBanner - Login banner

Attribute	JSON type	Data type	Description
bannerContent	string	string	Contents of the login banner that is presented to a user when they connect to various management interfaces of the system. This

			field can contain additional text formatting characters, such as new line and tab characters
enabled	boolean	boolean	True indicates enabled, false is disabled

managementUser - Management user details

Attribute	JSON type	Data type	Description
accessLevel	string	string	Access level allowed for the user. Possible values are: - UNKNOWN - DEV - USER - SUPERVISOR
isDeletable	boolean	boolean	True if the user can be deleted from the system. False indicates a built in system user
isPasswordModifiable	boolean	boolean	True if the password can be updated via the API
lastLogin	string	string	Date and time of last login
objectId	string	string	Unique ID of the object
type	string	string	Type of management user. Possible values are: - NORMAL - SYNC - NONMODIFIABLE
userName	string	string	User name

performanceInfoReport - Performance info report

Attribute	JSON type	Data type	Description
durationInMinutes	integer	integer	Duration that the PIR was run for
endTime	string	string	End time of the operation
nodeId	integer	integer	Cluster node ID
objectId	string	string	Unique ID of the object
pirId	string	string	ID of the performance info report
status	string	string	Status of PIR. Possible values are: - STARTING - RUNNING - FINALISING - FINISHED - FINISHED_FILE_AVAILABLE - CONTINUOUS - NOT_FOUND

route - Network route

Attribute	JSON type	Data type	Description
MTU	integer	integer	Maximum Transmission Unit (MTU) of the route
destination	string	string	Destination IP address
flags	integer	integer	Flags of the route
gateway	string	string	IP address of the route gateway
isClusterNodeRoute	boolean	boolean	True if the route is specific to a cluster node
isStaticRoute	boolean	boolean	True if the route is statically configured
nodeId	integer	integer	Cluster node ID
objectId	string	string	Unique ID of the object
type	string	string	Type of route

service - System service

Attribute	JSON type	Data type	Description
isEnabled	boolean	boolean	True if enabled, false for disabled
name	string	string	Name of the service
serviceId	integer	integer	ID of the service

smtpAlerts - SMTP email alert configuration

Attribute	JSON type	Data type	Description
fromAddress	string	string	Email address that is used when sending alert emails
smtpServer	string	string	Address of the SMTP email server

snmpAlerts - SNMP trap configuration

Attribute	JSON type	Data type	Description
notificationFrequencyInfo	string	string	Frequency to send Information severity alerts . Possible values are: - IMMEDIATELY - NEVER
notificationFrequencySevere	string	string	Frequency to send Severe severity alerts . Possible values are: - IMMEDIATELY - NEVER

notificationFrequencyWarning	string	string	Frequency to send Warning severity alerts . Possible values are: - IMMEDIATELY - NEVER
port	integer	integer	UDP port used to send SNMP traps
recipients	array	trapDestination	A list of recipients that will be sent SNMP traps

snmpConfig - SNMP configuration

Attribute	JSON type	Data type	Description
allowSnmpV1	boolean	boolean	True if SNMPv1 requests are accepted
allowSnmpV2	boolean	boolean	True if SNMPv2c requests are accepted
allowSnmpV3	boolean	boolean	True if SNMPv3 requests are accepted
allowedCommunities	array	string	A list of allowed community string values
allowedHosts	array	string	A list of hosts allowed to access the specific management interface. The host values can be either IP address or valid DNS names
isEnabled	boolean	boolean	True if enabled, false for disabled
port	integer	integer	UDP port used to receive SNMP messages
restrictHosts	boolean	boolean	True indicates that access is restricted to only the hosts in the allowed hosts list
sendAuthFailureTraps	boolean	boolean	True indicates that SNMP authentication failure traps should be sent to configured SNMP trap hosts

syslogAlerts - Syslog alert configuration

Attribute	JSON type	Data type	Description
notificationFrequencyInfo	string	string	Frequency to send Information severity alerts . Possible values are: - IMMEDIATELY - NEVER
notificationFrequencySevere	string	string	Frequency to send Severe severity alerts . Possible values are: - IMMEDIATELY - NEVER
notificationFrequencyWarning	string	string	Frequency to send Warning severity alerts . Possible values are: - IMMEDIATELY - NEVER
recipients	array	string	A list of recipients that will be sent syslog messages

systemClock - System date and time details

Attribute	JSON type	Data type	Description
isDstInEffect	boolean	boolean	True if daylight saving is in effect
isNtpConfigured	boolean	boolean	True if NTP is configured
localDate	string	string	Textural representation of the local date
localDateTime	string	string	Textural representation of the local data and time
localTime	string	string	Textural representation of the local time
localUtcOffset	integer	integer	Local timezone offset in seconds from UTC
posixTime	integer	integer	Number of seconds since the 1st January 1970, in UTC
timezone	string	string	Timezone in effect

timezone - Timezone

Attribute	JSON type	Data type	Description
name	string	string	Name of the timezone
offset	integer	integer	Offset from UTC in seconds

trapDestination - SNMP trap destination details

Attribute	JSON type	Data type	Description
community	string	string	Community string for the host
host	string	string	Host that will receive SNMP traps

vlanInterface - VLAN interface

Attribute	JSON type	Data type	Description
aggregateInterface	string	string	The aggregate interface that is associated with the VLAN
name	string	string	Name of the VLAN interface
objectId	string	string	Unique ID of the object
vlanId	integer	integer	This is the VLAN tag that will be applied to traffic on the VLAN interface

Get A File Device

Retrieves basic information about the storage system.

HTTP request syntax (URI)

```
GET <base_uri>/v9/storage/file-devices
```

Return Codes

Code	Data	Description
200	fileStorageDeviceInfo	fileStorageDeviceInfo object successfully retrieved
500	Error message	Internal Server Error

Any HTTP status code other than 200 indicates that the API did not complete successfully.

Sample request:

```
curl -k -H "X-API-Key:sample-api-key" -X GET  
"https://10.20.30.40:8444/v9/storage/file-devices"
```

Sample response:

```
HTTP/1.1 200 OK  
{  
  "clusterUUID": "5a5b6b70-6a63-11d1-9001-db629fad48b7",  
  "contact": "IT team",  
  "firmwareVersion": "14.9.7916.02",  
  "isCluster": false,  
  "licenses": [  
    "NFS"  
  ],  
  "location": "Rack4",  
  "model": "HNAS 5300",  
  "name": "System1",  
  "nodeCount": 1,  
  "storageHealth": "ROBUST",  
  "vendor": "HITACHI"  
}
```

Update File Device Details

Update the administrative contact for a system and its physical location. The overall name of the system can also be changed, which is effectively the cluster name.

If the cluster is a Unified system or if the name is changed, it will take longer for the call to return.

Changing the cluster name will trigger creation of a new self-signed SSL/TLS certificate for the HTTPS management server. However, if the system has a custom certificate it will not be affected, but you may want to consider updating it to match the new domain name.

HTTP request syntax (URI)

PATCH <base_uri>/v9/storage/file-devices

Parameters

Parameter	Type	Required	Data Type	Description
contact	body	N	string	Contact details for the system
fileOnly	body	N	boolean	Whether to update only the file component of a Unified system
location	body	N	string	Physical location of the system or device
name	body	N	string	Name to associate with the item

Return Codes

Code	Data	Description
204	No Data	Operation successfully completed
400	Error message	Bad Request
401	No Data	Unauthorized
403	Error message	Forbidden - the client does not have the required permissions to perform the operation
500	Error message	Internal Server Error

Any HTTP status code other than 204 indicates that the API did not complete successfully.

Sample request:

```
curl -k -H "X-Api-Key:sample-api-key" -X PATCH  
"https://10.20.30.40:8444/v9/storage/file-devices" -d '{"contact": "IT team",  
"fileOnly": false, "location": "Rack4", "name": "Name2"}'
```

Sample response:

```
HTTP/1.1 204 No Content
```

Get Cluster MAC

Gets the cluster MAC address of the storage system. This unique ID is needed when acquiring license keys.

HTTP request syntax (URI)

GET <base_uri>/v9/storage/file-devices/cluster-mac

Return Codes

Code	Data	Description
200	clusterMac	string object successfully retrieved
500	Error message	Internal Server Error

Any HTTP status code other than 200 indicates that the API did not complete successfully.

Sample request:

```
curl -k -H "X-API-Key:sample-api-key" -X GET
"https://10.20.30.40:8444/v9/storage/file-devices/cluster-mac"
```

Sample response:

```
HTTP/1.1 200 OK
{
  "clusterMac": "11-22-33-44-55-66"
}
```

Get License Keys

Gets all NAS service license keys, and their associated details.

HTTP request syntax (URI)

```
GET <base_uri>/v9/storage/file-devices/licenses
```

Return Codes

Code	Data	Description
200	licenseKeys	List of licenseKey objects successfully retrieved
500	Error message	Internal Server Error

Any HTTP status code other than 200 indicates that the API did not complete successfully.

Sample request:

```
curl -k -H "X-API-Key:sample-api-key" -X GET
"https://10.20.30.40:8444/v9/storage/file-devices/licenses"
```

Sample response:

```
HTTP/1.1 200 OK
{
  "licenseKeys": [
    {
      "created": "13 March 2023 07:39:22",
      "expires": "",
      "features": [
        {
          "data": "32768",
          "featureId": 8,
          "name": "TB"
        }
      ],
      "isExpired": false,
      "licenseKey": "E850-C3F5-4604-8712-48E6-2CCF-0553-09"
    }
  ]
}
```

```
]
}
```

Add License Key

Adds a new NAS service license key.

HTTP request syntax (URI)

```
POST <base_uri>/v9/storage/file-devices/licenses
```

Parameters

Parameter	Type	Required	Data Type	Description
licenseKey	body	Y	string	License key text

Return Codes

Code	Data	Description
204	No Data	Operation successfully completed
400	Error message	Bad Request
401	No Data	Unauthorized
403	Error message	Forbidden - the client does not have the required permissions to perform the operation
500	Error message	Internal Server Error

Any HTTP status code other than 204 indicates that the API did not complete successfully.

Sample request:

```
curl -k -H "X-API-Key:sample-api-key" -X POST
"https://10.20.30.40:8444/v9/storage/file-devices/licenses" -d
'{"licenseKey": "E850-C3F5-4604-8712-48E6-2CCF-0553-09"}'
```

Sample response:

```
HTTP/1.1 204 No Content
```

Delete License Key

Deletes a NAS service license key.

HTTP request syntax (URI)

```
DELETE <base_uri>/v9/storage/file-devices/licenses/{licenseKey}
```

Parameters

Parameter	Type	Required	Data Type	Description
licenseKey	path	Y	string	License key text

Return Codes

Code	Data	Description
204	No Data	Operation successfully completed
400	Error message	Bad Request
401	No Data	Unauthorized
403	Error message	Forbidden - the client does not have the required permissions to perform the operation
404	Error message	Not Found - a resource specified was not found
500	Error message	Internal Server Error

Any HTTP status code other than 204 indicates that the API did not complete successfully.

Sample request:

```
curl -k -H "X-API-Key:sample-api-key" -X DELETE
"https://10.20.30.40:8444/v9/storage/file-devices/licenses/E850-C3F5-4604-
8712-48E6-2CCF-0553-09"
```

Sample response:

```
HTTP/1.1 204 No Content
```

Get Licensed Features

Gets a list of all licensed features NAS system features.

HTTP request syntax (URI)

```
GET <base_uri>/v9/storage/file-devices/licensed-features
```

Return Codes

Code	Data	Description
200	licensedFeatures	List of licensedFeature objects successfully retrieved
500	Error message	Internal Server Error

Any HTTP status code other than 200 indicates that the API did not complete successfully.

Sample request:

```
curl -k -H "X-API-Key:sample-api-key" -X GET
"https://10.20.30.40:8444/v9/storage/file-devices/licensed-features"
```

Sample response:

```
HTTP/1.1 200 OK
{
  "licensedFeatures": [
    {
      "data": "32768",
      "featureId": 8,
      "isDisabled": false,
      "isLicensed": false,
      "name": "TB"
    }
  ]
}
```

Get Services

Get services.

HTTP request syntax (URI)

```
GET <base_uri>/v9/storage/file-devices/services
```

Return Codes

Code	Data	Description
200	services	List of service objects successfully retrieved
500	Error message	Internal Server Error

Any HTTP status code other than 200 indicates that the API did not complete successfully.

Sample request:

```
curl -k -H "X-API-Key:sample-api-key" -X GET
"https://10.20.30.40:8444/v9/storage/file-devices/services"
```

Sample response:

```
HTTP/1.1 200 OK
{
  "services": [
    {
      "isEnabled": false,
      "name": "CNS",
      "serviceId": 5
    }
  ]
}
```

Get Service

Get service.

HTTP request syntax (URI)

```
GET <base_uri>/v9/storage/file-devices/services/{serviceId}
```

Parameters

Parameter	Type	Required	Data Type	Description
serviceId	path	Y	integer	ID of the service

Return Codes

Code	Data	Description
200	service	service object successfully retrieved
400	Error message	Bad Request
404	Error message	Not Found - a resource specified was not found
500	Error message	Internal Server Error

Any HTTP status code other than 200 indicates that the API did not complete successfully.

Sample request:

```
curl -k -H "X-API-Key:sample-api-key" -X GET  
"https://10.20.30.40:8444/v9/storage/file-devices/services/5"
```

Sample response:

```
HTTP/1.1 200 OK  
{  
  "service": {  
    "isEnabled": false,  
    "name": "CNS",  
    "serviceId": 5  
  }  
}
```

Enable Service

Enable service.

HTTP request syntax (URI)

```
POST <base_uri>/v9/storage/file-devices/services/{serviceId}/enable
```

Parameters

Parameter	Type	Required	Data Type	Description
serviceId	path	Y	integer	ID of the service

Return Codes

Code	Data	Description
204	No Data	Operation successfully completed
400	Error message	Bad Request
401	No Data	Unauthorized
403	Error message	Forbidden - the client does not have the required permissions to perform the operation
404	Error message	Not Found - a resource specified was not found
500	Error message	Internal Server Error

Any HTTP status code other than 204 indicates that the API did not complete successfully.

Sample request:

```
curl -k -H "X-API-Key:sample-api-key" -X POST  
"https://10.20.30.40:8444/v9/storage/file-devices/services/5/enable"
```

Sample response:

```
HTTP/1.1 204 No Content
```

Disable Service

Disable service.

HTTP request syntax (URI)

```
POST <base_uri>/v9/storage/file-devices/services/{serviceId}/disable
```

Parameters

Parameter	Type	Required	Data Type	Description
serviceId	path	Y	integer	ID of the service

Return Codes

Code	Data	Description
204	No Data	Operation successfully completed
400	Error message	Bad Request
401	No Data	Unauthorized
403	Error message	Forbidden - the client does not have the required permissions to perform the operation
404	Error message	Not Found - a resource specified was not found
500	Error message	Internal Server Error

Any HTTP status code other than 204 indicates that the API did not complete successfully.

Sample request:

```
curl -k -H "X-Api-Key:sample-api-key" -X POST
"https://10.20.30.40:8444/v9/storage/file-devices/services/5/disable"
```

Sample response:

```
HTTP/1.1 204 No Content
```

Get Status Of All Hardware Components

Gets the status of all hardware components within the system. The components contained within the response will vary depending on the hardware model and number of cluster nodes.

HTTP request syntax (URI)

```
GET <base_uri>/v9/storage/file-devices/hardware-status
```

Return Codes

Code	Data	Description
200	hardwareStatus	List of hardwareStatus objects successfully retrieved
500	Error message	Internal Server Error

Any HTTP status code other than 200 indicates that the API did not complete successfully.

Sample request:

```
curl -k -H "X-Api-Key:sample-api-key" -X GET
"https://10.20.30.40:8444/v9/storage/file-devices/hardware-status"
```

Sample response:

```
HTTP/1.1 200 OK
{
  "hardwareStatus": [
    {
      "componentId": "bc526470-c2c9-11d4-9000-040402000106",
      "componentType": "CLUSTER",
      "displayName": "Cluster",
      "overallStatus": "OK",
      "statusStrings": [
        "OK"
      ],
      "subComponents": [
        "{..}"
      ]
    }
  ]
}
```

Get Ethernet Interfaces

Get ethernet interfaces.

HTTP request syntax (URI)

```
GET <base_uri>/v9/storage/file-devices/ethernet-interfaces
```

Return Codes

Code	Data	Description
200	ethernetInterfaces	List of ethernetInterface objects successfully retrieved
500	Error message	Internal Server Error

Any HTTP status code other than 200 indicates that the API did not complete successfully.

Sample request:

```
curl -k -H "X-API-Key:sample-api-key" -X GET  
"https://10.20.30.40:8444/v9/storage/file-devices/ethernet-interfaces"
```

Sample response:

```
HTTP/1.1 200 OK  
{  
  "ethernetInterfaces": [  
    {  
      "isAdminVirtualServerIpAllowed": false,  
      "isAdvancedIpConfigAllowed": false,  
      "isAggregationAllowed": false,  
      "isClusterNodeIpAllowed": false,  
      "isVirtualServerIpAllowed": false,  
      "name": "tg1"  
    }  
  ]  
}
```

Get Aggregate Interfaces

Get a list of aggregate network interfaces. An aggregate is a collection of one or more physical interfaces that are bundled together to behave as a single logical interface.

HTTP request syntax (URI)

```
GET <base_uri>/v9/storage/file-devices/aggregate-interfaces
```

Return Codes

Code	Data	Description
200	aggregateInterfaces	List of aggregateInterface objects successfully retrieved

500	Error message	Internal Server Error
-----	---------------	-----------------------

Any HTTP status code other than 200 indicates that the API did not complete successfully.

Sample request:

```
curl -k -H "X-API-Key:sample-api-key" -X GET
"https://10.20.30.40:8444/v9/storage/file-devices/aggregate-interfaces"
```

Sample response:

```
HTTP/1.1 200 OK
{
  "aggregateInterfaces": [
    {
      "interfaces": [
        {
          "port": "tg1",
          "status": "DOWN"
        }
      ],
      "lacpEnabled": false,
      "loadBalance": "INVALID",
      "name": "ag1",
      "objectId": "333a3a3a3a3a3a3a303a3a3a4f49445f24232140255f56"
    }
  ]
}
```

Get An Aggregate Interface

Get a single aggregate network interface. An aggregate is a collection of one or more physical interfaces that are bundled together to behave as a single logical interface.

HTTP request syntax (URI)

```
GET <base_uri>/v9/storage/file-devices/aggregate-
interfaces/{aggregateInterfaceObjectId}
```

Parameters

Parameter	Type	Required	Data Type	Description
aggregateInterfaceObjectId	path	Y	string	Object ID of the aggregate interface

Return Codes

Code	Data	Description
200	aggregateInterface	aggregateInterface object successfully retrieved
400	Error message	Bad Request
404	Error message	Not Found - a resource specified was not found

500	Error message	Internal Server Error
-----	---------------	-----------------------

Any HTTP status code other than 200 indicates that the API did not complete successfully.

Sample request:

```
curl -k -H "X-API-Key:sample-api-key" -X GET
"https://10.20.30.40:8444/v9/storage/file-devices/aggregate-
interfaces/6167343a3a3a303a3a3a4f49445f24232140255f56"
```

Sample response:

```
HTTP/1.1 200 OK
{
  "aggregateInterface": {
    "interfaces": [
      {
        "port": "tg1",
        "status": "DOWN"
      }
    ],
    "lacpEnabled": false,
    "loadBalance": "INVALID",
    "name": "ag1",
    "objectId": "333a3a3a3a3a303a3a3a4f49445f24232140255f56"
  }
}
```

Create An Aggregate Interface

Creates the binding of one or more physical interfaces to form an aggregate network interface. All physical interfaces must be of the same speed.

HTTP request syntax (URI)

```
POST <base_uri>/v9/storage/file-devices/aggregate-interfaces
```

Parameters

Parameter	Type	Required	Data Type	Description
interfaces	body	N	array	List of physical interfaces that should be used by the aggregate interface
lacpEnabled	body	N	boolean	True indicates that 802.3ad link management protocol (LACP) will be used on the interface
loadBalance	body	N	string	Load balancing algorithm that the will be used for links that include multiple ports. Possible values are: - NORMAL - ROUND_ROBIN
name	body	Y	string	Name to associate with the item

Return Codes

Code	Data	Description
201	aggregateInterface	Successfully created new item
400	Error message	Bad Request
401	No Data	Unauthorized
403	Error message	Forbidden - the client does not have the required permissions to perform the operation
500	Error message	Internal Server Error

Any HTTP status code other than 201 indicates that the API did not complete successfully.

Sample request:

```
curl -k -H "X-API-Key:sample-api-key" -X POST
"https://10.20.30.40:8444/v9/storage/file-devices/aggregate-interfaces" -d
'{"interfaces": [ "tg1" ], "lacpEnabled": false, "loadBalance": "NORMAL",
"name": "Name2"}'
```

Sample response:

```
HTTP/1.1 201 Created
{
  "aggregateInterface": {
    "interfaces": [
      {
        "port": "tg1",
        "status": "DOWN"
      }
    ],
    "lacpEnabled": false,
    "loadBalance": "INVALID",
    "name": "ag1",
    "objectId": "333a3a3a3a3a3a303a3a3a4f49445f24232140255f56"
  },
  "uri": "https://10.20.30.40:8444/v9/storage/file-devices/aggregate-
interfaces/333a3a3a3a3a3a303a3a3a4f49445f24232140255f56"
}
```

Modify An Aggregate Interface

Modify an aggregate interface.

HTTP request syntax (URI)

```
PATCH <base_uri>/v9/storage/file-devices/aggregate-
interfaces/{aggregateInterfaceObjectId}
```

Parameters

Parameter	Type	Required	Data Type	Description
-----------	------	----------	-----------	-------------

aggregateInterfaceObjectId	path	Y	string	Object ID of the aggregate interface
interfaces	body	N	array	List of physical interfaces that should be used by the aggregate interface
lACPEnabled	body	N	boolean	True indicates that 802.3ad link management protocol (LACP) will be used on the interface
loadBalance	body	N	string	Load balancing algorithm that will be used for links that include multiple ports. Possible values are: - NORMAL - ROUND_ROBIN

Return Codes

Code	Data	Description
204	No Data	Operation successfully completed
400	Error message	Bad Request
401	No Data	Unauthorized
403	Error message	Forbidden - the client does not have the required permissions to perform the operation
404	Error message	Not Found - a resource specified was not found
500	Error message	Internal Server Error

Any HTTP status code other than 204 indicates that the API did not complete successfully.

Sample request:

```
curl -k -H "X-Api-Key:sample-api-key" -X PATCH
"https://10.20.30.40:8444/v9/storage/file-devices/aggregate-
interfaces/6167343a3a3a303a3a3a4f49445f24232140255f56" -d '{"interfaces": [
"tg1" ], "lACPEnabled": false, "loadBalance": "NORMAL"}
```

Sample response:

```
HTTP/1.1 204 No Content
```

Delete An Aggregate Interface

Delete an aggregate interface.

HTTP request syntax (URI)

```
DELETE <base_uri>/v9/storage/file-devices/aggregate-
interfaces/{aggregateInterfaceObjectId}
```

Parameters

Parameter	Type	Required	Data Type	Description
aggregateInterfaceObjectId	path	Y	string	Object ID of the aggregate interface

Return Codes

Code	Data	Description
204	No Data	Operation successfully completed
400	Error message	Bad Request
401	No Data	Unauthorized
403	Error message	Forbidden - the client does not have the required permissions to perform the operation
404	Error message	Not Found - a resource specified was not found
500	Error message	Internal Server Error

Any HTTP status code other than 204 indicates that the API did not complete successfully.

Sample request:

```
curl -k -H "X-Api-Key:sample-api-key" -X DELETE
"https://10.20.30.40:8444/v9/storage/file-devices/aggregate-
interfaces/6167343a3a3a303a3a3a4f49445f24232140255f56"
```

Sample response:

```
HTTP/1.1 204 No Content
```

Get VLAN Ethernet Interfaces

Get vlan ethernet interfaces.

HTTP request syntax (URI)

```
GET <base_uri>/v9/storage/file-devices/vlan-interfaces
```

Return Codes

Code	Data	Description
200	vlanInterfaces	List of vlanInterface objects successfully retrieved
500	Error message	Internal Server Error

Any HTTP status code other than 200 indicates that the API did not complete successfully.

Sample request:

```
curl -k -H "X-Api-Key:sample-api-key" -X GET
"https://10.20.30.40:8444/v9/storage/file-devices/vlan-interfaces"
```

Sample response:

```

HTTP/1.1 200 OK
{
  "vlanInterfaces": [
    {
      "aggregateInterface": "ag1",
      "name": "ag1-vlan0123",
      "objectId": "333a3a3a3a3a3a303a3a3a4f49445f24232140255f56",
      "vlanId": 123
    }
  ]
}

```

Get A VLAN Ethernet Interface

Get a vlan ethernet interface.

HTTP request syntax (URI)

```
GET <base_uri>/v9/storage/file-devices/vlan-interfaces/{vlanObjectId}
```

Parameters

Parameter	Type	Required	Data Type	Description
vlanObjectId	path	Y	string	Object ID of the vlan interface

Return Codes

Code	Data	Description
200	vlanInterface	vlanInterface object successfully retrieved
400	Error message	Bad Request
404	Error message	Not Found - a resource specified was not found
500	Error message	Internal Server Error

Any HTTP status code other than 200 indicates that the API did not complete successfully.

Sample request:

```

curl -k -H "X-API-Key:sample-api-key" -X GET
"https://10.20.30.40:8444/v9/storage/file-devices/vlan-
interfaces/6167322d766c616e303034343a3a3a303a3a3a4f49445f24232140255f56"

```

Sample response:

```

HTTP/1.1 200 OK
{
  "vlanInterface": {
    "aggregateInterface": "ag1",
    "name": "ag1-vlan0123",
    "objectId": "333a3a3a3a3a3a303a3a3a4f49445f24232140255f56",
    "vlanId": 123
  }
}

```

```
}  
}
```

Create A VLAN Interface

Creates an association between an aggregate ethernet interface and a specific VLAN ID.

HTTP request syntax (URI)

```
POST <base_uri>/v9/storage/file-devices/vlan-interfaces
```

Parameters

Parameter	Type	Required	Data Type	Description
aggregateInterface	body	Y	string	Object ID or name of the aggregate interface to associate the VLAN with
vlanId	body	Y	integer	This is the VLAN tag that will be applied to traffic on the VLAN interface

Return Codes

Code	Data	Description
201	vlanInterface	Successfully created new item
400	Error message	Bad Request
401	No Data	Unauthorized
403	Error message	Forbidden - the client does not have the required permissions to perform the operation
500	Error message	Internal Server Error

Any HTTP status code other than 201 indicates that the API did not complete successfully.

Sample request:

```
curl -k -H "X-API-Key:sample-api-key" -X POST  
"https://10.20.30.40:8444/v9/storage/file-devices/vlan-interfaces" -d  
'{"aggregateInterface": "ag1", "vlanId": 123}'
```

Sample response:

```
HTTP/1.1 201 Created  
{  
  "vlanInterface": {  
    "aggregateInterface": "ag1",  
    "name": "ag1-vlan0123",  
    "objectId": "333a3a3a3a3a3a303a3a3a4f49445f24232140255f56",  
    "vlanId": 123  
  },  
  "uri": "https://10.20.30.40:8444/v9/storage/file-devices/vlan-
```

```
interfaces/333a3a3a3a3a3a3a303a3a3a4f49445f24232140255f56"
}
```

Delete A VLAN Interface

Delete a vlan interface.

HTTP request syntax (URI)

```
DELETE <base_uri>/v9/storage/file-devices/vlan-interfaces/{vlanObjectId}
```

Parameters

Parameter	Type	Required	Data Type	Description
vlanObjectId	path	Y	string	Object ID of the vlan interface

Return Codes

Code	Data	Description
204	No Data	Operation successfully completed
400	Error message	Bad Request
401	No Data	Unauthorized
403	Error message	Forbidden - the client does not have the required permissions to perform the operation
404	Error message	Not Found - a resource specified was not found
500	Error message	Internal Server Error

Any HTTP status code other than 204 indicates that the API did not complete successfully.

Sample request:

```
curl -k -H "X-Api-Key:sample-api-key" -X DELETE
"https://10.20.30.40:8444/v9/storage/file-devices/vlan-
interfaces/6167322d766c616e303034343a3a3a303a3a3a4f49445f24232140255f56"
```

Sample response:

```
HTTP/1.1 204 No Content
```

Get Network Routes

Get network routes.

HTTP request syntax (URI)

```
GET <base_uri>/v9/storage/file-devices/network-routes
```

Return Codes

Code	Data	Description
200	routes	List of route objects successfully retrieved
500	Error message	Internal Server Error

Any HTTP status code other than 200 indicates that the API did not complete successfully.

Sample request:

```
curl -k -H "X-API-Key:sample-api-key" -X GET
"https://10.20.30.40:8444/v9/storage/file-devices/network-routes"
```

Sample response:

```
HTTP/1.1 200 OK
{
  "routes": [
    {
      "MTU": 12345,
      "destination": "10.1.2.3",
      "flags": 12345,
      "gateway": "10.0.0.1",
      "isClusterNodeRoute": false,
      "isStaticRoute": false,
      "nodeId": 1,
      "objectId": "333a3a3a3a3a3a303a3a3a4f49445f24232140255f56",
      "type": "Host"
    }
  ]
}
```

Get A Network Route

Get a network route.

HTTP request syntax (URI)

```
GET <base_uri>/v9/storage/file-devices/network-routes/{routeObjectId}
```

Parameters

Parameter	Type	Required	Data Type	Description
routeObjectId	path	Y	string	Object ID of the network route

Return Codes

Code	Data	Description
200	route	route object successfully retrieved
400	Error message	Bad Request
404	Error message	Not Found - a resource specified was not found
500	Error message	Internal Server Error

Any HTTP status code other than 200 indicates that the API did not complete successfully.

Sample request:

```
curl -k -H "X-API-Key:sample-api-key" -X GET
"https://10.20.30.40:8444/v9/storage/file-devices/network-
routes/486f73743a3a3a312e322e332e343a3a3a312e322e332e342f3332"
```

Sample response:

```
HTTP/1.1 200 OK
{
  "route": {
    "MTU": 12345,
    "destination": "10.1.2.3",
    "flags": 12345,
    "gateway": "10.0.0.1",
    "isClusterNodeRoute": false,
    "isStaticRoute": false,
    "nodeId": 1,
    "objectId": "333a3a3a3a3a3a303a3a3a4f49445f24232140255f56",
    "type": "Host"
  }
}
```

Create A Network Route

Create a network route.

HTTP request syntax (URI)

```
POST <base_uri>/v9/storage/file-devices/network-routes
```

Parameters

Parameter	Type	Required	Data Type	Description
destination	body	Y	string	Destination IP address
gateway	body	Y	string	Gateway IP address
mask	body	Y	string	Subnet mask. Possible values are: - ROUTE_MASK_24 - ROUTE_MASK_25 - ROUTE_MASK_26 - ROUTE_MASK_27 - ROUTE_MASK_28 - ROUTE_MASK_29 - ROUTE_MASK_30 - ROUTE_MASK_31 - ROUTE_MASK_32
nodeId	body	N	string or integer	Either a node object ID or a cluster node ID

type	body	Y	string	Type of route. Possible values are: - ROUTE_TYPE_HOST - ROUTE_TYPE_NETWORK - ROUTE_TYPE_GATEWAY
------	------	---	--------	--

Return Codes

Code	Data	Description
201	route	Successfully created new item
400	Error message	Bad Request
401	No Data	Unauthorized
403	Error message	Forbidden - the client does not have the required permissions to perform the operation
500	Error message	Internal Server Error

Any HTTP status code other than 201 indicates that the API did not complete successfully.

Sample request:

```
curl -k -H "X-API-Key:sample-api-key" -X POST
"https://10.20.30.40:8444/v9/storage/file-devices/network-routes" -d
'{"destination": "10.1.2.3", "gateway": "10.0.0.1", "mask": "ROUTE_MASK_24",
"nodeId": 1, "type": "ROUTE_TYPE_HOST"}'
```

Sample response:

```
HTTP/1.1 201 Created
{
  "route": {
    "MTU": 12345,
    "destination": "10.1.2.3",
    "flags": 12345,
    "gateway": "10.0.0.1",
    "isClusterNodeRoute": false,
    "isStaticRoute": false,
    "nodeId": 1,
    "objectId": "333a3a3a3a3a3a303a3a3a4f49445f24232140255f56",
    "type": "Host"
  },
  "uri": "https://10.20.30.40:8444/v9/storage/file-devices/network-
routes/333a3a3a3a3a3a303a3a3a4f49445f24232140255f56"
}
```

Delete A Network Route

Delete a network route.

HTTP request syntax (URI)

```
DELETE <base_uri>/v9/storage/file-devices/network-routes/{routeObjectId}
```

Parameters

Parameter	Type	Required	Data Type	Description
routeObjectId	path	Y	string	Object ID of the network route

Return Codes

Code	Data	Description
204	No Data	Operation successfully completed
400	Error message	Bad Request
401	No Data	Unauthorized
403	Error message	Forbidden - the client does not have the required permissions to perform the operation
404	Error message	Not Found - a resource specified was not found
500	Error message	Internal Server Error

Any HTTP status code other than 204 indicates that the API did not complete successfully.

Sample request:

```
curl -k -H "X-API-Key:sample-api-key" -X DELETE  
"https://10.20.30.40:8444/v9/storage/file-devices/network-  
routes/486f73743a3a3a312e322e332e343a3a3a312e322e332e342f3332"
```

Sample response:

```
HTTP/1.1 204 No Content
```

Flush Network Routes

Flush network routes.

HTTP request syntax (URI)

```
POST <base_uri>/v9/storage/file-devices/network-routes/flush
```

Return Codes

Code	Data	Description
204	No Data	Operation successfully completed
401	No Data	Unauthorized
403	Error message	Forbidden - the client does not have the required permissions to perform the operation
500	Error message	Internal Server Error

Any HTTP status code other than 204 indicates that the API did not complete successfully.

Sample request:

```
curl -k -H "X-API-Key:sample-api-key" -X POST
"https://10.20.30.40:8444/v9/storage/file-devices/network-routes/flush"
```

Sample response:

```
HTTP/1.1 204 No Content
```

Get SMTP Alerts

Get details about SMTP email alert configuration.

HTTP request syntax (URI)

```
GET <base_uri>/v9/storage/file-devices/alerts/smtp
```

Return Codes

Code	Data	Description
200	smtpAlerts	smtpAlerts object successfully retrieved
500	Error message	Internal Server Error

Any HTTP status code other than 200 indicates that the API did not complete successfully.

Sample request:

```
curl -k -H "X-API-Key:sample-api-key" -X GET
"https://10.20.30.40:8444/v9/storage/file-devices/alerts/smtp"
```

Sample response:

```
HTTP/1.1 200 OK
{
  "smtpAlerts": {
    "fromAddress": "system@example.com",
    "smtpServer": "10.1.2.3"
  }
}
```

Set SMTP Alerts

Set common parameters for SMTP email alert configuration.

HTTP request syntax (URI)

```
PATCH <base_uri>/v9/storage/file-devices/alerts/smtp
```

Parameters

Parameter	Type	Required	Data Type	Description
-----------	------	----------	-----------	-------------

fromAddress	body	N	string	Email address that is used when sending alert emails
smtpServer	body	N	string	SMTP email server IP address or hostname

Return Codes

Code	Data	Description
204	No Data	Operation successfully completed
400	Error message	Bad Request
401	No Data	Unauthorized
403	Error message	Forbidden - the client does not have the required permissions to perform the operation
500	Error message	Internal Server Error

Any HTTP status code other than 204 indicates that the API did not complete successfully.

Sample request:

```
curl -k -H "X-Api-Key:sample-api-key" -X PATCH
"https://10.20.30.40:8444/v9/storage/file-devices/alerts/smtp" -d
'{"fromAddress": "system@example.com", "smtpServer": "10.1.2.3"}'
```

Sample response:

```
HTTP/1.1 204 No Content
```

Get SMTP Alert Profiles

Get SMTP email alert profiles used to send alerts. Unlike syslog and SNMP traps, email alerts can be configured to have multiple different profiles, which can send the alerts at different frequencies, and in different format.

HTTP request syntax (URI)

```
GET <base_uri>/v9/storage/file-devices/alerts/smtp/profiles
```

Return Codes

Code	Data	Description
200	emailProfiles	List of emailProfile objects successfully retrieved
500	Error message	Internal Server Error

Any HTTP status code other than 200 indicates that the API did not complete successfully.

Sample request:

```
curl -k -H "X-Api-Key:sample-api-key" -X GET
"https://10.20.30.40:8444/v9/storage/file-devices/alerts/smtp/profiles"
```

Sample response:

```

HTTP/1.1 200 OK
{
  "emailProfiles": [
    {
      "discloseDetails": false,
      "excludeAttachments": false,
      "htmlFormat": false,
      "ignoreNdmpEvents": false,
      "isEnabled": false,
      "maxEmailLength": 12345,
      "name": "Profile1",
      "notificationFrequencyInfo": "SUMMARY",
      "notificationFrequencySevere": "SUMMARY",
      "notificationFrequencyWarning": "SUMMARY",
      "objectId": "333a3a3a3a3a3a3a303a3a3a4f49445f24232140255f56",
      "recipients": [
        "user1@example.com"
      ],
      "sendDailyStatusEmails": false,
      "sendEmptyEmails": false,
      "summaryTimes": [
        "08:00"
      ],
      "text": "Email alerts from storage system",
      "uuEncode": false
    }
  ]
}

```

Get SMTP Alert Profile

Get SMTP alert profile.

HTTP request syntax (URI)

```
GET <base_uri>/v9/storage/file-devices/alerts/smtp/profiles/{smtpProfileObjectId}
```

Parameters

Parameter	Type	Required	Data Type	Description
smtpProfileObjectId	path	Y	string	Object ID of the SMTP profile

Return Codes

Code	Data	Description
200	emailProfile	emailProfile object successfully retrieved
400	Error message	Bad Request
404	Error message	Not Found - a resource specified was not found
500	Error message	Internal Server Error

Any HTTP status code other than 200 indicates that the API did not complete successfully.

Sample request:

```
curl -k -H "X-API-Key:sample-api-key" -X GET
"https://10.20.30.40:8444/v9/storage/file-
devices/alerts/smtp/profiles/6d61696e3a3a3a303a3a3a4f49445f24232140255f56"
```

Sample response:

```
HTTP/1.1 200 OK
{
  "emailProfile": {
    "discloseDetails": false,
    "excludeAttachments": false,
    "htmlFormat": false,
    "ignoreNdmpevents": false,
    "isEnabled": false,
    "maxEmailLength": 12345,
    "name": "Profile1",
    "notificationFrequencyInfo": "SUMMARY",
    "notificationFrequencySevere": "SUMMARY",
    "notificationFrequencyWarning": "SUMMARY",
    "objectId": "333a3a3a3a3a3a303a3a3a4f49445f24232140255f56",
    "recipients": [
      "user1@example.com"
    ],
    "sendDailyStatusEmails": false,
    "sendEmptyEmails": false,
    "summaryTimes": [
      "08:00"
    ],
    "text": "Email alerts from storage system",
    "uuEncode": false
  }
}
```

Add SMTP Alert Profile

Adds a new SMTP email profile. Multiple profiles can be created to allow different options to be applied to each one, so that different recipients can receive different alert information from the system.

Information alerts can't be sent more frequently than Warning alerts, and Warning alerts can't be sent more frequently than Severe alerts.

HTTP request syntax (URI)

```
POST <base_uri>/v9/storage/file-devices/alerts/smtp/profiles
```

Parameters

Parameter	Type	Required	Data Type	Description
-----------	------	----------	-----------	-------------

discloseDetails	body	N	boolean	Disclose details in the emails (IP addresses, etc)
excludeAttachments	body	N	boolean	Excludes attachments for this profile
htmlFormat	body	N	boolean	Send status and alert emails in HTML format
ignoreNdmpEvents	body	N	boolean	Ignore NDMP events in emails which are sent immediately
isEnabled	body	N	boolean	True if enabled, false for disabled
maxEmailLength	body	N	integer	Maximum possible email length, in bytes
name	body	Y	string	Name to associate with the item
notificationFrequencyInfo	body	N	string	Frequency to send Information severity alerts . Possible values are: - SUMMARY - IMMEDIATELY - NEVER
notificationFrequencySevere	body	N	string	Frequency to send Severe severity alerts . Possible values are: - SUMMARY - IMMEDIATELY - NEVER
notificationFrequencyWarning	body	N	string	Frequency to send Warning severity alerts . Possible values are: - SUMMARY - IMMEDIATELY - NEVER
recipients	body	N	array	A list of email addresses that will receive emails for this profile
sendDailyStatusEmails	body	N	boolean	True indicates that daily status emails will be sent
sendEmptyEmails	body	N	boolean	True indicates that summary emails will still be sent, even if there are no new alerts
summaryTimes	body	N	array	List of times that summary emails will be sent. Times must be of the form HH:MM. Two summary times can be specified
text	body	N	string	Arbitrary text that will be included at the beginning of each email

uuEncode	body	N	boolean	True indicates that diagnostic email attachments will be uuencoded before sending
----------	------	---	---------	---

Return Codes

Code	Data	Description
201	emailProfile	Successfully created new item
400	Error message	Bad Request
401	No Data	Unauthorized
403	Error message	Forbidden - the client does not have the required permissions to perform the operation
500	Error message	Internal Server Error

Any HTTP status code other than 201 indicates that the API did not complete successfully.

Sample request:

```
curl -k -H "X-API-Key:sample-api-key" -X POST
"https://10.20.30.40:8444/v9/storage/file-devices/alerts/smtp/profiles" -d
'{"discloseDetails": false, "excludeAttachments": false, "htmlFormat": false,
"ignoreNdmpevents": false, "isEnabled": false, "maxEmailLength": 12345,
"name": "Name2", "notificationFrequencyInfo": "SUMMARY",
"notificationFrequencySevere": "SUMMARY", "notificationFrequencyWarning":
"SUMMARY", "recipients": [ "user1@example.com" ], "sendDailyStatusEmails":
false, "sendEmptyEmails": false, "summaryTimes": [ "08:00" ], "text": "Email
alerts from storage system", "uuEncode": false}'
```

Sample response:

```
HTTP/1.1 201 Created
{
  "emailProfile": {
    "discloseDetails": false,
    "excludeAttachments": false,
    "htmlFormat": false,
    "ignoreNdmpevents": false,
    "isEnabled": false,
    "maxEmailLength": 12345,
    "name": "Profile1",
    "notificationFrequencyInfo": "SUMMARY",
    "notificationFrequencySevere": "SUMMARY",
    "notificationFrequencyWarning": "SUMMARY",
    "objectId": "333a3a3a3a3a3a303a3a3a4f49445f24232140255f56",
    "recipients": [
      "user1@example.com"
    ],
    "sendDailyStatusEmails": false,
    "sendEmptyEmails": false,
    "summaryTimes": [
      "08:00"
    ],
    "text": "Email alerts from storage system",
    "uuEncode": false
  },
}
```

```
"uri": "https://10.20.30.40:8444/v9/storage/file-
devices/alerts/smtp/profiles/333a3a3a3a3a3a303a3a3a4f49445f24232140255f56"
}
```

Update SMTP Alert Profile

Updates an existing SMTP email profile.

Information alerts can't be sent more frequently than Warning alerts, and Warning alerts can't be sent more frequently than Severe alerts.

HTTP request syntax (URI)

```
PATCH <base_uri>/v9/storage/file-
devices/alerts/smtp/profiles/{smtpProfileObjectId}
```

Parameters

Parameter	Type	Required	Data Type	Description
smtpProfileObjectId	path	Y	string	Object ID of the SMTP profile
discloseDetails	body	N	boolean	Disclose details in the emails (IP addresses, etc)
excludeAttachments	body	N	boolean	Excludes attachments for this profile
htmlFormat	body	N	boolean	Send status and alert emails in HTML format
ignoreNdmpEvents	body	N	boolean	Ignore NDMP events in emails which are sent immediately
isEnabled	body	N	boolean	True if enabled, false for disabled
maxEmailLength	body	N	integer	Maximum possible email length, in bytes
notificationFrequencyInfo	body	N	string	Frequency to send Information severity alerts . Possible values are: - SUMMARY - IMMEDIATELY - NEVER
notificationFrequencySevere	body	N	string	Frequency to send Severe severity alerts . Possible values are: - SUMMARY - IMMEDIATELY - NEVER
notificationFrequencyWarning	body	N	string	Frequency to send Warning severity alerts . Possible values are:

				- SUMMARY - IMMEDIATELY - NEVER
recipients	body	N	array	A list of email addresses that will receive emails for this profile
sendDailyStatusEmails	body	N	boolean	True indicates that daily status emails will be sent
sendEmptyEmails	body	N	boolean	True indicates that summary emails will still be sent, even if there are no new alerts
summaryTimes	body	N	array	List of times that summary emails will be sent. Times must be of the form HH:MM. Two summary times can be specified
text	body	N	string	Arbitrary text that will be included at the beginning of each email
uuEncode	body	N	boolean	True indicates that diagnostic email attachments will be uuencoded before sending

Return Codes

Code	Data	Description
204	No Data	Operation successfully completed
400	Error message	Bad Request
401	No Data	Unauthorized
403	Error message	Forbidden - the client does not have the required permissions to perform the operation
404	Error message	Not Found - a resource specified was not found
500	Error message	Internal Server Error

Any HTTP status code other than 204 indicates that the API did not complete successfully.

Sample request:

```
curl -k -H "X-API-Key:sample-api-key" -X PATCH
"https://10.20.30.40:8444/v9/storage/file-
devices/alerts/smtp/profiles/6d61696e3a3a3a303a3a3a4f49445f24232140255f56" -d
'{"discloseDetails": false, "excludeAttachments": false, "htmlFormat": false,
"ignoreNdmpevents": false, "isEnabled": false, "maxEmailLength": 12345,
"notificationFrequencyInfo": "SUMMARY", "notificationFrequencySevere":
"SUMMARY", "notificationFrequencyWarning": "SUMMARY", "recipients": [
"user1@example.com" ], "sendDailyStatusEmails": false, "sendEmptyEmails":
false, "summaryTimes": [ "08:00" ], "text": "Email alerts from storage
system", "uuEncode": false}'
```

Sample response:

```
HTTP/1.1 204 No Content
```

Delete SMTP Alert Profile

Delete SMTP alert profile.

HTTP request syntax (URI)

```
DELETE <base_uri>/v9/storage/file-  
devices/alerts/smtp/profiles/{smtpProfileObjectId}
```

Parameters

Parameter	Type	Required	Data Type	Description
smtpProfileObjectId	path	Y	string	Object ID of the SMTP profile

Return Codes

Code	Data	Description
204	No Data	Operation successfully completed
400	Error message	Bad Request
401	No Data	Unauthorized
403	Error message	Forbidden - the client does not have the required permissions to perform the operation
404	Error message	Not Found - a resource specified was not found
500	Error message	Internal Server Error

Any HTTP status code other than 204 indicates that the API did not complete successfully.

Sample request:

```
curl -k -H "X-API-Key:sample-api-key" -X DELETE  
"https://10.20.30.40:8444/v9/storage/file-  
devices/alerts/smtp/profiles/6d61696e3a3a3a303a3a3a4f49445f24232140255f56"
```

Sample response:

```
HTTP/1.1 204 No Content
```

Get SNMP Alerts

Get details about SNMP trap configuration.

HTTP request syntax (URI)

```
GET <base_uri>/v9/storage/file-devices/alerts/snmp
```

Return Codes

Code	Data	Description
------	------	-------------

200	snmpAlerts	snmpAlerts object successfully retrieved
500	Error message	Internal Server Error

Any HTTP status code other than 200 indicates that the API did not complete successfully.

Sample request:

```
curl -k -H "X-API-Key:sample-api-key" -X GET
"https://10.20.30.40:8444/v9/storage/file-devices/alerts/snmp"
```

Sample response:

```
HTTP/1.1 200 OK
{
  "snmpAlerts": {
    "notificationFrequencyInfo": "IMMEDIATELY",
    "notificationFrequencySevere": "IMMEDIATELY",
    "notificationFrequencyWarning": "IMMEDIATELY",
    "port": 162,
    "recipients": [
      {
        "community": "public",
        "host": "10.1.2.3"
      }
    ]
  }
}
```

Set SNMP Alerts

Alert messages can be sent to external systems via SNMP traps. It's possible to configure multiple recipients and set the frequency that each event category is sent.

Information alerts can't be sent more frequently than Warning alerts, and Warning alerts can't be sent more frequently than Severe alerts.

HTTP request syntax (URI)

```
PATCH <base_uri>/v9/storage/file-devices/alerts/snmp
```

Parameters

Parameter	Type	Required	Data Type	Description
notificationFrequencyInfo	body	N	string	Frequency to send Information severity alerts . Possible values are: - IMMEDIATELY - NEVER
notificationFrequencySevere	body	N	string	Frequency to send Severe severity alerts . Possible values are:

				- IMMEDIATELY - NEVER
notificationFrequencyWarning	body	N	string	Frequency to send Warning severity alerts . Possible values are: - IMMEDIATELY - NEVER
port	body	N	integer	UDP port used to send SNMP traps
recipients	body	N	array	A list of recipients that will be sent SNMP traps

Return Codes

Code	Data	Description
204	No Data	Operation successfully completed
400	Error message	Bad Request
401	No Data	Unauthorized
403	Error message	Forbidden - the client does not have the required permissions to perform the operation
500	Error message	Internal Server Error

Any HTTP status code other than 204 indicates that the API did not complete successfully.

Sample request:

```
curl -k -H "X-Api-Key:sample-api-key" -X PATCH
"https://10.20.30.40:8444/v9/storage/file-devices/alerts/snmp" -d
'{"notificationFrequencyInfo": "IMMEDIATELY", "notificationFrequencySevere":
"IMMEDIATELY", "notificationFrequencyWarning": "IMMEDIATELY", "port": 162,
"recipients": [ {"community": "public", "host": "10.1.2.3"} ]}'
```

Sample response:

```
HTTP/1.1 204 No Content
```

Get Syslog Alerts

Get details about syslog alert configuration.

HTTP request syntax (URI)

```
GET <base_uri>/v9/storage/file-devices/alerts/syslog
```

Return Codes

Code	Data	Description
200	syslogAlerts	syslogAlerts object successfully retrieved

500	Error message	Internal Server Error
-----	---------------	-----------------------

Any HTTP status code other than 200 indicates that the API did not complete successfully.

Sample request:

```
curl -k -H "X-Api-Key:sample-api-key" -X GET
"https://10.20.30.40:8444/v9/storage/file-devices/alerts/syslog"
```

Sample response:

```
HTTP/1.1 200 OK
{
  "syslogAlerts": {
    "notificationFrequencyInfo": "IMMEDIATELY",
    "notificationFrequencySevere": "IMMEDIATELY",
    "notificationFrequencyWarning": "IMMEDIATELY",
    "recipients": [
      "10.3.5.7"
    ]
  }
}
```

Set Syslog Alerts

Alert messages can be sent to external systems via the syslog protocol. It's possible to configure multiple recipients and set the frequency that each event category is sent.

Information alerts can't be sent more frequently than Warning alerts, and Warning alerts can't be sent more frequently than Severe alerts.

HTTP request syntax (URI)

```
PATCH <base_uri>/v9/storage/file-devices/alerts/syslog
```

Parameters

Parameter	Type	Required	Data Type	Description
notificationFrequencyInfo	body	N	string	Frequency to send Information severity alerts . Possible values are: - IMMEDIATELY - NEVER
notificationFrequencySevere	body	N	string	Frequency to send Severe severity alerts . Possible values are: - IMMEDIATELY - NEVER
notificationFrequencyWarning	body	N	string	Frequency to send Warning severity alerts . Possible values are:

				- IMMEDIATELY - NEVER
recipients	body	N	array	A list of recipients that will be sent syslog messages

Return Codes

Code	Data	Description
204	No Data	Operation successfully completed
400	Error message	Bad Request
401	No Data	Unauthorized
403	Error message	Forbidden - the client does not have the required permissions to perform the operation
500	Error message	Internal Server Error

Any HTTP status code other than 204 indicates that the API did not complete successfully.

Sample request:

```
curl -k -H "X-Api-Key:sample-api-key" -X PATCH
"https://10.20.30.40:8444/v9/storage/file-devices/alerts/syslog" -d
'{"notificationFrequencyInfo": "IMMEDIATELY", "notificationFrequencySevere":
"IMMEDIATELY", "notificationFrequencyWarning": "IMMEDIATELY", "recipients": [
"10.3.5.7" ]}'
```

Sample response:

```
HTTP/1.1 204 No Content
```

Get SNMP Access Config

Get SNMP access config.

HTTP request syntax (URI)

```
GET <base_uri>/v9/storage/file-devices/management-access/snmp
```

Return Codes

Code	Data	Description
200	snmpConfig	snmpConfig object successfully retrieved
500	Error message	Internal Server Error

Any HTTP status code other than 200 indicates that the API did not complete successfully.

Sample request:

```
curl -k -H "X-Api-Key:sample-api-key" -X GET
"https://10.20.30.40:8444/v9/storage/file-devices/management-access/snmp"
```

Sample response:

```

HTTP/1.1 200 OK
{
  "snmpConfig": {
    "allowSnmpV1": false,
    "allowSnmpV2": false,
    "allowSnmpV3": false,
    "allowedCommunities": [
      "public"
    ],
    "allowedHosts": [
      "10.20.30.40"
    ],
    "isEnabled": false,
    "port": 161,
    "restrictHosts": false,
    "sendAuthFailureTraps": false
  }
}

```

Set SNMP Access Config

Configure SNMP management access. SNMP provides read only access to various system resources.

Note: It's not possible to enable SNMPv3 while SNMPv1 or SNMPv2 are enabled. It's currently not possible to fully configure SNMPv3 via the REST API.

HTTP request syntax (URI)

```
PATCH <base_uri>/v9/storage/file-devices/management-access/snmp
```

Parameters

Parameter	Type	Required	Data Type	Description
allowSnmpV1	body	N	boolean	Allow SNMPv1 requests
allowSnmpV2	body	N	boolean	Allow SNMPv2c requests
allowSnmpV3	body	N	boolean	Allow SNMPv3 requests
allowedCommunities	body	N	array	A list of allowed community string values
allowedHosts	body	N	array	A list of hosts allowed to access the specific management interface. The host values can be either IP address or valid DNS names
isEnabled	body	N	boolean	True if enabled, false for disabled
port	body	N	integer	UDP port used to receive SNMP messages
restrictHosts	body	N	boolean	True indicates that access is restricted to only the hosts in the allowed hosts list

sendAuthFailureTraps	body	N	boolean	True indicates that SNMP authentication failure traps should be sent to configured SNMP trap hosts
----------------------	------	---	---------	--

Return Codes

Code	Data	Description
204	No Data	Operation successfully completed
400	Error message	Bad Request
401	No Data	Unauthorized
403	Error message	Forbidden - the client does not have the required permissions to perform the operation
500	Error message	Internal Server Error

Any HTTP status code other than 204 indicates that the API did not complete successfully.

Sample request:

```
curl -k -H "X-API-Key:sample-api-key" -X PATCH
"https://10.20.30.40:8444/v9/storage/file-devices/management-access/snmp" -d
'{"allowSnmpV1": false, "allowSnmpV2": false, "allowSnmpV3": false,
"allowedCommunities": [ "public" ], "allowedHosts": [ "10.20.30.40" ],
"isEnabled": false, "port": 161, "restrictHosts": false,
"sendAuthFailureTraps": false}'
```

Sample response:

```
HTTP/1.1 204 No Content
```

Get Management Access Config

Get management access config.

HTTP request syntax (URI)

```
GET <base_uri>/v9/storage/file-devices/management-access/{type}
```

Parameters

Parameter	Type	Required	Data Type	Description
type	path	Y	string	Management access type. Possible values are: - ssc - vss - rest - https

Return Codes

Code	Data	Description
------	------	-------------

200	accessConfig	accessConfig object successfully retrieved
400	Error message	Bad Request
404	Error message	Not Found - a resource specified was not found
500	Error message	Internal Server Error

Any HTTP status code other than 200 indicates that the API did not complete successfully.

Sample request:

```
curl -k -H "X-API-Key:sample-api-key" -X GET
"https://10.20.30.40:8444/v9/storage/file-devices/management-access/ssc"
```

Sample response:

```
HTTP/1.1 200 OK
{
  "accessConfig": {
    "allowedHosts": [
      "10.20.30.40"
    ],
    "idleConnectionTimeout": 1800,
    "isEnabled": false,
    "isEvsIpAddressAllowed": false,
    "maxAllowedConnections": 10,
    "maxSupportedConnections": 10,
    "port": 206,
    "restrictHosts": false,
    "type": "ssc"
  }
}
```

Set Management Access Config

Set management access config.

HTTP request syntax (URI)

```
PATCH <base_uri>/v9/storage/file-devices/management-access/{type}
```

Parameters

Parameter	Type	Required	Data Type	Description
type	path	Y	string	Management access type. Possible values are: - ssc - vss - rest - https
allowedHosts	body	N	array	A list of hosts allowed to access the specific management interface.

				The host values can be either IP address or valid DNS names
idleConnectionTimeout	body	N	integer	Idle connection timeout in seconds. 0 will reset the timeout to it's default value
isEnabled	body	N	boolean	True if enabled, false for disabled
isEvsIpAddressAllowed	body	N	boolean	True if the management service can be accessed via file serving IP addresses in addition to the specific management addresses
maxAllowedConnections	body	N	integer	Number of allowed simultaneous connections
port	body	N	integer	Port that the management service listens on
restrictHosts	body	N	boolean	True indicates that access is restricted to only the hosts in the allowed hosts list

Return Codes

Code	Data	Description
204	No Data	Operation successfully completed
400	Error message	Bad Request
401	No Data	Unauthorized
403	Error message	Forbidden - the client does not have the required permissions to perform the operation
404	Error message	Not Found - a resource specified was not found
500	Error message	Internal Server Error

Any HTTP status code other than 204 indicates that the API did not complete successfully.

Sample request:

```
curl -k -H "X-API-Key:sample-api-key" -X PATCH
"https://10.20.30.40:8444/v9/storage/file-devices/management-access/ssc" -d
'{"allowedHosts": [ "10.20.30.40" ], "idleConnectionTimeout": 1800,
"isEnabled": false, "isEvsIpAddressAllowed": false, "maxAllowedConnections":
10, "port": 206, "restrictHosts": false}'
```

Sample response:

```
HTTP/1.1 204 No Content
```

Get API Keys

Get API keys.

HTTP request syntax (URI)

```
GET <base_uri>/v9/storage/file-devices/management/api-keys
```

Return Codes

Code	Data	Description
200	apiKeys	List of apiKey objects successfully retrieved
500	Error message	Internal Server Error

Any HTTP status code other than 200 indicates that the API did not complete successfully.

Sample request:

```
curl -k -H "X-API-Key:sample-api-key" -X GET  
"https://10.20.30.40:8444/v9/storage/file-devices/management/api-keys"
```

Sample response:

```
HTTP/1.1 200 OK  
{  
  "apiKeys": [  
    {  
      "completeKey":  
"UOQF81ZNzy.*****",  
      "description": "Key1",  
      "objectId": "333a3a3a3a3a3a303a3a3a4f49445f24232140255f56",  
      "prefix": "UOQF81ZNzy",  
      "restApiAccess": "READ_ONLY",  
      "soapApiAccess": "FULL_CONTROL",  
      "state": "ENABLED"  
    }  
  ]  
}
```

Get An API Key

Get an API key.

HTTP request syntax (URI)

```
GET <base_uri>/v9/storage/file-devices/management/api-keys/{apiKeyObjectId}
```

Parameters

Parameter	Type	Required	Data Type	Description
apiKeyObjectId	path	Y	string	Object ID of an API key

Return Codes

Code	Data	Description
200	apiKey	apiKey object successfully retrieved

400	Error message	Bad Request
404	Error message	Not Found - a resource specified was not found
500	Error message	Internal Server Error

Any HTTP status code other than 200 indicates that the API did not complete successfully.

Sample request:

```
curl -k -H "X-API-Key:sample-api-key" -X GET
"https://10.20.30.40:8444/v9/storage/file-devices/management/api-
keys/567667324c76345630433a3a3a303a3a3a4f49445f24232140255f56"
```

Sample response:

```
HTTP/1.1 200 OK
{
  "apiKey": {
    "completeKey": "UOQF81ZNzy.*****",
    "description": "Key1",
    "objectId": "333a3a3a3a3a3a303a3a3a4f49445f24232140255f56",
    "prefix": "UOQF81ZNzy",
    "restApiAccess": "READ_ONLY",
    "soapApiAccess": "FULL_CONTROL",
    "state": "ENABLED"
  }
}
```

Create An API Key

Create a new API key.

Note that this is the only time that the complete API key will be available, and a note should be taken of the complete key value so that it can be used for authentication. The key will be partially obscured in all subsequent API responses.

HTTP request syntax (URI)

```
POST <base_uri>/v9/storage/file-devices/management/api-keys
```

Parameters

Parameter	Type	Required	Data Type	Description
description	body	Y	string	Description to associated with the item
restApiAccess	body	N	string	Access level for REST API access . Possible values are: - READ_ONLY - FULL_CONTROL - NO_ACCESS
soapApiAccess	body	N	string	Access level for SOAP API access . Possible values are:

				- FULL_CONTROL - NO_ACCESS
--	--	--	--	-------------------------------

Return Codes

Code	Data	Description
201	apiKey	Successfully created new item
400	Error message	Bad Request
401	No Data	Unauthorized
403	Error message	Forbidden - the client does not have the required permissions to perform the operation
500	Error message	Internal Server Error

Any HTTP status code other than 201 indicates that the API did not complete successfully.

Sample request:

```
curl -k -H "X-API-Key:sample-api-key" -X POST
"https://10.20.30.40:8444/v9/storage/file-devices/management/api-keys" -d
'{"description": "This is the description", "restApiAccess": "READ_ONLY",
"soapApiAccess": "FULL_CONTROL"}'
```

Sample response:

```
HTTP/1.1 201 Created
{
  "apiKey": {
    "completeKey": "UOQF81ZNzy.*****",
    "description": "Key1",
    "objectId": "333a3a3a3a3a303a3a3a4f49445f24232140255f56",
    "prefix": "UOQF81ZNzy",
    "restApiAccess": "READ_ONLY",
    "soapApiAccess": "FULL_CONTROL",
    "state": "ENABLED"
  },
  "uri": "https://10.20.30.40:8444/v9/storage/file-devices/management/api-
keys/333a3a3a3a3a303a3a3a4f49445f24232140255f56"
}
```

Update An API Key

Update an API key.

HTTP request syntax (URI)

```
PATCH <base_uri>/v9/storage/file-devices/management/api-keys/{apiKeyObjectId}
```

Parameters

Parameter	Type	Required	Data Type	Description
apiKeyObjectId	path	Y	string	Object ID of an API key

description	body	N	string	Description to associated with the item
isEnabled	body	N	boolean	True if enabled, false for disabled
restApiAccess	body	N	string	Access level for REST API access . Possible values are: - READ_ONLY - FULL_CONTROL - NO_ACCESS
soapApiAccess	body	N	string	Access level for SOAP API access . Possible values are: - FULL_CONTROL - NO_ACCESS

Return Codes

Code	Data	Description
204	No Data	Operation successfully completed
400	Error message	Bad Request
401	No Data	Unauthorized
403	Error message	Forbidden - the client does not have the required permissions to perform the operation
404	Error message	Not Found - a resource specified was not found
500	Error message	Internal Server Error

Any HTTP status code other than 204 indicates that the API did not complete successfully.

Sample request:

```
curl -k -H "X-API-Key:sample-api-key" -X PATCH
"https://10.20.30.40:8444/v9/storage/file-devices/management/api-
keys/567667324c76345630433a3a3a3a3a3a3a4f49445f24232140255f56" -d
'{"description": "This is the description", "isEnabled": false,
"restApiAccess": "READ_ONLY", "soapApiAccess": "FULL_CONTROL"}'
```

Sample response:

```
HTTP/1.1 204 No Content
```

Delete An API Key

Delete an API key.

HTTP request syntax (URI)

```
DELETE <base_uri>/v9/storage/file-devices/management/api-
keys/{apiKeyObjectId}
```

Parameters

Parameter	Type	Required	Data Type	Description
-----------	------	----------	-----------	-------------

apiKeyObjectId	path	Y	string	Object ID of an API key
----------------	------	---	--------	-------------------------

Return Codes

Code	Data	Description
204	No Data	Operation successfully completed
400	Error message	Bad Request
401	No Data	Unauthorized
403	Error message	Forbidden - the client does not have the required permissions to perform the operation
404	Error message	Not Found - a resource specified was not found
500	Error message	Internal Server Error

Any HTTP status code other than 204 indicates that the API did not complete successfully.

Sample request:

```
curl -k -H "X-Api-Key:sample-api-key" -X DELETE
"https://10.20.30.40:8444/v9/storage/file-devices/management/api-
keys/567667324c76345630433a3a3a303a3a3a4f49445f24232140255f56"
```

Sample response:

```
HTTP/1.1 204 No Content
```

Get Management Users

Get management users.

HTTP request syntax (URI)

```
GET <base_uri>/v9/storage/file-devices/management/users
```

Return Codes

Code	Data	Description
200	managementUsers	List of managementUser objects successfully retrieved
500	Error message	Internal Server Error

Any HTTP status code other than 200 indicates that the API did not complete successfully.

Sample request:

```
curl -k -H "X-Api-Key:sample-api-key" -X GET
"https://10.20.30.40:8444/v9/storage/file-devices/management/users"
```

Sample response:

```
HTTP/1.1 200 OK
{
```

```

"managementUsers": [
  {
    "accessLevel": "UNKNOWN",
    "isDeletable": false,
    "isPasswordModifiable": false,
    "lastLogin": "2022-12-09 16:23:22+01:00",
    "objectId": "333a3a3a3a3a3a303a3a3a4f49445f24232140255f56",
    "type": "NORMAL",
    "userName": "User1"
  }
]
}

```

Get Management User

Get management user.

HTTP request syntax (URI)

```
GET <base_uri>/v9/storage/file-
devices/management/users/{managementUserId}
```

Parameters

Parameter	Type	Required	Data Type	Description
managementUserId	path	Y	string	Object ID of the management user

Return Codes

Code	Data	Description
200	managementUser	managementUser object successfully retrieved
400	Error message	Bad Request
404	Error message	Not Found - a resource specified was not found
500	Error message	Internal Server Error

Any HTTP status code other than 200 indicates that the API did not complete successfully.

Sample request:

```
curl -k -H "X-Api-Key:sample-api-key" -X GET
"https://10.20.30.40:8444/v9/storage/file-
devices/management/users/72612d6164642d64656c6574653a3a3a53555045525649534f52
3a3a3a303a3a3a4f49445f24232140255f56"
```

Sample response:

```
HTTP/1.1 200 OK
{
  "managementUser": {
    "accessLevel": "UNKNOWN",
    "isDeletable": false,
    "isPasswordModifiable": false,

```

```

    "lastLogin": "2022-12-09 16:23:22+01:00",
    "objectId": "333a3a3a3a3a3a303a3a3a4f49445f24232140255f56",
    "type": "NORMAL",
    "userName": "User1"
  }
}

```

Add Management User

Adds a new management user.

Users created at SUPERVISOR level have full control, whereas USER level users are readonly.

HTTP request syntax (URI)

POST <base_uri>/v9/storage/file-devices/management/users

Parameters

Parameter	Type	Required	Data Type	Description
accessLevel	body	Y	string	Access level of the user. Possible values are: - USER - SUPERVISOR
password	body	Y	string	Password associated with the user name
userName	body	Y	string	User name

Return Codes

Code	Data	Description
201	managementUser	Successfully created new item
400	Error message	Bad Request
401	No Data	Unauthorized
403	Error message	Forbidden - the client does not have the required permissions to perform the operation
500	Error message	Internal Server Error

Any HTTP status code other than 201 indicates that the API did not complete successfully.

Sample request:

```

curl -k -H "X-API-Key:sample-api-key" -X POST
"https://10.20.30.40:8444/v9/storage/file-devices/management/users" -d
'{"accessLevel": "USER", "password": "pa$$word", "userName": "User1"}'

```

Sample response:

```

HTTP/1.1 201 Created
{
  "managementUser": {

```

```

    "accessLevel": "UNKNOWN",
    "isDeletable": false,
    "isPasswordModifiable": false,
    "lastLogin": "2022-12-09 16:23:22+01:00",
    "objectId": "333a3a3a3a3a3a303a3a3a4f49445f24232140255f56",
    "type": "NORMAL",
    "userName": "User1"
  },
  "uri": "https://10.20.30.40:8444/v9/storage/file-
devices/management/users/333a3a3a3a3a3a303a3a3a4f49445f24232140255f56"
}

```

Update Management User Password

Change the password for a management user. Both the old password and a new password are required to change the password.

HTTP request syntax (URI)

```

POST <base_uri>/v9/storage/file-
devices/management/users/{managementUserId}

```

Parameters

Parameter	Type	Required	Data Type	Description
managementUserId	path	Y	string	Object ID of the management user
newPassword	body	Y	string	New password to set
oldPassword	body	Y	string	Existing password for the user

Return Codes

Code	Data	Description
204	No Data	Operation successfully completed
400	Error message	Bad Request
401	No Data	Unauthorized
403	Error message	Forbidden - the client does not have the required permissions to perform the operation
404	Error message	Not Found - a resource specified was not found
500	Error message	Internal Server Error

Any HTTP status code other than 204 indicates that the API did not complete successfully.

Sample request:

```

curl -k -H "X-API-Key:sample-api-key" -X POST
"https://10.20.30.40:8444/v9/storage/file-
devices/management/users/72612d6164642d64656c6574653a3a3a53555045525649534f52
3a3a3a303a3a3a4f49445f24232140255f56" -d '{"newPassword": "abcdefg",
"oldPassword": "abcdefg"}'

```

Sample response:

```
HTTP/1.1 204 No Content
```

Delete Management User

Delete a management user.

Note: Some built in users cannot be deleted.

HTTP request syntax (URI)

```
DELETE <base_uri>/v9/storage/file-  
devices/management/users/{managementUserId}
```

Parameters

Parameter	Type	Required	Data Type	Description
managementUserId	path	Y	string	Object ID of the management user

Return Codes

Code	Data	Description
204	No Data	Operation successfully completed
400	Error message	Bad Request
401	No Data	Unauthorized
403	Error message	Forbidden - the client does not have the required permissions to perform the operation
404	Error message	Not Found - a resource specified was not found
500	Error message	Internal Server Error

Any HTTP status code other than 204 indicates that the API did not complete successfully.

Sample request:

```
curl -k -H "X-API-Key:sample-api-key" -X DELETE  
"https://10.20.30.40:8444/v9/storage/file-  
devices/management/users/72612d6164642d64656c6574653a3a3a53555045525649534f52  
3a3a3a303a3a3a4f49445f24232140255f56"
```

Sample response:

```
HTTP/1.1 204 No Content
```

Get Access Level

Return the access level of the user/password combination or API key used when making the connection.

This API call can be used to check if a user is read only or if they are allowed to make updates, without attempting to make any updates.

HTTP request syntax (URI)

```
GET <base_uri>/v9/storage/file-devices/management/access-level
```

Return Codes

Code	Data	Description
200	accessLevel	accessLevel object successfully retrieved
500	Error message	Internal Server Error

Any HTTP status code other than 200 indicates that the API did not complete successfully.

Sample request:

```
curl -k -H "X-API-Key:sample-api-key" -X GET  
"https://10.20.30.40:8444/v9/storage/file-devices/management/access-level"
```

Sample response:

```
HTTP/1.1 200 OK  
{  
  "accessLevel": {  
    "accessLevel": "full-access",  
    "accessType": "APIKEY"  
  }  
}
```

Get Login Banner

Get the login banner contents, and enabled state. If enabled, the login banner is presented to any user who connects to the system via SSH or via the GUI.

HTTP request syntax (URI)

```
GET <base_uri>/v9/storage/file-devices/login-banner
```

Return Codes

Code	Data	Description
200	loginBanner	loginBanner object successfully retrieved
500	Error message	Internal Server Error

Any HTTP status code other than 200 indicates that the API did not complete successfully.

Sample request:

```
curl -k -H "X-API-Key:sample-api-key" -X GET  
"https://10.20.30.40:8444/v9/storage/file-devices/login-banner"
```

Sample response:

```
HTTP/1.1 200 OK
{
  "bannerContent": "Access to this system is restricted to authorised users",
  "enabled": false
}
```

Update Login Banner

Update the login banner contents, and enabled state. If enabled, the login banner is presented to any user who connects to the system via SSH or via the GUI.

HTTP request syntax (URI)

```
PATCH <base_uri>/v9/storage/file-devices/login-banner
```

Parameters

Parameter	Type	Required	Data Type	Description
bannerContent	body	N	string	Contents of the login banner that is presented to a user when they connect to various management interfaces of the system. This field can contain additional text formatting characters, such as new line and tab characters
enabled	body	N	boolean	True indicates enabled, false is disabled

Return Codes

Code	Data	Description
204	No Data	Operation successfully completed
400	Error message	Bad Request
401	No Data	Unauthorized
403	Error message	Forbidden - the client does not have the required permissions to perform the operation
500	Error message	Internal Server Error

Any HTTP status code other than 204 indicates that the API did not complete successfully.

Sample request:

```
curl -k -H "X-API-Key:sample-api-key" -X PATCH
"https://10.20.30.40:8444/v9/storage/file-devices/login-banner" -d
'{"bannerContent": "Access to this system is restricted to authorised users",
"enabled": false}'
```

Sample response:

```
HTTP/1.1 204 No Content
```


Get System Clock

Returns the date and time of the system, along with the configured timezone and whether NTP is being used.

HTTP request syntax (URI)

```
GET <base_uri>/v9/storage/file-devices/system-clock
```

Return Codes

Code	Data	Description
200	systemClock	systemClock object successfully retrieved
500	Error message	Internal Server Error

Any HTTP status code other than 200 indicates that the API did not complete successfully.

Sample request:

```
curl -k -H "X-API-Key:sample-api-key" -X GET  
"https://10.20.30.40:8444/v9/storage/file-devices/system-clock"
```

Sample response:

```
HTTP/1.1 200 OK  
{  
  "systemClock": {  
    "isDstInEffect": false,  
    "isNtpConfigured": false,  
    "localDate": "2023-09-28",  
    "localDateTime": "2023-09-28 11:45:14+01:00",  
    "localTime": "11:45:14",  
    "localUtcOffset": 3600,  
    "posixTime": 12345,  
    "timezone": "Europe/London"  
  }  
}
```

Set System Clock

Update the timezone, and system clock, using either separate date/time values or posixTime, which is the number of seconds since the 1st January 1970.

Any updates to date, time or timezone may cause momentary issues with accessing the system, as certificates may become outdated, or not yet valid. Access should recover within a short time, but it may not be possible to issue more REST API requests straight after changing the system clock.

Note: It is not possible to change both the timezone and the date/time in the same request. If both need to be changed, two separate requests must be made.

HTTP request syntax (URI)

```
PATCH <base_uri>/v9/storage/file-devices/system-clock
```

Parameters

Parameter	Type	Required	Data Type	Description
date	body	N	string	New date to set for the system
fileOnly	body	N	boolean	Whether to update only the file component of a Unified system
posixTime	body	N	integer	Number of seconds since the 1st January 1970, in UTC
time	body	N	string	Time in the form HH:MM:SS
timezone	body	N	string	New timezone - details of acceptable timezones can be retrieved using the Get timezones API call

Return Codes

Code	Data	Description
204	No Data	Operation successfully completed
400	Error message	Bad Request
401	No Data	Unauthorized
403	Error message	Forbidden - the client does not have the required permissions to perform the operation
500	Error message	Internal Server Error

Any HTTP status code other than 204 indicates that the API did not complete successfully.

Sample request:

```
curl -k -H "X-API-Key:sample-api-key" -X PATCH  
"https://10.20.30.40:8444/v9/storage/file-devices/system-clock" -d '{"date":  
"2023-08-01", "fileOnly": false, "posixTime": 12345, "time": "13:22:00",  
"timezone": "Europe/London"}'
```

Sample response:

```
HTTP/1.1 204 No Content
```

Reset Login Banner To Default

Reset the login banner contents to the default. The enabled status of the banner is not changed.

HTTP request syntax (URI)

```
DELETE <base_uri>/v9/storage/file-devices/login-banner
```

Return Codes

Code	Data	Description
204	No Data	Operation successfully completed
401	No Data	Unauthorized
403	Error message	Forbidden - the client does not have the required permissions to perform the operation
500	Error message	Internal Server Error

Any HTTP status code other than 204 indicates that the API did not complete successfully.

Sample request:

```
curl -k -H "X-API-Key:sample-api-key" -X DELETE
"https://10.20.30.40:8444/v9/storage/file-devices/login-banner"
```

Sample response:

```
HTTP/1.1 204 No Content
```

Get Timezone List

Returns a list of timezones supported by the system. These items can be used when updating the system timezone.

HTTP request syntax (URI)

```
GET <base_uri>/v9/storage/file-devices/timezones
```

Return Codes

Code	Data	Description
200	timezones	List of timezone objects successfully retrieved
500	Error message	Internal Server Error

Any HTTP status code other than 200 indicates that the API did not complete successfully.

Sample request:

```
curl -k -H "X-API-Key:sample-api-key" -X GET
"https://10.20.30.40:8444/v9/storage/file-devices/timezones"
```

Sample response:

```
HTTP/1.1 200 OK
{
  "timezones": [
    {
      "name": "Europe/London",
      "offset": 0
    }
  ]
}
```

Get NTP Servers

Get NTP servers.

HTTP request syntax (URI)

```
GET <base_uri>/v9/storage/file-devices/ntp-servers
```

Return Codes

Code	Data	Description
200	ntpServers	List of string objects successfully retrieved
500	Error message	Internal Server Error

Any HTTP status code other than 200 indicates that the API did not complete successfully.

Sample request:

```
curl -k -H "X-API-Key:sample-api-key" -X GET  
"https://10.20.30.40:8444/v9/storage/file-devices/ntp-servers"
```

Sample response:

```
HTTP/1.1 200 OK  
{  
  "ntpServers": [  
    "10.30.40.50"  
  ]  
}
```

Set NTP Servers

Set NTP servers.

HTTP request syntax (URI)

```
POST <base_uri>/v9/storage/file-devices/ntp-servers
```

Parameters

Parameter	Type	Required	Data Type	Description
fileOnly	body	N	boolean	Whether to update only the file component of a Unified system
ntpServers	body	Y	array	List of NTP servers. Each server can be either a DNS name or IP address

Return Codes

Code	Data	Description
------	------	-------------

204	No Data	Operation successfully completed
400	Error message	Bad Request
401	No Data	Unauthorized
403	Error message	Forbidden - the client does not have the required permissions to perform the operation
500	Error message	Internal Server Error

Any HTTP status code other than 204 indicates that the API did not complete successfully.

Sample request:

```
curl -k -H "X-API-Key:sample-api-key" -X POST
"https://10.20.30.40:8444/v9/storage/file-devices/ntp-servers" -d
'{"fileOnly": false, "ntpServers": [ "10.30.40.50" ]}'
```

Sample response:

```
HTTP/1.1 204 No Content
```

Get Registry File

Downloads a copy of the system configuration registry file.

Note: This API call returns a binary attachment on success, rather than JSON formatted output. JSON formatted errors are returned in the same way as other API calls. The attachment is a compressed tgz file.

HTTP request syntax (URI)

```
GET <base_uri>/v9/storage/file-devices/registry
```

Return Codes

Code	Data	Description
200	File attachment	Successfully retrieved file
500	Error message	Internal Server Error

Any HTTP status code other than 200 indicates that the API did not complete successfully.

Sample request:

```
curl -k -H "X-API-Key:sample-api-key" -X GET
"https://10.20.30.40:8444/v9/storage/file-devices/registry" > output_file
```

Reboot Cluster

Initiate a reboot of all nodes in a cluster. All nodes will reboot simultaneously and access to all virtual servers will stop. There will be a short wait while all the nodes reboot and restart. The API call returns after initiating the reboot request, and does not wait for the reboot to complete.

HTTP request syntax (URI)

```
POST <base_uri>/v9/storage/file-devices/reboot
```

Return Codes

Code	Data	Description
204	No Data	Operation successfully completed
401	No Data	Unauthorized
403	Error message	Forbidden - the client does not have the required permissions to perform the operation
500	Error message	Internal Server Error

Any HTTP status code other than 204 indicates that the API did not complete successfully.

Sample request:

```
curl -k -H "X-Api-Key:sample-api-key" -X POST  
"https://10.20.30.40:8444/v9/storage/file-devices/reboot"
```

Sample response:

```
HTTP/1.1 204 No Content
```

Reboot Cluster Sequentially

Initiate a reboot of all nodes in a cluster, in sequence. All nodes will reboot one after the other, which should ensure that all virtual servers remain running while the cluster reboots. There will be short interruptions while the virtual servers migrate as the node they are running on reboots, and they migrate to another node. The API call returns after initiating the reboot request, and does not wait for the reboot to complete.

HTTP request syntax (URI)

```
POST <base_uri>/v9/storage/file-devices/reboot-sequential
```

Return Codes

Code	Data	Description
204	No Data	Operation successfully completed
401	No Data	Unauthorized
403	Error message	Forbidden - the client does not have the required permissions to perform the operation

500	Error message	Internal Server Error
-----	---------------	-----------------------

Any HTTP status code other than 204 indicates that the API did not complete successfully.

Sample request:

```
curl -k -H "X-API-Key:sample-api-key" -X POST
"https://10.20.30.40:8444/v9/storage/file-devices/reboot-sequential"
```

Sample response:

```
HTTP/1.1 204 No Content
```

Shutdown Cluster

Initiate a shutdown of all cluster nodes. Access to the nodes will be required to power it on again, either physically or via IPMI.

HTTP request syntax (URI)

```
POST <base_uri>/v9/storage/file-devices/shutdown
```

Return Codes

Code	Data	Description
204	No Data	Operation successfully completed
401	No Data	Unauthorized
403	Error message	Forbidden - the client does not have the required permissions to perform the operation
500	Error message	Internal Server Error

Any HTTP status code other than 204 indicates that the API did not complete successfully.

Sample request:

```
curl -k -H "X-API-Key:sample-api-key" -X POST
"https://10.20.30.40:8444/v9/storage/file-devices/shutdown"
```

Sample response:

```
HTTP/1.1 204 No Content
```

Get Performance Info Reports

Gets details for all performance info reports.

HTTP request syntax (URI)

```
GET <base_uri>/v9/storage/file-devices/performance-info-reports
```

Return Codes

Code	Data	Description
200	performanceInfoReports	List of performanceInfoReport objects successfully retrieved
500	Error message	Internal Server Error

Any HTTP status code other than 200 indicates that the API did not complete successfully.

Sample request:

```
curl -k -H "X-Api-Key:sample-api-key" -X GET  
"https://10.20.30.40:8444/v9/storage/file-devices/performance-info-reports"
```

Sample response:

```
HTTP/1.1 200 OK  
{  
  "performanceInfoReports": [  
    {  
      "durationInMinutes": 10,  
      "endTime": "2023-08-04 14:42:10+01:00",  
      "nodeId": 1,  
      "objectId": "333a3a3a3a3a3a3a303a3a3a4f49445f24232140255f56",  
      "pirId": "f4d70604-c6d7-11d9-982c-0bef787b2638",  
      "status": "STARTING"  
    }  
  ]  
}
```

Get Performance Info Report Status

Gets the status of a single performance info report.

HTTP request syntax (URI)

```
GET <base_uri>/v9/storage/file-devices/performance-info-reports/{pirObjectId}
```

Parameters

Parameter	Type	Required	Data Type	Description
pirObjectId	path	Y	string	Object ID of the performance info report

Return Codes

Code	Data	Description
200	performanceInfoReport	performanceInfoReport object successfully retrieved
400	Error message	Bad Request
404	Error message	Not Found - a resource specified was not found
500	Error message	Internal Server Error

Any HTTP status code other than 200 indicates that the API did not complete successfully.

Sample request:

```
curl -k -H "X-API-Key:sample-api-key" -X GET
"https://10.20.30.40:8444/v9/storage/file-devices/performance-info-
reports/313a3a3a66346437303630342d633664372d313164392d393832632d3062656637383
762323633383a3a3a303a3a4f49445f24232140255f56"
```

Sample response:

```
HTTP/1.1 200 OK
{
  "performanceInfoReport": {
    "durationInMinutes": 10,
    "endTime": "2023-08-04 14:42:10+01:00",
    "nodeId": 1,
    "objectId": "333a3a3a3a3a3a303a3a4f49445f24232140255f56",
    "pirId": "f4d70604-c6d7-11d9-982c-0bef787b2638",
    "status": "STARTING"
  }
}
```

Start Performance Info Report

Starts a performance info report (PIR). This call does not return immediately, and may take up to 30 seconds to start the PIR.

A PIR will run in the background for a set period of time, and gather performance data for off line analysis. The report data is stored in a file that can be downloaded once the PIR has completed.

The filesystemId and nodeId parameters can't both be supplied at the same time.

HTTP request syntax (URI)

```
POST <base_uri>/v9/storage/file-devices/performance-info-reports
```

Parameters

Parameter	Type	Required	Data Type	Description
durationInMinutes	body	N	integer	Duration that the PIR will run for
filesystemId	body	N	string	Either the file system ID or the object ID of the file system
includeProfile	body	N	boolean	True indicates that profiling commands will be run as part of the PIR
includeTrouble	body	N	boolean	True indicates that the trouble command output will be included as part of the PIR
nodeId	body	N	string or integer	Either a node object ID or a cluster node ID

Return Codes

Code	Data	Description
201	performanceInfoReport	Successfully created new item
400	Error message	Bad Request
401	No Data	Unauthorized
403	Error message	Forbidden - the client does not have the required permissions to perform the operation
500	Error message	Internal Server Error

Any HTTP status code other than 201 indicates that the API did not complete successfully.

Sample request:

```
curl -k -H "X-API-Key:sample-api-key" -X POST
"https://10.20.30.40:8444/v9/storage/file-devices/performance-info-reports" -
d '{"durationInMinutes": 10, "filesystemId":
"7B263DFD1D71E65A0000000000000000", "includeProfile": false,
"includeTrouble": false, "nodeId": 1}'
```

Sample response:

```
HTTP/1.1 201 Created
{
  "performanceInfoReport": {
    "durationInMinutes": 10,
    "endTime": "2023-08-04 14:42:10+01:00",
    "nodeId": 1,
    "objectId": "333a3a3a3a3a3a303a3a3a4f49445f24232140255f56",
    "pirId": "f4d70604-c6d7-11d9-982c-0bef787b2638",
    "status": "STARTING"
  },
  "uri": "https://10.20.30.40:8444/v9/storage/file-devices/performance-info-
reports/333a3a3a3a3a3a303a3a3a4f49445f24232140255f56"
}
```

Abort Running Performance Info Report

Aborts a running performance info report (PIR) on the node hosting the admin virtual server. The PIR will terminate cleanly and should still create the report file.

If the admin virtual server has been migrated to a different cluster node since starting a PIR, it will not be possible to abort it unless the admin virtual server is migrated back to the same node.

HTTP request syntax (URI)

```
POST <base_uri>/v9/storage/file-devices/performance-info-reports/abort
```

Return Codes

Code	Data	Description
------	------	-------------

204	No Data	Operation successfully completed
401	No Data	Unauthorized
403	Error message	Forbidden - the client does not have the required permissions to perform the operation
500	Error message	Internal Server Error

Any HTTP status code other than 204 indicates that the API did not complete successfully.

Sample request:

```
curl -k -H "X-Api-Key:sample-api-key" -X POST
"https://10.20.30.40:8444/v9/storage/file-devices/performance-info-
reports/abort"
```

Sample response:

```
HTTP/1.1 204 No Content
```

Delete Performance Info Report

Deletes a performance info report. If the report has completed, any file associated with it will also be deleted, so ensure that the report file has been downloaded before deleting the PIR, otherwise it will be lost. If the PIR is running, it will be stopped, and will not generate a report file.

HTTP request syntax (URI)

```
DELETE <base_uri>/v9/storage/file-devices/performance-info-
reports/{pirObjectId}
```

Parameters

Parameter	Type	Required	Data Type	Description
pirObjectId	path	Y	string	Object ID of the performance info report

Return Codes

Code	Data	Description
204	No Data	Operation successfully completed
400	Error message	Bad Request
401	No Data	Unauthorized
403	Error message	Forbidden - the client does not have the required permissions to perform the operation
404	Error message	Not Found - a resource specified was not found
500	Error message	Internal Server Error

Any HTTP status code other than 204 indicates that the API did not complete successfully.

Sample request:

```
curl -k -H "X-API-Key:sample-api-key" -X DELETE
"https://10.20.30.40:8444/v9/storage/file-devices/performance-info-
reports/313a3a3a66346437303630342d633664372d313164392d393832632d3062656637383
762323633383a3a3a303a3a3a4f49445f24232140255f56"
```

Sample response:

HTTP/1.1 204 No Content

Download Performance Info Report

Downloads the report file for a performance info report. The file is only made available once the report has finished running and reports the status of FINISHED_FILE_AVAILABLE.

Note: This API call returns a binary attachment on success, rather than JSON formatted output. JSON formatted errors are returned in the same way as other API calls. The attachment is a compressed tgz file.

HTTP request syntax (URI)

```
GET <base_uri>/v9/storage/file-devices/performance-info-
reports/{pirObjectId}/download
```

Parameters

Parameter	Type	Required	Data Type	Description
pirObjectId	path	Y	string	Object ID of the performance info report

Return Codes

Code	Data	Description
200	File attachment	Successfully retrieved file
400	Error message	Bad Request
404	Error message	Not Found - a resource specified was not found
500	Error message	Internal Server Error

Any HTTP status code other than 200 indicates that the API did not complete successfully.

Sample request:

```
curl -k -H "X-API-Key:sample-api-key" -X GET
"https://10.20.30.40:8444/v9/storage/file-devices/performance-info-
reports/313a3a3a66346437303630342d633664372d313164392d393832632d3062656637383
762323633383a3a3a303a3a3a4f49445f24232140255f56/download" > output_file
```

Filesystem Shares Resource

The filesystem shares resource provides management of file system shares and exports, which make file systems accessible to clients remotely using the NFS and CIFS/SMB file sharing protocols.

Filesystem Shares Object Model

The object model describing this resource contains the following objects.

cifsAuthentication - CIFS/SMB share access authentication

Attribute	JSON type	Data type	Description
encodedName	string	string	Encoded version of the name
name	string	string	Name of the CIFS/SMB access authentication. It is typically a Windows user/group name or Security ID (SID)
permission	integer	integer	Bit representation of the permission for the access authentication item. Use decimal number made up by a combination of the following values: - 0 No permission - 8 Allow read - 24 Allow read+change - 56 Allow read+change+full control - 1 Deny read - 3 Deny read+change - 7 Deny read+change+full control
type	string	string	Type of authentication. Possible values are: - USER - GROUP - DOMAIN - ALIAS - WELLKNOWN - DELETED - INVALID - UNKNOWN - COMPUTER

cifsSettings - CIFS/SMB specific settings

Attribute	JSON type	Data type	Description
accessConfig	string	string	Access config options. Typically it is the IP addresses of the allowed hosts and

			access level, or blank if there are no restrictions
cacheOption	string	string	Cache option. Possible values are: - MANUAL_CACHING_DOCS - AUTO_CACHING_DOCS - AUTO_CACHING_PROGS - CACHING_OFF
comment	string	string	Comment associated with the share, which is also visible to clients
continuouslyAvailable	boolean	boolean	True indicates that the share is continuously available
currentUsers	integer	integer	Number of users currently connected to the CIFS/SMB share
encryptedAccess	boolean	boolean	True indicates that clients will be required to support data encryption to connect to the share
isABEEEnabled	boolean	boolean	True indicates that Access-Based Enumeration (ABE) is enabled. When enabled, ABE filters the contents of an SMB share. Note: enabling ABE may have a negative impact on performance
isFollowGlobalSymbolicLinks	boolean	boolean	True indicates global symbolic links will be followed, otherwise they will be ignored
isFollowSymbolicLinks	boolean	boolean	True indicates symbolic links will be followed, otherwise they will be ignored
isForceFileNameToLowercase	boolean	boolean	True indicates that file names on the share will be forced to lower case
isScanForVirusesEnabled	boolean	boolean	True indicates that virus scanning will be performed on the share
maxConcurrentUsers	integer	integer	Maximum concurrent sessions to access the share. The value -1 indicates unlimited concurrent connections are allowed
snapshotOption	string	string	Snapshot option. Possible values are: - HIDE_AND_DISABLE_ACCESS - HIDE_AND_ALLOW_ACCESS - SHOW_AND_ALLOW_ACCESS
transferToReplicationTargetSetting	string	string	Transfer to replication target settings. Possible values are: - INVALID - DO_NOT_TRANSFER - TRANSFER - USE_FS_DEFAULT
userHomeDirectoryMode	string	string	User home directory mode. Possible values are: - OFF

			<ul style="list-style-type: none"> - ADS - USER - DOMAIN_AND_USER - UNIX
userHomeDirectoryPath	string	string	User home directory path - this path is relative to the shared path

filesystemShare - File system share or export

Attribute	JSON type	Data type	Description
filesystemId	string	string	ID of the file system
name	string	string	Name of the file system share
objectId	string	string	Unique ID of the object
path	string	string	File system path that is exported to users
settings	object	cifsSettings or nfsSettings	object of type nfsSettings or cifsSettings
shareId	string	string	Either the NFS export ID or the CIFS/SMB share ID
virtualServerId	integer	integer	ID of the virtual server. 0 = management virtual server 255 = not assigned to virtual server

nfsSettings - NFS specific settings

Attribute	JSON type	Data type	Description
accessConfig	string	string	Access config options. Typically it is the IP addresses of the allowed hosts and access level, or blank if there are no restrictions
localReadCacheOption	string	string	NFS local read cache option. Possible values are: <ul style="list-style-type: none"> - DISABLED - ENABLED_FOR_ALL_FILES - ENABLED_FOR_CVLS
snapshotOption	string	string	Snapshot option. Possible values are: <ul style="list-style-type: none"> - HIDE_AND_DISABLE_ACCESS - HIDE_AND_ALLOW_ACCESS - SHOW_AND_ALLOW_ACCESS
transferToReplicationTargetSetting	string	string	Transfer to replication target settings. Possible values are: <ul style="list-style-type: none"> - INVALID - DO_NOT_TRANSFER - TRANSFER - USE_FS_DEFAULT

Get File System Shares Associated With A Virtual Server (CIFS/SMB)

Get file system shares associated with a virtual server (CIFS/SMB).

HTTP request syntax (URI)

```
GET <base_uri>/v9/storage/virtual-servers/{virtualServerId}/cifs
```

Parameters

Parameter	Type	Required	Data Type	Description
virtualServerId	path	Y	string or integer	Either the virtual server ID or the object ID of the virtual server

Return Codes

Code	Data	Description
200	filesystemShares	List of filesystemShare objects successfully retrieved
400	Error message	Bad Request
404	Error message	Not Found - a resource specified was not found
500	Error message	Internal Server Error

Any HTTP status code other than 200 indicates that the API did not complete successfully.

Sample request:

```
curl -k -H "X-API-Key:sample-api-key" -X GET  
"https://10.20.30.40:8444/v9/storage/virtual-servers/1/cifs"
```

Sample response:

```
HTTP/1.1 200 OK  
{  
  "filesystemShares": [  
    {  
      "filesystemId": "7B263DFD1D71E65A0000000000000000",  
      "name": "Name2",  
      "objectId": "333a3a3a3a3a3a3a303a3a3a4f49445f24232140255f56",  
      "path": "\\folder",  
      "settings": {  
        "accessConfig": "",  
        "snapshotOption": "HIDE_AND_DISABLE_ACCESS",  
        "transferToReplicationTargetSetting": "INVALID",  
        "cacheOption": "MANUAL_CACHING_DOCS",  
        "comment": "This is a comment",  
        "continuouslyAvailable": false,  
        "currentUsers": 12345,  
        "encryptedAccess": false,  
        "isABEEEnabled": false,  
        "isFollowGlobalSymbolicLinks": false,  

```



```

        "isFollowSymbolicLinks": false,
        "isForceFileNameToLowercase": false,
        "isScanForVirusesEnabled": false,
        "maxConcurrentUsers": 12345,
        "userHomeDirectoryMode": "OFF",
        "userHomeDirectoryPath": "home"
    },
    "shareId": "6b83a578-5494-11d1-90d0-4bee3faaca3b",
    "virtualServerId": 1
}
]
}

```

Get A File System Share (CIFS/SMB)

Get a file system share (CIFS/SMB).

HTTP request syntax (URI)

```
GET <base_uri>/v9/storage/filesystem-shares/cifs/{filesystemShareObjectId}
```

Parameters

Parameter	Type	Required	Data Type	Description
filesystemShareObjectId	path	Y	string	Object ID of the file system share

Return Codes

Code	Data	Description
200	filesystemShare	filesystemShare object successfully retrieved
400	Error message	Bad Request
404	Error message	Not Found - a resource specified was not found
500	Error message	Internal Server Error

Any HTTP status code other than 200 indicates that the API did not complete successfully.

Sample request:

```
curl -k -H "X-API-Key:sample-api-key" -X GET
"https://10.20.30.40:8444/v9/storage/filesystem-
shares/cifs/353a3a3a66366233396131652d303562362d313164302d393136382d356563303
033373534353864"
```

Sample response:

```
HTTP/1.1 200 OK
{
  "filesystemShare": {
    "filesystemId": "7B263DFD1D71E65A0000000000000000",
    "name": "Name2",
    "objectId": "333a3a3a3a3a3a3a303a3a3a4f49445f24232140255f56",
    "path": "\\folder",

```

```

"settings": {
  "accessConfig": "",
  "snapshotOption": "HIDE_AND_DISABLE_ACCESS",
  "transferToReplicationTargetSetting": "INVALID",
  "cacheOption": "MANUAL_CACHING_DOCS",
  "comment": "This is a comment",
  "continuouslyAvailable": false,
  "currentUsers": 12345,
  "encryptedAccess": false,
  "isABEEnabled": false,
  "isFollowGlobalSymbolicLinks": false,
  "isFollowSymbolicLinks": false,
  "isForceFileNameToLowercase": false,
  "isScanForVirusesEnabled": false,
  "maxConcurrentUsers": 12345,
  "userHomeDirectoryMode": "OFF",
  "userHomeDirectoryPath": "home"
},
"shareId": "6b83a578-5494-11d1-90d0-4bee3faaca3b",
"virtualServerId": 1
}
}

```

Create A File System Share (CIFS/SMB)

Create a file system share (CIFS/SMB).

HTTP request syntax (URI)

```
POST <base_uri>/v9/storage/filesystem-shares/cifs
```

Parameters

Parameter	Type	Required	Data Type	Description
accessConfig	body	N	string	Access config options. Typically it is the IP addresses of the allowed hosts and access level, or blank if there are no restrictions
cacheOption	body	N	string	Cache option. Possible values are: - MANUAL_CACHING_DOCS - AUTO_CACHING_DOCS - AUTO_CACHING_PROGS - CACHING_OFF
comment	body	N	string	Comment associated with the item
continuouslyAvailable	body	N	boolean	True indicates that the share is continuously available
encryptedAccess	body	N	boolean	True indicates that clients will be required to support data encryption to connect to the share

ensurePathExists	body	N	boolean	True to ensure that the path supplied is created if it does not exist
filesystemId	body	Y	string	Either the file system ID or the object ID of the file system
filesystemPath	body	Y	string	Full path of a directory within the file system, which should be in Windows format
isABEEEnabled	body	N	boolean	True indicates that Access-Based Enumeration (ABE) is enabled. When enabled, ABE filters the contents of an SMB share. Note: enabling ABE may have a negative impact on performance
isFollowGlobalSymbolicLinks	body	N	boolean	True indicates global symbolic links will be followed, otherwise they will be ignored
isFollowSymbolicLinks	body	N	boolean	True indicates symbolic links will be followed, otherwise they will be ignored
isForceFileNameToLowercase	body	N	boolean	True indicates that file names on the share will be forced to lower case
isScanForVirusesEnabled	body	N	boolean	True indicates that virus scanning will be performed on the share
maxConcurrentUsers	body	N	integer	Maximum concurrent sessions to access the share. The value -1 indicates unlimited concurrent connections are allowed
name	body	Y	string	Name to associate with the item
snapshotOption	body	N	string	Snapshot option. Possible values are: - HIDE_AND_DISABLE_ACCESS - HIDE_AND_ALLOW_ACCESS - SHOW_AND_ALLOW_ACCESS
transferToReplicationTargetSetting	body	N	string	Transfer to replication target settings. Possible values are: - DO_NOT_TRANSFER - TRANSFER - USE_FS_DEFAULT
userHomeDirectoryMode	body	N	string	User home directory mode. Possible values are: - OFF - ADS - USER - DOMAIN_AND_USER - UNIX

userHomeDirectoryPath	body	N	string	User home directory path - this path is relative to the shared path
virtualServerId	body	Y	string or integer	Either the virtual server ID or the object ID of the virtual server. NDMP devices also accept ANY

Return Codes

Code	Data	Description
201	filesystemShare	Successfully created new item
400	Error message	Bad Request
401	No Data	Unauthorized
403	Error message	Forbidden - the client does not have the required permissions to perform the operation
500	Error message	Internal Server Error

Any HTTP status code other than 201 indicates that the API did not complete successfully.

Sample request:

```
curl -k -H "X-Api-Key:sample-api-key" -X POST
"https://10.20.30.40:8444/v9/storage/filesystem-shares/cifs" -d
'{"accessConfig": "", "cacheOption": "MANUAL_CACHING_DOCS", "comment": "This
is a comment", "continuouslyAvailable": false, "encryptedAccess": false,
"ensurePathExists": false, "filesystemId":
"7B263DFD1D71E65A0000000000000000", "filesystemPath": "\\folder",
"isABEEnabled": false, "isFollowGlobalSymbolicLinks": false,
"isFollowSymbolicLinks": false, "isForceFileNameToLowercase": false,
"isScanForVirusesEnabled": false, "maxConcurrentUsers": 12345, "name":
"Name2", "snapshotOption": "HIDE_AND_DISABLE_ACCESS",
"transferToReplicationTargetSetting": "DO_NOT_TRANSFER",
"userHomeDirectoryMode": "OFF", "userHomeDirectoryPath": "home",
"virtualServerId": 1}'
```

Sample response:

```
HTTP/1.1 201 Created
{
  "filesystemShare": {
    "filesystemId": "7B263DFD1D71E65A0000000000000000",
    "name": "Name2",
    "objectId": "333a3a3a3a3a3a3a303a3a3a4f49445f24232140255f56",
    "path": "\\folder",
    "settings": {
      "accessConfig": "",
      "snapshotOption": "HIDE_AND_DISABLE_ACCESS",
      "transferToReplicationTargetSetting": "INVALID",
      "cacheOption": "MANUAL_CACHING_DOCS",
      "comment": "This is a comment",
      "continuouslyAvailable": false,
      "currentUsers": 12345,
      "encryptedAccess": false,
      "isABEEnabled": false,
      "isFollowGlobalSymbolicLinks": false,
```

```

    "isFollowSymbolicLinks": false,
    "isForceFileNameToLowercase": false,
    "isScanForVirusesEnabled": false,
    "maxConcurrentUsers": 12345,
    "userHomeDirectoryMode": "OFF",
    "userHomeDirectoryPath": "home"
  },
  "shareId": "6b83a578-5494-11d1-90d0-4bee3faaca3b",
  "virtualServerId": 1
},
"uri": "https://10.20.30.40:8444/v9/storage/filesystem-
shares/cifs/333a3a3a3a3a3a303a3a3a4f49445f24232140255f56"
}

```

Update A File System Share (CIFS/SMB)

Update a file system share (CIFS/SMB).

HTTP request syntax (URI)

```
PATCH <base_uri>/v9/storage/filesystem-shares/cifs/{filesystemShareObjectId}
```

Parameters

Parameter	Type	Required	Data Type	Description
filesystemShareObjectId	path	Y	string	Object ID of the file system share
accessConfig	body	N	string	Access config options. Typically it is the IP addresses of the allowed hosts and access level, or blank if there are no restrictions
cacheOption	body	N	string	Cache option. Possible values are: - MANUAL_CACHING_DOCS - AUTO_CACHING_DOCS - AUTO_CACHING_PROGS - CACHING_OFF
comment	body	N	string	Comment associated with the item
continuouslyAvailable	body	N	boolean	True indicates that the share is continuously available
encryptedAccess	body	N	boolean	True indicates that clients will be required to support data encryption to connect to the share
ensurePathExists	body	N	boolean	True to ensure that the path supplied is created if it does not exist
filesystemId	body	N	string	Either the file system ID or the object ID of the file system

filesystemPath	body	N	string	Full path of a directory within the file system, which should be in Windows format
isABEEEnabled	body	N	boolean	True indicates that Access-Based Enumeration (ABE) is enabled. When enabled, ABE filters the contents of an SMB share. Note: enabling ABE may have a negative impact on performance
isFollowGlobalSymbolicLinks	body	N	boolean	True indicates global symbolic links will be followed, otherwise they will be ignored
isFollowSymbolicLinks	body	N	boolean	True indicates symbolic links will be followed, otherwise they will be ignored
isForceFileNameToLowercase	body	N	boolean	True indicates that file names on the share will be forced to lower case
isScanForVirusesEnabled	body	N	boolean	True indicates that virus scanning will be performed on the share
maxConcurrentUsers	body	N	integer	Maximum concurrent sessions to access the share. The value -1 indicates unlimited concurrent connections are allowed
snapshotOption	body	N	string	Snapshot option. Possible values are: - HIDE_AND_DISABLE_ACCESS - HIDE_AND_ALLOW_ACCESS - SHOW_AND_ALLOW_ACCESS
transferToReplicationTargetSetting	body	N	string	Transfer to replication target settings. Possible values are: - DO_NOT_TRANSFER - TRANSFER - USE_FS_DEFAULT
userHomeDirectoryMode	body	N	string	User home directory mode. Possible values are: - OFF - ADS - USER - DOMAIN_AND_USER - UNIX
userHomeDirectoryPath	body	N	string	User home directory path - this path is relative to the shared path

Return Codes

Code	Data	Description
204	No Data	Operation successfully completed

400	Error message	Bad Request
401	No Data	Unauthorized
403	Error message	Forbidden - the client does not have the required permissions to perform the operation
404	Error message	Not Found - a resource specified was not found
500	Error message	Internal Server Error

Any HTTP status code other than 204 indicates that the API did not complete successfully.

Sample request:

```
curl -k -H "X-API-Key:sample-api-key" -X PATCH
"https://10.20.30.40:8444/v9/storage/filesystem-
shares/cifs/353a3a3a66366233396131652d303562362d313164302d393136382d356563303
033373534353864" -d '{"accessConfig": "", "cacheOption":
"MANUAL_CACHING_DOCS", "comment": "This is a comment",
"continuouslyAvailable": false, "encryptedAccess": false, "ensurePathExists":
false, "filesystemId": "7B263DFD1D71E65A0000000000000000", "filesystemPath":
"\\folder", "isABEEEnabled": false, "isFollowGlobalSymbolicLinks": false,
"isFollowSymbolicLinks": false, "isForceFileNameToLowercase": false,
"isScanForVirusesEnabled": false, "maxConcurrentUsers": 12345,
"snapshotOption": "HIDE_AND_DISABLE_ACCESS",
"transferToReplicationTargetSetting": "DO_NOT_TRANSFER",
"userHomeDirectoryMode": "OFF", "userHomeDirectoryPath": "home"}'
```

Sample response:

```
HTTP/1.1 204 No Content
```

Delete A File System Share (CIFS/SMB)

Delete a file system share (CIFS/SMB).

HTTP request syntax (URI)

```
DELETE <base_uri>/v9/storage/filesystem-shares/cifs/{filesystemShareObjectId}
```

Parameters

Parameter	Type	Required	Data Type	Description
filesystemShareObjectId	path	Y	string	Object ID of the file system share

Return Codes

Code	Data	Description
204	No Data	Operation successfully completed
400	Error message	Bad Request
401	No Data	Unauthorized

403	Error message	Forbidden - the client does not have the required permissions to perform the operation
404	Error message	Not Found - a resource specified was not found
500	Error message	Internal Server Error

Any HTTP status code other than 204 indicates that the API did not complete successfully.

Sample request:

```
curl -k -H "X-Api-Key:sample-api-key" -X DELETE
"https://10.20.30.40:8444/v9/storage/filesystem-
shares/cifs/353a3a3a66366233396131652d303562362d313164302d393136382d356563303
033373534353864"
```

Sample response:

```
HTTP/1.1 204 No Content
```

Get CIFS Share Access Authentications

Get CIFS share access authentications.

HTTP request syntax (URI)

```
GET <base_uri>/v9/storage/filesystem-
shares/cifs/{filesystemShareObjectId}/authentications
```

Parameters

Parameter	Type	Required	Data Type	Description
filesystemShareObjectId	path	Y	string	Object ID of the file system share

Return Codes

Code	Data	Description
200	cifsAuthentications	List of cifsAuthentication objects successfully retrieved
400	Error message	Bad Request
404	Error message	Not Found - a resource specified was not found
500	Error message	Internal Server Error

Any HTTP status code other than 200 indicates that the API did not complete successfully.

Sample request:

```
curl -k -H "X-Api-Key:sample-api-key" -X GET
"https://10.20.30.40:8444/v9/storage/filesystem-
shares/cifs/353a3a3a66366233396131652d303562362d313164302d393136382d356563303
033373534353864/authentications"
```

Sample response:


```

HTTP/1.1 200 OK
{
  "cifsAuthentications": [
    {
      "encodedName": "45766572796f6e653a3a3a303a3a3a4f49445f24232140255f56",
      "name": "Everyone",
      "permission": 56,
      "type": "USER"
    }
  ]
}

```

Add CIFS Share Access Authentications

Add CIFS share access authentications.

HTTP request syntax (URI)

```

POST <base_uri>/v9/storage/filesystem-
shares/cifs/{filesystemShareObjectId}/authentications

```

Parameters

Parameter	Type	Required	Data Type	Description
filesystemShareObjectId	path	Y	string	Object ID of the file system share
cifsAuthentications	body	Y	array	Array of CIFS authentication objects to be added to the SMB/CIFS share. Each CIFS authentication object should omit the encodedName attribute

Return Codes

Code	Data	Description
201	cifsAuthentications	Successfully created new item
400	Error message	Bad Request
401	No Data	Unauthorized
403	Error message	Forbidden - the client does not have the required permissions to perform the operation
404	Error message	Not Found - a resource specified was not found
500	Error message	Internal Server Error

Any HTTP status code other than 201 indicates that the API did not complete successfully.

Sample request:

```

curl -k -H "X-API-Key:sample-api-key" -X POST
"https://10.20.30.40:8444/v9/storage/filesystem-
shares/cifs/353a3a3a66366233396131652d303562362d313164302d393136382d356563303

```

```
033373534353864/authentications" -d '{"cifsAuthentications": [ {"name":  
"Everyone", "permission": 56} ]}'
```

Sample response:

```
HTTP/1.1 201 Created  
{  
  "cifsAuthentications": [  
    {  
      "encodedName": "45766572796f6e653a3a3a303a3a3a4f49445f24232140255f56",  
      "name": "Everyone",  
      "permission": 56,  
      "type": "USER"  
    }  
  ],  
  "uri": "https://10.20.30.40:8444/v9/storage/filesystem-  
shares/cifs/353a3a3a66366233396131652d303562362d313164302d393136382d356563303  
033373534353864/authentications"  
}
```

Update CIFS Share Access Authentication Entry

Updates the permissions for an existing share access authentication entry for a share.

HTTP request syntax (URI)

```
PATCH <base_uri>/v9/storage/filesystem-  
shares/cifs/{filesystemShareObjectId}/authentications/{encodedName}
```

Parameters

Parameter	Type	Required	Data Type	Description
encodedName	path	Y	string	Encoded version of the name
filesystemShareObjectId	path	Y	string	Object ID of the file system share
permission	body	Y	integer	Bit representation of the permission for the access authentication item. Use decimal number made up by a combination of the following values: - 0 No permission - 8 Allow read - 24 Allow read+change - 56 Allow read+change+full control - 1 Deny read - 3 Deny read+change - 7 Deny read+change+full control

Return Codes

Code	Data	Description
------	------	-------------

204	No Data	Operation successfully completed
400	Error message	Bad Request
401	No Data	Unauthorized
403	Error message	Forbidden - the client does not have the required permissions to perform the operation
404	Error message	Not Found - a resource specified was not found
500	Error message	Internal Server Error

Any HTTP status code other than 204 indicates that the API did not complete successfully.

Sample request:

```
curl -k -H "X-Api-Key:sample-api-key" -X PATCH
"https://10.20.30.40:8444/v9/storage/filesystem-
shares/cifs/353a3a3a66366233396131652d303562362d313164302d393136382d356563303
033373534353864/authentications/45766572796f6e653a3a3a303a3a3a4f49445f2423214
0255f56" -d '{"permission": 56}'
```

Sample response:

```
HTTP/1.1 204 No Content
```

Delete CIFS Share Access Authentication Entry

Delete CIFS share access authentication entry.

HTTP request syntax (URI)

```
DELETE <base_uri>/v9/storage/filesystem-
shares/cifs/{filesystemShareObjectId}/authentications/{encodedName}
```

Parameters

Parameter	Type	Required	Data Type	Description
encodedName	path	Y	string	Encoded version of the name
filesystemShareObjectId	path	Y	string	Object ID of the file system share

Return Codes

Code	Data	Description
204	No Data	Operation successfully completed
400	Error message	Bad Request
401	No Data	Unauthorized
403	Error message	Forbidden - the client does not have the required permissions to perform the operation
404	Error message	Not Found - a resource specified was not found
500	Error message	Internal Server Error

Any HTTP status code other than 204 indicates that the API did not complete successfully.

Sample request:

```
curl -k -H "X-API-Key:sample-api-key" -X DELETE
"https://10.20.30.40:8444/v9/storage/filesystem-
shares/cifs/353a3a3a66366233396131652d303562362d313164302d393136382d356563303
033373534353864/authentications/45766572796f6e653a3a3a303a3a3a4f49445f2423214
0255f56"
```

Sample response:

```
HTTP/1.1 204 No Content
```

Get File System Shares Associated With A Virtual Server (NFS)

Get file system shares associated with a virtual server (NFS).

HTTP request syntax (URI)

```
GET <base_uri>/v9/storage/virtual-servers/{virtualServerId}/nfs
```

Parameters

Parameter	Type	Required	Data Type	Description
virtualServerId	path	Y	string or integer	Either the virtual server ID or the object ID of the virtual server

Return Codes

Code	Data	Description
200	filesystemShares	List of filesystemShare objects successfully retrieved
400	Error message	Bad Request
404	Error message	Not Found - a resource specified was not found
500	Error message	Internal Server Error

Any HTTP status code other than 200 indicates that the API did not complete successfully.

Sample request:

```
curl -k -H "X-API-Key:sample-api-key" -X GET
"https://10.20.30.40:8444/v9/storage/virtual-servers/1/nfs"
```

Sample response:

```
HTTP/1.1 200 OK
{
  "filesystemShares": [
    {
      "filesystemId": "7B263DFD1D71E65A0000000000000000",
      "name": "Name2",
```

```

    "objectId": "333a3a3a3a3a3a303a3a3a4f49445f24232140255f56",
    "path": "/folder",
    "settings": {
      "accessConfig": "",
      "localReadCacheOption": "DISABLED",
      "snapshotOption": "HIDE_AND_DISABLE_ACCESS",
      "transferToReplicationTargetSetting": "INVALID"
    },
    "shareId": "6b83a578-5494-11d1-90d0-4bee3faaca3b",
    "virtualServerId": 1
  }
]
}

```

Get A File System Share (NFS)

Get a file system share (NFS).

HTTP request syntax (URI)

```
GET <base_uri>/v9/storage/filesystem-shares/nfs/{filesystemShareObjectId}
```

Parameters

Parameter	Type	Required	Data Type	Description
filesystemShareObjectId	path	Y	string	Object ID of the file system share

Return Codes

Code	Data	Description
200	filesystemShare	filesystemShare object successfully retrieved
400	Error message	Bad Request
404	Error message	Not Found - a resource specified was not found
500	Error message	Internal Server Error

Any HTTP status code other than 200 indicates that the API did not complete successfully.

Sample request:

```

curl -k -H "X-API-Key:sample-api-key" -X GET
"https://10.20.30.40:8444/v9/storage/filesystem-
shares/nfs/353a3a3a66366233396131652d303562362d313164302d393136382d3565633030
33373534353864"

```

Sample response:

```

HTTP/1.1 200 OK
{
  "filesystemShare": {
    "filesystemId": "7B263DFD1D71E65A0000000000000000",
    "name": "Name2",
    "objectId": "333a3a3a3a3a3a303a3a3a4f49445f24232140255f56",

```

```

"path": "/folder",
"settings": {
  "accessConfig": "",
  "localReadCacheOption": "DISABLED",
  "snapshotOption": "HIDE_AND_DISABLE_ACCESS",
  "transferToReplicationTargetSetting": "INVALID"
},
"shareId": "6b83a578-5494-11d1-90d0-4bee3faaca3b",
"virtualServerId": 1
}
}

```

Create A File System Share (NFS)

Create a file system share (NFS).

HTTP request syntax (URI)

```
POST <base_uri>/v9/storage/filesystem-shares/nfs
```

Parameters

Parameter	Type	Required	Data Type	Description
accessConfig	body	N	string	Access config options. Typically it is the IP addresses of the allowed hosts and access level, or blank if there are no restrictions
ensurePathExists	body	N	boolean	True to ensure that the path supplied is created if it does not exist
filesystemId	body	Y	string	Either the file system ID or the object ID of the file system
filesystemPath	body	Y	string	Full path of a directory within the file system, which should be in UNIX format
ignoreOverlap	body	N	boolean	True allows the filesystemPath to overlap that of an existing NFS export, otherwise overlapping NFS exports will produce an error. Only relevant when type is nfs
localReadCacheOption	body	N	string	NFS local read cache option. Possible values are: - DISABLED - ENABLED_FOR_ALL_FILES - ENABLED_FOR_CVLS
name	body	Y	string	Name to associate with the item

snapshotOption	body	N	string	Snapshot option. Possible values are: - HIDE_AND_DISABLE_ACCESS - HIDE_AND_ALLOW_ACCESS - SHOW_AND_ALLOW_ACCESS
transferToReplicationTargetSetting	body	N	string	Transfer to replication target settings. Possible values are: - DO_NOT_TRANSFER - TRANSFER - USE_FS_DEFAULT
virtualServerId	body	Y	string or integer	Either the virtual server ID or the object ID of the virtual server. NDMP devices also accept ANY

Return Codes

Code	Data	Description
201	filesystemShare	Successfully created new item
400	Error message	Bad Request
401	No Data	Unauthorized
403	Error message	Forbidden - the client does not have the required permissions to perform the operation
500	Error message	Internal Server Error

Any HTTP status code other than 201 indicates that the API did not complete successfully.

Sample request:

```
curl -k -H "X-API-Key:sample-api-key" -X POST
"https://10.20.30.40:8444/v9/storage/filesystem-shares/nfs" -d
'{"accessConfig": "", "ensurePathExists": false, "filesystemId":
"7B263DFD1D71E65A0000000000000000", "filesystemPath": "/folder",
"ignoreOverlap": false, "localReadCacheOption": "DISABLED", "name": "Name2",
"snapshotOption": "HIDE_AND_DISABLE_ACCESS",
"transferToReplicationTargetSetting": "DO_NOT_TRANSFER", "virtualServerId":
1}'
```

Sample response:

```
HTTP/1.1 201 Created
{
  "filesystemShare": {
    "filesystemId": "7B263DFD1D71E65A0000000000000000",
    "name": "Name2",
    "objectId": "333a3a3a3a3a3a303a3a3a4f49445f24232140255f56",
    "path": "/folder",
    "settings": {
      "accessConfig": "",
      "localReadCacheOption": "DISABLED",
      "snapshotOption": "HIDE_AND_DISABLE_ACCESS",
      "transferToReplicationTargetSetting": "INVALID"
    },
    "shareId": "6b83a578-5494-11d1-90d0-4bee3faaca3b",
```

```

    "virtualServerId": 1
  },
  "uri": "https://10.20.30.40:8444/v9/storage/filesystem-
shares/nfs/333a3a3a3a3a3a303a3a3a4f49445f24232140255f56"
}

```

Update A File System Share (NFS)

Update a file system share (NFS).

HTTP request syntax (URI)

```
PATCH <base_uri>/v9/storage/filesystem-shares/nfs/{filesystemShareObjectId}
```

Parameters

Parameter	Type	Required	Data Type	Description
filesystemShareObjectId	path	Y	string	Object ID of the file system share
accessConfig	body	N	string	Access config options. Typically it is the IP addresses of the allowed hosts and access level, or blank if there are no restrictions
ensurePathExists	body	N	boolean	True to ensure that the path supplied is created if it does not exist
filesystemId	body	N	string	Either the file system ID or the object ID of the file system
filesystemPath	body	N	string	Full path of a directory within the file system, which should be in UNIX format
ignoreOverlap	body	N	boolean	True allows the filesystemPath to overlap that of an existing NFS export, otherwise overlapping NFS exports will produce an error. Only relevant when type is nfs
localReadCacheOption	body	N	string	NFS local read cache option. Possible values are: - DISABLED - ENABLED_FOR_ALL_FILES - ENABLED_FOR_CVLS
snapshotOption	body	N	string	Snapshot option. Possible values are: - HIDE_AND_DISABLE_ACCESS - HIDE_AND_ALLOW_ACCESS - SHOW_AND_ALLOW_ACCESS

transferToReplicationTargetSetting	body	N	string	Transfer to replication target settings. Possible values are: - DO_NOT_TRANSFER - TRANSFER - USE_FS_DEFAULT
------------------------------------	------	---	--------	--

Return Codes

Code	Data	Description
204	No Data	Operation successfully completed
400	Error message	Bad Request
401	No Data	Unauthorized
403	Error message	Forbidden - the client does not have the required permissions to perform the operation
404	Error message	Not Found - a resource specified was not found
500	Error message	Internal Server Error

Any HTTP status code other than 204 indicates that the API did not complete successfully.

Sample request:

```
curl -k -H "X-API-Key:sample-api-key" -X PATCH
"https://10.20.30.40:8444/v9/storage/filesystem-
shares/nfs/353a3a3a66366233396131652d303562362d313164302d393136382d3565633030
33373534353864" -d '{"accessConfig": "", "ensurePathExists": false,
"filesystemId": "7B263DFD1D71E65A0000000000000000", "filesystemPath":
"/folder", "ignoreOverlap": false, "localReadCacheOption": "DISABLED",
"snapshotOption": "HIDE_AND_DISABLE_ACCESS",
"transferToReplicationTargetSetting": "DO_NOT_TRANSFER"}'
```

Sample response:

```
HTTP/1.1 204 No Content
```

Delete A File System Share (NFS)

Delete a file system share (NFS).

HTTP request syntax (URI)

```
DELETE <base_uri>/v9/storage/filesystem-shares/nfs/{filesystemShareObjectId}
```

Parameters

Parameter	Type	Required	Data Type	Description
filesystemShareObjectId	path	Y	string	Object ID of the file system share

Return Codes

Code	Data	Description
------	------	-------------

204	No Data	Operation successfully completed
400	Error message	Bad Request
401	No Data	Unauthorized
403	Error message	Forbidden - the client does not have the required permissions to perform the operation
404	Error message	Not Found - a resource specified was not found
500	Error message	Internal Server Error

Any HTTP status code other than 204 indicates that the API did not complete successfully.

Sample request:

```
curl -k -H "X-API-Key:sample-api-key" -X DELETE
"https://10.20.30.40:8444/v9/storage/filesystem-
shares/nfs/353a3a3a66366233396131652d303562362d313164302d393136382d3565633030
33373534353864"
```

Sample response:

```
HTTP/1.1 204 No Content
```

Filesystem Snapshots Resource

The filesystem snapshots resource provides management of snapshots of a file system. A file system snapshot is a point in time, read only, copy of the data on a file system.

Filesystem Snapshots Object Model

The object model describing this resource contains the following objects.

snapshot - File system snapshot

Attribute	JSON type	Data type	Description
creationReason	string	string	Reason for snapshot creation. Possible values are: - SNAPSHOT_CREATED_MANUALLY - SNAPSHOT_CREATED_BY_RULE - SNAPSHOT_CREATED_FOR_BACKUP - SNAPSHOT_CREATED_FOR_DATA_MIGRATION_TARGET - SNAPSHOT_CREATED_BY_VSS - SNAPSHOT_CREATED_BY_CFN - SNAPSHOT_CREATED_BY_HSR - SNAPSHOT_CREATED_BY_JET_API - SNAPSHOT_CREATED_FS_UTILITY - SNAPSHOT_CREATED_FOR_DEDUPE - SNAPSHOT_CREATED_RESERVED - SNAPSHOT_CREATED_FOR_MIGRATION_RECOVERY - SNAPSHOT_CREATED_BY_APPLICATION
creationTime	integer	integer	Creation time of the snapshot in posix time format
displayName	string	string	Full name of the snapshot
filesystemId	string	string	ID of the file system
objectId	string	string	Unique ID of the object
snapshotSize	integer	integer	The preserved space that is in use by a snapshot. Note that if the snapshot is deleted, all of the space preserved for it may not be freed since some of the space may also be shared with older snapshots
state	string	string	State of the snapshot. Possible values are: - SNAPSHOT_MANAGEMENT_STATE_USABLE - SNAPSHOT_MANAGEMENT_STATE_DELETE_PENDING - SNAPSHOT_MANAGEMENT_STATE_DELETE_ONGOING - SNAPSHOT_MANAGEMENT_STATE_DEAD - SNAPSHOT_MANAGEMENT_STATE_DELETE_ROOT_ONODE_PASS

Get File System Snapshots

Retrieves all file system snapshots filtered by appSearchId. The appSearchId is intended to be an application specific prefix which is part of the snapshots name. To retrieve all snapshots, irrespective of the application specific prefix, ensure that appSearchId is specified as the value null, and not left blank.

HTTP request syntax (URI)

```
GET <base_uri>/v9/storage/filesystem-snapshots/{filesystemId}/{appSearchId}
```

Parameters

Parameter	Type	Required	Data Type	Description
appSearchId	path	Y	string	An application specific tag that can be used to filter the list of snapshots. To include all snapshots, use the tag null
filesystemId	path	Y	string	Either the file system ID or the object ID of the file system

Return Codes

Code	Data	Description
200	snapshots	List of snapshot objects successfully retrieved
400	Error message	Bad Request
404	Error message	Not Found - a resource specified was not found
500	Error message	Internal Server Error

Any HTTP status code other than 200 indicates that the API did not complete successfully.

Sample request:

```
curl -k -H "X-API-Key:sample-api-key" -X GET  
"https://10.20.30.40:8444/v9/storage/filesystem-  
snapshots/7B263DFD1D71E65A0000000000000000/null"
```

Sample response:

```
HTTP/1.1 200 OK  
{  
  "snapshots": [  
    {  
      "creationReason": "SNAPSHOT_CREATED_MANUALLY",  
      "creationTime": 12345,  
      "displayName": "Snapshot1",  
      "filesystemId": "7B263DFD1D71E65A0000000000000000",  
      "objectId": "333a3a3a3a3a3a3a303a3a3a4f49445f24232140255f56",  
      "snapshotSize": 12345,  
      "state": "SNAPSHOT_MANAGEMENT_STATE_USABLE"  
    }  
  ]  
}
```

Get File System Snapshots Associated With A File System

Get file system snapshots associated with a file system.

HTTP request syntax (URI)

```
GET <base_uri>/v9/storage/filesystems/{filesystemId}/snapshots
```

Parameters

Parameter	Type	Required	Data Type	Description
filesystemId	path	Y	string	Either the file system ID or the object ID of the file system

Return Codes

Code	Data	Description
200	snapshots	List of snapshot objects successfully retrieved
400	Error message	Bad Request
404	Error message	Not Found - a resource specified was not found
500	Error message	Internal Server Error

Any HTTP status code other than 200 indicates that the API did not complete successfully.

Sample request:

```
curl -k -H "X-API-Key:sample-api-key" -X GET  
"https://10.20.30.40:8444/v9/storage/filesystems/7B263DFD1D71E65A00000000000000  
0000/snapshots"
```

Sample response:

```
HTTP/1.1 200 OK  
{  
  "snapshots": [  
    {  
      "creationReason": "SNAPSHOT_CREATED_MANUALLY",  
      "creationTime": 12345,  
      "displayName": "Snapshot1",  
      "filesystemId": "7B263DFD1D71E65A0000000000000000",  
      "objectId": "333a3a3a3a3a3a3a303a3a3a4f49445f24232140255f56",  
      "snapshotSize": 12345,  
      "state": "SNAPSHOT_MANAGEMENT_STATE_USABLE"  
    }  
  ]  
}
```


HTTP request syntax (URI)

POST <base_uri>/v9/storage/filesystem-snapshots

Parameters

Parameter	Type	Required	Data Type	Description
appSearchId	body	N	string	Application specific tag that will be used to prefix the displayName of the snapshot
displayName	body	Y	string	Name of the snapshot, which will be prefixed with the appSearchId, if supplied
filesystemId	body	Y	string	Either the file system ID or the object ID of the file system

Return Codes

Code	Data	Description
201	snapshot	Successfully created new item
400	Error message	Bad Request
401	No Data	Unauthorized
403	Error message	Forbidden - the client does not have the required permissions to perform the operation
500	Error message	Internal Server Error

Any HTTP status code other than 201 indicates that the API did not complete successfully.

Sample request:

```
curl -k -H "X-API-Key:sample-api-key" -X POST
"https://10.20.30.40:8444/v9/storage/filesystem-snapshots" -d
'{"appSearchId": "app1", "displayName": "Snapshot1", "filesystemId":
"7B263DFD1D71E65A0000000000000000"}'
```

Sample response:

```
HTTP/1.1 201 Created
{
  "snapshot": {
    "creationReason": "SNAPSHOT_CREATED_MANUALLY",
    "creationTime": 12345,
    "displayName": "Snapshot1",
    "filesystemId": "7B263DFD1D71E65A0000000000000000",
    "objectId": "333a3a3a3a3a3a303a3a3a4f49445f24232140255f56",
    "snapshotSize": 12345,
    "state": "SNAPSHOT_MANAGEMENT_STATE_USABLE"
  },
  "uri": "https://10.20.30.40:8444/v9/storage/filesystem-
snapshots/333a3a3a3a3a3a303a3a3a4f49445f24232140255f56"
}
```

Rename A File System Snapshot

Renames a manually created file system snapshot. It's not possible to rename any other types of snapshot.

HTTP request syntax (URI)

```
PATCH <base_uri>/v9/storage/filesystem-snapshots/{snapshotObjectId}
```

Parameters

Parameter	Type	Required	Data Type	Description
snapshotObjectId	path	Y	string	Object ID of the snapshot
displayName	body	Y	string	New name of the snapshot

Return Codes

Code	Data	Description
303	snapshot	Successfully updated item
400	Error message	Bad Request
401	No Data	Unauthorized
403	Error message	Forbidden - the client does not have the required permissions to perform the operation
404	Error message	Not Found - a resource specified was not found
500	Error message	Internal Server Error

Any HTTP status code other than 303 indicates that the API did not complete successfully.

Sample request:

```
curl -k -H "X-API-Key:sample-api-key" -X PATCH
"https://10.20.30.40:8444/v9/storage/filesystem-
snapshots/3836344231323238414242313434414330303030303030303030303030303a3
a3a4155544f5f534e415053484f545f5441524745545f353a3a3a3a3a303a3a3a4f49445f24
232140255f56" -d '{"displayName": "Snapshot1"}'
```

Sample response:

```
HTTP/1.1 303 See Other
{
  "snapshot": {
    "creationReason": "SNAPSHOT_CREATED_MANUALLY",
    "creationTime": 12345,
    "displayName": "Snapshot1",
    "filesystemId": "7B263DFD1D71E65A0000000000000000",
    "objectId": "333a3a3a3a3a303a3a3a4f49445f24232140255f56",
    "snapshotSize": 12345,
    "state": "SNAPSHOT_MANAGEMENT_STATE_USABLE"
  },
  "uri": "https://10.20.30.40:8444/v9/storage/filesystem-
snapshots/333a3a3a3a3a303a3a3a4f49445f24232140255f56"
}
```


Filesystems Resource

The filesystems resource enables management of the file systems that are available to the storage system. The file systems are where the client data is stored.

Filesystems Object Model

The object model describing this resource contains the following objects.

auditPolicy - Audit log policy for a file system

Attribute	JSON type	Data type	Description
auditNfsv3	boolean	boolean	True indicates that NFSv3 file access will be audited, in addition to SMB file access, which will always be audited
backupInterval	integer	integer	Time between backups of the active audit log, in seconds. A value of 0 indicates that backups are disabled
backupLimit	integer	integer	Number of backup audit log files that will be retained
external	boolean	boolean	True indicates that the logging is external, and not stored on the file system
filesystemId	string	string	ID of the file system
filesystemLabel	string	string	Label of the file system
isEnabled	boolean	boolean	True if enabled, false for disabled
logFileName	string	string	Name of the auditing log file
logFileSize	integer	integer	Maximum size that the log file can grow to, in bytes
rotatePolicy	string	string	Whether the audit log file overwrites old entries when the file is full, or if a new file is created. Possible values are: - OVERWRITE - CREATE
state	string	string	State of audit logging. Possible values are: - UNKNOWN - DISABLED - NOT_MOUNTED - LOG_FAILED - LOG_ACTIVE - UNLICENSED - UNSAFE - REPLICATION - RECOVERY_TARGET - EXTERNAL

unsafePolicy	string	string	Action taken when a non-audited protocol attempts access to a file system. Possible values are: - DENY - IGNORE
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dedupFilesystem - Dedupe details for a file system

Attribute	JSON type	Data type	Description
deviceId	integer	integer	ID of the device
filesystemId	string	string	ID of the file system
isEnabled	boolean	boolean	True if enabled, false for disabled
lastRun	integer	integer	Number of seconds since the last time the deduplication service started running
percentageReclaimed	integer	integer	Percentage of disk space reclaimed by the deduplication service
reclaimedCapacity	integer	integer	Size of reclaimed capacity in bytes
virtualServerId	integer	integer	ID of the virtual server. 0 = management virtual server 255 = not assigned to virtual server

directory - File system directory entry

Attribute	JSON type	Data type	Description
displayName	array	string	Full path of the directory item
isDirectory	boolean	boolean	True indicates the entry represents a directory. False indicates the entry is a file
name	string	string	Single level name of the directory item
objectId	string	string	Unique ID of the object

filesystem - File system details

Attribute	JSON type	Data type	Description
blockSize	integer	integer	Block size of the file system in bytes
capacity	integer	integer	Actual capacity of the file system in bytes
checkStatus	object	filesystemCheckStatus	object of type filesystemCheckStatus
deviceId	integer	integer	ID of the device

expansionLimits	integer	integer	The maximum size a file system can grow to if expanded
filesystemId	string	string	ID of the file system
freeCapacity	integer	integer	The actual amount of free space within the file system
isConfigTransferEnabled	boolean	boolean	True indicates that any shares or exports associated with the file system will get transferred during object replication
isConfigTransferEnabledValid	boolean	boolean	True if the isConfigTransferEnabled value is valid
isDedupeEnabled	boolean	boolean	True if dedupe is enabled on the file system
isDedupeSupported	boolean	boolean	True if dedupe is supported on the file system
isLogicalCapacityValid	boolean	boolean	True if the value of logicalCapacity is valid
isLogicalFreeCapacityValid	boolean	boolean	True if the value of logicalFreeCapacity is valid
isNDMPRecoveryTarget	boolean	boolean	Indicates if the file system is an NDMP recovery target or not
isNonStrictWORM	boolean	boolean	True if the file system is non-strict Write Once Read Many (WORM)
isObjectReplicationTarget	boolean	boolean	True if the file system is an object replication target
isReadCached	boolean	boolean	True if the file system is a read cache
isReadOnly	boolean	boolean	True if the file system is read-only
isSysLocked	boolean	boolean	True if file system is sys-locked, which is read-only to network protocols, but writeable via NDMP
isThinProvisioningEnabled	boolean	boolean	Indicates if thin provisioning is enabled for the file system or not
isThinProvisioningEnabledValid	boolean	boolean	True if the isThinProvisioningEnabled value is valid
isTiered	boolean	boolean	True if the file system is made up of multiple tiers
isTransferRawXVLEnabled	boolean	boolean	True indicates that the file system is enabled to transfer links during object replication rather than the file contents

isTransferRawXVLSEnabledValid	boolean	boolean	True if the isTransferRawXVLSEnabled value is valid
isTrueSparseFileEnabled	boolean	boolean	True if sparse files can be created that report use of more than the available capacity of the file system
isTrueSparseFileEnabledValid	boolean	boolean	True if the isTrueSparseFileEnabled value is valid
isUnlimitedExpansion	boolean	boolean	True indicates unlimited expansion is allowed. False indicates expansion is restricted
isWORM	boolean	boolean	True if the file system is Write Once Read Many (WORM)
label	string	string	Label of the file system
logicalCapacity	integer	integer	The capacity value returned to clients. This value may be larger than the actual capacity if thin provisioning is enabled
logicalFreeCapacity	integer	integer	The free capacity value returned to clients. This value may be larger than the actual free capacity if thin provisioning is enabled
objectId	string	string	Unique ID of the object
status	string	string	Status of the file system. Possible values are: - FAILING - FORMATTING - CHECKING - FIXING - NOT_MOUNTED - MOUNTING - MOUNTED - NOT_ON_THIS_NODE - VOLUME_NOT_AVAILABLE_TO_BS
storagePoolId	integer	integer	Storage pool ID
thresholds	object	filesystemThreshold	object of type filesystemThreshold
tierInformation	array	filesystemTierInfo	List of information about each file system tier, if the file system is made up from multiple tiers. Empty if file system is only a single tier
usedCapacity	integer	integer	The amount of space consumed within the capacity
usedSnapshotCapacity	integer	integer	File system capacity that is taken up by snapshots

virtualServerId	integer	integer	ID of the virtual server. 0 = management virtual server 255 = not assigned to virtual server
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filesystemCheckStatus - Checkfs/Fixfs status of a file system

Attribute	JSON type	Data type	Description
numberOfPhases	integer	integer	Total number of phases for checkfs or fixfs
phaseId	string	string	Description of the current checkfs/fixfs phase
phaseNumber	integer	integer	Number of the current checkfs/fixfs phase
status	string	string	Status of current operation in progress. Possible values are: - INACTIVE - CHECKING - CHECKED_OK - CHECK_FAILED - CHECK_ABORTED - FIXING - FIXED_OK - FIX_FAILED - FIX_ABORTED - DOES_NOT_EXIST
totalElapsedTime	integer	integer	Total elapsed time of the operation in progress

filesystemDRStateChangeReport - File system disaster recover state change details

Attribute	JSON type	Data type	Description
endTime	integer	integer	End time of the operation in posix time format
filesystemId	string	string	ID of the file system
isActive	boolean	boolean	True indicates that the disaster recovery state change report is active
logName	string	string	File name of the report
startTime	integer	integer	Start time of the operation in posix time format
statistics	array	objectReplicationStat	Array of statistics
status	string	string	Status of the DR state change. Possible values are: - QUEUED - RUNNING - CANCELLED - ABORTED - SUCCESSFULLY

			- WARNING - FAILED - INVALID
transitionId	string	string	Disaster recovery state change ID

filesystemThreshold - Warning thresholds for a file system

Attribute	JSON type	Data type	Description
liveReset	integer	integer	Live file system capacity warning reset level percentage, 0 indicates warnings are disabled
liveSevere	integer	integer	Live file system capacity severe warning percentage, 0 indicates warnings are disabled
liveWarning	integer	integer	Live file system capacity warning percentage, 0 indicates warnings are disabled
snapshotReset	integer	integer	Snapshot space capacity warning reset level percentage, 0 indicates warnings are disabled
snapshotSevere	integer	integer	Snapshot space capacity severe warning percentage, 0 indicates warnings are disabled
snapshotWarning	integer	integer	Snapshot space capacity warning percentage, 0 indicates warnings are disabled
stopGrowingAtSevereLevel	boolean	boolean	Stop file system expanding above the severe level
totalReset	integer	integer	Total file system capacity warning reset level percentage, 0 indicates warnings are disabled
totalSevere	integer	integer	Total file system capacity severe warning percentage, 0 indicates warnings are disabled
totalWarning	integer	integer	Total file system capacity warning percentage, 0 indicates warnings are disabled

filesystemTierInfo - Tier information

Attribute	JSON type	Data type	Description
isUnlimitedExpansion	boolean	boolean	True indicates unlimited expansion is allowed. False indicates expansion is restricted
tierCapacity	integer	integer	Capacity of the tier in bytes

tierExpansionLimit	integer	integer	Expansion limit of the tier in bytes. The expansion limit is unlimited if the value is 0xFFFFFFFFFFFFFFFF
tierFreeSpace	integer	integer	Free capacity of the tier in bytes
tierNumber	integer	integer	Tier number

jobId - Job identifier

Attribute	JSON type	Data type	Description
jobId	string	string	ID of the job
uri	string	string	URI to retrieve the current state of the job

jobState - Job state

Attribute	JSON type	Data type	Description
jobState	string	string	State of the job. Possible values are: - INVALID - QUEUED - RUNNING - ABORTING - FINISHED - ABORTED - ERRORED

objectReplicationStat - Object replication statistic

Attribute	JSON type	Data type	Description
name	string	string	Assigned name
value	integer	integer	The value of the statistics

replicationSnapshotDetail - Details of snapshot used for replication

Attribute	JSON type	Data type	Description
replicationSnapshotStatus	string	string	Status of replication snapshot. Possible values are: - INVALID - NON_REPLICATION_TARGET - REPLICATION_TARGET_INCOMPLETE - REPLICATION_TARGET_COMPLETE
replicationType	string	string	Replication type. Possible values are: - NONE

			- INCREMENTAL - FULL
sourceFileSystemId	string	string	File system ID of the source file system
sourceSnapshotName	string	string	Name of the source snapshot
sourceSnapshotTime	integer	integer	Time that the source snapshot was taken in posix time format
targetFileSystemId	string	string	File system ID of the target file system
targetSnapshotName	string	string	Target snapshot name

securityMode - Security mode of and item

Attribute	JSON type	Data type	Description
levelConfigured	string	string	An indication of which level the security mode is configured. If not specifically configured, the mode is inherited from a higher level. Possible values are: - VIRTUAL_SERVER - FILESYSTEM - VIRTUAL_VOLUME
mode	string	string	Security mode. Possible values are: - MIXED - UNIX

storagePool - Storage pool details

Attribute	JSON type	Data type	Description
capacityWarningThreshold	integer	integer	Percentage fullness at which auto-expansion causes a warning alert
chunkSize	integer	integer	Chunk size in bytes
freeCapacity	integer	integer	The actual amount of free space within the storage pool
isAssignedToLocalCluster	boolean	boolean	True if the storage pool is assigned to the local cluster
isFilesystemExpansionAllowed	boolean	boolean	True indicates that file systems on the storage pool can be expanded
isHealthy	boolean	boolean	True indicates that the storage pool is healthy
isTiered	boolean	boolean	True if the storage pool is made up of multiple tiers
label	string	string	Label of the storage pool
objectId	string	string	Unique ID of the object

storagePoolId	integer	integer	Storage pool ID
tierInformation	array	storagePoolTierInfo	List of information about each storage pool tier, if the storage pool is made up from multiple tiers. Empty if storage pool is only a single tier
totalCapacity	integer	integer	Total capacity in bytes
usedCapacity	integer	integer	The amount of space consumed within the capacity

storagePoolTierInfo - Tier information

Attribute	JSON type	Data type	Description
tierCapacity	integer	integer	Capacity of the tier in bytes
tierFreeSpace	integer	integer	Free capacity of the tier in bytes
tierNumber	integer	integer	Tier number

virtualServer - Virtual server (EVS) details

Attribute	JSON type	Data type	Description
UUID	string	string	Universally unique ID
ipAddresses	array	string	List of one or more IP addresses
isEnabled	boolean	boolean	True if enabled, false for disabled
name	string	string	Name of the virtual server (EVS)
objectId	string	string	Unique ID of the object
status	string	string	Status of the virtual server. Possible values are: - NOT_CONFIGURED - DISABLED - ONLINE - OFFLINE
type	string	string	Type of virtual server
virtualServerId	integer	integer	ID of the virtual server. 0 = management virtual server 255 = not assigned to virtual server

Get File Systems

Get file systems.

HTTP request syntax (URI)

```
GET <base_uri>/v9/storage/filesystems
```

Return Codes

Code	Data	Description
200	filesystems	List of filesystem objects successfully retrieved
500	Error message	Internal Server Error

Any HTTP status code other than 200 indicates that the API did not complete successfully.

Sample request:

```
curl -k -H "X-API-Key:sample-api-key" -X GET  
"https://10.20.30.40:8444/v9/storage/filesystems"
```

Sample response:

```
HTTP/1.1 200 OK  
{  
  "filesystems": [  
    {  
      "blockSize": 32768,  
      "capacity": 12345,  
      "checkStatus": {  
        "numberOfPhases": 12345,  
        "phaseId": "abcdefg",  
        "phaseNumber": 12345,  
        "status": "INACTIVE",  
        "totalElapsedTime": 12345  
      },  
      "deviceId": 1024,  
      "expansionLimits": 12345,  
      "filesystemId": "7B263DFD1D71E65A0000000000000000",  
      "freeCapacity": 12345,  
      "isConfigTransferEnabled": false,  
      "isConfigTransferEnabledValid": false,  
      "isDedupeEnabled": false,  
      "isDedupeSupported": false,  
      "isLogicalCapacityValid": false,  
      "isLogicalFreeCapacityValid": false,  
      "isNDMPRecoveryTarget": false,  
      "isNonStrictWORM": false,  
      "isObjectReplicationTarget": false,  
      "isReadCached": false,  
      "isReadOnly": false,  
      "isSysLocked": false,  
      "isThinProvisioningEnabled": false,  
      "isThinProvisioningEnabledValid": false,  
      "isTiered": false,  
      "isTransferRawXVLSEnabled": false,  
      "isTransferRawXVLSEnabledValid": false,  
      "isTrueSparseFileEnabled": false,  
      "isTrueSparseFileEnabledValid": false,  
      "isUnlimitedExpansion": false,  
      "isWORM": false,  
      "label": "Filesystem1",  
      "logicalCapacity": 12345,  
      "logicalFreeCapacity": 12345,  
    },  
  ],  
}
```

```

"objectId": "333a3a3a3a3a3a303a3a3a4f49445f24232140255f56",
"status": "FAILING",
"storagePoolId": "8873842036252213788",
"thresholds": {
  "liveReset": 80,
  "liveSevere": 97,
  "liveWarning": 90,
  "snapshotReset": 80,
  "snapshotSevere": 97,
  "snapshotWarning": 90,
  "stopGrowingAtSevereLevel": false,
  "totalReset": 90,
  "totalSevere": 97,
  "totalWarning": 95
},
"tierInformation": [
  {
    "isUnlimitedExpansion": false,
    "tierCapacity": 12345,
    "tierExpansionLimit": 12345,
    "tierFreeSpace": 12345,
    "tierNumber": 0
  }
],
"usedCapacity": 12345,
"usedSnapshotCapacity": 12345,
"virtualServerId": 1
}
]
}

```

Get A File System

Get a file system.

HTTP request syntax (URI)

```
GET <base_uri>/v9/storage/filesystems/{filesystemId}
```

Parameters

Parameter	Type	Required	Data Type	Description
filesystemId	path	Y	string	Either the file system ID or the object ID of the file system

Return Codes

Code	Data	Description
200	filesystem	filesystem object successfully retrieved
400	Error message	Bad Request
404	Error message	Not Found - a resource specified was not found

500	Error message	Internal Server Error
-----	---------------	-----------------------

Any HTTP status code other than 200 indicates that the API did not complete successfully.

Sample request:

```
curl -k -H "X-API-Key:sample-api-key" -X GET
"https://10.20.30.40:8444/v9/storage/filesystems/7B263DFD1D71E65A00000000000000000000"
```

Sample response:

```
HTTP/1.1 200 OK
{
  "filesystem": {
    "blockSize": 32768,
    "capacity": 12345,
    "checkStatus": {
      "numberOfPhases": 12345,
      "phaseId": "abcdefg",
      "phaseNumber": 12345,
      "status": "INACTIVE",
      "totalElapsedTime": 12345
    },
    "deviceId": 1024,
    "expansionLimits": 12345,
    "filesystemId": "7B263DFD1D71E65A00000000000000000000",
    "freeCapacity": 12345,
    "isConfigTransferEnabled": false,
    "isConfigTransferEnabledValid": false,
    "isDedupeEnabled": false,
    "isDedupeSupported": false,
    "isLogicalCapacityValid": false,
    "isLogicalFreeCapacityValid": false,
    "isNDMPRecoveryTarget": false,
    "isNonStrictWORM": false,
    "isObjectReplicationTarget": false,
    "isReadCached": false,
    "isReadOnly": false,
    "isSysLocked": false,
    "isThinProvisioningEnabled": false,
    "isThinProvisioningEnabledValid": false,
    "isTiered": false,
    "isTransferRawXVLSEnabled": false,
    "isTransferRawXVLSEnabledValid": false,
    "isTrueSparseFileEnabled": false,
    "isTrueSparseFileEnabledValid": false,
    "isUnlimitedExpansion": false,
    "isWORM": false,
    "label": "Filesystem1",
    "logicalCapacity": 12345,
    "logicalFreeCapacity": 12345,
    "objectId": "333a3a3a3a3a3a303a3a3a4f49445f24232140255f56",
    "status": "FAILING",
    "storagePoolId": "8873842036252213788",
    "thresholds": {
      "liveReset": 80,

```

```

    "liveSevere": 97,
    "liveWarning": 90,
    "snapshotReset": 80,
    "snapshotSevere": 97,
    "snapshotWarning": 90,
    "stopGrowingAtSevereLevel": false,
    "totalReset": 90,
    "totalSevere": 97,
    "totalWarning": 95
  },
  "tierInformation": [
    {
      "isUnlimitedExpansion": false,
      "tierCapacity": 12345,
      "tierExpansionLimit": 12345,
      "tierFreeSpace": 12345,
      "tierNumber": 0
    }
  ],
  "usedCapacity": 12345,
  "usedSnapshotCapacity": 12345,
  "virtualServerId": 1
}
}

```

Create A File System

Create a file system.

HTTP request syntax (URI)

```
POST <base_uri>/v9/storage/filesystems
```

Parameters

Parameter	Type	Required	Data Type	Description
capacity	body	Y	integer	Actual capacity of the item in bytes
label	body	Y	string	Label/name of the item
storagePoolId	body	Y	string or integer	Either the storage pool ID or the object ID of the storage pool
virtualServerId	body	Y	string or integer	Either the virtual server ID or the object ID of the virtual server. NDMP devices also accept ANY

Return Codes

Code	Data	Description
201	filesystem	Successfully created new item
400	Error message	Bad Request
401	No Data	Unauthorized

403	Error message	Forbidden - the client does not have the required permissions to perform the operation
500	Error message	Internal Server Error

Any HTTP status code other than 201 indicates that the API did not complete successfully.

Sample request:

```
curl -k -H "X-API-Key:sample-api-key" -X POST
"https://10.20.30.40:8444/v9/storage/filesystems" -d '{"capacity": 12345,
"label": "name1", "storagePoolId": 8873842036252213788, "virtualServerId":
1}'
```

Sample response:

```
HTTP/1.1 201 Created
{
  "filesystem": {
    "blockSize": 32768,
    "capacity": 12345,
    "checkStatus": {
      "numberOfPhases": 12345,
      "phaseId": "abcdefg",
      "phaseNumber": 12345,
      "status": "INACTIVE",
      "totalElapsedTime": 12345
    },
    "deviceId": 1024,
    "expansionLimits": 12345,
    "filesystemId": "7B263DFD1D71E65A0000000000000000",
    "freeCapacity": 12345,
    "isConfigTransferEnabled": false,
    "isConfigTransferEnabledValid": false,
    "isDedupeEnabled": false,
    "isDedupeSupported": false,
    "isLogicalCapacityValid": false,
    "isLogicalFreeCapacityValid": false,
    "isNDMPRecoveryTarget": false,
    "isNonStrictWORM": false,
    "isObjectReplicationTarget": false,
    "isReadCached": false,
    "isReadOnly": false,
    "isSysLocked": false,
    "isThinProvisioningEnabled": false,
    "isThinProvisioningEnabledValid": false,
    "isTiered": false,
    "isTransferRawXVLSEnabled": false,
    "isTransferRawXVLSEnabledValid": false,
    "isTrueSparseFileEnabled": false,
    "isTrueSparseFileEnabledValid": false,
    "isUnlimitedExpansion": false,
    "isWORM": false,
    "label": "Filesystem1",
    "logicalCapacity": 12345,
    "logicalFreeCapacity": 12345,
    "objectId": "333a3a3a3a3a3a303a3a3a4f49445f24232140255f56",
```



```

"status": "FAILING",
"storagePoolId": "8873842036252213788",
"thresholds": {
  "liveReset": 80,
  "liveSevere": 97,
  "liveWarning": 90,
  "snapshotReset": 80,
  "snapshotSevere": 97,
  "snapshotWarning": 90,
  "stopGrowingAtSevereLevel": false,
  "totalReset": 90,
  "totalSevere": 97,
  "totalWarning": 95
},
"tierInformation": [
  {
    "isUnlimitedExpansion": false,
    "tierCapacity": 12345,
    "tierExpansionLimit": 12345,
    "tierFreeSpace": 12345,
    "tierNumber": 0
  }
],
"usedCapacity": 12345,
"usedSnapshotCapacity": 12345,
"virtualServerId": 1
},
"uri":
"https://10.20.30.40:8444/v9/storage/filesystems/333a3a3a3a3a3a303a3a3a4f4944
5f24232140255f56"
}

```

Expand A File System

Expand a file system.

HTTP request syntax (URI)

```
POST <base_uri>/v9/storage/filesystems/{filesystemId}/expand
```

Parameters

Parameter	Type	Required	Data Type	Description
filesystemId	path	Y	string	Either the file system ID or the object ID of the file system
capacity	body	Y	integer	Actual capacity of the item in bytes
tier	body	N	string	Only required when expanding a tiered storage pool or file system. Possible values are: - TIER0 - TIER1

Return Codes

Code	Data	Description
204	No Data	Operation successfully completed
400	Error message	Bad Request
401	No Data	Unauthorized
403	Error message	Forbidden - the client does not have the required permissions to perform the operation
404	Error message	Not Found - a resource specified was not found
500	Error message	Internal Server Error

Any HTTP status code other than 204 indicates that the API did not complete successfully.

Sample request:

```
curl -k -H "X-API-Key:sample-api-key" -X POST
"https://10.20.30.40:8444/v9/storage/filesystems/7B263DFD1D71E65A000000000000
0000/expand" -d '{"capacity": 12345, "tier": "TIER0"}'
```

Sample response:

```
HTTP/1.1 204 No Content
```

Update A File System

Update a file system.

HTTP request syntax (URI)

```
PATCH <base_uri>/v9/storage/filesystems/{filesystemId}
```

Parameters

Parameter	Type	Required	Data Type	Description
filesystemId	path	Y	string	Either the file system ID or the object ID of the file system
dedupeDisabled	body	N	boolean	Use this option to prevent the file system from being scheduled for dedupe, even though its format supports it. Only applicable where dedupeSupported=true
expansionLimits	body	N	integer	The maximum size a file system can grow to if expanded
isConfigTransferEnabled	body	N	boolean	True indicates that any shares or exports associated with the file system will get transferred during object replication

isThinProvisioned	body	N	boolean	True indicates that thin provisioning should be enabled for the file system, false disables thin provisioning
label	body	N	string	Label/name of the item
tier0ExpansionLimit	body	N	integer	Expansion limit for tier 0 of a multi-tier file system in bytes - a value of 0 indicates there is no limit
tier1ExpansionLimit	body	N	integer	Expansion limit for tier 1 of a multi-tier file system in bytes - a value of 0 indicates there is no limit

Return Codes

Code	Data	Description
204	No Data	Operation successfully completed
400	Error message	Bad Request
401	No Data	Unauthorized
403	Error message	Forbidden - the client does not have the required permissions to perform the operation
404	Error message	Not Found - a resource specified was not found
500	Error message	Internal Server Error

Any HTTP status code other than 204 indicates that the API did not complete successfully.

Sample request:

```
curl -k -H "X-Api-Key:sample-api-key" -X PATCH
"https://10.20.30.40:8444/v9/storage/filesystems/7B263DFD1D71E65A0000000000000000" -d '{"dedupeDisabled": false, "expansionLimits": 12345, "isConfigTransferEnabled": false, "isThinProvisioned": false, "label": "name1", "tier0ExpansionLimit": 12345, "tier1ExpansionLimit": 12345}'
```

Sample response:

```
HTTP/1.1 204 No Content
```

Delete A File System

Deletes a file system. You cannot delete a file system if it is in a mounted state.

HTTP request syntax (URI)

```
DELETE <base_uri>/v9/storage/filesystems/{filesystemId}
```

Parameters

Parameter	Type	Required	Data Type	Description
-----------	------	----------	-----------	-------------

filesystemId	path	Y	string	Either the file system ID or the object ID of the file system
force	query	N	boolean	Whether to force the operation, should it fail

Return Codes

Code	Data	Description
204	No Data	Operation successfully completed
400	Error message	Bad Request
401	No Data	Unauthorized
403	Error message	Forbidden - the client does not have the required permissions to perform the operation
404	Error message	Not Found - a resource specified was not found
500	Error message	Internal Server Error

Any HTTP status code other than 204 indicates that the API did not complete successfully.

Sample request:

```
curl -k -H "X-API-Key:sample-api-key" -X DELETE
"https://10.20.30.40:8444/v9/storage/filesystems/7B263DFD1D71E65A0000000000000000?force=false"
```

Sample response:

```
HTTP/1.1 204 No Content
```

Format A File System

Format a file system.

HTTP request syntax (URI)

```
POST <base_uri>/v9/storage/filesystems/{filesystemId}/format
```

Parameters

Parameter	Type	Required	Data Type	Description
filesystemId	path	Y	string	Either the file system ID or the object ID of the file system
blockSize	body	Y	integer	Specifies the block size of the file system in kilobytes. [4 32]
dedupeDisabled	body	N	boolean	Use this option to prevent the file system from being scheduled for dedupe, even though its format supports it. Only applicable where dedupeSupported=true

dedupeSupported	body	N	boolean	Format the filesystem with support for dedupe. Some systems will ignore this parameter and always format the filesystem to support dedupe
isReplicationTarget	body	N	boolean	True indicates that the file system should be formatted for use as a target for object replication

Return Codes

Code	Data	Description
204	No Data	Operation successfully completed
400	Error message	Bad Request
401	No Data	Unauthorized
403	Error message	Forbidden - the client does not have the required permissions to perform the operation
404	Error message	Not Found - a resource specified was not found
500	Error message	Internal Server Error

Any HTTP status code other than 204 indicates that the API did not complete successfully.

Sample request:

```
curl -k -H "X-API-Key:sample-api-key" -X POST
"https://10.20.30.40:8444/v9/storage/filesystems/7B263DFD1D71E65A00000000000000000000/format" -d '{"blockSize": 32, "dedupeDisabled": false, "dedupeSupported": false, "isReplicationTarget": false}'
```

Sample response:

```
HTTP/1.1 204 No Content
```

Mount A File System

Mount a file system.

HTTP request syntax (URI)

```
POST <base_uri>/v9/storage/filesystems/{filesystemId}/mount
```

Parameters

Parameter	Type	Required	Data Type	Description
filesystemId	path	Y	string	Either the file system ID or the object ID of the file system

Return Codes

Code	Data	Description
------	------	-------------

204	No Data	Operation successfully completed
400	Error message	Bad Request
401	No Data	Unauthorized
403	Error message	Forbidden - the client does not have the required permissions to perform the operation
404	Error message	Not Found - a resource specified was not found
500	Error message	Internal Server Error

Any HTTP status code other than 204 indicates that the API did not complete successfully.

Sample request:

```
curl -k -H "X-API-Key:sample-api-key" -X POST
"https://10.20.30.40:8444/v9/storage/filesystems/7B263DFD1D71E65A00000000000000
0000/mount"
```

Sample response:

```
HTTP/1.1 204 No Content
```

Unmount A File System

Unmount a file system.

HTTP request syntax (URI)

```
POST <base_uri>/v9/storage/filesystems/{filesystemId}/unmount
```

Parameters

Parameter	Type	Required	Data Type	Description
filesystemId	path	Y	string	Either the file system ID or the object ID of the file system

Return Codes

Code	Data	Description
204	No Data	Operation successfully completed
400	Error message	Bad Request
401	No Data	Unauthorized
403	Error message	Forbidden - the client does not have the required permissions to perform the operation
404	Error message	Not Found - a resource specified was not found
500	Error message	Internal Server Error

Any HTTP status code other than 204 indicates that the API did not complete successfully.

Sample request:

```
curl -k -H "X-Api-Key:sample-api-key" -X POST
"https://10.20.30.40:8444/v9/storage/filesystems/7B263DFD1D71E65A000000000000
0000/unmount"
```

Sample response:

HTTP/1.1 204 No Content

Initiate File System Check

Initiate a file system check - the API call will return immediately, as the check may take many hours to run. The status of the check can be determined by looking at the associated filesystem object.

A file system check can be run with the file system mounted or unmounted.

HTTP request syntax (URI)

```
POST <base_uri>/v9/storage/filesystems/{filesystemId}/check
```

Parameters

Parameter	Type	Required	Data Type	Description
filesystemId	path	Y	string	Either the file system ID or the object ID of the file system
directory	body	N	string	Full path of the directory, which should be in Unix format

Return Codes

Code	Data	Description
204	No Data	Operation successfully completed
400	Error message	Bad Request
401	No Data	Unauthorized
403	Error message	Forbidden - the client does not have the required permissions to perform the operation
404	Error message	Not Found - a resource specified was not found
500	Error message	Internal Server Error

Any HTTP status code other than 204 indicates that the API did not complete successfully.

Sample request:

```
curl -k -H "X-Api-Key:sample-api-key" -X POST
"https://10.20.30.40:8444/v9/storage/filesystems/7B263DFD1D71E65A000000000000
0000/check" -d '{"directory": "/dir1"}'
```

Sample response:

HTTP/1.1 204 No Content

Initiate File System Fix

Initiate a file system fix - the API call will return immediately, as the fix could potentially take many hours to run. The status of the fix can be determined by looking at the associated filesystem object.

The file system must be unmounted to run a fix.

HTTP request syntax (URI)

```
POST <base_uri>/v9/storage/filesystems/{filesystemId}/fix
```

Parameters

Parameter	Type	Required	Data Type	Description
filesystemId	path	Y	string	Either the file system ID or the object ID of the file system

Return Codes

Code	Data	Description
204	No Data	Operation successfully completed
400	Error message	Bad Request
401	No Data	Unauthorized
403	Error message	Forbidden - the client does not have the required permissions to perform the operation
404	Error message	Not Found - a resource specified was not found
500	Error message	Internal Server Error

Any HTTP status code other than 204 indicates that the API did not complete successfully.

Sample request:

```
curl -k -H "X-API-Key:sample-api-key" -X POST  
"https://10.20.30.40:8444/v9/storage/filesystems/7B263DFD1D71E65A000000000000  
0000/fix"
```

Sample response:

```
HTTP/1.1 204 No Content
```

Abort File System Check Or Fix

Send a request to abort a running file system check or fix - the API call will return immediately, as operation may not abort immediately. The status of the check or fix operation can be determined by looking at the associated filesystem object.

HTTP request syntax (URI)


```
POST <base_uri>/v9/storage/filesystems/{filesystemId}/abort
```

Parameters

Parameter	Type	Required	Data Type	Description
filesystemId	path	Y	string	Either the file system ID or the object ID of the file system

Return Codes

Code	Data	Description
204	No Data	Operation successfully completed
400	Error message	Bad Request
401	No Data	Unauthorized
403	Error message	Forbidden - the client does not have the required permissions to perform the operation
404	Error message	Not Found - a resource specified was not found
500	Error message	Internal Server Error

Any HTTP status code other than 204 indicates that the API did not complete successfully.

Sample request:

```
curl -k -H "X-API-Key:sample-api-key" -X POST  
"https://10.20.30.40:8444/v9/storage/filesystems/7B263DFD1D71E65A00000000000000  
0000/abort"
```

Sample response:

```
HTTP/1.1 204 No Content
```

Get The Storage Pool Associated With A File System

Get the storage pool associated with a file system.

HTTP request syntax (URI)

```
GET <base_uri>/v9/storage/filesystems/{filesystemId}/storage-pools
```

Parameters

Parameter	Type	Required	Data Type	Description
filesystemId	path	Y	string	Either the file system ID or the object ID of the file system

Return Codes

Code	Data	Description
200	storagePool	storagePool object successfully retrieved

400	Error message	Bad Request
404	Error message	Not Found - a resource specified was not found
500	Error message	Internal Server Error

Any HTTP status code other than 200 indicates that the API did not complete successfully.

Sample request:

```
curl -k -H "X-Api-Key:sample-api-key" -X GET
"https://10.20.30.40:8444/v9/storage/filesystems/7B263DFD1D71E65A00000000000000
0000/storage-pools"
```

Sample response:

```
HTTP/1.1 200 OK
{
  "storagePool": {
    "capacityWarningThreshold": 90,
    "chunkSize": "19327352832",
    "freeCapacity": 12345,
    "isAssignedToLocalCluster": false,
    "isFilesystemExpansionAllowed": false,
    "isHealthy": false,
    "isTiered": false,
    "label": "Pool1",
    "objectId": "333a3a3a3a3a3a3a303a3a3a4f49445f24232140255f56",
    "storagePoolId": "8873842036252213788",
    "tierInformation": [
      {
        "tierCapacity": 12345,
        "tierFreeSpace": 12345,
        "tierNumber": 0
      }
    ],
    "totalCapacity": 12345,
    "usedCapacity": 12345
  }
}
```

Get The Virtual Server Associated With A File System

Get the virtual server associated with a file system.

HTTP request syntax (URI)

```
GET <base_uri>/v9/storage/filesystems/{filesystemId}/virtual-servers
```

Parameters

Parameter	Type	Required	Data Type	Description
filesystemId	path	Y	string	Either the file system ID or the object ID of the file system

Return Codes

Code	Data	Description
200	virtualServer	virtualServer object successfully retrieved
400	Error message	Bad Request
404	Error message	Not Found - a resource specified was not found
500	Error message	Internal Server Error

Any HTTP status code other than 200 indicates that the API did not complete successfully.

Sample request:

```
curl -k -H "X-API-Key:sample-api-key" -X GET
"https://10.20.30.40:8444/v9/storage/filesystems/7B263DFD1D71E65A00000000000000
0000/virtual-servers"
```

Sample response:

```
HTTP/1.1 200 OK
{
  "virtualServer": {
    "UUID": "14ea72ac-a546-11d6-9001-0bef787b2638",
    "ipAddresses": [
      "10.1.2.3"
    ],
    "isEnabled": false,
    "name": "evs1",
    "objectId": "333a3a3a3a3a3a303a3a3a4f49445f24232140255f56",
    "status": "NOT_CONFIGURED",
    "type": "File services",
    "virtualServerId": 1
  }
}
```

Assign A File System To A Virtual Server

Assigns a filesystem, with no current virtual server assignment, to a File Serving virtual server. Only the virtual server to which it is assigned is allowed to mount the file system.

HTTP request syntax (URI)

```
POST <base_uri>/v9/storage/filesystems/{filesystemId}/assign
```

Parameters

Parameter	Type	Required	Data Type	Description
filesystemId	path	Y	string	Either the file system ID or the object ID of the file system
virtualServerId	body	Y	string or integer	Either the virtual server ID or the object ID of the virtual server. NDMP devices also accept ANY

Return Codes

Code	Data	Description
204	No Data	Operation successfully completed
400	Error message	Bad Request
401	No Data	Unauthorized
403	Error message	Forbidden - the client does not have the required permissions to perform the operation
404	Error message	Not Found - a resource specified was not found
500	Error message	Internal Server Error

Any HTTP status code other than 204 indicates that the API did not complete successfully.

Sample request:

```
curl -k -H "X-API-Key:sample-api-key" -X POST  
"https://10.20.30.40:8444/v9/storage/filesystems/7B263DFD1D71E65A000000000000  
0000/assign" -d '{"virtualServerId": 1}'
```

Sample response:

```
HTTP/1.1 204 No Content
```

Unassign A File System From Its Virtual Server

Removes a filesystem from a virtual server. The filesystem must be unmounted to remove the assignment. Once the filesystem is unassigned, it can no longer be mounted, until it is reassigned to a virtual server. If the file system is currently participating in a data migration path, removing it from a virtual server may result in unexpected loss of data. The ignoreMigrationPaths option will enable the unassignment to proceed, despite the risks.

HTTP request syntax (URI)

```
POST <base_uri>/v9/storage/filesystems/{filesystemId}/unassign
```

Parameters

Parameter	Type	Required	Data Type	Description
filesystemId	path	Y	string	Either the file system ID or the object ID of the file system
ignoreMigrationPaths	body	N	boolean	True to force the removal, ignoring any potential migration paths

Return Codes

Code	Data	Description
204	No Data	Operation successfully completed
400	Error message	Bad Request

401	No Data	Unauthorized
403	Error message	Forbidden - the client does not have the required permissions to perform the operation
404	Error message	Not Found - a resource specified was not found
500	Error message	Internal Server Error

Any HTTP status code other than 204 indicates that the API did not complete successfully.

Sample request:

```
curl -k -H "X-API-Key:sample-api-key" -X POST
"https://10.20.30.40:8444/v9/storage/filesystems/7B263DFD1D71E65A0000000000000000/unassign" -d '{"ignoreMigrationPaths": false}'
```

Sample response:

```
HTTP/1.1 204 No Content
```

Get File System Security Mode

Get file system security mode.

HTTP request syntax (URI)

```
GET <base_uri>/v9/storage/filesystems/{filesystemId}/security-mode
```

Parameters

Parameter	Type	Required	Data Type	Description
filesystemId	path	Y	string	Either the file system ID or the object ID of the file system

Return Codes

Code	Data	Description
200	securityMode	securityMode object successfully retrieved
400	Error message	Bad Request
404	Error message	Not Found - a resource specified was not found
500	Error message	Internal Server Error

Any HTTP status code other than 200 indicates that the API did not complete successfully.

Sample request:

```
curl -k -H "X-API-Key:sample-api-key" -X GET
"https://10.20.30.40:8444/v9/storage/filesystems/7B263DFD1D71E65A0000000000000000/security-mode"
```

Sample response:

```

HTTP/1.1 200 OK
{
  "securityMode": {
    "levelConfigured": "VIRTUAL_SERVER",
    "mode": "MIXED"
  }
}

```

Set File System Security Mode

Set the filesystem security mode for a specific filesystem.

HTTP request syntax (URI)

```
POST <base_uri>/v9/storage/filesystems/{filesystemId}/security-mode
```

Parameters

Parameter	Type	Required	Data Type	Description
filesystemId	path	Y	string	Either the file system ID or the object ID of the file system
mode	body	Y	string	Mode of operation. Possible values are: - MIXED - UNIX

Return Codes

Code	Data	Description
204	No Data	Operation successfully completed
400	Error message	Bad Request
401	No Data	Unauthorized
403	Error message	Forbidden - the client does not have the required permissions to perform the operation
404	Error message	Not Found - a resource specified was not found
500	Error message	Internal Server Error

Any HTTP status code other than 204 indicates that the API did not complete successfully.

Sample request:

```

curl -k -H "X-Api-Key:sample-api-key" -X POST
"https://10.20.30.40:8444/v9/storage/filesystems/7B263DFD1D71E65A000000000000
0000/security-mode" -d '{"mode": "MIXED"}'

```

Sample response:

```
HTTP/1.1 204 No Content
```

Clear File System Security Mode

Clear the security mode associated with a specific filesystem. Once cleared, the security mode will be inherited from the virtual server security mode.

HTTP request syntax (URI)

```
DELETE <base_uri>/v9/storage/filesystems/{filesystemId}/security-mode
```

Parameters

Parameter	Type	Required	Data Type	Description
filesystemId	path	Y	string	Either the file system ID or the object ID of the file system

Return Codes

Code	Data	Description
204	No Data	Operation successfully completed
400	Error message	Bad Request
401	No Data	Unauthorized
403	Error message	Forbidden - the client does not have the required permissions to perform the operation
404	Error message	Not Found - a resource specified was not found
500	Error message	Internal Server Error

Any HTTP status code other than 204 indicates that the API did not complete successfully.

Sample request:

```
curl -k -H "X-API-Key:sample-api-key" -X DELETE  
"https://10.20.30.40:8444/v9/storage/filesystems/7B263DFD1D71E65A000000000000  
0000/security-mode"
```

Sample response:

```
HTTP/1.1 204 No Content
```

Put A File System Into Syslocked Mode

Set a filesystem into syslocked mode, which is read-only for file serving protocols, read/write for NDMP.

HTTP request syntax (URI)

```
POST <base_uri>/v9/storage/filesystems/{filesystemId}/syslock
```

Parameters

Parameter	Type	Required	Data Type	Description
-----------	------	----------	-----------	-------------

filesystemId	path	Y	string	Either the file system ID or the object ID of the file system
--------------	------	---	--------	---

Return Codes

Code	Data	Description
204	No Data	Operation successfully completed
400	Error message	Bad Request
401	No Data	Unauthorized
403	Error message	Forbidden - the client does not have the required permissions to perform the operation
404	Error message	Not Found - a resource specified was not found
500	Error message	Internal Server Error

Any HTTP status code other than 204 indicates that the API did not complete successfully.

Sample request:

```
curl -k -H "X-Api-Key:sample-api-key" -X POST
"https://10.20.30.40:8444/v9/storage/filesystems/7B263DFD1D71E65A000000000000
0000/syslock"
```

Sample response:

```
HTTP/1.1 204 No Content
```

Take A File System Out Of Syslocked Mode

Removes a filesystem from syslocked mode, allowing read/write access to file serving protocols.

HTTP request syntax (URI)

```
POST <base_uri>/v9/storage/filesystems/{filesystemId}/sysunlock
```

Parameters

Parameter	Type	Required	Data Type	Description
filesystemId	path	Y	string	Either the file system ID or the object ID of the file system

Return Codes

Code	Data	Description
204	No Data	Operation successfully completed
400	Error message	Bad Request
401	No Data	Unauthorized
403	Error message	Forbidden - the client does not have the required permissions to perform the operation

404	Error message	Not Found - a resource specified was not found
500	Error message	Internal Server Error

Any HTTP status code other than 204 indicates that the API did not complete successfully.

Sample request:

```
curl -k -H "X-API-Key:sample-api-key" -X POST
"https://10.20.30.40:8444/v9/storage/filesystems/7B263DFD1D71E65A000000000000
0000/sysunlock"
```

Sample response:

```
HTTP/1.1 204 No Content
```

Set File System Usage Warning Thresholds

Set the behaviour when a file system's usage reaches certain levels. Warnings can be generated when file systems reach a certain capacity. If the file system continues to fill up, an additional severe warning occurs. The original warning will only occur once, unless the usage falls below the reset level and then rises again. The file system can be blocked from further writes when the usage reaches the severe threshold. There are three sets of threshold settings: 'live filesystem', 'snapshot usage' and 'total filesystem'. For file systems that support dedupe the snapshot usage threshold setting is not applicable, and both the live and total threshold settings apply to the total file system usage.

HTTP request syntax (URI)

```
POST <base_uri>/v9/storage/filesystems/{filesystemId}/thresholds
```

Parameters

Parameter	Type	Required	Data Type	Description
filesystemId	path	Y	string	Either the file system ID or the object ID of the file system
liveReset	body	Y	integer	Live file system capacity warning reset level percentage, 0 indicates warnings are disabled
liveSevere	body	Y	integer	Live file system capacity severe warning percentage, 0 indicates warnings are disabled
liveWarning	body	Y	integer	Live file system capacity warning percentage, 0 indicates warnings are disabled
snapshotReset	body	Y	integer	Snapshot space capacity warning reset level percentage, 0 indicates warnings are disabled

snapshotSevere	body	Y	integer	Snapshot space capacity severe warning percentage, 0 indicates warnings are disabled
snapshotWarning	body	Y	integer	Snapshot space capacity warning percentage, 0 indicates warnings are disabled
stopGrowingAtSevereLevel	body	Y	boolean	Stop file system expanding above the severe level
totalReset	body	Y	integer	Total file system capacity warning reset level percentage, 0 indicates warnings are disabled
totalSevere	body	Y	integer	Total file system capacity severe warning percentage, 0 indicates warnings are disabled
totalWarning	body	Y	integer	Total file system capacity warning percentage, 0 indicates warnings are disabled

Return Codes

Code	Data	Description
204	No Data	Operation successfully completed
400	Error message	Bad Request
401	No Data	Unauthorized
403	Error message	Forbidden - the client does not have the required permissions to perform the operation
404	Error message	Not Found - a resource specified was not found
500	Error message	Internal Server Error

Any HTTP status code other than 204 indicates that the API did not complete successfully.

Sample request:

```
curl -k -H "X-API-Key:sample-api-key" -X POST
"https://10.20.30.40:8444/v9/storage/filesystems/7B263DFD1D71E65A00000000000000000000/thresholds" -d '{"liveReset": 80, "liveSevere": 97, "liveWarning": 90, "snapshotReset": 80, "snapshotSevere": 97, "snapshotWarning": 90, "stopGrowingAtSevereLevel": false, "totalReset": 90, "totalSevere": 97, "totalWarning": 95}'
```

Sample response:

```
HTTP/1.1 204 No Content
```

Get Root File System Directory

Get root file system directory.

HTTP request syntax (URI)

```
GET <base_uri>/v9/storage/filesystems/{filesystemId}/directories
```

Parameters

Parameter	Type	Required	Data Type	Description
filesystemId	path	Y	string	Either the file system ID or the object ID of the file system
includeIscsiFiles	query	N	boolean	True indicates that iSCSI logical unit files should be included in the directory listing. This option is ignored for read-only users

Return Codes

Code	Data	Description
200	directories	List of directory objects successfully retrieved
400	Error message	Bad Request
404	Error message	Not Found - a resource specified was not found
500	Error message	Internal Server Error

Any HTTP status code other than 200 indicates that the API did not complete successfully.

Sample request:

```
curl -k -H "X-API-Key:sample-api-key" -X GET  
"https://10.20.30.40:8444/v9/storage/filesystems/7B263DFD1D71E65A00000000000000  
0000/directories?includeIscsiFiles=false"
```

Sample response:

```
HTTP/1.1 200 OK  
{  
  "directories": [  
    {  
      "displayName": [  
        "//directory1/directory2"  
      ],  
      "isDirectory": false,  
      "name": "directory2",  
      "objectId": "333a3a3a3a3a3a303a3a3a4f49445f24232140255f56"  
    }  
  ]  
}
```

Get A File System Directory

Get a file system directory.

HTTP request syntax (URI)

GET

<base_uri>/v9/storage/filesystems/{filesystemId}/directories/{directoryObjectId}

Parameters

Parameter	Type	Required	Data Type	Description
directoryObjectId	path	Y	string	Object ID of the directory
filesystemId	path	Y	string	Either the file system ID or the object ID of the file system
includeIscsiFiles	query	N	boolean	True indicates that iSCSI logical unit files should be included in the directory listing. This option is ignored for read-only users

Return Codes

Code	Data	Description
200	directories	List of directory objects successfully retrieved
400	Error message	Bad Request
404	Error message	Not Found - a resource specified was not found
500	Error message	Internal Server Error

Any HTTP status code other than 200 indicates that the API did not complete successfully.

Sample request:

```
curl -k -H "X-API-Key:sample-api-key" -X GET  
"https://10.20.30.40:8444/v9/storage/filesystems/7B263DFD1D71E65A00000000000000  
0000/directories/73657276746573742e4143434550542d57494e31302d352e333a3a3a303a  
3a3a4f49445f24232140255f56?includeIscsiFiles=false"
```

Sample response:

```
HTTP/1.1 200 OK  
{  
  "directories": [  
    {  
      "displayName": [  
        "//directory1/directory2"  
      ],  
      "isDirectory": false,  
      "name": "directory2",  
      "objectId": "333a3a3a3a3a3a303a3a3a4f49445f24232140255f56"  
    }  
  ]  
}
```

Create A File System Directory

Create a file system directory.

HTTP request syntax (URI)

```
POST <base_uri>/v9/storage/filesystems/{filesystemId}/directories
```

Parameters

Parameter	Type	Required	Data Type	Description
filesystemId	path	Y	string	Either the file system ID or the object ID of the file system
directory	body	Y	string	Full path of the directory, which should be in Unix format
ensureCreate	body	Y	boolean	True ensures that the path supplied is created if it does not exist

Return Codes

Code	Data	Description
201	directory	Successfully created new item
400	Error message	Bad Request
401	No Data	Unauthorized
403	Error message	Forbidden - the client does not have the required permissions to perform the operation
404	Error message	Not Found - a resource specified was not found
500	Error message	Internal Server Error

Any HTTP status code other than 201 indicates that the API did not complete successfully.

Sample request:

```
curl -k -H "X-Api-Key:sample-api-key" -X POST  
"https://10.20.30.40:8444/v9/storage/filesystems/7B263DFD1D71E65A000000000000  
0000/directories" -d '{"directory": "/dir1", "ensureCreate": false}'
```

Sample response:

```
HTTP/1.1 201 Created  
{  
  "directory": {  
    "displayName": [  
      "//directory1/directory2"  
    ],  
    "isDirectory": false,  
    "name": "directory2",  
    "objectId": "333a3a3a3a3a3a3a303a3a3a4f49445f24232140255f56"  
  },  
  "uri":  
"https://10.20.30.40:8444/v9/storage/filesystems/7B263DFD1D71E65A000000000000"
```

```
0000/directories/333a3a3a3a3a3a303a3a3a4f49445f24232140255f56"
}
```

Rename A File System Directory

Rename a file system directory.

HTTP request syntax (URI)

```
PATCH
<base_uri>/v9/storage/filesystems/{filesystemId}/directories/{directoryObject
Id}
```

Parameters

Parameter	Type	Required	Data Type	Description
directoryObjectId	path	Y	string	Object ID of the directory
filesystemId	path	Y	string	Either the file system ID or the object ID of the file system
ensureExist	body	Y	boolean	True ensures that the destination folder is created if it does not exist
newDirectory	body	Y	string	New full path of the directory, which should be in UNIX format. If this directory exists or is not empty, the operation will fail

Return Codes

Code	Data	Description
303	directory	Successfully updated item
400	Error message	Bad Request
401	No Data	Unauthorized
403	Error message	Forbidden - the client does not have the required permissions to perform the operation
404	Error message	Not Found - a resource specified was not found
500	Error message	Internal Server Error

Any HTTP status code other than 303 indicates that the API did not complete successfully.

Sample request:

```
curl -k -H "X-API-Key:sample-api-key" -X PATCH
"https://10.20.30.40:8444/v9/storage/filesystems/7B263DFD1D71E65A00000000000000
0000/directories/73657276746573742e4143434550542d57494e31302d352e333a3a3a303a
3a3a4f49445f24232140255f56" -d '{"ensureExist": false, "newDirectory":
"/dir1/dir2/dir3"}'
```

Sample response:

```

HTTP/1.1 303 See Other
{
  "directory": {
    "displayName": [
      "//directory1/directory2"
    ],
    "isDirectory": false,
    "name": "directory2",
    "objectId": "333a3a3a3a3a3a303a3a3a4f49445f24232140255f56"
  },
  "uri":
  "https://10.20.30.40:8444/v9/storage/filesystems/7B263DFD1D71E65A0000000000000000/directories/333a3a3a3a3a3a303a3a3a4f49445f24232140255f56"
}

```

Delete A File System Directory

Deletes a file system directory using the built in tree-delete functionality, which makes the delete operation appear to happen instantaneously, but is carried out in the background.

HTTP request syntax (URI)

```

DELETE
<base_uri>/v9/storage/filesystems/{filesystemId}/directories/{directoryObject
Id}

```

Parameters

Parameter	Type	Required	Data Type	Description
directoryObjectId	path	Y	string	Object ID of the directory
filesystemId	path	Y	string	Either the file system ID or the object ID of the file system

Return Codes

Code	Data	Description
204	No Data	Operation successfully completed
400	Error message	Bad Request
401	No Data	Unauthorized
403	Error message	Forbidden - the client does not have the required permissions to perform the operation
404	Error message	Not Found - a resource specified was not found
500	Error message	Internal Server Error

Any HTTP status code other than 204 indicates that the API did not complete successfully.

Sample request:

```

curl -k -H "X-API-Key:sample-api-key" -X DELETE
"https://10.20.30.40:8444/v9/storage/filesystems/7B263DFD1D71E65A0000000000000000

```

```
0000/directories/73657276746573742e4143434550542d57494e31302d352e333a3a3a303a3a3a4f49445f24232140255f56"
```

Sample response:

```
HTTP/1.1 204 No Content
```

Clone A File System File

Clone a file system file.

HTTP request syntax (URI)

```
POST <base_uri>/v9/storage/filesystems/{filesystemId}/clone-file
```

Parameters

Parameter	Type	Required	Data Type	Description
filesystemId	path	Y	string	Either the file system ID or the object ID of the file system
dstFile	body	Y	string	Destination of the cloned file, which should be a full path in UNIX format
srcFile	body	Y	string	Source file to be cloned, which should be a full path in UNIX format

Return Codes

Code	Data	Description
204	No Data	Operation successfully completed
400	Error message	Bad Request
401	No Data	Unauthorized
403	Error message	Forbidden - the client does not have the required permissions to perform the operation
404	Error message	Not Found - a resource specified was not found
500	Error message	Internal Server Error

Any HTTP status code other than 204 indicates that the API did not complete successfully.

Sample request:

```
curl -k -H "X-API-Key:sample-api-key" -X POST  
"https://10.20.30.40:8444/v9/storage/filesystems/7B263DFD1D71E65A00000000000000000000/clone-file" -d '{"dstFile": "/dir/file-destination.txt", "srcFile": "/dir/file-source.txt"}'
```

Sample response:

```
HTTP/1.1 204 No Content
```


Clone A File System Directory

Clone a file system directory.

HTTP request syntax (URI)

```
POST <base_uri>/v9/storage/filesystems/{filesystemId}/clone-directory
```

Parameters

Parameter	Type	Required	Data Type	Description
filesystemId	path	Y	string	Either the file system ID or the object ID of the file system
dstDirectory	body	Y	string	Destination directory, which should be a full path in UNIX format
ensureCreate	body	Y	boolean	True ensures that the path supplied is created if it does not exist
srcDirectory	body	Y	string	Source directory to be cloned, which should be a full path in UNIX format

Return Codes

Code	Data	Description
204	No Data	Operation successfully completed
400	Error message	Bad Request
401	No Data	Unauthorized
403	Error message	Forbidden - the client does not have the required permissions to perform the operation
404	Error message	Not Found - a resource specified was not found
500	Error message	Internal Server Error

Any HTTP status code other than 204 indicates that the API did not complete successfully.

Sample request:

```
curl -k -H "X-Api-Key:sample-api-key" -X POST  
"https://10.20.30.40:8444/v9/storage/filesystems/7B263DFD1D71E65A00000000000000  
0000/clone-directory" -d '{"dstDirectory": "/dir-dest", "ensureCreate":  
false, "srcDirectory": "/dir-source"}'
```

Sample response:

```
HTTP/1.1 204 No Content
```

Submit A Tree Clone Job Of A File System Directory

Submit a tree clone job of a file system directory.

HTTP request syntax (URI)

```
POST <base_uri>/v9/storage/filesystems/{filesystemId}/clone-jobs
```

Parameters

Parameter	Type	Required	Data Type	Description
filesystemId	path	Y	string	Either the file system ID or the object ID of the file system
dstDirectory	body	Y	string	Destination directory, which should be a full path in UNIX format
ensureCreate	body	Y	boolean	True ensures that the path supplied is created if it does not exist
srcDirectory	body	Y	string	Source directory to be cloned, which should be a full path in UNIX format

Return Codes

Code	Data	Description
201	jobId	Successfully created new item
400	Error message	Bad Request
401	No Data	Unauthorized
403	Error message	Forbidden - the client does not have the required permissions to perform the operation
404	Error message	Not Found - a resource specified was not found
500	Error message	Internal Server Error

Any HTTP status code other than 201 indicates that the API did not complete successfully.

Sample request:

```
curl -k -H "X-Api-Key:sample-api-key" -X POST  
"https://10.20.30.40:8444/v9/storage/filesystems/7B263DFD1D71E65A00000000000000  
0000/clone-jobs" -d '{"dstDirectory": "/dir-dest", "ensureCreate": false,  
"srcDirectory": "/dir-source"}'
```

Sample response:

```
HTTP/1.1 201 Created  
{  
  "jobId": "ba542618-e055-11d0-9dce-4bee3faaca3b",  
  "uri": "https://10.20.30.40:8444/v9/storage/clone-jobs/ba542618-e055-11d0-  
9dce-4bee3faaca3b"  
}
```

Get A Tree Clone Job State Of A File System Directory

Get a tree clone job state of a file system directory.

HTTP request syntax (URI)

```
GET <base_uri>/v9/storage/filesystems/clone-jobs/{jobId}
```

Parameters

Parameter	Type	Required	Data Type	Description
jobId	path	Y	string	ID of the job

Return Codes

Code	Data	Description
200	jobState	jobState object successfully retrieved
400	Error message	Bad Request
404	Error message	Not Found - a resource specified was not found
500	Error message	Internal Server Error

Any HTTP status code other than 200 indicates that the API did not complete successfully.

Sample request:

```
curl -k -H "X-Api-Key:sample-api-key" -X GET  
"https://10.20.30.40:8444/v9/storage/filesystems/clone-jobs/ba542618-e055-  
11d0-9dce-4bee3faaca3b"
```

Sample response:

```
HTTP/1.1 200 OK  
{  
  "jobState": "INVALID"  
}
```

Abort A Tree Clone Job Of A File System Directory

Abort a tree clone job of a file system directory.

HTTP request syntax (URI)

```
POST <base_uri>/v9/storage/filesystems/clone-jobs/{jobId}/abort
```

Parameters

Parameter	Type	Required	Data Type	Description
jobId	path	Y	string	ID of the job

Return Codes

Code	Data	Description
204	No Data	Operation successfully completed
400	Error message	Bad Request

401	No Data	Unauthorized
403	Error message	Forbidden - the client does not have the required permissions to perform the operation
404	Error message	Not Found - a resource specified was not found
500	Error message	Internal Server Error

Any HTTP status code other than 204 indicates that the API did not complete successfully.

Sample request:

```
curl -k -H "X-Api-Key:sample-api-key" -X POST
"https://10.20.30.40:8444/v9/storage/filesystems/clone-jobs/ba542618-e055-11d0-9dce-4bee3faaca3b/abort"
```

Sample response:

```
HTTP/1.1 204 No Content
```

Get Deduplication File Systems

Get deduplication file systems.

HTTP request syntax (URI)

```
GET <base_uri>/v9/storage/filesystems/type/dedup
```

Return Codes

Code	Data	Description
200	dedupFilesystems	List of dedupFilesystem objects successfully retrieved
500	Error message	Internal Server Error

Any HTTP status code other than 200 indicates that the API did not complete successfully.

Sample request:

```
curl -k -H "X-Api-Key:sample-api-key" -X GET
"https://10.20.30.40:8444/v9/storage/filesystems/type/dedup"
```

Sample response:

```
HTTP/1.1 200 OK
{
  "dedupFilesystems": [
    {
      "deviceId": 1024,
      "filesystemId": "7B263DFD1D71E65A0000000000000000",
      "isEnabled": false,
      "lastRun": 12345,
      "percentageReclaimed": 12345,
      "reclaimedCapacity": 12345,
    }
  ]
}
```

```
    "virtualServerId": 1
  }
]
}
```

Get File System Audit Policies

Get audit policies for all configured file systems. Not all file systems will necessarily have an audit policy configured.

HTTP request syntax (URI)

```
GET <base_uri>/v9/storage/filesystems/audit-policies
```

Return Codes

Code	Data	Description
200	auditPolicies	List of auditPolicy objects successfully retrieved
500	Error message	Internal Server Error

Any HTTP status code other than 200 indicates that the API did not complete successfully.

Sample request:

```
curl -k -H "X-API-Key:sample-api-key" -X GET
"https://10.20.30.40:8444/v9/storage/filesystems/audit-policies"
```

Sample response:

```
HTTP/1.1 200 OK
{
  "auditPolicies": [
    {
      "auditNfsv3": false,
      "backupInterval": 12345,
      "backupLimit": 12345,
      "external": false,
      "filesystemId": "7B263DFD1D71E65A0000000000000000",
      "filesystemLabel": "Filesystem1",
      "isEnabled": false,
      "logFileName": "/.audit/events.evt",
      "logFileSize": 12345,
      "rotatePolicy": "OVERWRITE",
      "state": "UNKNOWN",
      "unsafePolicy": "DENY"
    }
  ]
}
```

Get File System Audit Policy

Get file system audit policy.

HTTP request syntax (URI)

```
GET <base_uri>/v9/storage/filesystems/{filesystemId}/audit-policy
```

Parameters

Parameter	Type	Required	Data Type	Description
filesystemId	path	Y	string	Either the file system ID or the object ID of the file system

Return Codes

Code	Data	Description
200	auditPolicy	auditPolicy object successfully retrieved
400	Error message	Bad Request
404	Error message	Not Found - a resource specified was not found
500	Error message	Internal Server Error

Any HTTP status code other than 200 indicates that the API did not complete successfully.

Sample request:

```
curl -k -H "X-API-Key:sample-api-key" -X GET  
"https://10.20.30.40:8444/v9/storage/filesystems/7B263DFD1D71E65A00000000000000  
0000/audit-policy"
```

Sample response:

```
HTTP/1.1 200 OK  
{  
  "auditPolicy": {  
    "auditNfsv3": false,  
    "backupInterval": 12345,  
    "backupLimit": 12345,  
    "external": false,  
    "filesystemId": "7B263DFD1D71E65A0000000000000000",  
    "filesystemLabel": "Filesystem1",  
    "isEnabled": false,  
    "logFileName": "/.audit/events.evt",  
    "logFileSize": 12345,  
    "rotatePolicy": "OVERWRITE",  
    "state": "UNKNOWN",  
    "unsafePolicy": "DENY"  
  }  
}
```

Set File System Audit Policy

Set the audit policy for a file system, if one is not already configured.

HTTP request syntax (URI)

```
POST <base_uri>/v9/storage/filesystems/{filesystemId}/audit-policy
```

Parameters

Parameter	Type	Required	Data Type	Description
filesystemId	path	Y	string	Either the file system ID or the object ID of the file system
auditNfsv3	body	N	boolean	True indicates that NFSv3 file access will be audited, in addition to SMB file access, which will always be audited
backupInterval	body	N	integer	Time between backups of the active audit log, in seconds. A value of 0 indicates that backups are disabled
backupLimit	body	N	integer	Number of backup audit log files that will be retained
external	body	Y	boolean	True indicates that the logging is external, and not stored on the file system
isEnabled	body	N	boolean	True if enabled, false for disabled
logFileName	body	N	string	Name of the auditing log file. Must start with a / and have the extension .evt
logFileSize	body	N	integer	Maximum size that the log file can grow to, in bytes - maximum 50MB
rotatePolicy	body	N	string	Whether the audit log file overwrites old entries when the file is full, or if a new file is created. Possible values are: - OVERWRITE - CREATE
unsafePolicy	body	N	string	Action taken when a non-audited protocol attempts access to a file system. Possible values are: - DENY - IGNORE

Return Codes

Code	Data	Description
204	No Data	Operation successfully completed
400	Error message	Bad Request
401	No Data	Unauthorized

403	Error message	Forbidden - the client does not have the required permissions to perform the operation
404	Error message	Not Found - a resource specified was not found
500	Error message	Internal Server Error

Any HTTP status code other than 204 indicates that the API did not complete successfully.

Sample request:

```
curl -k -H "X-Api-Key:sample-api-key" -X POST
"https://10.20.30.40:8444/v9/storage/filesystems/7B263DFD1D71E65A0000000000000000/audit-policy" -d '{"auditNfsv3": false, "backupInterval": 12345, "backupLimit": 12345, "external": false, "isEnabled": false, "logFileName": "/.audit/events.evt", "logFileSize": 12345, "rotatePolicy": "OVERWRITE", "unsafePolicy": "DENY"}'
```

Sample response:

```
HTTP/1.1 204 No Content
```

Update File System Audit Policy

Update file system audit policy.

HTTP request syntax (URI)

```
PATCH <base_uri>/v9/storage/filesystems/{filesystemId}/audit-policy
```

Parameters

Parameter	Type	Required	Data Type	Description
filesystemId	path	Y	string	Either the file system ID or the object ID of the file system
auditNfsv3	body	N	boolean	True indicates that NFSv3 file access will be audited, in addition to SMB file access, which will always be audited
backupInterval	body	N	integer	Time between backups of the active audit log, in seconds. A value of 0 indicates that backups are disabled
backupLimit	body	N	integer	Number of backup audit log files that will be retained
external	body	N	boolean	True indicates that the logging is external, and not stored on the file system
isEnabled	body	N	boolean	True if enabled, false for disabled
logFileName	body	N	string	Name of the auditing log file. Must start with a / and have the extension .evt

logFileSize	body	N	integer	Maximum size that the log file can grow to, in bytes - maximum 50MB
rotatePolicy	body	N	string	Whether the audit log file overwrites old entries when the file is full, or if a new file is created. Possible values are: - OVERWRITE - CREATE
unsafePolicy	body	N	string	Action taken when a non-audited protocol attempts access to a file system. Possible values are: - DENY - IGNORE

Return Codes

Code	Data	Description
204	No Data	Operation successfully completed
400	Error message	Bad Request
401	No Data	Unauthorized
403	Error message	Forbidden - the client does not have the required permissions to perform the operation
404	Error message	Not Found - a resource specified was not found
500	Error message	Internal Server Error

Any HTTP status code other than 204 indicates that the API did not complete successfully.

Sample request:

```
curl -k -H "X-API-Key:sample-api-key" -X PATCH
"https://10.20.30.40:8444/v9/storage/filesystems/7B263DFD1D71E65A000000000000
0000/audit-policy" -d '{"auditNfsv3": false, "backupInterval": 12345,
"backupLimit": 12345, "external": false, "isEnabled": false, "logFileName":
"/.audit/events.evt", "logFileSize": 12345, "rotatePolicy": "OVERWRITE",
"unsafePolicy": "DENY"}'
```

Sample response:

```
HTTP/1.1 204 No Content
```

Delete File System Audit Policy

Delete file system audit policy.

HTTP request syntax (URI)

```
DELETE <base_uri>/v9/storage/filesystems/{filesystemId}/audit-policy
```

Parameters

Parameter	Type	Required	Data Type	Description
filesystemId	path	Y	string	Either the file system ID or the object ID of the file system

Return Codes

Code	Data	Description
204	No Data	Operation successfully completed
400	Error message	Bad Request
401	No Data	Unauthorized
403	Error message	Forbidden - the client does not have the required permissions to perform the operation
404	Error message	Not Found - a resource specified was not found
500	Error message	Internal Server Error

Any HTTP status code other than 204 indicates that the API did not complete successfully.

Sample request:

```
curl -k -H "X-API-Key:sample-api-key" -X DELETE
"https://10.20.30.40:8444/v9/storage/filesystems/7B263DFD1D71E65A0000000000000000/audit-policy"
```

Sample response:

```
HTTP/1.1 204 No Content
```

Set A File System As Object Replication Target

Set a file system as object replication target.

HTTP request syntax (URI)

```
POST <base_uri>/v9/storage/filesystems/{filesystemId}
```

Parameters

Parameter	Type	Required	Data Type	Description
filesystemId	path	Y	string	Either the file system ID or the object ID of the file system
enable	body	Y	boolean	True to enable the file system as the object replication target. False to disable
enableTransferAccessPoint	body	Y	boolean	True to enable the transfer of shares and exports that have been configured to use filesystem default settings. If the

				enable parameter is set to true, this parameter is ignored.
--	--	--	--	---

Return Codes

Code	Data	Description
204	No Data	Operation successfully completed
400	Error message	Bad Request
401	No Data	Unauthorized
403	Error message	Forbidden - the client does not have the required permissions to perform the operation
404	Error message	Not Found - a resource specified was not found
500	Error message	Internal Server Error

Any HTTP status code other than 204 indicates that the API did not complete successfully.

Sample request:

```
curl -k -H "X-API-Key:sample-api-key" -X POST
"https://10.20.30.40:8444/v9/storage/filesystems/7B263DFD1D71E65A000000000000
0000" -d '{"enable": false, "enableTransferAccessPoint": false}'
```

Sample response:

```
HTTP/1.1 204 No Content
```

Change Disaster Recovery State Of A File System

Change disaster recovery state of a file system.

HTTP request syntax (URI)

```
PATCH <base_uri>/v9/storage/filesystems/{filesystemId}/change-dr-state
```

Parameters

Parameter	Type	Required	Data Type	Description
filesystemId	path	Y	string	Either the file system ID or the object ID of the file system
isDeleteExportsFromDemoted	body	N	boolean	True if NFS exports are to be deleted from a promoted file system
isDeleteSharesFromDemoted	body	N	boolean	True if CIFS/SMB shares are to be deleted from a promoted file system

isRecoverExportsOnPromoted	body	N	boolean	True if NFS exports are to be recovered on a promoted file system
isRecoverSharesOnPromoted	body	N	boolean	True if CIFS/SMB shares are to be recovered on a promoted file system
snapshotName	body	N	string	Name of the snapshot
transitionOption	body	Y	string	Transition state of the disaster recovery. Possible values are: - READ_WRITE - READ_ONLY - REPLICATION_TARGET

Return Codes

Code	Data	Description
204	No Data	Operation successfully completed
400	Error message	Bad Request
401	No Data	Unauthorized
403	Error message	Forbidden - the client does not have the required permissions to perform the operation
404	Error message	Not Found - a resource specified was not found
500	Error message	Internal Server Error

Any HTTP status code other than 204 indicates that the API did not complete successfully.

Sample request:

```
curl -k -H "X-Api-Key:sample-api-key" -X PATCH
"https://10.20.30.40:8444/v9/storage/filesystems/7B263DFD1D71E65A000000000000
0000/change-dr-state" -d '{"isDeleteExportsFromDemoted": false,
"isDeleteSharesFromDemoted": false, "isRecoverExportsOnPromoted": false,
"isRecoverSharesOnPromoted": false, "snapshotName": "Snapshot1",
"transitionOption": "READ_WRITE"}'
```

Sample response:

```
HTTP/1.1 204 No Content
```

Get Status Of Disaster Recovery State Change Of A File System

Get status of disaster recovery state change of a file system.

HTTP request syntax (URI)

```
GET <base_uri>/v9/storage/filesystems/{filesystemId}/dr-state-change-status
```

Parameters

Parameter	Type	Required	Data Type	Description
filesystemId	path	Y	string	Either the file system ID or the object ID of the file system
isMostRecent	query	N	boolean	True returns only the most recent status. False returns a list of previous statuses

Return Codes

Code	Data	Description
200	filesystemDRStateChangeReport	List of filesystemDRStateChangeReport objects successfully retrieved
400	Error message	Bad Request
404	Error message	Not Found - a resource specified was not found
500	Error message	Internal Server Error

Any HTTP status code other than 200 indicates that the API did not complete successfully.

Sample request:

```
curl -k -H "X-API-Key:sample-api-key" -X GET
"https://10.20.30.40:8444/v9/storage/filesystems/7B263DFD1D71E65A00000000000000000000/dr-state-change-status?isMostRecent=false"
```

Sample response:

```
HTTP/1.1 200 OK
{
  "filesystemDRStateChangeReport": [
    {
      "endTime": 12345,
      "filesystemId": "7B263DFD1D71E65A0000000000000000",
      "isActive": false,
      "logName": "/2/simm/DR_2022-12-27_172422-0800.bin",
      "startTime": 12345,
      "statistics": [
        {
          "name": "Name2",
          "value": 12345
        }
      ],
      "status": "QUEUED",
      "transitionId": "0ff38b10-9e4c-11d4-9645-49e1bb864b23"
    }
  ]
}
```

Enable Transfer Raw XVLs For File System

Enables the transfer of migrated files as links during an object replication, rather than transferring the file contents. Can only be enabled when the file system is unmounted.

Note: Once enabled, this option cannot be disabled for a file system without reformatting it.

HTTP request syntax (URI)

```
POST <base_uri>/v9/storage/filesystems/{filesystemId}/enable-raw-xvl-transfer
```

Parameters

Parameter	Type	Required	Data Type	Description
filesystemId	path	Y	string	Either the file system ID or the object ID of the file system

Return Codes

Code	Data	Description
204	No Data	Operation successfully completed
400	Error message	Bad Request
401	No Data	Unauthorized
403	Error message	Forbidden - the client does not have the required permissions to perform the operation
404	Error message	Not Found - a resource specified was not found
500	Error message	Internal Server Error

Any HTTP status code other than 204 indicates that the API did not complete successfully.

Sample request:

```
curl -k -H "X-API-Key:sample-api-key" -X POST  
"https://10.20.30.40:8444/v9/storage/filesystems/7B263DFD1D71E65A000000000000  
0000/enable-raw-xvl-transfer"
```

Sample response:

```
HTTP/1.1 204 No Content
```

Get Replication Snapshots From A Target (Destination)

Get replication snapshots from a target (destination).

HTTP request syntax (URI)

```
GET <base_uri>/v9/storage/filesystems/{filesystemId}/replication-snapshots
```

Parameters

Parameter	Type	Required	Data Type	Description
filesystemId	path	Y	string	Either the file system ID or the object ID of the file system

Return Codes

Code	Data	Description
200	replicationSnapshotDetails	List of replicationSnapshotDetail objects successfully retrieved
400	Error message	Bad Request
404	Error message	Not Found - a resource specified was not found
500	Error message	Internal Server Error

Any HTTP status code other than 200 indicates that the API did not complete successfully.

Sample request:

```
curl -k -H "X-API-Key:sample-api-key" -X GET
"https://10.20.30.40:8444/v9/storage/filesystems/7B263DFD1D71E65A0000000000000000
0000/replication-snapshots"
```

Sample response:

```
HTTP/1.1 200 OK
{
  "replicationSnapshotDetails": [
    {
      "replicationSnapshotStatus": "INVALID",
      "replicationType": "NONE",
      "sourceFileSystemId": "7B263DFFFD71E65A0000000000000000",
      "sourceSnapshotName": "Snapshot1",
      "sourceSnapshotTime": 12345,
      "targetFileSystemId": "7B263DFD1D71E88A0000000000000000",
      "targetSnapshotName": "Snapshot2"
    }
  ]
}
```

FTP Users Resource

The FTP users resource provides management for FTP configuration and FTP users.

FTP Users Object Model

The object model describing this resource contains the following objects.

ftpConfig - FTP configuration

Attribute	JSON type	Data type	Description
anonymousReadOnly	boolean	boolean	True indicates that anonymous sessions are restricted to read-only access. False allows anonymous users read-write access
timeout	integer	integer	The FTP session inactivity timeout value in minutes
useNisSecurity	boolean	boolean	True if FTP logins are authenticated using a NIS server in the configured NIS domain
useNtSecurity	boolean	boolean	True if FTP logins are authenticated using a Windows domain controller in the configured CIFS/SMB domain. If both NT and NIS security are true, NT authentication will be tried first

ftpLogging - FTP logging configuration

Attribute	JSON type	Data type	Description
filesystemId	string	string	ID of the file system
isEnabled	boolean	boolean	True if enabled, false for disabled
loggingDirectory	string	string	Full file system path, in Unix format, that will be used for storing the log files
numberOfLogFiles	integer	integer	Maximum number of log files
numberOfRecordsPerFile	integer	integer	Number of records each log file can contain. When this value is reached a new log file will be created

ftpUser - FTP user details

Attribute	JSON type	Data type	Description
filesystemId	string	string	ID of the file system
initialDirectory	string	string	Initial directory where the FTP user connects

name	string	string	Name of the FTP user
objectId	string	string	Unique ID of the object

Get FTP Config For A Virtual Server

Get FTP config for a virtual server.

HTTP request syntax (URI)

```
GET <base_uri>/v9/storage/virtual-servers/{virtualServerId}/ftp
```

Parameters

Parameter	Type	Required	Data Type	Description
virtualServerId	path	Y	string or integer	Either the virtual server ID or the object ID of the virtual server

Return Codes

Code	Data	Description
200	ftpConfig	ftpConfig object successfully retrieved
400	Error message	Bad Request
404	Error message	Not Found - a resource specified was not found
500	Error message	Internal Server Error

Any HTTP status code other than 200 indicates that the API did not complete successfully.

Sample request:

```
curl -k -H "X-Api-Key:sample-api-key" -X GET
"https://10.20.30.40:8444/v9/storage/virtual-servers/1/ftp"
```

Sample response:

```
HTTP/1.1 200 OK
{
  "ftpConfig": {
    "anonymousReadOnly": false,
    "timeout": 12345,
    "useNisSecurity": false,
    "useNtSecurity": false
  }
}
```

Set FTP Config For A Virtual Server

Set FTP config for a virtual server.

HTTP request syntax (URI)

PATCH <base_uri>/v9/storage/virtual-servers/{virtualServerId}/ftp

Parameters

Parameter	Type	Required	Data Type	Description
virtualServerId	path	Y	string or integer	Either the virtual server ID or the object ID of the virtual server
anonymousReadOnly	body	N	boolean	True indicates that anonymous sessions are restricted to read-only access. False allows anonymous users read-write access
timeout	body	N	integer	The FTP session inactivity timeout value in minutes
useNisSecurity	body	N	boolean	True to use NIS authentication for FTP
useNtSecurity	body	N	boolean	True to use NT (Windows) authentication for FTP

Return Codes

Code	Data	Description
204	No Data	Operation successfully completed
400	Error message	Bad Request
401	No Data	Unauthorized
403	Error message	Forbidden - the client does not have the required permissions to perform the operation
404	Error message	Not Found - a resource specified was not found
500	Error message	Internal Server Error

Any HTTP status code other than 204 indicates that the API did not complete successfully.

Sample request:

```
curl -k -H "X-Api-Key:sample-api-key" -X PATCH
"https://10.20.30.40:8444/v9/storage/virtual-servers/1/ftp" -d
'{"anonymousReadOnly": false, "timeout": 12345, "useNisSecurity": false,
"useNtSecurity": false}'
```

Sample response:

```
HTTP/1.1 204 No Content
```

Get FTP Logging Config For A Virtual Server

Get FTP logging config for a virtual server.

HTTP request syntax (URI)

GET <base_uri>/v9/storage/virtual-servers/{virtualServerId}/ftp/logging

Parameters

Parameter	Type	Required	Data Type	Description
virtualServerId	path	Y	string or integer	Either the virtual server ID or the object ID of the virtual server

Return Codes

Code	Data	Description
200	ftpLogging	ftpLogging object successfully retrieved
400	Error message	Bad Request
404	Error message	Not Found - a resource specified was not found
500	Error message	Internal Server Error

Any HTTP status code other than 200 indicates that the API did not complete successfully.

Sample request:

```
curl -k -H "X-Api-Key:sample-api-key" -X GET  
"https://10.20.30.40:8444/v9/storage/virtual-servers/1/ftp/logging"
```

Sample response:

```
HTTP/1.1 200 OK  
{  
  "ftpLogging": {  
    "filesystemId": "7B263DFD1D71E65A0000000000000000",  
    "isEnabled": false,  
    "loggingDirectory": "/log",  
    "numberOfLogFiles": 12345,  
    "numberOfRecordsPerFile": 12345  
  }  
}
```

Set FTP Logging Config For A Virtual Server

Set FTP logging config for a virtual server.

HTTP request syntax (URI)

PATCH <base_uri>/v9/storage/virtual-servers/{virtualServerId}/ftp/logging

Parameters

Parameter	Type	Required	Data Type	Description
virtualServerId	path	Y	string or integer	Either the virtual server ID or the object ID of the virtual server

ensurePathExists	body	N	boolean	True to ensure that the path supplied is created if it does not exist
filesystemId	body	N	string	Either the file system ID or the object ID of the file system
isEnabled	body	N	boolean	True if enabled, false for disabled
loggingDirectory	body	N	string	Full file system path, in Unix format, that will be used for storing the log files
numberOfLogFiles	body	N	integer	Maximum number of log files
numberOfRecordsPerFile	body	N	integer	Number of records each log file can contain. When this value is reached a new log file will be created

Return Codes

Code	Data	Description
204	No Data	Operation successfully completed
400	Error message	Bad Request
401	No Data	Unauthorized
403	Error message	Forbidden - the client does not have the required permissions to perform the operation
404	Error message	Not Found - a resource specified was not found
500	Error message	Internal Server Error

Any HTTP status code other than 204 indicates that the API did not complete successfully.

Sample request:

```
curl -k -H "X-API-Key:sample-api-key" -X PATCH
"https://10.20.30.40:8444/v9/storage/virtual-servers/1/ftp/logging" -d
'{"ensurePathExists": false, "filesystemId":
"7B263DFD1D71E65A0000000000000000", "isEnabled": false, "loggingDirectory":
"/log", "numberOfLogFiles": 12345, "numberOfRecordsPerFile": 12345}'
```

Sample response:

```
HTTP/1.1 204 No Content
```

Get FTP Users For A Virtual Server

Get FTP users for a virtual server.

HTTP request syntax (URI)

```
GET <base_uri>/v9/storage/virtual-servers/{virtualServerId}/ftp/users
```

Parameters

Parameter	Type	Required	Data Type	Description
virtualServerId	path	Y	string or integer	Either the virtual server ID or the object ID of the virtual server

Return Codes

Code	Data	Description
200	ftpUsers	List of ftpUser objects successfully retrieved
400	Error message	Bad Request
404	Error message	Not Found - a resource specified was not found
500	Error message	Internal Server Error

Any HTTP status code other than 200 indicates that the API did not complete successfully.

Sample request:

```
curl -k -H "X-API-Key:sample-api-key" -X GET  
"https://10.20.30.40:8444/v9/storage/virtual-servers/1/ftp/users"
```

Sample response:

```
HTTP/1.1 200 OK  
{  
  "ftpUsers": [  
    {  
      "filesystemId": "7B263DFD1D71E65A0000000000000000",  
      "initialDirectory": "/home/user1",  
      "name": "user1",  
      "objectId": "333a3a3a3a3a3a303a3a3a4f49445f24232140255f56"  
    }  
  ]  
}
```

Get An FTP User

Get an FTP user.

HTTP request syntax (URI)

```
GET <base_uri>/v9/storage/ftp-users/{ftpUserObjectId}
```

Parameters

Parameter	Type	Required	Data Type	Description
ftpUserObjectId	path	Y	string	Object ID of the FTP user

Return Codes

Code	Data	Description
------	------	-------------

200	ftpUser	ftpUser object successfully retrieved
400	Error message	Bad Request
404	Error message	Not Found - a resource specified was not found
500	Error message	Internal Server Error

Any HTTP status code other than 200 indicates that the API did not complete successfully.

Sample request:

```
curl -k -H "X-API-Key:sample-api-key" -X GET
"https://10.20.30.40:8444/v9/storage/ftp-
users/313a3a3a626f623a3a3a303a3a3a4f49445f24232140255f56"
```

Sample response:

```
HTTP/1.1 200 OK
{
  "ftpUser": {
    "filesystemId": "7B263DFD1D71E65A0000000000000000",
    "initialDirectory": "/home/user1",
    "name": "user1",
    "objectId": "333a3a3a3a3a3a303a3a3a4f49445f24232140255f56"
  }
}
```

Add An FTP User To A Virtual Server

Add a new FTP user. The user name can be a Windows or UNIX name, depending on which authentication methods are enabled in the FTP configuration. Anonymous access can also be configured, which can be restricted to read-only by changing the FTP configuration, otherwise the anonymous user will have full read-write access.

HTTP request syntax (URI)

```
POST <base_uri>/v9/storage/virtual-servers/{virtualServerId}/ftp/users
```

Parameters

Parameter	Type	Required	Data Type	Description
virtualServerId	path	Y	string or integer	Either the virtual server ID or the object ID of the virtual server
ensurePathExists	body	N	boolean	True to ensure that the path supplied is created if it does not exist
filesystemId	body	Y	string	Either the file system ID or the object ID of the file system
initialDirectory	body	Y	string	Absolute file system path, in Unix format, for when the FTP user initially connects. This is effectively the users home directory

name	body	Y	string	Name to associate with the item
------	------	---	--------	---------------------------------

Return Codes

Code	Data	Description
201	ftpUser	Successfully created new item
400	Error message	Bad Request
401	No Data	Unauthorized
403	Error message	Forbidden - the client does not have the required permissions to perform the operation
404	Error message	Not Found - a resource specified was not found
500	Error message	Internal Server Error

Any HTTP status code other than 201 indicates that the API did not complete successfully.

Sample request:

```
curl -k -H "X-API-Key:sample-api-key" -X POST
"https://10.20.30.40:8444/v9/storage/virtual-servers/1/ftp/users" -d
'{"ensurePathExists": false, "filesystemId":
"7B263DFD1D71E65A0000000000000000", "initialDirectory": "/home/user1",
"name": "Name2"}'
```

Sample response:

```
HTTP/1.1 201 Created
{
  "ftpUser": {
    "filesystemId": "7B263DFD1D71E65A0000000000000000",
    "initialDirectory": "/home/user1",
    "name": "user1",
    "objectId": "333a3a3a3a3a3a3a303a3a3a4f49445f24232140255f56"
  },
  "uri": "https://10.20.30.40:8444/v9/storage/ftp-
users/333a3a3a3a3a3a3a303a3a3a4f49445f24232140255f56"
}
```

Update An FTP User

Update an FTP user.

HTTP request syntax (URI)

```
PATCH <base_uri>/v9/storage/ftp-users/{ftpUserObjectId}
```

Parameters

Parameter	Type	Required	Data Type	Description
ftpUserObjectId	path	Y	string	Object ID of the FTP user

ensurePathExists	body	N	boolean	True to ensure that the path supplied is created if it does not exist
filesystemId	body	N	string	Either the file system ID or the object ID of the file system
initialDirectory	body	N	string	Absolute file system path, in Unix format, for when the FTP user initially connects. This is effectively the users home directory

Return Codes

Code	Data	Description
204	No Data	Operation successfully completed
400	Error message	Bad Request
401	No Data	Unauthorized
403	Error message	Forbidden - the client does not have the required permissions to perform the operation
404	Error message	Not Found - a resource specified was not found
500	Error message	Internal Server Error

Any HTTP status code other than 204 indicates that the API did not complete successfully.

Sample request:

```
curl -k -H "X-API-Key:sample-api-key" -X PATCH
"https://10.20.30.40:8444/v9/storage/ftp-
users/313a3a3a626f623a3a3a303a3a3a4f49445f24232140255f56" -d
'{"ensurePathExists": false, "filesystemId":
"7B263DFD1D71E65A0000000000000000", "initialDirectory": "/home/user1"}'
```

Sample response:

```
HTTP/1.1 204 No Content
```

Delete FTP User

Delete FTP user.

HTTP request syntax (URI)

```
DELETE <base_uri>/v9/storage/ftp-users/{ftpUserId}
```

Parameters

Parameter	Type	Required	Data Type	Description
ftpUserId	path	Y	string	Object ID of the FTP user

Return Codes

Code	Data	Description
204	No Data	Operation successfully completed
400	Error message	Bad Request
401	No Data	Unauthorized
403	Error message	Forbidden - the client does not have the required permissions to perform the operation
404	Error message	Not Found - a resource specified was not found
500	Error message	Internal Server Error

Any HTTP status code other than 204 indicates that the API did not complete successfully.

Sample request:

```
curl -k -H "X-API-Key:sample-api-key" -X DELETE
"https://10.20.30.40:8444/v9/storage/ftp-
users/313a3a3a626f623a3a3a303a3a3a4f49445f24232140255f56"
```

Sample response:

```
HTTP/1.1 204 No Content
```

iSCSI Initiators Resource

The iSCSI initiators resource allows management of iSCSI initiator settings.

iSCSI Initiators Object Model

The object model describing this resource contains the following objects.

iscsilinitiator - iSCSI initiator

Attribute	JSON type	Data type	Description
name	string	string	Name of the iSCSI initiator
objectId	string	string	Unique ID of the object
secret	string	string	iSCSI shared secret
virtualServerId	integer	integer	ID of the virtual server. 0 = management virtual server 255 = not assigned to virtual server

isnsServer - iSNS server details

Attribute	JSON type	Data type	Description
ipAddress	string	string	IP address of iSNS server
port	integer	integer	TCP port used to communicate with the iSNS server

Get iSCSI Initiators Of A Virtual Server

Gets a list of authentication information for the iSCSI initiators for a virtual server. If configured for mutual authentication, an iSCSI target must authenticate with each initiator that connects to it.

HTTP request syntax (URI)

```
GET <base_uri>/v9/storage/virtual-servers/{virtualServerId}/iscsi-initiators
```

Parameters

Parameter	Type	Required	Data Type	Description
virtualServerId	path	Y	string or integer	Either the virtual server ID or the object ID of the virtual server

Return Codes

Code	Data	Description
200	iscsilinitiators	List of iscsilinitiator objects successfully retrieved

400	Error message	Bad Request
404	Error message	Not Found - a resource specified was not found
500	Error message	Internal Server Error

Any HTTP status code other than 200 indicates that the API did not complete successfully.

Sample request:

```
curl -k -H "X-Api-Key:sample-api-key" -X GET
"https://10.20.30.40:8444/v9/storage/virtual-servers/1/iscsi-initiators"
```

Sample response:

```
HTTP/1.1 200 OK
{
  "iscsiInitiators": [
    {
      "name": "iqn.2004-03.com.example:initiator1",
      "objectId": "333a3a3a3a3a3a303a3a3a4f49445f24232140255f56",
      "secret": "secret1234",
      "virtualServerId": 1
    }
  ]
}
```

Get iSCSI Initiator

Gets the authentication information for a specific iSCSI initiator.

HTTP request syntax (URI)

```
GET <base_uri>/v9/storage/iscsi-initiators/{iscsiInitiatorObjectId}
```

Parameters

Parameter	Type	Required	Data Type	Description
iscsiInitiatorObjectId	path	Y	string	Object ID of the iSCSI initiator

Return Codes

Code	Data	Description
200	iscsiInitiator	iscsiInitiator object successfully retrieved
400	Error message	Bad Request
404	Error message	Not Found - a resource specified was not found
500	Error message	Internal Server Error

Any HTTP status code other than 200 indicates that the API did not complete successfully.

Sample request:

```
curl -k -H "X-Api-Key:sample-api-key" -X GET
"https://10.20.30.40:8444/v9/storage/iscsi-
initiators/313a3a3a69716e2e323030342d30332e636f6d2e6578616d706c653a696e697469
61746f72313a3a3a3a3a3a303a3a3a4f49445f24232140255f56"
```

Sample response:

```
HTTP/1.1 200 OK
{
  "iscsiInitiator": {
    "name": "iqn.2004-03.com.example:initiator1",
    "objectId": "333a3a3a3a3a3a303a3a3a4f49445f24232140255f56",
    "secret": "secret1234",
    "virtualServerId": 1
  }
}
```

Add iSCSI Initiator

Adds authentication information for an iSCSI initiator for a virtual server.

HTTP request syntax (URI)

```
POST <base_uri>/v9/storage/virtual-servers/{virtualServerId}/iscsi-initiators
```

Parameters

Parameter	Type	Required	Data Type	Description
virtualServerId	path	Y	string or integer	Either the virtual server ID or the object ID of the virtual server
name	body	Y	string	Name to associate with the item
secret	body	Y	string	iSCSI shared secret

Return Codes

Code	Data	Description
201	iscsilinitiator	Successfully created new item
400	Error message	Bad Request
401	No Data	Unauthorized
403	Error message	Forbidden - the client does not have the required permissions to perform the operation
404	Error message	Not Found - a resource specified was not found
500	Error message	Internal Server Error

Any HTTP status code other than 201 indicates that the API did not complete successfully.

Sample request:

```
curl -k -H "X-API-Key:sample-api-key" -X POST
"https://10.20.30.40:8444/v9/storage/virtual-servers/1/iscsi-initiators" -d
'{"name": "Name2", "secret": "secret1234"}'
```

Sample response:

```
HTTP/1.1 201 Created
{
  "iscsiInitiator": {
    "name": "iqn.2004-03.com.example:initiator1",
    "objectId": "333a3a3a3a3a3a303a3a3a4f49445f24232140255f56",
    "secret": "secret1234",
    "virtualServerId": 1
  },
  "uri": "https://10.20.30.40:8444/v9/storage/iscsi-
initiators/333a3a3a3a3a3a303a3a3a4f49445f24232140255f56"
}
```

Update iSCSI Initiator

Updates the shared secret associated with an iSCSI initiator.

HTTP request syntax (URI)

```
POST <base_uri>/v9/storage/iscsi-initiators/{iscsiInitiatorObjectId}
```

Parameters

Parameter	Type	Required	Data Type	Description
iscsiInitiatorObjectId	path	Y	string	Object ID of the iSCSI initiator
secret	body	Y	string	iSCSI shared secret

Return Codes

Code	Data	Description
204	No Data	Operation successfully completed
400	Error message	Bad Request
401	No Data	Unauthorized
403	Error message	Forbidden - the client does not have the required permissions to perform the operation
404	Error message	Not Found - a resource specified was not found
500	Error message	Internal Server Error

Any HTTP status code other than 204 indicates that the API did not complete successfully.

Sample request:

```
curl -k -H "X-API-Key:sample-api-key" -X POST
"https://10.20.30.40:8444/v9/storage/iscsi-
initiators/313a3a3a69716e2e323030342d30332e636f6d2e6578616d706c653a696e697469"
```

```
61746f72313a3a3a3a3a3a303a3a3a4f49445f24232140255f56" -d '{"secret":  
"secret1234"}'
```

Sample response:

```
HTTP/1.1 204 No Content
```

Delete iSCSI Initiator

Deletes the authentication information for an iSCSI initiator.

HTTP request syntax (URI)

```
DELETE <base_uri>/v9/storage/iscsi-initiators/{iscsiInitiatorObjectId}
```

Parameters

Parameter	Type	Required	Data Type	Description
iscsiInitiatorObjectId	path	Y	string	Object ID of the iSCSI initiator

Return Codes

Code	Data	Description
204	No Data	Operation successfully completed
400	Error message	Bad Request
401	No Data	Unauthorized
403	Error message	Forbidden - the client does not have the required permissions to perform the operation
404	Error message	Not Found - a resource specified was not found
500	Error message	Internal Server Error

Any HTTP status code other than 204 indicates that the API did not complete successfully.

Sample request:

```
curl -k -H "X-API-Key:sample-api-key" -X DELETE  
"https://10.20.30.40:8444/v9/storage/iscsi-  
initiators/313a3a3a69716e2e323030342d30332e636f6d2e6578616d706c653a696e697469  
61746f72313a3a3a3a3a303a3a3a4f49445f24232140255f56"
```

Sample response:

```
HTTP/1.1 204 No Content
```

Get iSNS Servers For A Virtual Server

Get a list of iSNS (Internet Storage Name Service) servers for a virtual server. iSNS provides a central database of iSCSI initiator and target names.

HTTP request syntax (URI)

```
GET <base_uri>/v9/storage/virtual-servers/{virtualServerId}/isns-servers
```

Parameters

Parameter	Type	Required	Data Type	Description
virtualServerId	path	Y	string or integer	Either the virtual server ID or the object ID of the virtual server

Return Codes

Code	Data	Description
200	isnsServers	List of isnsServer objects successfully retrieved
400	Error message	Bad Request
404	Error message	Not Found - a resource specified was not found
500	Error message	Internal Server Error

Any HTTP status code other than 200 indicates that the API did not complete successfully.

Sample request:

```
curl -k -H "X-API-Key:sample-api-key" -X GET  
"https://10.20.30.40:8444/v9/storage/virtual-servers/1/isns-servers"
```

Sample response:

```
HTTP/1.1 200 OK  
{  
  "isnsServers": [  
    {  
      "ipAddress": "10.1.2.3",  
      "port": 3205  
    }  
  ]  
}
```

Add An iSNS Server To A Virtual Server

Add an iSNS server to a virtual server.

HTTP request syntax (URI)

```
POST <base_uri>/v9/storage/virtual-servers/{virtualServerId}/isns-servers
```

Parameters

Parameter	Type	Required	Data Type	Description
virtualServerId	path	Y	string or integer	Either the virtual server ID or the object ID of the virtual server
ipAddress	body	Y	string	IP address - generally IPv4 and IPv6 are supported in most cases
port	body	N	integer	TCP port used to communicate with the iSNS server

Return Codes

Code	Data	Description
204	No Data	Operation successfully completed
400	Error message	Bad Request
401	No Data	Unauthorized
403	Error message	Forbidden - the client does not have the required permissions to perform the operation
404	Error message	Not Found - a resource specified was not found
500	Error message	Internal Server Error

Any HTTP status code other than 204 indicates that the API did not complete successfully.

Sample request:

```
curl -k -H "X-API-Key:sample-api-key" -X POST
"https://10.20.30.40:8444/v9/storage/virtual-servers/1/isns-servers" -d
'{"ipAddress": "10.1.2.3", "port": 3205}'
```

Sample response:

```
HTTP/1.1 204 No Content
```

Delete An iSNS Server From A Virtual Server

Delete an iSNS server from a virtual server.

HTTP request syntax (URI)

```
DELETE <base_uri>/v9/storage/virtual-servers/{virtualServerId}/isns-
servers/{ipAddress}
```

Parameters

Parameter	Type	Required	Data Type	Description
ipAddress	path	Y	string	IP address to delete
virtualServerId	path	Y	string or integer	Either the virtual server ID or the object ID of the virtual server

Return Codes

Code	Data	Description
204	No Data	Operation successfully completed
400	Error message	Bad Request
401	No Data	Unauthorized
403	Error message	Forbidden - the client does not have the required permissions to perform the operation
404	Error message	Not Found - a resource specified was not found
500	Error message	Internal Server Error

Any HTTP status code other than 204 indicates that the API did not complete successfully.

Sample request:

```
curl -k -H "X-API-Key:sample-api-key" -X DELETE
"https://10.20.30.40:8444/v9/storage/virtual-servers/1/isns-servers/10.1.2.3"
```

Sample response:

```
HTTP/1.1 204 No Content
```

Refresh iSNS Server Registration For A Virtual Server

Refresh registration of iSCSI initiators and iSCSI targets with the configured iSNS servers.

HTTP request syntax (URI)

```
POST <base_uri>/v9/storage/virtual-servers/{virtualServerId}/isns-
servers/refresh
```

Parameters

Parameter	Type	Required	Data Type	Description
virtualServerId	path	Y	string or integer	Either the virtual server ID or the object ID of the virtual server

Return Codes

Code	Data	Description
204	No Data	Operation successfully completed
400	Error message	Bad Request
401	No Data	Unauthorized
403	Error message	Forbidden - the client does not have the required permissions to perform the operation
404	Error message	Not Found - a resource specified was not found
500	Error message	Internal Server Error

Any HTTP status code other than 204 indicates that the API did not complete successfully.

Sample request:

```
curl -k -H "X-API-Key:sample-api-key" -X POST  
"https://10.20.30.40:8444/v9/storage/virtual-servers/1/isns-servers/refresh"
```

Sample response:

```
HTTP/1.1 204 No Content
```

iSCSI Logical Units Resource

The iSCSI logical unit resource enables you to create and manage iSCSI logical units (LUNs). An iSCSI logical unit, or LUN, is a logical representation of a physical device that is made available via an iSCSI target and will be identified by the LUN number.

iSCSI Logical Units Object Model

The object model describing this resource contains the following objects.

iscsiLogicalUnit - iSCSI logical unit details

Attribute	JSON type	Data type	Description
alias	string	string	Alias/name of the iSCSI logical unit
comment	string	string	Comment associated with the item
filesystemId	string	string	ID of the file system
isBoundToTarget	boolean	boolean	True if the iSCSI logical unit is bound to an iSCSI target
isMounted	boolean	boolean	True indicates that the iSCSI logical unit is mounted
iscsiTargetAlias	string	string	iSCSI target alias/name
objectId	string	string	Unique ID of the object
path	string	string	Full path of the iSCSI logical unit file
percentageCreatedx100	integer	integer	A value that is 100 times the percent value of the object that has been created
sizeInBytes	integer	integer	Size of the iSCSI logical unit in bytes
virtualServerId	integer	integer	ID of the virtual server. 0 = management virtual server 255 = not assigned to virtual server

Get iSCSI Logical Units

Get iSCSI logical units.

HTTP request syntax (URI)

```
GET <base_uri>/v9/storage/iscsi-logical-units
```

Return Codes

Code	Data	Description
200	iscsiLogicalUnits	List of iscsiLogicalUnit objects successfully retrieved

500	Error message	Internal Server Error
-----	---------------	-----------------------

Any HTTP status code other than 200 indicates that the API did not complete successfully.

Sample request:

```
curl -k -H "X-API-Key:sample-api-key" -X GET
"https://10.20.30.40:8444/v9/storage/iscsi-logical-units"
```

Sample response:

```
HTTP/1.1 200 OK
{
  "iscsiLogicalUnits": [
    {
      "alias": "LUN1",
      "comment": "This is a comment",
      "filesystemId": "7B263DFD1D71E65A0000000000000000",
      "isBoundToTarget": false,
      "isMounted": false,
      "iscsiTargetAlias": "Target1",
      "objectId": "333a3a3a3a3a3a3a303a3a3a4f49445f24232140255f56",
      "path": "/dir1/lun1.iscsi",
      "percentageCreatedx100": 12345,
      "sizeInBytes": 12345,
      "virtualServerId": 1
    }
  ]
}
```

Get An iSCSI Logical Unit

Get an iSCSI logical unit.

HTTP request syntax (URI)

```
GET <base_uri>/v9/storage/iscsi-logical-units/{iscsiLuObjectId}
```

Parameters

Parameter	Type	Required	Data Type	Description
iscsiLuObjectId	path	Y	string	Object ID of the iSCSI logical unit

Return Codes

Code	Data	Description
200	iscsiLogicalUnit	iscsiLogicalUnit object successfully retrieved
400	Error message	Bad Request
404	Error message	Not Found - a resource specified was not found
500	Error message	Internal Server Error

Any HTTP status code other than 200 indicates that the API did not complete successfully.

Sample request:

```
curl -k -H "X-API-Key:sample-api-key" -X GET
"https://10.20.30.40:8444/v9/storage/iscsi-logical-
units/313a3a3a4c756e5570646174653a3a3a3a3a3a303a3a3a4f49445f24232140255f56"
```

Sample response:

```
HTTP/1.1 200 OK
{
  "iscsiLogicalUnit": {
    "alias": "LUN1",
    "comment": "This is a comment",
    "filesystemId": "7B263DFD1D71E65A0000000000000000",
    "isBoundToTarget": false,
    "isMounted": false,
    "iscsiTargetAlias": "Target1",
    "objectId": "333a3a3a3a3a3a303a3a3a4f49445f24232140255f56",
    "path": "/dir1/lun1.iscsi",
    "percentageCreatedx100": 12345,
    "sizeInBytes": 12345,
    "virtualServerId": 1
  }
}
```

Create An iSCSI Logical Unit

Create an iSCSI logical unit.

HTTP request syntax (URI)

```
POST <base_uri>/v9/storage/iscsi-logical-units
```

Parameters

Parameter	Type	Required	Data Type	Description
alias	body	Y	string	Alias or name of the item
comment	body	Y	string	Comment associated with the item
ensurePathExists	body	N	boolean	True to ensure that the path supplied is created if it does not exist
filesystemId	body	Y	string	Either the file system ID or the object ID of the file system
path	body	Y	string	Absolute path to the logical unit file, in Unix format. Can specify an existing file
sizeInBytes	body	N	integer	Size of the iSCSI logical unit in bytes

Return Codes

Code	Data	Description
------	------	-------------

201	iscsiLogicalUnit	Successfully created new item
400	Error message	Bad Request
401	No Data	Unauthorized
403	Error message	Forbidden - the client does not have the required permissions to perform the operation
500	Error message	Internal Server Error

Any HTTP status code other than 201 indicates that the API did not complete successfully.

Sample request:

```
curl -k -H "X-API-Key:sample-api-key" -X POST
"https://10.20.30.40:8444/v9/storage/iscsi-logical-units" -d '{"alias":
"abcdefg", "comment": "This is a comment", "ensurePathExists": false,
"filesystemId": "7B263DFD1D71E65A0000000000000000", "path": "abcdefg",
"sizeInBytes": 12345}'
```

Sample response:

```
HTTP/1.1 201 Created
{
  "iscsiLogicalUnit": {
    "alias": "LUN1",
    "comment": "This is a comment",
    "filesystemId": "7B263DFD1D71E65A0000000000000000",
    "isBoundToTarget": false,
    "isMounted": false,
    "iscsiTargetAlias": "Target1",
    "objectId": "333a3a3a3a3a3a3a303a3a3a4f49445f24232140255f56",
    "path": "/dir1/lun1.iscsi",
    "percentageCreatedx100": 12345,
    "sizeInBytes": 12345,
    "virtualServerId": 1
  },
  "uri": "https://10.20.30.40:8444/v9/storage/iscsi-logical-
units/333a3a3a3a3a3a3a303a3a3a4f49445f24232140255f56"
}
```

Update An iSCSI Logical Unit

Update an iSCSI logical unit.

HTTP request syntax (URI)

```
PATCH <base_uri>/v9/storage/iscsi-logical-units/{iscsiLuObjectId}
```

Parameters

Parameter	Type	Required	Data Type	Description
iscsiLuObjectId	path	Y	string	Object ID of the iSCSI logical unit
alias	body	N	string	Alias or name of the item

comment	body	N	string	Comment associated with the item
sizeInBytes	body	N	integer	Size of the iSCSI logical unit in bytes

Return Codes

Code	Data	Description
303	iscsiLogicalUnit	Successfully updated item
400	Error message	Bad Request
401	No Data	Unauthorized
403	Error message	Forbidden - the client does not have the required permissions to perform the operation
404	Error message	Not Found - a resource specified was not found
500	Error message	Internal Server Error

Any HTTP status code other than 303 indicates that the API did not complete successfully.

Sample request:

```
curl -k -H "X-Api-Key:sample-api-key" -X PATCH
"https://10.20.30.40:8444/v9/storage/iscsi-logical-
units/313a3a3a4c756e5570646174653a3a3a3a3a3a303a3a3a4f49445f24232140255f56" -
d '{"alias": "abcdefg", "comment": "This is a comment", "sizeInBytes":
12345}'
```

Sample response:

```
HTTP/1.1 303 See Other
{
  "iscsiLogicalUnit": {
    "alias": "LUN1",
    "comment": "This is a comment",
    "filesystemId": "7B263DFD1D71E65A0000000000000000",
    "isBoundToTarget": false,
    "isMounted": false,
    "iscsiTargetAlias": "Target1",
    "objectId": "333a3a3a3a3a3a303a3a3a4f49445f24232140255f56",
    "path": "/dir1/lun1.iscsi",
    "percentageCreatedx100": 12345,
    "sizeInBytes": 12345,
    "virtualServerId": 1
  },
  "uri": "https://10.20.30.40:8444/v9/storage/iscsi-logical-
units/333a3a3a3a3a3a303a3a3a4f49445f24232140255f56"
}
```

Delete An iSCSI Logical Unit

Deletes an iSCSI logical unit, and the file associated with it.

Note: The file associated with the iSCSI logical unit contains any data that may have been written to the logical unit, and cannot be recovered once deleted.

HTTP request syntax (URI)

```
DELETE <base_uri>/v9/storage/iscsi-logical-units/{iscsiLuObjectId}
```

Parameters

Parameter	Type	Required	Data Type	Description
iscsiLuObjectId	path	Y	string	Object ID of the iSCSI logical unit
deleteFile	query	N	boolean	True indicates the underlying file that holds the iSCSI data should also be deleted, in addition to the logical unit configuration
force	query	N	boolean	Whether to force the operation, should it fail

Return Codes

Code	Data	Description
204	No Data	Operation successfully completed
400	Error message	Bad Request
401	No Data	Unauthorized
403	Error message	Forbidden - the client does not have the required permissions to perform the operation
404	Error message	Not Found - a resource specified was not found
500	Error message	Internal Server Error

Any HTTP status code other than 204 indicates that the API did not complete successfully.

Sample request:

```
curl -k -H "X-API-Key:sample-api-key" -X DELETE  
"https://10.20.30.40:8444/v9/storage/iscsi-logical-  
units/313a3a3a4c756e5570646174653a3a3a3a3a3a303a3a3a4f49445f24232140255f56?de  
leteFile=false&force=false"
```

Sample response:

```
HTTP/1.1 204 No Content
```

Mount An iSCSI Logical Unit

Mount an iSCSI logical unit.

HTTP request syntax (URI)

```
POST <base_uri>/v9/storage/iscsi-logical-units/{iscsiLuObjectId}/mount
```


Parameters

Parameter	Type	Required	Data Type	Description
iscsiLuObjectId	path	Y	string	Object ID of the iSCSI logical unit
ensurePathExists	body	N	boolean	True to ensure that the path supplied is created if it does not exist

Return Codes

Code	Data	Description
204	No Data	Operation successfully completed
400	Error message	Bad Request
401	No Data	Unauthorized
403	Error message	Forbidden - the client does not have the required permissions to perform the operation
404	Error message	Not Found - a resource specified was not found
500	Error message	Internal Server Error

Any HTTP status code other than 204 indicates that the API did not complete successfully.

Sample request:

```
curl -k -H "X-API-Key:sample-api-key" -X POST
"https://10.20.30.40:8444/v9/storage/iscsi-logical-
units/313a3a3a4c756e5570646174653a3a3a3a3a3a303a3a3a4f49445f24232140255f56/mo
unt" -d '{"ensurePathExists": false}'
```

Sample response:

```
HTTP/1.1 204 No Content
```

Unmount An iSCSI Logical Unit

Unmount an iSCSI logical unit.

HTTP request syntax (URI)

```
POST <base_uri>/v9/storage/iscsi-logical-units/{iscsiLuObjectId}/unmount
```

Parameters

Parameter	Type	Required	Data Type	Description
iscsiLuObjectId	path	Y	string	Object ID of the iSCSI logical unit
force	body	N	boolean	Whether to force the operation, should it fail

Return Codes

Code	Data	Description
------	------	-------------

204	No Data	Operation successfully completed
400	Error message	Bad Request
401	No Data	Unauthorized
403	Error message	Forbidden - the client does not have the required permissions to perform the operation
404	Error message	Not Found - a resource specified was not found
500	Error message	Internal Server Error

Any HTTP status code other than 204 indicates that the API did not complete successfully.

Sample request:

```
curl -k -H "X-API-Key:sample-api-key" -X POST
"https://10.20.30.40:8444/v9/storage/iscsi-logical-
units/313a3a3a4c756e5570646174653a3a3a3a3a3a303a3a3a4f49445f24232140255f56/un
mount" -d '{"force": false}'
```

Sample response:

```
HTTP/1.1 204 No Content
```

Clone An iSCSI Logical Unit

Clone an iSCSI logical unit.

HTTP request syntax (URI)

```
POST <base_uri>/v9/storage/iscsi-logical-units/{iscsiLuObjectId}/clone
```

Parameters

Parameter	Type	Required	Data Type	Description
iscsiLuObjectId	path	Y	string	Object ID of the iSCSI logical unit
newLogicalUnitAlias	body	Y	string	New logical unit alias
newLogicalUnitPath	body	Y	string	New path for the logical unit file

Return Codes

Code	Data	Description
201	iscsiLogicalUnit	Successfully created new item
400	Error message	Bad Request
401	No Data	Unauthorized
403	Error message	Forbidden - the client does not have the required permissions to perform the operation
404	Error message	Not Found - a resource specified was not found
500	Error message	Internal Server Error

Any HTTP status code other than 201 indicates that the API did not complete successfully.

Sample request:

```
curl -k -H "X-API-Key:sample-api-key" -X POST
"https://10.20.30.40:8444/v9/storage/iscsi-logical-
units/313a3a3a4c756e5570646174653a3a3a3a3a303a3a3a4f49445f24232140255f56/cl
one" -d '{"newLogicalUnitAlias": "LUN2", "newLogicalUnitPath":
"/dir/lun2.iscsi}"'
```

Sample response:

```
HTTP/1.1 201 Created
{
  "iscsiLogicalUnit": {
    "alias": "LUN1",
    "comment": "This is a comment",
    "filesystemId": "7B263DFD1D71E65A0000000000000000",
    "isBoundToTarget": false,
    "isMounted": false,
    "iscsiTargetAlias": "Target1",
    "objectId": "333a3a3a3a3a3a303a3a3a4f49445f24232140255f56",
    "path": "/dir1/lun1.iscsi",
    "percentageCreatedx100": 12345,
    "sizeInBytes": 12345,
    "virtualServerId": 1
  },
  "uri": "https://10.20.30.40:8444/v9/storage/iscsi-logical-
units/333a3a3a3a3a3a303a3a3a4f49445f24232140255f56"
}
```

iSCSI Targets Resource

The iSCSI target resource enables you to create and manage iSCSI targets and logical units. Targets act as destinations to which management settings and information is sent by an iSCSI initiator when accessing the iSCSI logical units, or LUNs.

iSCSI Targets Object Model

The object model describing this resource contains the following objects.

iscsiLogicalUnitMinimal - iSCSI logical unit

Attribute	JSON type	Data type	Description
logicalUnit	integer	integer	The Logical Unit Number (LUN) ID that is assigned to the iSCSI logical unit
logicalUnitAlias	string	string	Alias/name of the logical unit
objectId	string	string	Unique ID of the object

iscsiTarget - iSCSI target

Attribute	JSON type	Data type	Description
accessConfig	string	string	Access config options. Typically it is the IP addresses of the allowed hosts and access level, or blank if there are no restrictions
alias	string	string	Alias/name of the iSCSI target
comment	string	string	Comment associated with the item
globalUniqueName	string	string	Global unique name of the iSCSI target
isAuthenticationEnabled	boolean	boolean	True indicates that authentication is being enforced
iscsiLogicalUnits	array	iscsiLogicalUnitMinimal	Array of iSCSI logical units associated with the iSCSI target
objectId	string	string	Unique ID of the object
secret	string	string	iSCSI shared secret
virtualServerId	integer	integer	ID of the virtual server. 0 = management virtual server 255 = not assigned to virtual server

Get iSCSI Targets

Get iSCSI targets.

HTTP request syntax (URI)

```
GET <base_uri>/v9/storage/iscsi-targets
```

Return Codes

Code	Data	Description
200	iscsiTargets	List of iscsiTarget objects successfully retrieved
500	Error message	Internal Server Error

Any HTTP status code other than 200 indicates that the API did not complete successfully.

Sample request:

```
curl -k -H "X-Api-Key:sample-api-key" -X GET  
"https://10.20.30.40:8444/v9/storage/iscsi-targets"
```

Sample response:

```
HTTP/1.1 200 OK  
{  
  "iscsiTargets": [  
    {  
      "accessConfig": "",  
      "alias": "Target1",  
      "comment": "This is a comment",  
      "globalUniqueName": "iqn.2020-01.com.example.sie:rickevs-58-  
112.iscsidev-0",  
      "isAuthenticationEnabled": false,  
      "iscsiLogicalUnits": [  
        {  
          "logicalUnit": 1,  
          "logicalUnitAlias": "LUN1",  
          "objectId": "333a3a3a3a3a3a303a3a3a4f49445f24232140255f56"  
        }  
      ],  
      "objectId": "333a3a3a3a3a3a303a3a3a4f49445f24232140255f56",  
      "secret": "secret1234",  
      "virtualServerId": 1  
    }  
  ]  
}
```

Get An iSCSI Target

Get an iSCSI target.

HTTP request syntax (URI)

GET <base_uri>/v9/storage/iscsi-targets/{iscsiTargetObjectId}

Parameters

Parameter	Type	Required	Data Type	Description
iscsiTargetObjectId	path	Y	string	Object ID of the iSCSI target

Return Codes

Code	Data	Description
200	iscsiTarget	iscsiTarget object successfully retrieved
400	Error message	Bad Request
404	Error message	Not Found - a resource specified was not found
500	Error message	Internal Server Error

Any HTTP status code other than 200 indicates that the API did not complete successfully.

Sample request:

```
curl -k -H "X-Api-Key:sample-api-key" -X GET
"https://10.20.30.40:8444/v9/storage/iscsi-
targets/313a3a3a6e69636b3a3a3a3a3a3a303a3a3a4f49445f24232140255f56"
```

Sample response:

```
HTTP/1.1 200 OK
{
  "iscsiTarget": {
    "accessConfig": "",
    "alias": "Target1",
    "comment": "This is a comment",
    "globalUniqueName": "iqn.2020-01.com.example.sie:rickevs-58-112.iscsidev-
0",
    "isAuthenticationEnabled": false,
    "iscsiLogicalUnits": [
      {
        "logicalUnit": 1,
        "logicalUnitAlias": "LUN1",
        "objectId": "333a3a3a3a3a3a303a3a3a4f49445f24232140255f56"
      }
    ],
    "objectId": "333a3a3a3a3a3a303a3a3a4f49445f24232140255f56",
    "secret": "secret1234",
    "virtualServerId": 1
  }
}
```

Create An iSCSI Target

Create an iSCSI target.

HTTP request syntax (URI)

POST <base_uri>/v9/storage/iscsi-targets

Parameters

Parameter	Type	Required	Data Type	Description
accessConfig	body	Y	string	Access config options. Typically it is the IP addresses of the allowed hosts and access level, or blank if there are no restrictions
alias	body	Y	string	Alias or name of the item
comment	body	Y	string	Comment associated with the item
enableAuthentication	body	Y	boolean	True to enable authentication or false to allow insecure access
logicalUnitIds	body	N	array	Array of logical unit ID values - the values can be either the logical unit alias or the object ID of the logical unit. Note that failure to add the logical units to the target will not stop creation of the iSCSI target
secret	body	Y	string	iSCSI shared secret
virtualServerId	body	Y	string or integer	Either the virtual server ID or the object ID of the virtual server. NDMP devices also accept ANY

Return Codes

Code	Data	Description
201	iscsiTarget	Successfully created new item
400	Error message	Bad Request
401	No Data	Unauthorized
403	Error message	Forbidden - the client does not have the required permissions to perform the operation
500	Error message	Internal Server Error

Any HTTP status code other than 201 indicates that the API did not complete successfully.

Sample request:

```
curl -k -H "X-API-Key:sample-api-key" -X POST
"https://10.20.30.40:8444/v9/storage/iscsi-targets" -d '{"accessConfig": "",
"alias": "abcdefg", "comment": "This is a comment", "enableAuthentication":
false, "logicalUnitIds": [ "LUN1" ], "secret": "secret1234",
"virtualServerId": 1}'
```

Sample response:

```
HTTP/1.1 201 Created
{
  "iscsiTarget": {
    "accessConfig": "",
    "alias": "Target1",
```

```

    "comment": "This is a comment",
    "globalUniqueName": "iqn.2020-01.com.example.sie:rickevs-58-112.iscsidev-
0",
    "isAuthenticationEnabled": false,
    "iscsiLogicalUnits": [
      {
        "logicalUnit": 1,
        "logicalUnitAlias": "LUN1",
        "objectId": "333a3a3a3a3a3a303a3a3a4f49445f24232140255f56"
      }
    ],
    "objectId": "333a3a3a3a3a3a303a3a3a4f49445f24232140255f56",
    "secret": "secret1234",
    "virtualServerId": 1
  },
  "uri": "https://10.20.30.40:8444/v9/storage/iscsi-
targets/333a3a3a3a3a3a303a3a3a4f49445f24232140255f56"
}

```

Update An iSCSI Target

Update an iSCSI target.

HTTP request syntax (URI)

```
PATCH <base_uri>/v9/storage/iscsi-targets/{iscsiTargetObjectId}
```

Parameters

Parameter	Type	Required	Data Type	Description
iscsiTargetObjectId	path	Y	string	Object ID of the iSCSI target
accessConfig	body	N	string	Access config options. Typically it is the IP addresses of the allowed hosts and access level, or blank if there are no restrictions
alias	body	N	string	Alias or name of the item
comment	body	N	string	Comment associated with the item
enableAuthentication	body	N	boolean	True to enable authentication or false to allow insecure access
regenerateGUN	body	N	boolean	True indicates that the Global Unique Name should be regenerated
secret	body	N	string	iSCSI shared secret

Return Codes

Code	Data	Description
303	iscsiTarget	Successfully updated item
400	Error message	Bad Request

401	No Data	Unauthorized
403	Error message	Forbidden - the client does not have the required permissions to perform the operation
404	Error message	Not Found - a resource specified was not found
500	Error message	Internal Server Error

Any HTTP status code other than 303 indicates that the API did not complete successfully.

Sample request:

```
curl -k -H "X-API-Key:sample-api-key" -X PATCH
"https://10.20.30.40:8444/v9/storage/iscsi-
targets/313a3a3a6e69636b3a3a3a3a3a3a303a3a3a4f49445f24232140255f56" -d
'{"accessConfig": "", "alias": "abcdefg", "comment": "This is a comment",
"enableAuthentication": false, "regenerateGUN": false, "secret":
"secret1234"}'
```

Sample response:

```
HTTP/1.1 303 See Other
{
  "iscsiTarget": {
    "accessConfig": "",
    "alias": "Target1",
    "comment": "This is a comment",
    "globalUniqueName": "iqn.2020-01.com.example.sie:rickevs-58-112.iscsidev-
0",
    "isAuthenticationEnabled": false,
    "iscsiLogicalUnits": [
      {
        "logicalUnit": 1,
        "logicalUnitAlias": "LUN1",
        "objectId": "333a3a3a3a3a3a303a3a3a4f49445f24232140255f56"
      }
    ],
    "objectId": "333a3a3a3a3a3a303a3a3a4f49445f24232140255f56",
    "secret": "secret1234",
    "virtualServerId": 1
  },
  "uri": "https://10.20.30.40:8444/v9/storage/iscsi-
targets/333a3a3a3a3a3a303a3a3a4f49445f24232140255f56"
}
```

Delete An iSCSI Target

Delete an iSCSI target.

HTTP request syntax (URI)

```
DELETE <base_uri>/v9/storage/iscsi-targets/{iscsiTargetObjectId}
```

Parameters

Parameter	Type	Required	Data Type	Description
iscsiTargetObjectId	path	Y	string	Object ID of the iSCSI target

Return Codes

Code	Data	Description
204	No Data	Operation successfully completed
400	Error message	Bad Request
401	No Data	Unauthorized
403	Error message	Forbidden - the client does not have the required permissions to perform the operation
404	Error message	Not Found - a resource specified was not found
500	Error message	Internal Server Error

Any HTTP status code other than 204 indicates that the API did not complete successfully.

Sample request:

```
curl -k -H "X-API-Key:sample-api-key" -X DELETE
"https://10.20.30.40:8444/v9/storage/iscsi-
targets/313a3a3a6e69636b3a3a3a3a3a3a303a3a3a4f49445f24232140255f56"
```

Sample response:

```
HTTP/1.1 204 No Content
```

Get All iSCSI Logical Units Associated With An iSCSI Target

Get all iSCSI logical units associated with an iSCSI target.

HTTP request syntax (URI)

```
GET <base_uri>/v9/storage/iscsi-targets/{iscsiTargetObjectId}/iscsi-logical-
units
```

Parameters

Parameter	Type	Required	Data Type	Description
iscsiTargetObjectId	path	Y	string	Object ID of the iSCSI target

Return Codes

Code	Data	Description
200	iscsiLogicalUnits	List of iscsiLogicalUnitMinimal objects successfully retrieved
400	Error message	Bad Request
404	Error message	Not Found - a resource specified was not found

500	Error message	Internal Server Error
-----	---------------	-----------------------

Any HTTP status code other than 200 indicates that the API did not complete successfully.

Sample request:

```
curl -k -H "X-API-Key:sample-api-key" -X GET
"https://10.20.30.40:8444/v9/storage/iscsi-
targets/313a3a3a6e69636b3a3a3a3a3a3a303a3a3a4f49445f24232140255f56/iscsi-
logical-units"
```

Sample response:

```
HTTP/1.1 200 OK
{
  "iscsiLogicalUnits": [
    {
      "logicalUnit": 1,
      "logicalUnitAlias": "LUN1",
      "objectId": "333a3a3a3a3a3a303a3a3a4f49445f24232140255f56"
    }
  ]
}
```

Add An iSCSI Logical Unit To An iSCSI Target

Adds an iSCSI logical unit to an iSCSI target. The logical unit is assigned the next free LUN ID associated with the iSCSI target.

HTTP request syntax (URI)

```
POST <base_uri>/v9/storage/iscsi-targets/{iscsiTargetObjectId}/iscsi-logical-
units
```

Parameters

Parameter	Type	Required	Data Type	Description
iscsiTargetObjectId	path	Y	string	Object ID of the iSCSI target
logicalUnit	body	N	integer	The Logical Unit Number (LUN) ID to associate with the logical unit. If this value is not supplied, the next free LUN ID will be used
logicalUnitId	body	Y	string	Either the logical unit alias or the object ID of the logical unit

Return Codes

Code	Data	Description
204	No Data	Operation successfully completed
400	Error message	Bad Request
401	No Data	Unauthorized

403	Error message	Forbidden - the client does not have the required permissions to perform the operation
404	Error message	Not Found - a resource specified was not found
500	Error message	Internal Server Error

Any HTTP status code other than 204 indicates that the API did not complete successfully.

Sample request:

```
curl -k -H "X-Api-Key:sample-api-key" -X POST
"https://10.20.30.40:8444/v9/storage/iscsi-
targets/313a3a3a6e69636b3a3a3a3a3a3a303a3a3a4f49445f24232140255f56/iscsi-
logical-units" -d '{"logicalUnit": 1, "logicalUnitId": "LUN1"}'
```

Sample response:

```
HTTP/1.1 204 No Content
```

Delete An iSCSI Logical Unit From An iSCSI Target

Deletes the iSCSI logical unit association with the iSCSI target. The actual logical unit is not deleted.

HTTP request syntax (URI)

```
DELETE <base_uri>/v9/storage/iscsi-targets/{iscsiTargetObjectId}/iscsi-
logical-units/{logicalUnitId}
```

Parameters

Parameter	Type	Required	Data Type	Description
iscsiTargetObjectId	path	Y	string	Object ID of the iSCSI target
logicalUnitId	path	Y	string	Either the logical unit alias or the object ID of the logical unit

Return Codes

Code	Data	Description
204	No Data	Operation successfully completed
400	Error message	Bad Request
401	No Data	Unauthorized
403	Error message	Forbidden - the client does not have the required permissions to perform the operation
404	Error message	Not Found - a resource specified was not found
500	Error message	Internal Server Error

Any HTTP status code other than 204 indicates that the API did not complete successfully.

Sample request:

```
curl -k -H "X-API-Key:sample-api-key" -X DELETE
"https://10.20.30.40:8444/v9/storage/iscsi-
targets/313a3a3a6e69636b3a3a3a3a3a3a303a3a3a4f49445f24232140255f56/iscsi-
logical-units/LUN1"
```

Sample response:

```
HTTP/1.1 204 No Content
```

Local Groups Resource

The local security groups resource provides management for additional security group membership stored locally on the storage system.

Local security group API calls don't allow new users or groups to be created, but allows the membership relationship between existing users and groups to be augmented. Unix users and groups can be added to Windows groups, and Windows users and groups can be added to Unix groups.

Local security groups are either stored in the global security context or if a virtual server is configured with an individual security context, the groups are stored with the virtual server.

Local Groups Object Model

The object model describing this resource contains the following objects.

localGroup - Local security group

Attribute	JSON type	Data type	Description
context	string	string	Indicates if the object is specific to an EVS or global to the whole system. Possible values are: - INDIVIDUAL - GLOBAL
groupName	string	string	Group name
groupSid	string	string	Security ID of the group
objectId	string	string	Unique ID of the object

localGroupMember - Member of a local security group

Attribute	JSON type	Data type	Description
memberId	string	string	ID of the group member
name	string	string	Name of the group member
sid	string	string	Security ID

Get Local Groups For A Virtual Server

Get a list of the local security groups for a virtual server.

There are always some predefined local groups that are always present, but any additional local groups are only created once members are added to them.

HTTP request syntax (URI)

GET <base_uri>/v9/storage/virtual-servers/{virtualServerId}/local-groups

Parameters

Parameter	Type	Required	Data Type	Description
virtualServerId	path	Y	string or integer	Either the virtual server ID or the object ID of the virtual server

Return Codes

Code	Data	Description
200	localGroups	List of localGroup objects successfully retrieved
400	Error message	Bad Request
404	Error message	Not Found - a resource specified was not found
500	Error message	Internal Server Error

Any HTTP status code other than 200 indicates that the API did not complete successfully.

Sample request:

```
curl -k -H "X-API-Key:sample-api-key" -X GET
"https://10.20.30.40:8444/v9/storage/virtual-servers/1/local-groups"
```

Sample response:

```
HTTP/1.1 200 OK
{
  "localGroups": [
    {
      "context": "INDIVIDUAL",
      "groupName": "Unix group\\1000",
      "groupSid": "S-1-5-32-544",
      "objectId":
"303a3a3a532d312d37372d312d3531323a3a3a303a3a3a4f49445f24232140255f56"
    }
  ]
}
```

Get Local Group

Get local group.

HTTP request syntax (URI)

GET <base_uri>/v9/storage/local-groups/{localGroupObjectId}

Parameters

Parameter	Type	Required	Data Type	Description
localGroupObjectId	path	Y	string	Object ID of the local security group

Return Codes

Code	Data	Description
200	localGroup	localGroup object successfully retrieved
400	Error message	Bad Request
404	Error message	Not Found - a resource specified was not found
500	Error message	Internal Server Error

Any HTTP status code other than 200 indicates that the API did not complete successfully.

Sample request:

```
curl -k -H "X-API-Key:sample-api-key" -X GET  
"https://10.20.30.40:8444/v9/storage/local-  
groups/303a3a3a532d312d352d33322d3535313a3a3a303a3a3a4f49445f24232140255f56"
```

Sample response:

```
HTTP/1.1 200 OK  
{  
  "localGroup": {  
    "context": "INDIVIDUAL",  
    "groupName": "Unix group\\1000",  
    "groupSid": "S-1-5-32-544",  
    "objectId":  
    "303a3a3a532d312d37372d312d3531323a3a3a303a3a3a4f49445f24232140255f56"  
  }  
}
```

Create Local Group For A Virtual Server

Create a local security group, based on a security ID, that can be either the name of a group or it's SID.

HTTP request syntax (URI)

```
POST <base_uri>/v9/storage/virtual-servers/{virtualServerId}/local-groups
```

Parameters

Parameter	Type	Required	Data Type	Description
virtualServerId	path	Y	string or integer	Either the virtual server ID or the object ID of the virtual server
securityId	body	Y	string	Either a SID or name of a group

Return Codes

Code	Data	Description
201	localGroup	Successfully created new item
400	Error message	Bad Request

401	No Data	Unauthorized
403	Error message	Forbidden - the client does not have the required permissions to perform the operation
404	Error message	Not Found - a resource specified was not found
500	Error message	Internal Server Error

Any HTTP status code other than 201 indicates that the API did not complete successfully.

Sample request:

```
curl -k -H "X-Api-Key:sample-api-key" -X POST
"https://10.20.30.40:8444/v9/storage/virtual-servers/1/local-groups" -d
'{"securityId": "EXAMPLE\Domain Users"}'
```

Sample response:

```
HTTP/1.1 201 Created
{
  "localGroup": {
    "context": "INDIVIDUAL",
    "groupName": "Unix group\\1000",
    "groupSid": "S-1-5-32-544"
    "objectId":
"303a3a3a532d312d37372d312d3531323a3a3a303a3a3a4f49445f24232140255f56"
  },
  "uri": "https://10.20.30.40:8444/v9/storage/local-
groups/303a3a3a532d312d37372d312d3531323a3a3a303a3a3a4f49445f24232140255f56"
}
```

Delete Local Group

Delete local group.

HTTP request syntax (URI)

```
DELETE <base_uri>/v9/storage/local-groups/{localGroupObjectId}
```

Parameters

Parameter	Type	Required	Data Type	Description
localGroupObjectId	path	Y	string	Object ID of the local security group

Return Codes

Code	Data	Description
204	No Data	Operation successfully completed
400	Error message	Bad Request
401	No Data	Unauthorized
403	Error message	Forbidden - the client does not have the required permissions to perform the operation

404	Error message	Not Found - a resource specified was not found
500	Error message	Internal Server Error

Any HTTP status code other than 204 indicates that the API did not complete successfully.

Sample request:

```
curl -k -H "X-Api-Key:sample-api-key" -X DELETE
"https://10.20.30.40:8444/v9/storage/local-
groups/303a3a3a532d312d352d33322d3535313a3a3a303a3a3a4f49445f24232140255f56"
```

Sample response:

```
HTTP/1.1 204 No Content
```

Get Local Group Members

Get local group members.

HTTP request syntax (URI)

```
GET <base_uri>/v9/storage/local-groups/{localGroupId}/members
```

Parameters

Parameter	Type	Required	Data Type	Description
localGroupId	path	Y	string	Object ID of the local security group

Return Codes

Code	Data	Description
200	localGroupMembers	List of localGroupMember objects successfully retrieved
400	Error message	Bad Request
404	Error message	Not Found - a resource specified was not found
500	Error message	Internal Server Error

Any HTTP status code other than 200 indicates that the API did not complete successfully.

Sample request:

```
curl -k -H "X-Api-Key:sample-api-key" -X GET
"https://10.20.30.40:8444/v9/storage/local-
groups/303a3a3a532d312d352d33322d3535313a3a3a303a3a3a4f49445f24232140255f56/m
embers"
```

Sample response:

```
HTTP/1.1 200 OK
{
  "localGroupMembers": [
    {
```

```

    "memberId":
    "532d312d37372d302d313133393a3a3a303a3a3a4f49445f24232140255f56",
    "name": "Name2",
    "sid": "S-1-5-21-2890616873-2892883911-788580134-512"
  }
]
}

```

Add Local Group Members

Add members to a local security group.

The API call will fail if a valid security ID cannot be obtained for any of the new group members.

HTTP request syntax (URI)

```
POST <base_uri>/v9/storage/local-groups/{localGroupObjectId}/members
```

Parameters

Parameter	Type	Required	Data Type	Description
localGroupObjectId	path	Y	string	Object ID of the local security group
members	body	Y	array	List of members to add to a local security group - the values can be either a name or a security ID

Return Codes

Code	Data	Description
204	No Data	Operation successfully completed
400	Error message	Bad Request
401	No Data	Unauthorized
403	Error message	Forbidden - the client does not have the required permissions to perform the operation
404	Error message	Not Found - a resource specified was not found
500	Error message	Internal Server Error

Any HTTP status code other than 204 indicates that the API did not complete successfully.

Sample request:

```

curl -k -H "X-API-Key:sample-api-key" -X POST
"https://10.20.30.40:8444/v9/storage/local-
groups/303a3a3a532d312d352d33322d3535313a3a3a303a3a3a4f49445f24232140255f56/m
embers" -d '{"members": [ "Unix user\1000" ]}'

```

Sample response:

```
HTTP/1.1 204 No Content
```

Delete Local Group Member

Delete local group member.

HTTP request syntax (URI)

```
DELETE <base_uri>/v9/storage/local-  
groups/{localGroupObjectId}/members/{memberId}
```

Parameters

Parameter	Type	Required	Data Type	Description
localGroupObjectId	path	Y	string	Object ID of the local security group
memberId	path	Y	string	ID of the group member

Return Codes

Code	Data	Description
204	No Data	Operation successfully completed
400	Error message	Bad Request
401	No Data	Unauthorized
403	Error message	Forbidden - the client does not have the required permissions to perform the operation
404	Error message	Not Found - a resource specified was not found
500	Error message	Internal Server Error

Any HTTP status code other than 204 indicates that the API did not complete successfully.

Sample request:

```
curl -k -H "X-API-Key:sample-api-key" -X DELETE  
"https://10.20.30.40:8444/v9/storage/local-  
groups/303a3a3a532d312d352d33322d3535313a3a3a303a3a3a4f49445f24232140255f56/m  
embers/532d312d37372d302d313133393a3a3a303a3a3a4f49445f24232140255f56"
```

Sample response:

```
HTTP/1.1 204 No Content
```

Mappings Resource

The mappings resource provides management for user, group and domain mappings.

A domain mapping is used to pull together users and groups from multiple different sources and map them to a single list of users/groups. The domains in a domainMapping object should reference the same users and groups and it is used to allow interoperability between NFS and CIFS/SMB clients when they are accessing files on the file systems. The domain mapping is used to automatically build the user and group mapping objects. Any values not available automatically, or where there is no direct mapping must be configured manually.

Mappings are either stored in the global security context or if a virtual server is configured with an individual security context, the mappings are stored with the virtual server.

Mappings Object Model

The object model describing this resource contains the following objects.

domainMapping - Domain mapping

Attribute	JSON type	Data type	Description
canMapUnixNames	boolean	boolean	True indicates that unix names can be mapped from the names within the other domains
kerberosRealm	string	string	Kerberos realm associated with the mapping
nfs4Domain	string	string	NFSv4 domain name to map to/from
ntDomain	string	string	Windows NT or active directory domain to map to/from
objectId	string	string	Unique ID of the object

groupMapping - Group mapping

Attribute	JSON type	Data type	Description
isNfs4NameFixed	boolean	boolean	True indicates that the NFSv4 name value is fixed and not discovered
isNfs4NameValid	boolean	boolean	True if the NFSv4 name is valid
isNtIdFixed	boolean	boolean	True indicates that the NT ID value is fixed and not discovered
isNtIdValid	boolean	boolean	True if the NT ID value is valid
isNtNameFixed	boolean	boolean	True indicates that the NT name value is fixed and not discovered
isNtNameValid	boolean	boolean	True if the NT name value is valid
isUnixIdFixed	boolean	boolean	True indicates that the Unix ID value is fixed and not discovered

isUnixIdValid	boolean	boolean	True if the Unix ID value is valid
isUnixNameFixed	boolean	boolean	True indicates that the Unix name value is fixed and not discovered
isUnixNameValid	boolean	boolean	True if the Unix name is valid
nfs4Name	string	string	NFSv4 user/group name
ntId	string	string	CIFS/SMB Security ID (SID) associated with the user/group
ntName	string	string	CIFS/SMB user/group name
objectId	string	string	Unique ID of the object
unixId	integer	integer	Unix ID associated with the user/group
unixName	string	string	Unix name associated with the user/group

userMapping - User mapping

Attribute	JSON type	Data type	Description
isKerberosNameFixed	boolean	boolean	True indicates that the kerberos name value is fixed and not discovered
isKerberosNameValid	boolean	boolean	True if the kerberos name is valid
isNfs4NameFixed	boolean	boolean	True indicates that the NFSv4 name value is fixed and not discovered
isNfs4NameValid	boolean	boolean	True if the NFSv4 name is valid
isNtIdFixed	boolean	boolean	True indicates that the NT ID value is fixed and not discovered
isNtIdValid	boolean	boolean	True if the NT ID value is valid
isNtNameFixed	boolean	boolean	True indicates that the NT name value is fixed and not discovered
isNtNameValid	boolean	boolean	True if the NT name value is valid
isUnixIdFixed	boolean	boolean	True indicates that the Unix ID value is fixed and not discovered
isUnixIdValid	boolean	boolean	True if the Unix ID value is valid
isUnixNameFixed	boolean	boolean	True indicates that the Unix name value is fixed and not discovered
isUnixNameValid	boolean	boolean	True if the Unix name is valid
kerberosName	string	string	Kerberos user name
nfs4Name	string	string	NFSv4 user/group name
ntId	string	string	CIFS/SMB Security ID (SID) associated with the user/group
ntName	string	string	CIFS/SMB user/group name
objectId	string	string	Unique ID of the object
unixId	integer	integer	Unix ID associated with the user/group

unixName	string	string	Unix name associated with the user/group
----------	--------	--------	--

Get User Mappings Associated With A Virtual Server

Get the user mappings associated with a specific virtual server.

If the virtual server is configured in the global security context, the mappings retrieved will be those from the global context. Specify a virtual server ID of 0 to ensure the global mappings are retrieved. If the virtual server is configured to have an individual security context, the mappings will only be associated with the specified virtual server.

The number of users present can potentially be very large, so additional filters are provided to allow the number returned to be restricted to specific types.

HTTP request syntax (URI)

```
GET <base_uri>/v9/storage/virtual-servers/{virtualServerId}/mappings/user
```

Parameters

Parameter	Type	Required	Data Type	Description
virtualServerId	path	Y	string or integer	Either the virtual server ID or the object ID of the virtual server
includeFixed	query	N	boolean	Include all fixed mappings in the response
includeFixedKerberos	query	N	boolean	Include all fixed Kerberos mappings in the response
includeFixedNfs4	query	N	boolean	Include all fixed NFSv4 mappings in the response
includeFixedNt	query	N	boolean	Include all fixed NT mappings in the response
includeFixedUnix	query	N	boolean	Include all fixed Unix mappings in the response
includeInvalid	query	N	boolean	Include all invalid mappings in the response
includeInvalidKerberos	query	N	boolean	Include all invalid Kerberos mappings in the response
includeInvalidNfs4	query	N	boolean	Include all invalid NFSv4 mappings in the response
includeInvalidNt	query	N	boolean	Include all invalid NT mappings in the response
includeInvalidUnix	query	N	boolean	Include all invalid Unix mappings in the response

Return Codes

Code	Data	Description
200	userMappings	List of userMapping objects successfully retrieved

400	Error message	Bad Request
404	Error message	Not Found - a resource specified was not found
500	Error message	Internal Server Error

Any HTTP status code other than 200 indicates that the API did not complete successfully.

Sample request:

```
curl -k -H "X-Api-Key:sample-api-key" -X GET
"https://10.20.30.40:8444/v9/storage/virtual-
servers/1/mappings/user?includeFixed=false&includeFixedKerberos=false&include
FixedNfs4=false&includeFixedNt=false&includeFixedUnix=false&includeInvalid=fa
lse&includeInvalidKerberos=false&includeInvalidNfs4=false&includeInvalidNt=fa
lse&includeInvalidUnix=false"
```

Sample response:

```
HTTP/1.1 200 OK
{
  "userMappings": [
    {
      "isKerberosNameFixed": false,
      "isKerberosNameValid": false,
      "isNfs4NameFixed": false,
      "isNfs4NameValid": false,
      "isNtIdFixed": false,
      "isNtIdValid": false,
      "isNtNameFixed": false,
      "isNtNameValid": false,
      "isUnixIdFixed": false,
      "isUnixIdValid": false,
      "isUnixNameFixed": false,
      "isUnixNameValid": false,
      "kerberosName": "",
      "nfs4Name": "user1@localdomain",
      "ntId": "S-1-5-32-21061",
      "ntName": "EXAMPLE\\User1",
      "objectId": "333a3a3a3a3a3a303a3a3a4f49445f24232140255f56",
      "unixId": "500",
      "unixName": "User1"
    }
  ]
}
```

Add User Mapping

Add a new user mapping to a virtual server.

If the virtual server is configured in the global security context, the mapping will be added to the global context. Specify a virtual server ID of 0 to ensure the mapping is added to the global context. If the virtual server is configured to have an individual security context, the new mapping will only be associated with the specified virtual server.

HTTP request syntax (URI)

POST <base_uri>/v9/storage/virtual-servers/{virtualServerId}/mappings/user

Parameters

Parameter	Type	Required	Data Type	Description
virtualServerId	path	Y	string or integer	Either the virtual server ID or the object ID of the virtual server
kerberosName	body	N	string	Kerberos user name
nfs4Name	body	N	string	NFSv4 user or group name
noKerberosMapping	body	N	boolean	True indicates no automatic kerberos mapping will be attempted
noNfs4Mapping	body	N	boolean	True indicates no automatic NFSv4 mapping will be attempted
noNtMapping	body	N	boolean	True indicates no automatic NT mapping will be attempted
noUnixMapping	body	N	boolean	True indicates no automatic unix mapping will be attempted
ntId	body	N	string	CIFS/SMB Security ID (SID) associated with the user/group
ntName	body	N	string	CIFS/SMB user/group name
unixId	body	N	integer	Unix ID associated with the user/group
unixName	body	N	string	Unix name associated with the user/group

Return Codes

Code	Data	Description
201	userMapping	Successfully created new item
400	Error message	Bad Request
401	No Data	Unauthorized
403	Error message	Forbidden - the client does not have the required permissions to perform the operation
404	Error message	Not Found - a resource specified was not found
500	Error message	Internal Server Error

Any HTTP status code other than 201 indicates that the API did not complete successfully.

Sample request:

```
curl -k -H "X-API-Key:sample-api-key" -X POST
"https://10.20.30.40:8444/v9/storage/virtual-servers/1/mappings/user" -d
'{"kerberosName": "", "nfs4Name": "user1@localdomain", "noKerberosMapping":
false, "noNfs4Mapping": false, "noNtMapping": false, "noUnixMapping": false,
"ntId": "S-1-5-32-21061", "ntName": "EXAMPLE\User1", "unixId": 500,
"unixName": "User1"}'
```

Sample response:

```
HTTP/1.1 201 Created
{
  "userMapping": {
    "isKerberosNameFixed": false,
    "isKerberosNameValid": false,
    "isNfs4NameFixed": false,
    "isNfs4NameValid": false,
    "isNtIdFixed": false,
    "isNtIdValid": false,
    "isNtNameFixed": false,
    "isNtNameValid": false,
    "isUnixIdFixed": false,
    "isUnixIdValid": false,
    "isUnixNameFixed": false,
    "isUnixNameValid": false,
    "kerberosName": "",
    "nfs4Name": "user1@localdomain",
    "ntId": "S-1-5-32-21061",
    "ntName": "EXAMPLE\\User1",
    "objectId": "333a3a3a3a3a3a303a3a3a4f49445f24232140255f56",
    "unixId": "500",
    "unixName": "User1"
  },
  "uri":
  "https://10.20.30.40:8444/v9/storage/mappings/333a3a3a3a3a3a303a3a3a4f49445f24232140255f56"
}
```

Import User Mappings

Initiate the import of UNIX username to user ID mappings from NIS. This will be carried out in the background.

HTTP request syntax (URI)

```
POST <base_uri>/v9/storage/virtual-servers/{virtualServerId}/mappings/user/import
```

Parameters

Parameter	Type	Required	Data Type	Description
virtualServerId	path	Y	string or integer	Either the virtual server ID or the object ID of the virtual server

Return Codes

Code	Data	Description
204	No Data	Operation successfully completed
400	Error message	Bad Request

401	No Data	Unauthorized
403	Error message	Forbidden - the client does not have the required permissions to perform the operation
404	Error message	Not Found - a resource specified was not found
500	Error message	Internal Server Error

Any HTTP status code other than 204 indicates that the API did not complete successfully.

Sample request:

```
curl -k -H "X-API-Key:sample-api-key" -X POST
"https://10.20.30.40:8444/v9/storage/virtual-servers/1/mappings/user/import"
```

Sample response:

```
HTTP/1.1 204 No Content
```

Refresh User Mappings

Refresh the user mapping table for a virtual server. Mappings are periodically refreshed in the background, but the refresh can be forced if multiple changes have been made.

HTTP request syntax (URI)

```
POST <base_uri>/v9/storage/virtual-
servers/{virtualServerId}/mappings/user/refresh
```

Parameters

Parameter	Type	Required	Data Type	Description
virtualServerId	path	Y	string or integer	Either the virtual server ID or the object ID of the virtual server

Return Codes

Code	Data	Description
204	No Data	Operation successfully completed
400	Error message	Bad Request
401	No Data	Unauthorized
403	Error message	Forbidden - the client does not have the required permissions to perform the operation
404	Error message	Not Found - a resource specified was not found
500	Error message	Internal Server Error

Any HTTP status code other than 204 indicates that the API did not complete successfully.

Sample request:

```
curl -k -H "X-API-Key:sample-api-key" -X POST
"https://10.20.30.40:8444/v9/storage/virtual-servers/1/mappings/user/refresh"
```

Sample response:

```
HTTP/1.1 204 No Content
```

Commit User Mapping Changes

Commit any user mapping changes to persistent storage. Without committing the mappings, they will be relearned each time the system is restarted, and any static mappings will be lost.

HTTP request syntax (URI)

```
POST <base_uri>/v9/storage/virtual-
servers/{virtualServerId}/mappings/user/commit
```

Parameters

Parameter	Type	Required	Data Type	Description
virtualServerId	path	Y	string or integer	Either the virtual server ID or the object ID of the virtual server

Return Codes

Code	Data	Description
204	No Data	Operation successfully completed
400	Error message	Bad Request
401	No Data	Unauthorized
403	Error message	Forbidden - the client does not have the required permissions to perform the operation
404	Error message	Not Found - a resource specified was not found
500	Error message	Internal Server Error

Any HTTP status code other than 204 indicates that the API did not complete successfully.

Sample request:

```
curl -k -H "X-API-Key:sample-api-key" -X POST
"https://10.20.30.40:8444/v9/storage/virtual-servers/1/mappings/user/commit"
```

Sample response:

```
HTTP/1.1 204 No Content
```

Get Group Mappings Associated With A Virtual Server

Get the group mappings associated with a specific virtual server.

If the virtual server is configured in the global security context, the mappings retrieved will be those from the global context. Specify a virtual server ID of 0 to ensure the global mappings are retrieved. If the virtual server is configured to have an individual security context, the mappings will only be associated with the specified virtual server.

The number of groups present can potentially be very large, so additional filters are provided to allow the number returned to be restricted to specific types.

HTTP request syntax (URI)

```
GET <base_uri>/v9/storage/virtual-servers/{virtualServerId}/mappings/group
```

Parameters

Parameter	Type	Required	Data Type	Description
virtualServerId	path	Y	string or integer	Either the virtual server ID or the object ID of the virtual server
includeFixed	query	N	boolean	Include all fixed mappings in the response
includeFixedNfs4	query	N	boolean	Include all fixed NFSv4 mappings in the response
includeFixedNt	query	N	boolean	Include all fixed NT mappings in the response
includeFixedUnix	query	N	boolean	Include all fixed Unix mappings in the response
includeInvalid	query	N	boolean	Include all invalid mappings in the response
includeInvalidNfs4	query	N	boolean	Include all invalid NFSv4 mappings in the response
includeInvalidNt	query	N	boolean	Include all invalid NT mappings in the response
includeInvalidUnix	query	N	boolean	Include all invalid Unix mappings in the response

Return Codes

Code	Data	Description
200	groupMappings	List of groupMapping objects successfully retrieved
400	Error message	Bad Request
404	Error message	Not Found - a resource specified was not found
500	Error message	Internal Server Error

Any HTTP status code other than 200 indicates that the API did not complete successfully.

Sample request:

```
curl -k -H "X-API-Key:sample-api-key" -X GET
"https://10.20.30.40:8444/v9/storage/virtual-
servers/1/mappings/group?includeFixed=false&includeFixedNfs4=false&includeFix
edNt=false&includeFixedUnix=false&includeInvalid=false&includeInvalidNfs4=fal
se&includeInvalidNt=false&includeInvalidUnix=false"
```

Sample response:

```
HTTP/1.1 200 OK
{
  "groupMappings": [
    {
      "isNfs4NameFixed": false,
      "isNfs4NameValid": false,
      "isNtIdFixed": false,
      "isNtIdValid": false,
      "isNtNameFixed": false,
      "isNtNameValid": false,
      "isUnixIdFixed": false,
      "isUnixIdValid": false,
      "isUnixNameFixed": false,
      "isUnixNameValid": false,
      "nfs4Name": "user1@localdomain",
      "ntId": "S-1-5-32-21061",
      "ntName": "EXAMPLE\\User1",
      "objectId": "333a3a3a3a3a3a303a3a3a4f49445f24232140255f56",
      "unixId": "500",
      "unixName": "User1"
    }
  ]
}
```

Add Group Mapping

Add a new group mapping to a virtual server.

If the virtual server is configured in the global security context, the mapping will be added to the global context. Specify a virtual server ID of 0 to ensure the mapping is added to the global context. If the virtual server is configured to have an individual security context, the new mapping will only be associated with the specified virtual server.

HTTP request syntax (URI)

```
POST <base_uri>/v9/storage/virtual-servers/{virtualServerId}/mappings/group
```

Parameters

Parameter	Type	Required	Data Type	Description
virtualServerId	path	Y	string or integer	Either the virtual server ID or the object ID of the virtual server
nfs4Name	body	N	string	NFSv4 user or group name

noNfs4Mapping	body	N	boolean	True indicates no automatic NFSv4 mapping will be attempted
noNtMapping	body	N	boolean	True indicates no automatic NT mapping will be attempted
noUnixMapping	body	N	boolean	True indicates no automatic unix mapping will be attempted
ntId	body	N	string	CIFS/SMB Security ID (SID) associated with the user/group
ntName	body	N	string	CIFS/SMB user/group name
unixId	body	N	integer	Unix ID associated with the user/group
unixName	body	N	string	Unix name associated with the user/group

Return Codes

Code	Data	Description
201	groupMapping	Successfully created new item
400	Error message	Bad Request
401	No Data	Unauthorized
403	Error message	Forbidden - the client does not have the required permissions to perform the operation
404	Error message	Not Found - a resource specified was not found
500	Error message	Internal Server Error

Any HTTP status code other than 201 indicates that the API did not complete successfully.

Sample request:

```
curl -k -H "X-API-Key:sample-api-key" -X POST
"https://10.20.30.40:8444/v9/storage/virtual-servers/1/mappings/group" -d
'{"nfs4Name": "user1@localdomain", "noNfs4Mapping": false, "noNtMapping":
false, "noUnixMapping": false, "ntId": "S-1-5-32-21061", "ntName":
"EXAMPLE\User1", "unixId": 500, "unixName": "User1"}'
```

Sample response:

```
HTTP/1.1 201 Created
{
  "groupMapping": {
    "isNfs4NameFixed": false,
    "isNfs4NameValid": false,
    "isNtIdFixed": false,
    "isNtIdValid": false,
    "isNtNameFixed": false,
    "isNtNameValid": false,
    "isUnixIdFixed": false,
    "isUnixIdValid": false,
    "isUnixNameFixed": false,
    "isUnixNameValid": false,
    "nfs4Name": "user1@localdomain",
    "ntId": "S-1-5-32-21061",
```

```

    "ntName": "EXAMPLE\\User1",
    "objectId": "333a3a3a3a3a3a303a3a3a4f49445f24232140255f56",
    "unixId": "500",
    "unixName": "User1"
  },
  "uri":
  "https://10.20.30.40:8444/v9/storage/mappings/333a3a3a3a3a3a303a3a3a4f49445f2
  4232140255f56"
}

```

Import Group Mappings

Initiate the import of UNIX group name to group ID mappings from NIS. This will be carried out in the background.

HTTP request syntax (URI)

```

POST <base_uri>/v9/storage/virtual-
servers/{virtualServerId}/mappings/group/import

```

Parameters

Parameter	Type	Required	Data Type	Description
virtualServerId	path	Y	string or integer	Either the virtual server ID or the object ID of the virtual server

Return Codes

Code	Data	Description
204	No Data	Operation successfully completed
400	Error message	Bad Request
401	No Data	Unauthorized
403	Error message	Forbidden - the client does not have the required permissions to perform the operation
404	Error message	Not Found - a resource specified was not found
500	Error message	Internal Server Error

Any HTTP status code other than 204 indicates that the API did not complete successfully.

Sample request:

```

curl -k -H "X-API-Key:sample-api-key" -X POST
"https://10.20.30.40:8444/v9/storage/virtual-servers/1/mappings/group/import"

```

Sample response:

```

HTTP/1.1 204 No Content

```


Refresh Group Mappings

Refresh the group mapping table for a virtual server. Mappings are periodically refreshed in the background, but the refresh can be forced if multiple changes have been made.

HTTP request syntax (URI)

```
POST <base_uri>/v9/storage/virtual-  
servers/{virtualServerId}/mappings/group/refresh
```

Parameters

Parameter	Type	Required	Data Type	Description
virtualServerId	path	Y	string or integer	Either the virtual server ID or the object ID of the virtual server

Return Codes

Code	Data	Description
204	No Data	Operation successfully completed
400	Error message	Bad Request
401	No Data	Unauthorized
403	Error message	Forbidden - the client does not have the required permissions to perform the operation
404	Error message	Not Found - a resource specified was not found
500	Error message	Internal Server Error

Any HTTP status code other than 204 indicates that the API did not complete successfully.

Sample request:

```
curl -k -H "X-API-Key:sample-api-key" -X POST  
"https://10.20.30.40:8444/v9/storage/virtual-  
servers/1/mappings/group/refresh"
```

Sample response:

```
HTTP/1.1 204 No Content
```

Commit Group Mapping Changes

Commit any group mapping changes to persistent storage. Without committing the mappings, they will be relearned each time the system is restarted, and any static mappings will be lost.

HTTP request syntax (URI)

```
POST <base_uri>/v9/storage/virtual-  
servers/{virtualServerId}/mappings/group/commit
```

Parameters

Parameter	Type	Required	Data Type	Description
virtualServerId	path	Y	string or integer	Either the virtual server ID or the object ID of the virtual server

Return Codes

Code	Data	Description
204	No Data	Operation successfully completed
400	Error message	Bad Request
401	No Data	Unauthorized
403	Error message	Forbidden - the client does not have the required permissions to perform the operation
404	Error message	Not Found - a resource specified was not found
500	Error message	Internal Server Error

Any HTTP status code other than 204 indicates that the API did not complete successfully.

Sample request:

```
curl -k -H "X-API-Key:sample-api-key" -X POST
"https://10.20.30.40:8444/v9/storage/virtual-servers/1/mappings/group/commit"
```

Sample response:

```
HTTP/1.1 204 No Content
```

Get Domain Mappings Associated With A Virtual Server

Gets domain mappings associated with a virtual server.

If the virtual server is configured in the global security context, the mappings retrieved will be those from the global context. Specify a virtual server ID of 0 to ensure the global mappings are retrieved. If the virtual server is configured to have an individual security context, the mappings will only be associated with the specified virtual server.

HTTP request syntax (URI)

```
GET <base_uri>/v9/storage/virtual-servers/{virtualServerId}/mappings/domain
```

Parameters

Parameter	Type	Required	Data Type	Description
virtualServerId	path	Y	string or integer	Either the virtual server ID or the object ID of the virtual server

Return Codes

Code	Data	Description
------	------	-------------

200	domainMappings	List of domainMapping objects successfully retrieved
400	Error message	Bad Request
404	Error message	Not Found - a resource specified was not found
500	Error message	Internal Server Error

Any HTTP status code other than 200 indicates that the API did not complete successfully.

Sample request:

```
curl -k -H "X-API-Key:sample-api-key" -X GET
"https://10.20.30.40:8444/v9/storage/virtual-servers/1/mappings/domain"
```

Sample response:

```
HTTP/1.1 200 OK
{
  "domainMappings": [
    {
      "canMapUnixNames": false,
      "kerberosRealm": "ACCOUNTS.EXAMPLE.COM",
      "nfs4Domain": "example.com",
      "ntDomain": "EXAMPLE",
      "objectId": "333a3a3a3a3a3a303a3a3a4f49445f24232140255f56"
    }
  ]
}
```

Add Domain Mapping

Adds a new domain mapping to a virtual server.

If the virtual server is configured in the global security context, the mapping will be added to the global context. Specify a virtual server ID of 0 to ensure the mapping is added to the global context. If the virtual server is configured to have an individual security context, the new mapping will only be associated with the specified virtual server.

HTTP request syntax (URI)

```
POST <base_uri>/v9/storage/virtual-servers/{virtualServerId}/mappings/domain
```

Parameters

Parameter	Type	Required	Data Type	Description
virtualServerId	path	Y	string or integer	Either the virtual server ID or the object ID of the virtual server
canMapUnixNames	body	Y	boolean	True indicates that unix names can be mapped from the names within the other domains
kerberosRealm	body	Y	string	Kerberos realm associated with the mapping

nfs4Domain	body	Y	string	NFSv4 domain name to map to/from
ntDomain	body	Y	string	Windows NT or active directory domain to map to/from

Return Codes

Code	Data	Description
201	domainMapping	Successfully created new item
400	Error message	Bad Request
401	No Data	Unauthorized
403	Error message	Forbidden - the client does not have the required permissions to perform the operation
404	Error message	Not Found - a resource specified was not found
500	Error message	Internal Server Error

Any HTTP status code other than 201 indicates that the API did not complete successfully.

Sample request:

```
curl -k -H "X-Api-Key:sample-api-key" -X POST
"https://10.20.30.40:8444/v9/storage/virtual-servers/1/mappings/domain" -d
'{"canMapUnixNames": false, "kerberosRealm": "ACCOUNTS.EXAMPLE.COM",
"nfs4Domain": "example.com", "ntDomain": "EXAMPLE"}'
```

Sample response:

```
HTTP/1.1 201 Created
{
  "domainMapping": {
    "canMapUnixNames": false,
    "kerberosRealm": "ACCOUNTS.EXAMPLE.COM",
    "nfs4Domain": "example.com",
    "ntDomain": "EXAMPLE",
    "objectId": "333a3a3a3a3a3a303a3a3a4f49445f24232140255f56"
  },
  "uri":
"https://10.20.30.40:8444/v9/storage/mappings/333a3a3a3a3a3a303a3a3a4f49445f24232140255f56"
}
```

Get A Mapping

Get a mapping object by ID. This API call works with user, group or domain mapping object IDs, and return only the details relevant to the mapping type.

HTTP request syntax (URI)

```
GET <base_uri>/v9/storage/mappings/{mappingObjectId}
```

Parameters

Parameter	Type	Required	Data Type	Description
mappingObjectId	path	Y	string	Object ID of the mapping - can be user, group or domain mapping object

Return Codes

Code	Data	Description
200	domainMapping or groupMapping or userMapping	domainMapping or groupMapping or userMapping object successfully retrieved
400	Error message	Bad Request
404	Error message	Not Found - a resource specified was not found
500	Error message	Internal Server Error

Any HTTP status code other than 200 indicates that the API did not complete successfully.

Sample request:

```
curl -k -H "X-API-Key:sample-api-key" -X GET
"https://10.20.30.40:8444/v9/storage/mappings/303a3a3a6e74446f6d61696e3a3a3a7
56b746573743a3a3a303a3a3a4f49445f24232140255f56"
```

Sample response:

```
HTTP/1.1 200 OK
{
  "domainMapping": {
    "canMapUnixNames": false,
    "kerberosRealm": "ACCOUNTS.EXAMPLE.COM",
    "nfs4Domain": "example.com",
    "ntDomain": "EXAMPLE",
    "objectId": "333a3a3a3a3a3a303a3a3a4f49445f24232140255f56"
  }
}
```

Update A Mapping

Update a mapping object by ID. This API call works with user, group or domain mapping object IDs.

Updating domain mappings may result in an updated object ID, but user and group object IDs should stay the same when updated.

Not all parameters are valid for all types of mapping, and will be ignored if incorrectly supplied.

HTTP request syntax (URI)

```
PATCH <base_uri>/v9/storage/mappings/{mappingObjectId}
```

Parameters

Parameter	Type	Required	Data Type	Description
-----------	------	----------	-----------	-------------

mappingObjectId	path	Y	string	Object ID of the mapping - can be user, group or domain mapping object
canMapUnixNames	body	N	boolean	True indicates that unix names can be mapped from the names within the other domains
kerberosName	body	N	string	Kerberos user name
kerberosRealm	body	N	string	Kerberos realm associated with the mapping
nfs4Domain	body	N	string	NFSv4 domain name to map to/from
nfs4Name	body	N	string	NFSv4 user or group name
noKerberosMapping	body	N	boolean	True indicates no automatic kerberos mapping will be attempted
noNfs4Mapping	body	N	boolean	True indicates no automatic NFSv4 mapping will be attempted
noNtMapping	body	N	boolean	True indicates no automatic NT mapping will be attempted
noUnixMapping	body	N	boolean	True indicates no automatic unix mapping will be attempted
ntDomain	body	N	string	Windows NT or active directory domain to map to/from
ntId	body	N	string	CIFS/SMB Security ID (SID) associated with the user/group
ntName	body	N	string	CIFS/SMB user/group name
unixId	body	N	integer	Unix ID associated with the user/group
unixName	body	N	string	Unix name associated with the user/group

Return Codes

Code	Data	Description
204	No Data	Operation successfully completed
303	domainMapping	Successfully updated item
400	Error message	Bad Request
401	No Data	Unauthorized
403	Error message	Forbidden - the client does not have the required permissions to perform the operation
404	Error message	Not Found - a resource specified was not found
500	Error message	Internal Server Error

Any HTTP status code other than 204 or 303 indicates that the API did not complete successfully.

Sample request:

```
curl -k -H "X-API-Key:sample-api-key" -X PATCH
"https://10.20.30.40:8444/v9/storage/mappings/303a3a3a6e74446f6d61696e3a3a3a7
56b746573743a3a3a303a3a3a4f49445f24232140255f56" -d '{"canMapUnixNames":
false, "kerberosName": "", "kerberosRealm": "ACCOUNTS.EXAMPLE.COM",
"nfs4Domain": "example.com", "nfs4Name": "user1@localdomain",
"noKerberosMapping": false, "noNfs4Mapping": false, "noNtMapping": false,
"noUnixMapping": false, "ntDomain": "EXAMPLE", "ntId": "S-1-5-32-21061",
"ntName": "EXAMPLE\User1", "unixId": 500, "unixName": "User1"}'
```

Sample response:

HTTP/1.1 204 No Content

Delete A Mapping

Delete a mapping.

HTTP request syntax (URI)

```
DELETE <base_uri>/v9/storage/mappings/{mappingObjectId}
```

Parameters

Parameter	Type	Required	Data Type	Description
mappingObjectId	path	Y	string	Object ID of the mapping - can be user, group or domain mapping object

Return Codes

Code	Data	Description
204	No Data	Operation successfully completed
400	Error message	Bad Request
401	No Data	Unauthorized
403	Error message	Forbidden - the client does not have the required permissions to perform the operation
404	Error message	Not Found - a resource specified was not found
500	Error message	Internal Server Error

Any HTTP status code other than 204 indicates that the API did not complete successfully.

Sample request:

```
curl -k -H "X-API-Key:sample-api-key" -X DELETE
"https://10.20.30.40:8444/v9/storage/mappings/303a3a3a6e74446f6d61696e3a3a3a7
56b746573743a3a3a303a3a3a4f49445f24232140255f56"
```

Sample response:

HTTP/1.1 204 No Content

Namespaces Resource

The namespaces resource provides management for cluster wide and virtual server specific namespaces.

Namespaces Object Model

The object model describing this resource contains the following objects.

namespace - Namespace

Attribute	JSON type	Data type	Description
context	string	string	Indicates if the object is specific to an EVS or global to the whole system. Possible values are: - INDIVIDUAL - GLOBAL
filesystemId	string	string	ID of the file system
name	string	string	Name of the namespace
objectId	string	string	Unique ID of the object

namespaceItem - Namespace item

Attribute	JSON type	Data type	Description
displayName	array	string	Full path of the namespace item
isDirectory	boolean	boolean	True indicates the entry represents a directory. False indicates the entry is a link
linkDetails	object	namespaceLinkDetails	object of type namespaceLinkDetails
name	string	string	Single level name of the namespace item
objectId	string	string	Unique ID of the object

namespaceLinkDetails - Namespace link details

Attribute	JSON type	Data type	Description
filesystemId	string	string	ID of the file system
filesystemLabel	string	string	Label of the file system
filesystemPath	string	string	Full path of the link target within the destination file system
isCnsFriendly	boolean	boolean	True indicates that there are no existing shares or exports configured for the destination file system

localReadCacheOption	string	string	NFS local read cache option. Possible values are: - DISABLED - ENABLED_FOR_ALL_FILES - ENABLED_FOR_CVLS
remoteReadCacheOption	string	string	NFS remote read caching options. Possible values are: - DISABLED - ENABLED_FOR_ALL_FILES - ENABLED_FOR_CVLS

Get Namespaces For A Virtual Server

Get namespaces for a virtual server.

HTTP request syntax (URI)

```
GET <base_uri>/v9/storage/virtual-servers/{virtualServerId}/namespaces
```

Parameters

Parameter	Type	Required	Data Type	Description
virtualServerId	path	Y	string or integer	Either the virtual server ID or the object ID of the virtual server

Return Codes

Code	Data	Description
200	namespaces	List of namespace objects successfully retrieved
400	Error message	Bad Request
404	Error message	Not Found - a resource specified was not found
500	Error message	Internal Server Error

Any HTTP status code other than 200 indicates that the API did not complete successfully.

Sample request:

```
curl -k -H "X-API-Key:sample-api-key" -X GET
"https://10.20.30.40:8444/v9/storage/virtual-servers/1/namespaces"
```

Sample response:

```
HTTP/1.1 200 OK
{
  "namespaces": [
    {
      "context": "INDIVIDUAL",
      "filesystemId": "7B263DFD1D71E65A0000000000000000",
      "name": "root",
      "objectId": "333a3a3a3a3a3a3a303a3a3a4f49445f24232140255f56"
    }
  ]
}
```

```
]
}
```

Get A Namespace

Get a namespace.

HTTP request syntax (URI)

```
GET <base_uri>/v9/storage/namespaces/{namespaceObjectId}
```

Parameters

Parameter	Type	Required	Data Type	Description
namespaceObjectId	path	Y	string	Object ID of the namespace

Return Codes

Code	Data	Description
200	namespace	namespace object successfully retrieved
400	Error message	Bad Request
404	Error message	Not Found - a resource specified was not found
500	Error message	Internal Server Error

Any HTTP status code other than 200 indicates that the API did not complete successfully.

Sample request:

```
curl -k -H "X-API-Key:sample-api-key" -X GET
"https://10.20.30.40:8444/v9/storage/namespaces/303a3a3a636e733a3a3a303a3a3a4
f49445f24232140255f56"
```

Sample response:

```
HTTP/1.1 200 OK
{
  "namespace": {
    "context": "INDIVIDUAL",
    "filesystemId": "7B263DFD1D71E65A0000000000000000",
    "name": "root",
    "objectId": "333a3a3a3a3a3a303a3a3a4f49445f24232140255f56"
  }
}
```

Add A Namespace To A Virtual Server

Add a namespace to a virtual server. The security context of the virtual server will determine if the namespace is specific to the virtual server (individual), or if it is shared between multiple virtual servers (global).

HTTP request syntax (URI)

```
POST <base_uri>/v9/storage/virtual-servers/{virtualServerId}/namespaces
```

Parameters

Parameter	Type	Required	Data Type	Description
virtualServerId	path	Y	string or integer	Either the virtual server ID or the object ID of the virtual server
namespace	body	Y	string	Name of the new namespace

Return Codes

Code	Data	Description
201	namespace	Successfully created new item
400	Error message	Bad Request
401	No Data	Unauthorized
403	Error message	Forbidden - the client does not have the required permissions to perform the operation
404	Error message	Not Found - a resource specified was not found
500	Error message	Internal Server Error

Any HTTP status code other than 201 indicates that the API did not complete successfully.

Sample request:

```
curl -k -H "X-API-Key:sample-api-key" -X POST  
"https://10.20.30.40:8444/v9/storage/virtual-servers/1/namespaces" -d  
'{"namespace": "root"}'
```

Sample response:

```
HTTP/1.1 201 Created  
{  
  "namespace": {  
    "context": "INDIVIDUAL",  
    "filesystemId": "7B263DFD1D71E65A0000000000000000",  
    "name": "root",  
    "objectId": "333a3a3a3a3a3a3a303a3a3a4f49445f24232140255f56"  
  },  
  "uri":  
  "https://10.20.30.40:8444/v9/storage/namespaces/333a3a3a3a3a3a303a3a3a4f49445f24232140255f56"  
}
```

Delete A Namespace

Deletes a namespace and any directory and link items associated with it.

HTTP request syntax (URI)

```
DELETE <base_uri>/v9/storage/namespaces/{namespaceObjectId}
```

Parameters

Parameter	Type	Required	Data Type	Description
namespaceObjectId	path	Y	string	Object ID of the namespace

Return Codes

Code	Data	Description
204	No Data	Operation successfully completed
400	Error message	Bad Request
401	No Data	Unauthorized
403	Error message	Forbidden - the client does not have the required permissions to perform the operation
404	Error message	Not Found - a resource specified was not found
500	Error message	Internal Server Error

Any HTTP status code other than 204 indicates that the API did not complete successfully.

Sample request:

```
curl -k -H "X-API-Key:sample-api-key" -X DELETE  
"https://10.20.30.40:8444/v9/storage/namespaces/303a3a3a636e733a3a3a303a3a3a4  
f49445f24232140255f56"
```

Sample response:

```
HTTP/1.1 204 No Content
```

Get Root Paths Of A Namespace

Gets the root paths for a namespace. The paths can include directory or link objects.

HTTP request syntax (URI)

```
GET <base_uri>/v9/storage/namespaces/{namespaceObjectId}/paths
```

Parameters

Parameter	Type	Required	Data Type	Description
namespaceObjectId	path	Y	string	Object ID of the namespace

Return Codes

Code	Data	Description
200	paths	List of namespaceItem objects successfully retrieved
400	Error message	Bad Request
404	Error message	Not Found - a resource specified was not found
500	Error message	Internal Server Error

Any HTTP status code other than 200 indicates that the API did not complete successfully.

Sample request:

```
curl -k -H "X-API-Key:sample-api-key" -X GET
"https://10.20.30.40:8444/v9/storage/namespaces/303a3a3a636e733a3a3a303a3a3a4
f49445f24232140255f56/paths"
```

Sample response:

```
HTTP/1.1 200 OK
{
  "paths": [
    {
      "displayName": [
        "//link-newname"
      ],
      "isDirectory": false,
      "linkDetails": {
        "filesystemId": "7B263DFD1D71E65A0000000000000000",
        "filesystemLabel": "Filesystem1",
        "filesystemPath": "/folder",
        "isCnsFriendly": false,
        "localReadCacheOption": "DISABLED",
        "remoteReadCacheOption": "DISABLED"
      },
      "name": "link-newname",
      "objectId": "333a3a3a3a3a3a3a303a3a3a4f49445f24232140255f56"
    }
  ]
}
```

Get The Contents Of Directory Within A Namespace

Gets the contents of a specific namespace directory, or if the item specified is a link, and followLinks is true, an attempt will be made to resolve the link, and issue an HTTP redirect to the location within the file system.

HTTP request syntax (URI)

```
GET
<base_uri>/v9/storage/namespaces/{namespaceObjectId}/paths/{namespacePathObject
Id}
```

Parameters

Parameter	Type	Required	Data Type	Description
namespaceObjectId	path	Y	string	Object ID of the namespace
namespacePathObjectId	path	Y	string	Object ID of the namespace path item
followLinks	query	N	boolean	True indicates that if the path item specified is a link, attempt to resolve the link and issue an HTTP redirect to the location within the file system, rather than returning the link data

Return Codes

Code	Data	Description
200	paths	List of namespaceItem objects successfully retrieved
400	Error message	Bad Request
404	Error message	Not Found - a resource specified was not found
500	Error message	Internal Server Error

Any HTTP status code other than 200 indicates that the API did not complete successfully.

Sample request:

```
curl -k -H "X-API-Key:sample-api-key" -X GET
"https://10.20.30.40:8444/v9/storage/namespaces/303a3a3a636e733a3a3a303a3a3a4
f49445f24232140255f56/paths/666f6c646572313a3a3a303a3a3a4f49445f24232140255f5
6?followLinks=false"
```

Sample response:

```
HTTP/1.1 200 OK
{
  "paths": [
    {
      "displayName": [
        "//link-newname"
      ],
      "isDirectory": false,
      "linkDetails": {
        "filesystemId": "7B263DFD1D71E65A0000000000000000",
        "filesystemLabel": "Filesystem1",
        "filesystemPath": "/folder",
        "isCnsFriendly": false,
        "localReadCacheOption": "DISABLED",
        "remoteReadCacheOption": "DISABLED"
      },
      "name": "link-newname",
      "objectId": "333a3a3a3a3a3a303a3a3a4f49445f24232140255f56"
    }
  ]
}
```

Create Path Within A Namespace

Create a new path within a namespace. The path can either be a virtual directory or a link to a real file system location.

HTTP request syntax (URI)

```
POST <base_uri>/v9/storage/namespaces/{namespaceObjectId}/path-items
```

Parameters

Parameter	Type	Required	Data Type	Description
namespaceObjectId	path	Y	string	Object ID of the namespace
isDirectory	body	Y	boolean	True if the new item is a directory entry. False to create a new file system link
linkFileSystemId	body	N	string	File system ID of a file system that the link will point to
linkFileSystemPath	body	N	string	Full path to a folder within the target file system, in Unix format, that the link will resolve to
localReadCacheOption	body	N	string	NFS local read cache option. Possible values are: - DISABLED - ENABLED_FOR_ALL_FILES - ENABLED_FOR_CVLS
namespacePath	body	Y	string	Full path, in Unix format, of the new item within the namespace
remoteReadCacheOption	body	N	string	NFS remote read caching options. Possible values are: - DISABLED - ENABLED_FOR_ALL_FILES - ENABLED_FOR_CVLS

Return Codes

Code	Data	Description
201	namespaceItem	Successfully created new item
400	Error message	Bad Request
401	No Data	Unauthorized
403	Error message	Forbidden - the client does not have the required permissions to perform the operation
404	Error message	Not Found - a resource specified was not found
500	Error message	Internal Server Error

Any HTTP status code other than 201 indicates that the API did not complete successfully.

Sample request:

```
curl -k -H "X-API-Key:sample-api-key" -X POST
"https://10.20.30.40:8444/v9/storage/namespaces/303a3a3a636e733a3a3a303a3a3a4
f49445f24232140255f56/path-items" -d '{"isDirectory": false,
"linkFileSystemId": "7C343DFD1D71E65A0000000000000000", "linkFileSystemPath":
"/dir1", "localReadCacheOption": "DISABLED", "namespacePath": "/folder1",
"remoteReadCacheOption": "DISABLED"}'
```

Sample response:

```
HTTP/1.1 201 Created
{
  "namespaceItem": {
    "displayName": [
      "//link-newname"
    ],
    "isDirectory": false,
    "linkDetails": {
      "filesystemId": "7B263DFD1D71E65A0000000000000000",
      "filesystemLabel": "Filesystem1",
      "filesystemPath": "/folder",
      "isCnsFriendly": false,
      "localReadCacheOption": "DISABLED",
      "remoteReadCacheOption": "DISABLED"
    },
    "name": "link-newname",
    "objectId": "333a3a3a3a3a3a303a3a3a4f49445f24232140255f56"
  },
  "uri":
  "https://10.20.30.40:8444/v9/storage/namespaces/303a3a3a636e733a3a3a303a3a3a4
f49445f24232140255f56/path-
items/333a3a3a3a3a3a303a3a3a4f49445f24232140255f56"
}
```

Get A Namespace Path Item

Get the details of a namespace path item, rather than resolving it, or displaying its contents.

HTTP request syntax (URI)

```
GET <base_uri>/v9/storage/namespaces/{namespaceObjectId}/path-
items/{namespacePathObjectId}
```

Parameters

Parameter	Type	Required	Data Type	Description
namespaceObjectId	path	Y	string	Object ID of the namespace
namespacePathObjectId	path	Y	string	Object ID of the namespace path item

Return Codes

Code	Data	Description
------	------	-------------

200	namespaceItem	namespaceItem object successfully retrieved
400	Error message	Bad Request
404	Error message	Not Found - a resource specified was not found
500	Error message	Internal Server Error

Any HTTP status code other than 200 indicates that the API did not complete successfully.

Sample request:

```
curl -k -H "X-API-Key:sample-api-key" -X GET
"https://10.20.30.40:8444/v9/storage/namespaces/303a3a3a636e733a3a3a303a3a3a4
f49445f24232140255f56/path-
items/666f6c646572313a3a3a303a3a3a4f49445f24232140255f56"
```

Sample response:

```
HTTP/1.1 200 OK
{
  "namespaceItem": {
    "displayName": [
      "//link-newname"
    ],
    "isDirectory": false,
    "linkDetails": {
      "filesystemId": "7B263DFD1D71E65A0000000000000000",
      "filesystemLabel": "Filesystem1",
      "filesystemPath": "/folder",
      "isCnsFriendly": false,
      "localReadCacheOption": "DISABLED",
      "remoteReadCacheOption": "DISABLED"
    },
    "name": "link-newname",
    "objectId": "333a3a3a3a3a3a303a3a3a4f49445f24232140255f56"
  }
}
```

Update Path Within A Namespace

Update an existing path within a namespace. The path can either be a virtual directory or a link to a real file system location, although it is not possible to update the details of where the link actually points.

HTTP request syntax (URI)

```
PATCH <base_uri>/v9/storage/namespaces/{namespaceObjectId}/path-
items/{namespacePathObjectId}
```

Parameters

Parameter	Type	Required	Data Type	Description
-----------	------	----------	-----------	-------------

namespaceObjectId	path	Y	string	Object ID of the namespace
namespacePathObjectId	path	Y	string	Object ID of the namespace path item
localReadCacheOption	body	N	string	NFS local read cache option. Possible values are: - DISABLED - ENABLED_FOR_ALL_FILES - ENABLED_FOR_CVLS
newNamespacePath	body	N	string	Full path, in Unix format, of the new location of the item within the namespace. Any sub directories must already exist to move an item
remoteReadCacheOption	body	N	string	NFS remote read caching options. Possible values are: - DISABLED - ENABLED_FOR_ALL_FILES - ENABLED_FOR_CVLS

Return Codes

Code	Data	Description
303	namespaceItem	Successfully updated item
400	Error message	Bad Request
401	No Data	Unauthorized
403	Error message	Forbidden - the client does not have the required permissions to perform the operation
404	Error message	Not Found - a resource specified was not found
500	Error message	Internal Server Error

Any HTTP status code other than 303 indicates that the API did not complete successfully.

Sample request:

```
curl -k -H "X-Api-Key:sample-api-key" -X PATCH
"https://10.20.30.40:8444/v9/storage/namespaces/303a3a3a636e733a3a3a303a3a3a4
f49445f24232140255f56/path-
items/666f6c646572313a3a3a303a3a3a4f49445f24232140255f56" -d
'{"localReadCacheOption": "DISABLED", "newNamespacePath": "/folder2",
"remoteReadCacheOption": "DISABLED"}'
```

Sample response:

```
HTTP/1.1 303 See Other
{
  "namespaceItem": {
    "displayName": [
      "//link-newname"
    ],
    "isDirectory": false,
    "linkDetails": {
      "filesystemId": "7B263DFD1D71E65A0000000000000000",
      "filesystemLabel": "Filesystem1",
```

```

    "filesystemPath": "/folder",
    "isCnsFriendly": false,
    "localReadCacheOption": "DISABLED",
    "remoteReadCacheOption": "DISABLED"
  },
  "name": "link-newname",
  "objectId": "333a3a3a3a3a3a303a3a3a4f49445f24232140255f56"
},
"uri":
"https://10.20.30.40:8444/v9/storage/namespaces/303a3a3a636e733a3a3a303a3a3a4
f49445f24232140255f56/path-
items/333a3a3a3a3a3a303a3a3a4f49445f24232140255f56"
}

```

Delete A Namespace Path

Deletes a path item from within a namespace.

HTTP request syntax (URI)

```
DELETE <base_uri>/v9/storage/namespaces/{namespaceObjectId}/path-
items/{namespacePathObjectId}
```

Parameters

Parameter	Type	Required	Data Type	Description
namespaceObjectId	path	Y	string	Object ID of the namespace
namespacePathObjectId	path	Y	string	Object ID of the namespace path item
recursive	query	N	boolean	True indicates that any links and directories contained within the namespace path are also deleted

Return Codes

Code	Data	Description
204	No Data	Operation successfully completed
400	Error message	Bad Request
401	No Data	Unauthorized
403	Error message	Forbidden - the client does not have the required permissions to perform the operation
404	Error message	Not Found - a resource specified was not found
500	Error message	Internal Server Error

Any HTTP status code other than 204 indicates that the API did not complete successfully.

Sample request:

```
curl -k -H "X-API-Key:sample-api-key" -X DELETE
"https://10.20.30.40:8444/v9/storage/namespaces/303a3a3a636e733a3a3a303a3a3a4
```

```
f49445f24232140255f56/path-  
items/666f6c646572313a3a3a303a3a3a4f49445f24232140255f56?recursive=false"
```

Sample response:

```
HTTP/1.1 204 No Content
```

NDMP Resource

The NDMP resource provides management for general NDMP options and NDMP devices.

NDMP Object Model

The object model describing this resource contains the following objects.

ndmpDevice - NDMP device details

Attribute	JSON type	Data type	Description
deviceId	integer	integer	ID of the device
deviceName	string	string	Name of the NDMP device - this name is used by NDMP clients
externalLUN	string	string	External LUN
isAccessAllowed	boolean	boolean	True if access to the NDMP device is enabled
isAutoChanger	boolean	boolean	True if the device is an auto change, rather than a tape device
location	string	string	User configured location of the system or device
model	string	string	Model of the NDMP device
objectId	string	string	Unique ID of the object
serialNumber	string	string	Serial number of the device
status	string	string	Status of the NDMP device. Possible values are: - NOT_PRESENT - DISCONNECTED - OFFLINE - INITIALISING - FAILED - OK - FORMATTING - WRITE_PROTECTED - SECONDARY - INVALID
vendor	string	string	Vendor of NDMP device
version	string	string	Vendor specific version information
virtualServerId	integer	integer	ID of the virtual server. 0 = management virtual server 255 = not assigned to virtual server
wwn	string	string	World wide name of the NDMP devices fibre channel interface

ndmpOptions - NDMP options

Attribute	JSON type	Data type	Description
enabledAtBoot	boolean	boolean	True indicates that the service starts when the system boots
password	string	string	Password used for NDMP communications
port	integer	integer	TCP port used for NDMP communications
state	string	string	State of NDMP service. Possible values are: - STARTED - STOPPED - ABORTING - UNKNOWN
userName	string	string	User name that will be used for NDMP communications
version	integer	integer	NDMP version used for communications

ndmpSnapshotOptions - NDMP snapshot options

Attribute	JSON type	Data type	Description
autoSnapshotCreation	boolean	boolean	True indicates that a file system snapshot will automatically be taken when an NDMP backup is initiated. The snapshot will be used for the backup, rather than the live data
deleteAction	string	string	Indicates when NDMP will delete the snapshots that are automatically created. Possible values are: - IMMEDIATE - OBSOLETE - LAST
maxRetentionDays	integer	integer	Number of days that automatically created snapshots will be retained before they are automatically deleted

Get NDMP Backup Options

Get NDMP backup options.

HTTP request syntax (URI)

```
GET <base_uri>/v9/storage/ndmp
```

Return Codes

Code	Data	Description
------	------	-------------

200	ndmpOptions	ndmpOptions object successfully retrieved
500	Error message	Internal Server Error

Any HTTP status code other than 200 indicates that the API did not complete successfully.

Sample request:

```
curl -k -H "X-API-Key:sample-api-key" -X GET
"https://10.20.30.40:8444/v9/storage/ndmp"
```

Sample response:

HTTP/1.1 200 OK

```
{
  "ndmpOptions": {
    "enabledAtBoot": false,
    "password": "pa$$word",
    "port": 10000,
    "state": "STARTED",
    "userName": "User1",
    "version": 4
  }
}
```

Set NDMP Backup Options

Set general NDMP configuration for the storage system.

The user name and password parameters must be set together.

HTTP request syntax (URI)

```
PATCH <base_uri>/v9/storage/ndmp
```

Parameters

Parameter	Type	Required	Data Type	Description
enabledAtBoot	body	N	boolean	True indicates that the service starts when the system boots
password	body	N	string	Password associated with the user name
port	body	N	integer	TCP port used for NDMP communications
userName	body	N	string	User name
version	body	N	integer	NDMP version used for communications. Possible values are: - 2 - 3 - 4

Return Codes

Code	Data	Description
204	No Data	Operation successfully completed
400	Error message	Bad Request
401	No Data	Unauthorized
403	Error message	Forbidden - the client does not have the required permissions to perform the operation
500	Error message	Internal Server Error

Any HTTP status code other than 204 indicates that the API did not complete successfully.

Sample request:

```
curl -k -H "X-API-Key:sample-api-key" -X PATCH
"https://10.20.30.40:8444/v9/storage/ndmp" -d '{"enabledAtBoot": false,
"password": "pa$$word", "port": 10000, "userName": "User1", "version": 2}'
```

Sample response:

```
HTTP/1.1 204 No Content
```

Enable NDMP

Enable NDMP.

HTTP request syntax (URI)

```
POST <base_uri>/v9/storage/ndmp/enable
```

Return Codes

Code	Data	Description
204	No Data	Operation successfully completed
401	No Data	Unauthorized
403	Error message	Forbidden - the client does not have the required permissions to perform the operation
500	Error message	Internal Server Error

Any HTTP status code other than 204 indicates that the API did not complete successfully.

Sample request:

```
curl -k -H "X-API-Key:sample-api-key" -X POST
"https://10.20.30.40:8444/v9/storage/ndmp/enable"
```

Sample response:

```
HTTP/1.1 204 No Content
```


Disable NDMP

Disable NDMP.

HTTP request syntax (URI)

```
POST <base_uri>/v9/storage/ndmp/disable
```

Return Codes

Code	Data	Description
204	No Data	Operation successfully completed
401	No Data	Unauthorized
403	Error message	Forbidden - the client does not have the required permissions to perform the operation
500	Error message	Internal Server Error

Any HTTP status code other than 204 indicates that the API did not complete successfully.

Sample request:

```
curl -k -H "X-API-Key:sample-api-key" -X POST  
"https://10.20.30.40:8444/v9/storage/ndmp/disable"
```

Sample response:

```
HTTP/1.1 204 No Content
```

Get NDMP Snapshot Options

Gets the options that control the snapshot behaviour when taking an NDMP backup.

HTTP request syntax (URI)

```
GET <base_uri>/v9/storage/ndmp/snapshots
```

Return Codes

Code	Data	Description
200	ndmpSnapshotOptions	ndmpSnapshotOptions object successfully retrieved
500	Error message	Internal Server Error

Any HTTP status code other than 200 indicates that the API did not complete successfully.

Sample request:

```
curl -k -H "X-API-Key:sample-api-key" -X GET  
"https://10.20.30.40:8444/v9/storage/ndmp/snapshots"
```

Sample response:

```

HTTP/1.1 200 OK
{
  "ndmpSnapshotOptions": {
    "autoSnapshotCreation": false,
    "deleteAction": "IMMEDIATE",
    "maxRetentionDays": 12345
  }
}

```

Set NDMP Snapshot Options

Set the options that control the snapshot behaviour when taking an NDMP backup. These options are only relevant for automatically generated snapshots, and do not affect backups taken via snapshot rules or from the live file system.

HTTP request syntax (URI)

```
PATCH <base_uri>/v9/storage/ndmp/snapshots
```

Parameters

Parameter	Type	Required	Data Type	Description
autoSnapshotCreation	body	N	boolean	True indicates that a file system snapshot will automatically be taken when an NDMP backup is initiated. The snapshot will be used for the backup, rather than the live data
deleteAction	body	N	string	Indicates when NDMP will delete the snapshots that are automatically created. Possible values are: - IMMEDIATE - OBSOLETE - LAST
maxRetentionDays	body	N	integer	Number of days that automatically created snapshots will be retained before they are automatically deleted

Return Codes

Code	Data	Description
204	No Data	Operation successfully completed
400	Error message	Bad Request
401	No Data	Unauthorized
403	Error message	Forbidden - the client does not have the required permissions to perform the operation
500	Error message	Internal Server Error

Any HTTP status code other than 204 indicates that the API did not complete successfully.

Sample request:

```
curl -k -H "X-API-Key:sample-api-key" -X PATCH
"https://10.20.30.40:8444/v9/storage/ndmp/snapshots" -d
'{"autoSnapshotCreation": false, "deleteAction": "IMMEDIATE",
"maxRetentionDays": 12345}'
```

Sample response:

```
HTTP/1.1 204 No Content
```

Clear NDMP Backup History

Clears the NDMP backup history for all virtual servers. Once the backup history is cleared, subsequent backups will be full rather than incremental backups.

HTTP request syntax (URI)

```
DELETE <base_uri>/v9/storage/ndmp/backup-history
```

Return Codes

Code	Data	Description
204	No Data	Operation successfully completed
401	No Data	Unauthorized
403	Error message	Forbidden - the client does not have the required permissions to perform the operation
500	Error message	Internal Server Error

Any HTTP status code other than 204 indicates that the API did not complete successfully.

Sample request:

```
curl -k -H "X-API-Key:sample-api-key" -X DELETE
"https://10.20.30.40:8444/v9/storage/ndmp/backup-history"
```

Sample response:

```
HTTP/1.1 204 No Content
```

Get NDMP Devices

Gets a list of media changer and tape drives connected to the system that may be available for use via NDMP.

HTTP request syntax (URI)

```
GET <base_uri>/v9/storage/ndmp/devices
```

Return Codes

Code	Data	Description
200	ndmpDevices	List of ndmpDevice objects successfully retrieved
500	Error message	Internal Server Error

Any HTTP status code other than 200 indicates that the API did not complete successfully.

Sample request:

```
curl -k -H "X-API-Key:sample-api-key" -X GET
"https://10.20.30.40:8444/v9/storage/ndmp/devices"
```

Sample response:

```
HTTP/1.1 200 OK
{
  "ndmpDevices": [
    {
      "deviceId": 1024,
      "deviceName": "/dev/mc_d011",
      "externalLUN": "2",
      "isAccessAllowed": false,
      "isAutoChanger": false,
      "location": "Rack4",
      "model": "abcdefg",
      "objectId": "333a3a3a3a3a3a303a3a3a4f49445f24232140255f56",
      "serialNumber": "470651",
      "status": "NOT_PRESENT",
      "vendor": "HITACHI",
      "version": "abcdefg",
      "virtualServerId": 1,
      "wwn": "50:03:01:70:00:04:0E:C1"
    }
  ]
}
```

Get NDMP Device

Get details for a specific NDMP device attached to the system.

HTTP request syntax (URI)

```
GET <base_uri>/v9/storage/ndmp/devices/{deviceId}
```

Parameters

Parameter	Type	Required	Data Type	Description
deviceId	path	Y	string or integer	Either the ID of the device or the object ID of the device

Return Codes

Code	Data	Description
200	ndmpDevice	ndmpDevice object successfully retrieved
400	Error message	Bad Request
404	Error message	Not Found - a resource specified was not found
500	Error message	Internal Server Error

Any HTTP status code other than 200 indicates that the API did not complete successfully.

Sample request:

```
curl -k -H "X-Api-Key:sample-api-key" -X GET
"https://10.20.30.40:8444/v9/storage/ndmp/devices/1024"
```

Sample response:

```
HTTP/1.1 200 OK
{
  "ndmpDevice": {
    "deviceId": 1024,
    "deviceName": "/dev/mc_d011",
    "externalLUN": "2",
    "isAccessAllowed": false,
    "isAutoChanger": false,
    "location": "Rack4",
    "model": "abcdefg",
    "objectId": "333a3a3a3a3a3a303a3a3a4f49445f24232140255f56",
    "serialNumber": "470651",
    "status": "NOT_PRESENT",
    "vendor": "HITACHI",
    "version": "abcdefg",
    "virtualServerId": 1,
    "wwn": "50:03:01:70:00:04:0E:C1"
  }
}
```

Assign NDMP Device To Virtual Server(S)

NDMP devices can be assigned to an individual virtual server, or be configured as a shared resource, accessible by any virtual server. Assigning an NDMP device to a specific virtual server prevents all other virtual servers from being able to use it.

HTTP request syntax (URI)

```
POST <base_uri>/v9/storage/ndmp/devices/{deviceId}/assign
```

Parameters

Parameter	Type	Required	Data Type	Description
deviceId	path	Y	string or integer	Either the ID of the device or the object ID of the device

virtualServerId	body	Y	string or integer	Either the virtual server ID or the object ID of the virtual server. NDMP devices also accept ANY
-----------------	------	---	-------------------	---

Return Codes

Code	Data	Description
204	No Data	Operation successfully completed
400	Error message	Bad Request
401	No Data	Unauthorized
403	Error message	Forbidden - the client does not have the required permissions to perform the operation
404	Error message	Not Found - a resource specified was not found
500	Error message	Internal Server Error

Any HTTP status code other than 204 indicates that the API did not complete successfully.

Sample request:

```
curl -k -H "X-API-Key:sample-api-key" -X POST
"https://10.20.30.40:8444/v9/storage/ndmp/devices/1024/assign" -d
'{"virtualServerId": 1}'
```

Sample response:

```
HTTP/1.1 204 No Content
```

Unassign NDMP Device From Its Virtual Server(S)

Removes the NDMP device to virtual server assignment. Once the assignment has been removed, the NDMP device can no longer be used for backups.

HTTP request syntax (URI)

```
POST <base_uri>/v9/storage/ndmp/devices/{deviceId}/unassign
```

Parameters

Parameter	Type	Required	Data Type	Description
deviceId	path	Y	string or integer	Either the ID of the device or the object ID of the device

Return Codes

Code	Data	Description
204	No Data	Operation successfully completed
400	Error message	Bad Request
401	No Data	Unauthorized

403	Error message	Forbidden - the client does not have the required permissions to perform the operation
404	Error message	Not Found - a resource specified was not found
500	Error message	Internal Server Error

Any HTTP status code other than 204 indicates that the API did not complete successfully.

Sample request:

```
curl -k -H "X-Api-Key:sample-api-key" -X POST
"https://10.20.30.40:8444/v9/storage/ndmp/devices/1024/unassign"
```

Sample response:

```
HTTP/1.1 204 No Content
```

Update NDMP Device

Update the name of an NDMP device that will be used by NDMP clients. This operation can also be used to enable or disable access to an NDMP device.

HTTP request syntax (URI)

```
PATCH <base_uri>/v9/storage/ndmp/devices/{deviceId}
```

Parameters

Parameter	Type	Required	Data Type	Description
deviceId	path	Y	string or integer	Either the ID of the device or the object ID of the device
deviceName	body	N	string	Name of the NDMP device - this name is used by NDMP clients
enableAccess	body	N	boolean	True to allow the server access to the resource or false to deny access

Return Codes

Code	Data	Description
204	No Data	Operation successfully completed
400	Error message	Bad Request
401	No Data	Unauthorized
403	Error message	Forbidden - the client does not have the required permissions to perform the operation
404	Error message	Not Found - a resource specified was not found
500	Error message	Internal Server Error

Any HTTP status code other than 204 indicates that the API did not complete successfully.

Sample request:

```
curl -k -H "X-Api-Key:sample-api-key" -X PATCH
"https://10.20.30.40:8444/v9/storage/ndmp/devices/1024" -d '{"deviceName":
"/dev/mc_d011", "enableAccess": false}'
```

Sample response:

```
HTTP/1.1 204 No Content
```

Delete NDMP Device

NDMP devices maintain the same ID even if they disappear and then reappear. If the device is permanently disconnected, the system will continue to remember the ID unless it's specifically requested to delete it.

HTTP request syntax (URI)

```
DELETE <base_uri>/v9/storage/ndmp/devices/{deviceId}
```

Parameters

Parameter	Type	Required	Data Type	Description
deviceId	path	Y	string or integer	Either the ID of the device or the object ID of the device

Return Codes

Code	Data	Description
204	No Data	Operation successfully completed
400	Error message	Bad Request
401	No Data	Unauthorized
403	Error message	Forbidden - the client does not have the required permissions to perform the operation
404	Error message	Not Found - a resource specified was not found
500	Error message	Internal Server Error

Any HTTP status code other than 204 indicates that the API did not complete successfully.

Sample request:

```
curl -k -H "X-Api-Key:sample-api-key" -X DELETE
"https://10.20.30.40:8444/v9/storage/ndmp/devices/1024"
```

Sample response:

```
HTTP/1.1 204 No Content
```


Refresh NDMP Devices

Checks for any changes in media changer and tape drives connected to the system that may be available for use via NDMP.

HTTP request syntax (URI)

```
POST <base_uri>/v9/storage/ndmp/devices/refresh
```

Return Codes

Code	Data	Description
204	No Data	Operation successfully completed
401	No Data	Unauthorized
403	Error message	Forbidden - the client does not have the required permissions to perform the operation
500	Error message	Internal Server Error

Any HTTP status code other than 204 indicates that the API did not complete successfully.

Sample request:

```
curl -k -H "X-API-Key:sample-api-key" -X POST  
"https://10.20.30.40:8444/v9/storage/ndmp/devices/refresh"
```

Sample response:

```
HTTP/1.1 204 No Content
```

Nodes Resource

The nodes resource allows management of the physical servers that make up the system. Nodes can be standalone or grouped together to form a cluster.

Nodes Object Model

The object model describing this resource contains the following objects.

bootDetail - Server boot details

Attribute	JSON type	Data type	Description
bootReason	string	string	Reason why the node last restarted
bootTime	string	string	Local time the node booted
nodeId	integer	integer	Cluster node ID
uptime	string	string	Textural representation of the node uptime
uptimeInSeconds	integer	integer	Node uptime in seconds

event - Event details

Attribute	JSON type	Data type	Description
category	string	string	Event category. Possible values are: - SYSTEM - SECURITY - FILESYSTEM
clusterNodeId	integer	integer	Cluster node ID
eventId	integer	integer	ID of the event
severity	string	string	Event severity. Possible values are: - INFO - WARNING - SEVERE
text	string	string	Event description
timeStamp	integer	integer	Time the event occurred in posix time format

hostPort - Host port

Attribute	JSON type	Data type	Description
isEnabled	boolean	boolean	True if enabled, false for disabled
name	string	string	Name of the host port
nodeId	integer	integer	Cluster node ID

objectId	string	string	Unique ID of the object
speed	integer	integer	Speed in Gbps that the port will operate at. A value of 0 indicates the port will auto-negotiate the speed with the far end device. The supported speeds will differ depending on the hardware model
status	string	string	Status of the host port. If the status is in upper case, the port has been in that state for more than a minute. Possible values are: - Up - Down - DOWN - Isolated - ISOLATED
type	string	string	Type of host port. Possible values are: - INTERNAL - N - NL
wwn	string	string	World wide name of a fibre channel interface

ipAddressDetails - IP address details

Attribute	JSON type	Data type	Description
cidr	string	string	Length of the network mask, in bits, in a format that can be appended to the IP address
ipAddress	string	string	IPv4 or IPv6 address
netmask	string	string	Subnet mask
port	string	string	Port that the IP address is associated with - this can either be a physical, aggregate or VLAN interface

node - Cluster node details

Attribute	JSON type	Data type	Description
UUID	string	string	Universally unique ID
firmwareVersion	string	string	Firmware version running on the cluster or node
hardware	string	string	Hardware platform
ipAddresses	array	string	List of one or more IP addresses
model	string	string	Model of the node
name	string	string	Name of the node
nodeId	integer	integer	Cluster node ID
objectId	string	string	Unique ID of the object

serial	string	string	Serial number of the node
status	string	string	Status of the node. Possible values are: - INVALID - UNKNOWN - UP - ONLINE - NOT_UP - DEAD - DORMANT
uptime	string	string	Textural representation of the node uptime
uptimeInSeconds	integer	integer	Node uptime in seconds

Get Nodes

Gets all nodes that make up the complete system.

HTTP request syntax (URI)

```
GET <base_uri>/v9/storage/nodes
```

Return Codes

Code	Data	Description
200	nodes	List of node objects successfully retrieved
500	Error message	Internal Server Error

Any HTTP status code other than 200 indicates that the API did not complete successfully.

Sample request:

```
curl -k -H "X-Api-Key:sample-api-key" -X GET
"https://10.20.30.40:8444/v9/storage/nodes"
```

Sample response:

```
HTTP/1.1 200 OK
{
  "nodes": [
    {
      "UUID": "14ea72ac-a546-11d6-9001-0bef787b2638",
      "firmwareVersion": "14.9.7916.02",
      "hardware": "NAS Platform",
      "ipAddresses": [
        "10.1.2.3"
      ],
      "model": "HNAS 5300",
      "name": "Node1",
      "nodeId": 1,
      "objectId": "333a3a3a3a3a3a303a3a3a4f49445f24232140255f56",
      "serial": "C1E1KW1922006",
      "status": "INVALID",
      "uptime": "2 days 16 hours 52 minutes 36 seconds",
```

```
    "uptimeInSeconds": 12345
  }
]
}
```

Get A Node

Get a node.

HTTP request syntax (URI)

```
GET <base_uri>/v9/storage/nodes/{nodeId}
```

Parameters

Parameter	Type	Required	Data Type	Description
nodeId	path	Y	string or integer	Either a node object ID or a cluster node ID

Return Codes

Code	Data	Description
200	node	node object successfully retrieved
400	Error message	Bad Request
404	Error message	Not Found - a resource specified was not found
500	Error message	Internal Server Error

Any HTTP status code other than 200 indicates that the API did not complete successfully.

Sample request:

```
curl -k -H "X-Api-Key:sample-api-key" -X GET
"https://10.20.30.40:8444/v9/storage/nodes/1"
```

Sample response:

```
HTTP/1.1 200 OK
{
  "node": {
    "UUID": "14ea72ac-a546-11d6-9001-0bef787b2638",
    "firmwareVersion": "14.9.7916.02",
    "hardware": "NAS Platform",
    "ipAddresses": [
      "10.1.2.3"
    ],
    "model": "HNAS 5300",
    "name": "Node1",
    "nodeId": 1,
    "objectId": "333a3a3a3a3a3a303a3a3a4f49445f24232140255f56",
    "serial": "C1E1KW1922006",
    "status": "INVALID",
    "uptime": "2 days 16 hours 52 minutes 36 seconds",
```

```
    "uptimeInSeconds": 12345
  }
}
```

Get Node Events

Retrieves the events related to a specific node. Events include violated thresholds, alarms, traps, notifications, reboots, and various errors. Note that this function can potentially return a lot of data, depending on the number of items in the event log.

HTTP request syntax (URI)

```
GET <base_uri>/v9/storage/nodes/{nodeId}/events
```

Parameters

Parameter	Type	Required	Data Type	Description
nodeId	path	Y	string or integer	Either a node object ID or a cluster node ID

Return Codes

Code	Data	Description
200	events	List of event objects successfully retrieved
400	Error message	Bad Request
404	Error message	Not Found - a resource specified was not found
500	Error message	Internal Server Error

Any HTTP status code other than 200 indicates that the API did not complete successfully.

Sample request:

```
curl -k -H "X-API-Key:sample-api-key" -X GET
"https://10.20.30.40:8444/v9/storage/nodes/1/events"
```

Sample response:

```
HTTP/1.1 200 OK
{
  "events": [
    {
      "category": "SYSTEM",
      "clusterNodeId": 1,
      "eventId": 9998,
      "severity": "INFO",
      "text": "A test event was requested",
      "timeStamp": 12345
    }
  ]
}
```

Get IP Addresses Of A Node

Gets the IP addresses which are used for management or clustering for a node.

HTTP request syntax (URI)

```
GET <base_uri>/v9/storage/nodes/{nodeId}/ip-addresses
```

Parameters

Parameter	Type	Required	Data Type	Description
nodeId	path	Y	string or integer	Either a node object ID or a cluster node ID

Return Codes

Code	Data	Description
200	ipAddresses	List of string objects successfully retrieved
400	Error message	Bad Request
404	Error message	Not Found - a resource specified was not found
500	Error message	Internal Server Error

Any HTTP status code other than 200 indicates that the API did not complete successfully.

Sample request:

```
curl -k -H "X-API-Key:sample-api-key" -X GET  
"https://10.20.30.40:8444/v9/storage/nodes/1/ip-addresses"
```

Sample response:

```
HTTP/1.1 200 OK  
{  
  "ipAddresses": [  
    "10.1.2.3"  
  ]  
}
```

Get IP Address Details For A Node

Gets the IP addresses, subnet masks and port, which are used for management or clustering for a node.

HTTP request syntax (URI)

```
GET <base_uri>/v9/storage/nodes/{nodeId}/ip-address-details
```

Parameters

Parameter	Type	Required	Data Type	Description
-----------	------	----------	-----------	-------------

nodeId	path	Y	string or integer	Either a node object ID or a cluster node ID
--------	------	---	-------------------	--

Return Codes

Code	Data	Description
200	ipAddressDetails	List of ipAddressDetails objects successfully retrieved
400	Error message	Bad Request
404	Error message	Not Found - a resource specified was not found
500	Error message	Internal Server Error

Any HTTP status code other than 200 indicates that the API did not complete successfully.

Sample request:

```
curl -k -H "X-API-Key:sample-api-key" -X GET
"https://10.20.30.40:8444/v9/storage/nodes/1/ip-address-details"
```

Sample response:

```
HTTP/1.1 200 OK
{
  "ipAddressDetails": [
    {
      "cidr": "/18",
      "ipAddress": "10.1.2.3",
      "netmask": "255.255.192.0",
      "port": "ag1"
    }
  ]
}
```

Set A Node IP Address

Sets an IP address on a node. Node addresses are used for management or clustering and not file serving. Unlike virtual server IP addresses, a system can only have one management address on each port.

HTTP request syntax (URI)

```
PATCH <base_uri>/v9/storage/nodes/{nodeId}/ip-addresses
```

Parameters

Parameter	Type	Required	Data Type	Description
nodeId	path	Y	string or integer	Either a node object ID or a cluster node ID
ipAddress	body	Y	string	IP address - generally IPv4 and IPv6 are supported in most cases

netmask	body	Y	string or integer	Netmask specified as either x.x.x.x for an IPv4 address or can be provided as a prefix length which would be valid for both IPv4 or IPv6 addresses
port	body	Y	string	Management port to associate the IP address with. Possible values are: - eth0 - eth1

Return Codes

Code	Data	Description
204	No Data	Operation successfully completed
400	Error message	Bad Request
401	No Data	Unauthorized
403	Error message	Forbidden - the client does not have the required permissions to perform the operation
404	Error message	Not Found - a resource specified was not found
500	Error message	Internal Server Error

Any HTTP status code other than 204 indicates that the API did not complete successfully.

Sample request:

```
curl -k -H "X-API-Key:sample-api-key" -X PATCH
"https://10.20.30.40:8444/v9/storage/nodes/1/ip-addresses" -d '{"ipAddress":
"10.1.2.3", "netmask": 18, "port": "eth0"}'
```

Sample response:

```
HTTP/1.1 204 No Content
```

Delete An IP Address From Node

Delete an IP address from node.

HTTP request syntax (URI)

```
DELETE <base_uri>/v9/storage/nodes/{nodeId}/ip-addresses/{ipAddress}
```

Parameters

Parameter	Type	Required	Data Type	Description
ipAddress	path	Y	string	IP address to delete
nodeId	path	Y	string or integer	Either a node object ID or a cluster node ID

Return Codes

Code	Data	Description
204	No Data	Operation successfully completed
400	Error message	Bad Request
401	No Data	Unauthorized
403	Error message	Forbidden - the client does not have the required permissions to perform the operation
404	Error message	Not Found - a resource specified was not found
500	Error message	Internal Server Error

Any HTTP status code other than 204 indicates that the API did not complete successfully.

Sample request:

```
curl -k -H "X-API-Key:sample-api-key" -X DELETE
"https://10.20.30.40:8444/v9/storage/nodes/1/ip-addresses/10.1.2.3"
```

Sample response:

```
HTTP/1.1 204 No Content
```

Set User-Defined Event

Create a user defined event log entry.

HTTP request syntax (URI)

```
POST <base_uri>/v9/storage/nodes/user-event
```

Parameters

Parameter	Type	Required	Data Type	Description
message	body	Y	string	The event message. When added to the event log, the message will also include a terminating full stop, so no need to add one to the parameter
severity	body	Y	string	Event severity. Possible values are: - INFORMATION - WARNING - SEVERE

Return Codes

Code	Data	Description
204	No Data	Operation successfully completed
400	Error message	Bad Request
401	No Data	Unauthorized

403	Error message	Forbidden - the client does not have the required permissions to perform the operation
500	Error message	Internal Server Error

Any HTTP status code other than 204 indicates that the API did not complete successfully.

Sample request:

```
curl -k -H "X-API-Key:sample-api-key" -X POST
"https://10.20.30.40:8444/v9/storage/nodes/user-event" -d '{"message": "The
file system is currently unassigned", "severity": "INFORMATION"}'
```

Sample response:

```
HTTP/1.1 204 No Content
```

Clear Node Events

Delete all event log entries from a specific node.

HTTP request syntax (URI)

```
DELETE <base_uri>/v9/storage/nodes/{nodeId}/events
```

Parameters

Parameter	Type	Required	Data Type	Description
nodeId	path	Y	string or integer	Either a node object ID or a cluster node ID

Return Codes

Code	Data	Description
204	No Data	Operation successfully completed
400	Error message	Bad Request
401	No Data	Unauthorized
403	Error message	Forbidden - the client does not have the required permissions to perform the operation
404	Error message	Not Found - a resource specified was not found
500	Error message	Internal Server Error

Any HTTP status code other than 204 indicates that the API did not complete successfully.

Sample request:

```
curl -k -H "X-API-Key:sample-api-key" -X DELETE
"https://10.20.30.40:8444/v9/storage/nodes/1/events"
```

Sample response:

HTTP/1.1 204 No Content

Get Boot Details

Get the details about the last boot for all nodes in a cluster, and their current uptimes.

HTTP request syntax (URI)

```
GET <base_uri>/v9/storage/nodes/boot-details
```

Return Codes

Code	Data	Description
200	bootDetails	List of bootDetail objects successfully retrieved
500	Error message	Internal Server Error

Any HTTP status code other than 200 indicates that the API did not complete successfully.

Sample request:

```
curl -k -H "X-API-Key:sample-api-key" -X GET  
"https://10.20.30.40:8444/v9/storage/nodes/boot-details"
```

Sample response:

```
HTTP/1.1 200 OK  
{  
  "bootDetails": [  
    {  
      "bootReason": "Software boot reason: Normal",  
      "bootTime": "2023-09-28 17:41:37+01:00",  
      "nodeId": 1,  
      "uptime": "2 days 16 hours 52 minutes 36 seconds",  
      "uptimeInSeconds": 12345  
    }  
  ]  
}
```

Get Node Boot Details

Get the details about the last boot for a specific cluster node, and its current uptime.

HTTP request syntax (URI)

```
GET <base_uri>/v9/storage/nodes/{nodeId}/boot-details
```

Parameters

Parameter	Type	Required	Data Type	Description
-----------	------	----------	-----------	-------------

nodeId	path	Y	string or integer	Either a node object ID or a cluster node ID
--------	------	---	-------------------	--

Return Codes

Code	Data	Description
200	bootDetail	bootDetail object successfully retrieved
400	Error message	Bad Request
404	Error message	Not Found - a resource specified was not found
500	Error message	Internal Server Error

Any HTTP status code other than 200 indicates that the API did not complete successfully.

Sample request:

```
curl -k -H "X-API-Key:sample-api-key" -X GET
"https://10.20.30.40:8444/v9/storage/nodes/1/boot-details"
```

Sample response:

```
HTTP/1.1 200 OK
{
  "bootDetail": {
    "bootReason": "Software boot reason: Normal",
    "bootTime": "2023-09-28 17:41:37+01:00",
    "nodeId": 1,
    "uptime": "2 days 16 hours 52 minutes 36 seconds",
    "uptimeInSeconds": 12345
  }
}
```

Get Node Diagnostics

Get diagnostics from a specific cluster node.

Note: This API call returns a binary attachment on success, rather than JSON formatted output. JSON formatted errors are returned in the same way as other API calls. The attachment is a compressed tgz file.

HTTP request syntax (URI)

```
GET <base_uri>/v9/storage/nodes/{nodeId}/diagnostics
```

Parameters

Parameter	Type	Required	Data Type	Description
nodeId	path	Y	string or integer	Either a node object ID or a cluster node ID

Return Codes

Code	Data	Description
------	------	-------------

200	File attachment	Successfully retrieved file
400	Error message	Bad Request
404	Error message	Not Found - a resource specified was not found
500	Error message	Internal Server Error

Any HTTP status code other than 200 indicates that the API did not complete successfully.

Sample request:

```
curl -k -H "X-API-Key:sample-api-key" -X GET
"https://10.20.30.40:8444/v9/storage/nodes/1/diagnostics" > output_file
```

Get Diagnostics For All Nodes

Get diagnostics from all nodes within the cluster. This API call will not respond immediately, as the diagnostics need to be generated before download. The more nodes in the cluster, the longer the diagnostics may take.

Note: This API call returns a binary attachment on success, rather than JSON formatted output. JSON formatted errors are returned in the same way as other API calls. The attachment is a compressed tgz file.

HTTP request syntax (URI)

```
GET <base_uri>/v9/storage/nodes/diagnostics
```

Return Codes

Code	Data	Description
200	File attachment	Successfully retrieved file
500	Error message	Internal Server Error

Any HTTP status code other than 200 indicates that the API did not complete successfully.

Sample request:

```
curl -k -H "X-API-Key:sample-api-key" -X GET
"https://10.20.30.40:8444/v9/storage/nodes/diagnostics" > output_file
```

Get Host Ports

Returns a list of the systems host ports, on all nodes.

HTTP request syntax (URI)

```
GET <base_uri>/v9/storage/nodes/host-ports
```

Return Codes

Code	Data	Description
200	hostPorts	List of hostPort objects successfully retrieved
500	Error message	Internal Server Error

Any HTTP status code other than 200 indicates that the API did not complete successfully.

Sample request:

```
curl -k -H "X-Api-Key:sample-api-key" -X GET
"https://10.20.30.40:8444/v9/storage/nodes/host-ports"
```

Sample response:

```
HTTP/1.1 200 OK
{
  "hostPorts": [
    {
      "isEnabled": false,
      "name": "FC 1",
      "nodeId": 1,
      "objectId": "333a3a3a3a3a3a3a303a3a3a4f49445f24232140255f56",
      "speed": 12345,
      "status": "Up",
      "type": "INTERNAL",
      "wwn": "50:03:01:70:00:04:0E:C1"
    }
  ]
}
```

Get Host Port

Get an individual host port. In the case of this API call, the object ID is specific to a node and port and will show the current status of the specific port.

HTTP request syntax (URI)

```
GET <base_uri>/v9/storage/nodes/host-ports/{hostPortObjectId}
```

Parameters

Parameter	Type	Required	Data Type	Description
hostPortObjectId	path	Y	string	Object ID of a host port

Return Codes

Code	Data	Description
200	hostPort	hostPort object successfully retrieved
400	Error message	Bad Request
404	Error message	Not Found - a resource specified was not found
500	Error message	Internal Server Error

Any HTTP status code other than 200 indicates that the API did not complete successfully.

Sample request:

```
curl -k -H "X-Api-Key:sample-api-key" -X GET
"https://10.20.30.40:8444/v9/storage/nodes/host-
ports/323a3a3a313a3a3a303a3a3a4f49445f24232140255f56"
```

Sample response:

```
HTTP/1.1 200 OK
{
  "hostPort": {
    "isEnabled": false,
    "name": "FC 1",
    "nodeId": 1,
    "objectId": "333a3a3a3a3a3a303a3a3a4f49445f24232140255f56",
    "speed": 12345,
    "status": "Up",
    "type": "INTERNAL",
    "wwn": "50:03:01:70:00:04:0E:C1"
  }
}
```

Get Host Port Supported Speeds

Returns a list speed that are supported for the system host ports. The values returned by this API call are the values that should be accepted by the 'Set host port' API call..

HTTP request syntax (URI)

```
GET <base_uri>/v9/storage/nodes/host-ports/supported-speeds
```

Return Codes

Code	Data	Description
200	supportedSpeeds	List of string objects successfully retrieved
500	Error message	Internal Server Error

Any HTTP status code other than 200 indicates that the API did not complete successfully.

Sample request:

```
curl -k -H "X-Api-Key:sample-api-key" -X GET
"https://10.20.30.40:8444/v9/storage/nodes/host-ports/supported-speeds"
```

Sample response:

```
HTTP/1.1 200 OK
{
  "supportedSpeeds": [
    "32"
  ]
}
```



```
]
}
```

Set Host Port

Sets parameters for a specific host port. In the case of this API call, the port index associated with the object ID is used to set the same details on all cluster nodes - this is required for clustering to function successfully.

Some hardware platforms do not support setting all parameters, and different speed parameters are supported on different platforms - see the 'Get host port supported speeds' API call for a list of supported speeds.

HTTP request syntax (URI)

```
PATCH <base_uri>/v9/storage/nodes/host-ports/{hostPortObjectId}
```

Parameters

Parameter	Type	Required	Data Type	Description
hostPortObjectId	path	Y	string	Object ID of a host port
isEnabled	body	N	boolean	True if enabled, false for disabled
speed	body	N	integer	Speed in Gbps that the port will operate at. A value of 0 indicates the port will auto-negotiate the speed with the far end device. The supported speeds will differ depending on the hardware model
type	body	N	string	Type of host port. Possible values are: - N - NL

Return Codes

Code	Data	Description
204	No Data	Operation successfully completed
400	Error message	Bad Request
401	No Data	Unauthorized
403	Error message	Forbidden - the client does not have the required permissions to perform the operation
404	Error message	Not Found - a resource specified was not found
500	Error message	Internal Server Error

Any HTTP status code other than 204 indicates that the API did not complete successfully.

Sample request:

```
curl -k -H "X-API-Key:sample-api-key" -X PATCH
"https://10.20.30.40:8444/v9/storage/nodes/host-
ports/323a3a3a313a3a3a303a3a3a4f49445f24232140255f56" -d '{"isEnabled":
false, "speed": 0, "type": "N"}'
```

Sample response:

HTTP/1.1 204 No Content

Migrate All Node Virtual Servers To Another Node

Migrate all virtual servers hosted on a specific cluster node, to another node within the cluster. Any clients may experience a momentary disruption, as they will need to disconnect and reconnect once the virtual server has moved.

HTTP request syntax (URI)

```
POST <base_uri>/v9/storage/nodes/{nodeId}/migrate
```

Parameters

Parameter	Type	Required	Data Type	Description
nodeId	path	Y	string or integer	Either a node object ID or a cluster node ID
destinationNodeId	body	Y	string or integer	Either a node object ID or a cluster node ID of the destination node

Return Codes

Code	Data	Description
204	No Data	Operation successfully completed
400	Error message	Bad Request
401	No Data	Unauthorized
403	Error message	Forbidden - the client does not have the required permissions to perform the operation
404	Error message	Not Found - a resource specified was not found
500	Error message	Internal Server Error

Any HTTP status code other than 204 indicates that the API did not complete successfully.

Sample request:

```
curl -k -H "X-API-Key:sample-api-key" -X POST
"https://10.20.30.40:8444/v9/storage/nodes/1/migrate" -d
 '{"destinationNodeId": 2}'
```

Sample response:

HTTP/1.1 204 No Content

Reboot Node

Initiate a reboot of a cluster node. Any virtual servers running on the cluster node will be migrated to another node. The API call returns after initiating the reboot request, and does not wait for the reboot to complete.

HTTP request syntax (URI)

```
POST <base_uri>/v9/storage/nodes/{nodeId}/reboot
```

Parameters

Parameter	Type	Required	Data Type	Description
nodeId	path	Y	string or integer	Either a node object ID or a cluster node ID

Return Codes

Code	Data	Description
204	No Data	Operation successfully completed
400	Error message	Bad Request
401	No Data	Unauthorized
403	Error message	Forbidden - the client does not have the required permissions to perform the operation
404	Error message	Not Found - a resource specified was not found
500	Error message	Internal Server Error

Any HTTP status code other than 204 indicates that the API did not complete successfully.

Sample request:

```
curl -k -H "X-API-Key:sample-api-key" -X POST  
"https://10.20.30.40:8444/v9/storage/nodes/1/reboot"
```

Sample response:

```
HTTP/1.1 204 No Content
```

Shutdown Node

Initiate a shutdown of a cluster node. Any virtual servers running on the cluster node will be migrated to another node. Access to the node will be required to power it on again, either physically or via IPMI.

HTTP request syntax (URI)

```
POST <base_uri>/v9/storage/nodes/{nodeId}/shutdown
```

Parameters

Parameter	Type	Required	Data Type	Description
nodeId	path	Y	string or integer	Either a node object ID or a cluster node ID

Return Codes

Code	Data	Description
204	No Data	Operation successfully completed
400	Error message	Bad Request
401	No Data	Unauthorized
403	Error message	Forbidden - the client does not have the required permissions to perform the operation
404	Error message	Not Found - a resource specified was not found
500	Error message	Internal Server Error

Any HTTP status code other than 204 indicates that the API did not complete successfully.

Sample request:

```
curl -k -H "X-API-Key:sample-api-key" -X POST  
"https://10.20.30.40:8444/v9/storage/nodes/1/shutdown"
```

Sample response:

```
HTTP/1.1 204 No Content
```

Object Replication Resource

The object replication resource allows for the general management of object replication and access to reports generated by the policies. Object replication can replicate a snapshot of a file system to another server, typically remote, to provide backup and recovery of the source data.

Object Replication Object Model

The object model describing this resource contains the following objects.

objectReplicationPolicy - Object replication policy

Attribute	JSON type	Data type	Description
destinationFilesystemLabel	string	string	Label of the file system that is the destination of the replication
destinationIpAddress	string	string	Destination IP address
destinationPort	integer	integer	Destination host port
destinationSnapshotRuleName	string	string	Destination snapshot rule name
name	string	string	Name of the object replication policy
objectId	string	string	Unique ID of the object
policyId	string	string	ID of the policy
sourceFilesystemId	string	string	File system ID of the source file system
sourceFilesystemLabel	string	string	Label of the source file system
sourceIpAddress	string	string	Source IP address. Blank indicates that any address may be used
sourceSnapshotRuleName	string	string	Name of the source snapshot rule
sourceVirtualServerId	integer	integer	Virtual server ID of the source virtual server

objectReplicationReport - Object replication report

Attribute	JSON type	Data type	Description
bytesRemaining	integer	integer	Number of remaining bytes
bytesTransferred	integer	integer	Number of transferred bytes
destinationSnapshotName	string	string	Destination snapshot name
endTime	integer	integer	End time of the operation in posix time format
extraStatusMessage	string	string	Extra status message

log	string	string	Log file contents if logIncluded is true, otherwise blank
objectsRemaining	integer	integer	Number of objects remaining to be replicated
objectsTransferred	integer	integer	Number of objects transferred
policyId	string	string	ID of the policy
policyName	string	string	Name of the policy
policyTarget	string	string	IP address of target of object replication policy
policyTargetFilesystemLabel	string	string	File system name of target of object replication policy
sourceIncrementalBaseSnapshotName	string	string	Source incremental base snapshot name
sourceSnapshotName	string	string	Name of the source snapshot
startTime	integer	integer	Start time of the operation in posix time format
status	string	string	Status of current operation in progress. Possible values are: - COMPLETE - RUNNING - FAILED - DRY_RUN_COMPLETED - DRY_RUN_RUNNING - DRY_RUN_FAILED - FAILED_SERVER_RESET - DRY_RUN_FAILED_SERVER_RESET

objectReplicationSchedule - Object replication schedule

Attribute	JSON type	Data type	Description
finalRunTime	integer	integer	The final time, in posix time format, that the object replication policy will be run
interval	integer	integer	Time interval between schedules
intervalType	string	string	The type of interval. Possible values are: - PERIODIC - CONTINUOUS - ONCE_ONLY - DRY_RUN_DETAILED
intervalUnit	string	string	Interval unit. Possible values are: - MINUTE - HOUR - DAY - WEEK - MONTH
isEnabled	boolean	boolean	True if enabled, false for disabled

nextRunTime	integer	integer	Time of next run schedule in posix time format
objectId	string	string	Unique ID of the object
policyId	string	string	ID of the policy
policyObjectId	string	string	Object ID of the policy
scheduleId	integer	integer	ID of the schedule

Get Object Replication Policies

Get object replication policies.

HTTP request syntax (URI)

```
GET <base_uri>/v9/storage/object-replication/policies
```

Return Codes

Code	Data	Description
200	objectReplicationPolicies	List of objectReplicationPolicy objects successfully retrieved
500	Error message	Internal Server Error

Any HTTP status code other than 200 indicates that the API did not complete successfully.

Sample request:

```
curl -k -H "X-API-Key:sample-api-key" -X GET
"https://10.20.30.40:8444/v9/storage/object-replication/policies"
```

Sample response:

```
HTTP/1.1 200 OK
{
  "objectReplicationPolicies": [
    {
      "destinationFilesystemLabel": "Filesystem3",
      "destinationIpAddress": "10.2.3.4",
      "destinationPort": 12345,
      "destinationSnapshotRuleName": "SnapshotRule2",
      "name": "Policy1",
      "objectId": "333a3a3a3a3a3a303a3a3a4f49445f24232140255f56",
      "policyId": "296f15f2-af39-11d9-98a9-0bef787b2638",
      "sourceFilesystemId": "7B263DFFFD71E65A0000000000000000",
      "sourceFilesystemLabel": "Filesystem2",
      "sourceIpAddress": "10.1.2.3",
      "sourceSnapshotRuleName": "SnapshotRule1",
      "sourceVirtualServerId": 2
    }
  ]
}
```

Get Object Replication Policies For A Virtual Server

Get object replication policies for a virtual server.

HTTP request syntax (URI)

```
GET <base_uri>/v9/storage/virtual-servers/{virtualServerId}/object-replication/policies
```

Parameters

Parameter	Type	Required	Data Type	Description
virtualServerId	path	Y	string or integer	Either the virtual server ID or the object ID of the virtual server

Return Codes

Code	Data	Description
200	objectReplicationPolicies	List of objectReplicationPolicy objects successfully retrieved
400	Error message	Bad Request
404	Error message	Not Found - a resource specified was not found
500	Error message	Internal Server Error

Any HTTP status code other than 200 indicates that the API did not complete successfully.

Sample request:

```
curl -k -H "X-API-Key:sample-api-key" -X GET  
"https://10.20.30.40:8444/v9/storage/virtual-servers/1/object-replication/policies"
```

Sample response:

```
HTTP/1.1 200 OK  
{  
  "objectReplicationPolicies": [  
    {  
      "destinationFilesystemLabel": "Filesystem3",  
      "destinationIpAddress": "10.2.3.4",  
      "destinationPort": 12345,  
      "destinationSnapshotRuleName": "SnapshotRule2",  
      "name": "Policy1",  
      "objectId": "333a3a3a3a3a3a303a3a3a4f49445f24232140255f56",  
      "policyId": "296f15f2-af39-11d9-98a9-0bef787b2638",  
      "sourceFilesystemId": "7B263DFFFD71E65A0000000000000000",  
      "sourceFilesystemLabel": "Filesystem2",  
      "sourceIpAddress": "10.1.2.3",  
      "sourceSnapshotRuleName": "SnapshotRule1",  
      "sourceVirtualServerId": 2  
    }  
  ]  
}
```


Get An Object Replication Policy

Get an object replication policy.

HTTP request syntax (URI)

```
GET <base_uri>/v9/storage/object-replication/policies/{objectReplicationPolicyObjectId}
```

Parameters

Parameter	Type	Required	Data Type	Description
objectReplicationPolicyObjectId	path	Y	string	Object ID of the replication policy

Return Codes

Code	Data	Description
200	objectReplicationPolicy	objectReplicationPolicy object successfully retrieved
400	Error message	Bad Request
404	Error message	Not Found - a resource specified was not found
500	Error message	Internal Server Error

Any HTTP status code other than 200 indicates that the API did not complete successfully.

Sample request:

```
curl -k -H "X-API-Key:sample-api-key" -X GET "https://10.20.30.40:8444/v9/storage/object-replication/policies/313a3a3a30653834353530382d623365352d313164392d393830312d3062656637383762323633383a3a3a303a3a3a4f49445f24232140255f56"
```

Sample response:

```
HTTP/1.1 200 OK
{
  "objectReplicationPolicy": {
    "destinationFilesystemLabel": "Filesystem3",
    "destinationIpAddress": "10.2.3.4",
    "destinationPort": 12345,
    "destinationSnapshotRuleName": "SnapshotRule2",
    "name": "Policy1",
    "objectId": "333a3a3a3a3a3a303a3a3a4f49445f24232140255f56",
    "policyId": "296f15f2-af39-11d9-98a9-0bef787b2638",
    "sourceFilesystemId": "7B263DFFFD71E65A0000000000000000",
    "sourceFilesystemLabel": "Filesystem2",
    "sourceIpAddress": "10.1.2.3",
    "sourceSnapshotRuleName": "SnapshotRule1",
    "sourceVirtualServerId": 2
  }
}
```

Create An Object Replication Policy

Create an object replication policy.

HTTP request syntax (URI)

```
POST <base_uri>/v9/storage/object-replication/policies
```

Parameters

Parameter	Type	Required	Data Type	Description
destinationFilesystemLabel	body	Y	string	Label of the file system that is the destination of the replication
destinationIpAddress	body	Y	string	Destination IP address
destinationPort	body	N	integer	Destination host port
destinationSnapshotRuleName	body	N	string	Destination snapshot rule name
filesystemId	body	Y	string	Either the file system ID or the object ID of the file system
name	body	Y	string	Name to associate with the item
sourceIpAddress	body	N	string	Source IP address. Blank indicates that any address may be used
sourceSnapshotRuleName	body	N	string	Name of the source snapshot rule

Return Codes

Code	Data	Description
201	objectReplicationPolicy	Successfully created new item
400	Error message	Bad Request
401	No Data	Unauthorized
403	Error message	Forbidden - the client does not have the required permissions to perform the operation
500	Error message	Internal Server Error

Any HTTP status code other than 201 indicates that the API did not complete successfully.

Sample request:

```
curl -k -H "X-API-Key:sample-api-key" -X POST
"https://10.20.30.40:8444/v9/storage/object-replication/policies" -d
'{"destinationFilesystemLabel": "Filesystem3", "destinationIpAddress":
"10.2.3.4", "destinationPort": 12345, "destinationSnapshotRuleName":
"SnapshotRule2", "filesystemId": "7B263DFD1D71E65A0000000000000000", "name":
"Name2", "sourceIpAddress": "10.1.2.3", "sourceSnapshotRuleName":
"SnapshotRule1"}'
```

Sample response:

```

HTTP/1.1 201 Created
{
  "objectReplicationPolicy": {
    "destinationFilesystemLabel": "Filesystem3",
    "destinationIpAddress": "10.2.3.4",
    "destinationPort": 12345,
    "destinationSnapshotRuleName": "SnapshotRule2",
    "name": "Policy1",
    "objectId": "333a3a3a3a3a3a303a3a3a4f49445f24232140255f56",
    "policyId": "296f15f2-af39-11d9-98a9-0bef787b2638",
    "sourceFilesystemId": "7B263DFFFD71E65A0000000000000000",
    "sourceFilesystemLabel": "Filesystem2",
    "sourceIpAddress": "10.1.2.3",
    "sourceSnapshotRuleName": "SnapshotRule1",
    "sourceVirtualServerId": 2
  },
  "uri": "https://10.20.30.40:8444/v9/storage/object-
replication/policies/333a3a3a3a3a3a303a3a3a4f49445f24232140255f56"
}

```

Modify An Object Replication Policy

Modify an object replication policy.

HTTP request syntax (URI)

```
PATCH <base_uri>/v9/storage/object-
replication/policies/{objectReplicationPolicyObjectId}
```

Parameters

Parameter	Type	Required	Data Type	Description
objectReplicationPolicyObjectId	path	Y	string	Object ID of the replication policy
destinationFilesystemLabel	body	N	string	Label of the file system that is the destination of the replication
destinationIpAddress	body	N	string	Destination IP address
destinationPort	body	N	integer	Destination host port
destinationSnapshotRuleName	body	N	string	Destination snapshot rule name
name	body	N	string	Name to associate with the item
sourceIpAddress	body	N	string	Source IP address. Blank indicates that any address may be used
sourceSnapshotRuleName	body	N	string	Name of the source snapshot rule

Return Codes

Code	Data	Description
204	No Data	Operation successfully completed
400	Error message	Bad Request
401	No Data	Unauthorized
403	Error message	Forbidden - the client does not have the required permissions to perform the operation
404	Error message	Not Found - a resource specified was not found
500	Error message	Internal Server Error

Any HTTP status code other than 204 indicates that the API did not complete successfully.

Sample request:

```
curl -k -H "X-API-Key:sample-api-key" -X PATCH
"https://10.20.30.40:8444/v9/storage/object-
replication/policies/313a3a3a30653834353530382d623365352d313164392d393830312d
3062656637383762323633383a3a3a303a3a3a4f49445f24232140255f56" -d
'{"destinationFilesystemLabel": "Filesystem3", "destinationIpAddress":
"10.2.3.4", "destinationPort": 12345, "destinationSnapshotRuleName":
"SnapshotRule2", "name": "Name2", "sourceIpAddress": "10.1.2.3",
"sourceSnapshotRuleName": "SnapshotRule1"}'
```

Sample response:

```
HTTP/1.1 204 No Content
```

Modify Snapshot Rule Names Of An Object Replication Policy

Modify snapshot rule names of an object replication policy.

HTTP request syntax (URI)

```
PATCH <base_uri>/v9/storage/object-
replication/policies/{objectReplicationPolicyObjectId}/snapshot-rule-names
```

Parameters

Parameter	Type	Required	Data Type	Description
objectReplicationPolicyObjectId	path	Y	string	Object ID of the replication policy
destinationSnapshotRuleName	body	Y	string	Destination snapshot rule name
sourceSnapshotRuleName	body	Y	string	Name of the source snapshot rule

Return Codes

Code	Data	Description
204	No Data	Operation successfully completed
400	Error message	Bad Request
401	No Data	Unauthorized
403	Error message	Forbidden - the client does not have the required permissions to perform the operation
404	Error message	Not Found - a resource specified was not found
500	Error message	Internal Server Error

Any HTTP status code other than 204 indicates that the API did not complete successfully.

Sample request:

```
curl -k -H "X-API-Key:sample-api-key" -X PATCH
"https://10.20.30.40:8444/v9/storage/object-
replication/policies/313a3a3a30653834353530382d623365352d313164392d393830312d
3062656637383762323633383a3a3a303a3a3a4f49445f24232140255f56/snapshot-rule-
names" -d '{"destinationSnapshotRuleName": "SnapshotRule2",
"sourceSnapshotRuleName": "SnapshotRule1"}'
```

Sample response:

```
HTTP/1.1 204 No Content
```

Delete An Object Replication Policy

Delete an object replication policy.

HTTP request syntax (URI)

```
DELETE <base_uri>/v9/storage/object-
replication/policies/{objectReplicationPolicyObjectId}
```

Parameters

Parameter	Type	Required	Data Type	Description
objectReplicationPolicyObjectId	path	Y	string	Object ID of the replication policy
abortReplication	query	N	boolean	Abort any running replications
preserveHistory	query	N	boolean	Preserve the logs of the replication policy

Return Codes

Code	Data	Description
204	No Data	Operation successfully completed
400	Error message	Bad Request
401	No Data	Unauthorized

403	Error message	Forbidden - the client does not have the required permissions to perform the operation
404	Error message	Not Found - a resource specified was not found
500	Error message	Internal Server Error

Any HTTP status code other than 204 indicates that the API did not complete successfully.

Sample request:

```
curl -k -H "X-API-Key:sample-api-key" -X DELETE
"https://10.20.30.40:8444/v9/storage/object-
replication/policies/313a3a3a30653834353530382d623365352d313164392d393830312d
3062656637383762323633383a3a3a303a3a3a4f49445f24232140255f56?abortReplication
=false&preserveHistory=false"
```

Sample response:

```
HTTP/1.1 204 No Content
```

Get Object Replication Schedules For An Object Replication Policy

Get object replication schedules for an object replication policy.

HTTP request syntax (URI)

```
GET <base_uri>/v9/storage/object-
replication/policies/{objectReplicationPolicyObjectId}/schedules
```

Parameters

Parameter	Type	Required	Data Type	Description
objectReplicationPolicyObjectId	path	Y	string	Object ID of the replication policy

Return Codes

Code	Data	Description
200	objectReplicationSchedules	List of objectReplicationSchedule objects successfully retrieved
400	Error message	Bad Request
404	Error message	Not Found - a resource specified was not found
500	Error message	Internal Server Error

Any HTTP status code other than 200 indicates that the API did not complete successfully.

Sample request:

```
curl -k -H "X-API-Key:sample-api-key" -X GET
"https://10.20.30.40:8444/v9/storage/object-
replication/policies/313a3a3a30653834353530382d623365352d313164392d393830312d
3062656637383762323633383a3a3a303a3a3a4f49445f24232140255f56/schedules"
```

Sample response:

```
HTTP/1.1 200 OK
{
  "objectReplicationSchedules": [
    {
      "finalRunTime": 12345,
      "interval": 12345,
      "intervalType": "PERIODIC",
      "intervalUnit": "MINUTE",
      "isEnabled": false,
      "nextRunTime": 12345,
      "objectId": "333a3a3a3a3a303a3a4f49445f24232140255f56",
      "policyId": "296f15f2-af39-11d9-98a9-0bef787b2638",
      "policyObjectId":
"313a3a3a30653834353530382d623365352d313164392d393830312d30626566373837623236
33383a3a3a303a3a3a4f49445f24232140255f56",
      "scheduleId": 7
    }
  ]
}
```

Get Object Replication Schedules For A Virtual Server

Get object replication schedules for a virtual server.

HTTP request syntax (URI)

```
GET <base_uri>/v9/storage/virtual-servers/{virtualServerId}/object-
replication/schedules
```

Parameters

Parameter	Type	Required	Data Type	Description
virtualServerId	path	Y	string or integer	Either the virtual server ID or the object ID of the virtual server

Return Codes

Code	Data	Description
200	objectReplicationSchedules	List of objectReplicationSchedule objects successfully retrieved
400	Error message	Bad Request
404	Error message	Not Found - a resource specified was not found
500	Error message	Internal Server Error

Any HTTP status code other than 200 indicates that the API did not complete successfully.

Sample request:

```
curl -k -H "X-API-Key:sample-api-key" -X GET
"https://10.20.30.40:8444/v9/storage/virtual-servers/1/object-
replication/schedules"
```

Sample response:

```
HTTP/1.1 200 OK
{
  "objectReplicationSchedules": [
    {
      "finalRunTime": 12345,
      "interval": 12345,
      "intervalType": "PERIODIC",
      "intervalUnit": "MINUTE",
      "isEnabled": false,
      "nextRunTime": 12345,
      "objectId": "333a3a3a3a3a3a303a3a3a4f49445f24232140255f56",
      "policyId": "296f15f2-af39-11d9-98a9-0bef787b2638",
      "policyObjectId":
"313a3a3a30653834353530382d623365352d313164392d393830312d30626566373837623236
33383a3a3a303a3a3a4f49445f24232140255f56",
      "scheduleId": 7
    }
  ]
}
```

Get An Object Replication Schedule

Get an object replication schedule.

HTTP request syntax (URI)

```
GET <base_uri>/v9/storage/object-
replication/schedules/{objectReplicationScheduleObjectId}
```

Parameters

Parameter	Type	Required	Data Type	Description
objectReplicationScheduleObjectId	path	Y	string	Object ID of the object replication schedule

Return Codes

Code	Data	Description
200	objectReplicationSchedule	objectReplicationSchedule object successfully retrieved
400	Error message	Bad Request

404	Error message	Not Found - a resource specified was not found
500	Error message	Internal Server Error

Any HTTP status code other than 200 indicates that the API did not complete successfully.

Sample request:

```
curl -k -H "X-API-Key:sample-api-key" -X GET
"https://10.20.30.40:8444/v9/storage/object-
replication/schedules/34333738323531652d623431322d313164392d393836652d3062656
637383762323633383a3a3a313a3a3a313a3a3a303a3a3a4f49445f24232140255f56"
```

Sample response:

```
HTTP/1.1 200 OK
{
  "objectReplicationSchedule": {
    "finalRunTime": 12345,
    "interval": 12345,
    "intervalType": "PERIODIC",
    "intervalUnit": "MINUTE",
    "isEnabled": false,
    "nextRunTime": 12345,
    "objectId": "333a3a3a3a3a303a3a3a4f49445f24232140255f56",
    "policyId": "296f15f2-af39-11d9-98a9-0bef787b2638",
    "policyObjectId":
"313a3a3a30653834353530382d623365352d313164392d393830312d30626566373837623236
33383a3a3a303a3a3a4f49445f24232140255f56",
    "scheduleId": 7
  }
}
```

Create An Object Replication Schedule

Create an object replication schedule.

HTTP request syntax (URI)

```
POST <base_uri>/v9/storage/object-
replication/policies/{objectReplicationPolicyObjectId}/schedules
```

Parameters

Parameter	Type	Required	Data Type	Description
objectReplicationPolicyObjectId	path	Y	string	Object ID of the replication policy
finalRunTime	body	N	integer	The final time the object replication policy will be run. If omitted the schedule will run indefinitely
interval	body	N	integer	Time interval between schedules

intervalType	body	Y	string	The type of interval. The interval and intervalUnit values only need to be supplied if the interval type is periodic or continuous. Possible values are: - PERIODIC - CONTINUOUS - ONCE_ONLY - DRY_RUN_DETAILED
intervalUnit	body	N	string	Interval unit. Possible values are: - MINUTE - HOUR - DAY - WEEK - MONTH
isEnabled	body	N	boolean	True if enabled, false for disabled
nextRunTime	body	Y	integer	Indicates when the object replication policy will next be run. Set to 0 to indicate to run immediately

Return Codes

Code	Data	Description
201	objectReplicationSchedule	Successfully created new item
400	Error message	Bad Request
401	No Data	Unauthorized
403	Error message	Forbidden - the client does not have the required permissions to perform the operation
404	Error message	Not Found - a resource specified was not found
500	Error message	Internal Server Error

Any HTTP status code other than 201 indicates that the API did not complete successfully.

Sample request:

```
curl -k -H "X-API-Key:sample-api-key" -X POST
"https://10.20.30.40:8444/v9/storage/object-
replication/policies/313a3a3a30653834353530382d623365352d313164392d393830312d
3062656637383762323633383a3a3a303a3a3a4f49445f24232140255f56/schedules" -d
'{"finalRunTime": 12345, "interval": 12345, "intervalType": "PERIODIC",
"intervalUnit": "MINUTE", "isEnabled": false, "nextRunTime": 12345}'
```

Sample response:

```
HTTP/1.1 201 Created
{
  "objectReplicationSchedule": {
    "finalRunTime": 12345,
    "interval": 12345,
    "intervalType": "PERIODIC",
    "intervalUnit": "MINUTE",
```

```

    "isEnabled": false,
    "nextRunTime": 12345,
    "objectId": "333a3a3a3a3a3a303a3a3a4f49445f24232140255f56",
    "policyId": "296f15f2-af39-11d9-98a9-0bef787b2638",
    "policyObjectId":
"313a3a3a30653834353530382d623365352d313164392d393830312d30626566373837623236
33383a3a3a303a3a3a4f49445f24232140255f56",
    "scheduleId": 7
  },
  "uri": "https://10.20.30.40:8444/v9/storage/object-
replication/schedules/333a3a3a3a3a3a303a3a3a4f49445f24232140255f56"
}

```

Update An Object Replication Schedule

Update an object replication schedule.

HTTP request syntax (URI)

```

PATCH <base_uri>/v9/storage/object-
replication/schedules/{objectReplicationScheduleObjectId}

```

Parameters

Parameter	Type	Required	Data Type	Description
objectReplicationScheduleObjectId	path	Y	string	Object ID of the object replication schedule
finalRunTime	body	N	integer	The final time the object replication policy will be run. If omitted the schedule will run indefinitely
interval	body	N	integer	Time interval between schedules
intervalType	body	N	string	The type of interval. The interval and intervalUnit values only need to be supplied if the interval type is periodic or continuous. Possible values are: - PERIODIC - CONTINUOUS - ONCE_ONLY - DRY_RUN_DETAILED
intervalUnit	body	N	string	Interval unit. Possible values are: - MINUTE - HOUR - DAY

				- WEEK - MONTH
isEnabled	body	N	boolean	True if enabled, false for disabled
nextRunTime	body	N	integer	Indicates when the object replication policy will next be run. Set to 0 to indicate to run immediately

Return Codes

Code	Data	Description
204	No Data	Operation successfully completed
400	Error message	Bad Request
401	No Data	Unauthorized
403	Error message	Forbidden - the client does not have the required permissions to perform the operation
404	Error message	Not Found - a resource specified was not found
500	Error message	Internal Server Error

Any HTTP status code other than 204 indicates that the API did not complete successfully.

Sample request:

```
curl -k -H "X-API-Key:sample-api-key" -X PATCH
"https://10.20.30.40:8444/v9/storage/object-
replication/schedules/34333738323531652d623431322d313164392d393836652d3062656
637383762323633383a3a3a313a3a3a313a3a3a303a3a3a4f49445f24232140255f56" -d
'{"finalRunTime": 12345, "interval": 12345, "intervalType": "PERIODIC",
"intervalUnit": "MINUTE", "isEnabled": false, "nextRunTime": 12345}'
```

Sample response:

```
HTTP/1.1 204 No Content
```

Delete An Object Replication Schedule

Delete an object replication schedule.

HTTP request syntax (URI)

```
DELETE <base_uri>/v9/storage/object-
replication/schedules/{objectReplicationScheduleObjectId}
```

Parameters

Parameter	Type	Required	Data Type	Description
-----------	------	----------	-----------	-------------

objectReplicationScheduleObjectId	path	Y	string	Object ID of the object replication schedule
-----------------------------------	------	---	--------	--

Return Codes

Code	Data	Description
204	No Data	Operation successfully completed
400	Error message	Bad Request
401	No Data	Unauthorized
403	Error message	Forbidden - the client does not have the required permissions to perform the operation
404	Error message	Not Found - a resource specified was not found
500	Error message	Internal Server Error

Any HTTP status code other than 204 indicates that the API did not complete successfully.

Sample request:

```
curl -k -H "X-API-Key:sample-api-key" -X DELETE
"https://10.20.30.40:8444/v9/storage/object-
replication/schedules/34333738323531652d623431322d313164392d393836652d3062656
637383762323633383a3a3a313a3a3a313a3a3a303a3a3a4f49445f24232140255f56"
```

Sample response:

```
HTTP/1.1 204 No Content
```

Get All Object Replication Reports

Get all object replication reports.

HTTP request syntax (URI)

```
GET <base_uri>/v9/storage/object-
replication/policies/{objectReplicationPolicyObjectId}/reports
```

Parameters

Parameter	Type	Required	Data Type	Description
objectReplicationPolicyObjectId	path	Y	string	Object ID of the replication policy
logIncluded	query	N	boolean	True to include full log details

Return Codes

Code	Data	Description
200	objectReplicationReports	List of objectReplicationReport objects successfully retrieved
400	Error message	Bad Request

404	Error message	Not Found - a resource specified was not found
500	Error message	Internal Server Error

Any HTTP status code other than 200 indicates that the API did not complete successfully.

Sample request:

```
curl -k -H "X-API-Key:sample-api-key" -X GET
"https://10.20.30.40:8444/v9/storage/object-
replication/policies/313a3a3a30653834353530382d623365352d313164392d393830312d
3062656637383762323633383a3a3a303a3a3a4f49445f24232140255f56/reports?logInclu
ded=false"
```

Sample response:

```
HTTP/1.1 200 OK
{
  "objectReplicationReports": [
    {
      "bytesRemaining": 12345,
      "bytesTransferred": 12345,
      "destinationSnapshotName": "Snapshot2",
      "endTime": 12345,
      "extraStatusMessage": "Failed to negotiate object replication with
target",
      "log": "abcdefg",
      "objectsRemaining": 12345,
      "objectsTransferred": 12345,
      "policyId": "296f15f2-af39-11d9-98a9-0bef787b2638",
      "policyName": "Policy1",
      "policyTarget": "10.50.60.70",
      "policyTargetFilesystemLabel": "Filesystem4",
      "sourceIncrementalBaseSnapshotName": "",
      "sourceSnapshotName": "Snapshot1",
      "startTime": 12345,
      "status": "COMPLETE"
    }
  ]
}
```

Get An Object Replication Last Report

Get an object replication last report.

HTTP request syntax (URI)

```
GET <base_uri>/v9/storage/object-
replication/policies/{objectReplicationPolicyObjectId}/reports/last
```

Parameters

Parameter	Type	Required	Data Type	Description
-----------	------	----------	-----------	-------------

objectReplicationPolicyObjectld	path	Y	string	Object ID of the replication policy
logIncluded	query	N	boolean	True to include full log details

Return Codes

Code	Data	Description
200	objectReplicationReport	objectReplicationReport object successfully retrieved
400	Error message	Bad Request
404	Error message	Not Found - a resource specified was not found
500	Error message	Internal Server Error

Any HTTP status code other than 200 indicates that the API did not complete successfully.

Sample request:

```
curl -k -H "X-API-Key:sample-api-key" -X GET
"https://10.20.30.40:8444/v9/storage/object-
replication/policies/313a3a3a30653834353530382d623365352d313164392d393830312d
3062656637383762323633383a3a3a303a3a3a4f49445f24232140255f56/reports/last?log
Included=false"
```

Sample response:

```
HTTP/1.1 200 OK
{
  "objectReplicationReport": {
    "bytesRemaining": 12345,
    "bytesTransferred": 12345,
    "destinationSnapshotName": "Snapshot2",
    "endTime": 12345,
    "extraStatusMessage": "Failed to negotiate object replication with
target",
    "log": "abcdefg",
    "objectsRemaining": 12345,
    "objectsTransferred": 12345,
    "policyId": "296f15f2-af39-11d9-98a9-0bef787b2638",
    "policyName": "Policy1",
    "policyTarget": "10.50.60.70",
    "policyTargetFilesystemLabel": "Filesystem4",
    "sourceIncrementalBaseSnapshotName": "",
    "sourceSnapshotName": "Snapshot1",
    "startTime": 12345,
    "status": "COMPLETE"
  }
}
```

Delete All Object Replication Reports

Delete all reports for an object replication policy.

HTTP request syntax (URI)

```
DELETE <base_uri>/v9/storage/object-replication/policies/{objectReplicationPolicyObjectId}/reports
```

Parameters

Parameter	Type	Required	Data Type	Description
objectReplicationPolicyObjectId	path	Y	string	Object ID of the replication policy

Return Codes

Code	Data	Description
204	No Data	Operation successfully completed
400	Error message	Bad Request
401	No Data	Unauthorized
403	Error message	Forbidden - the client does not have the required permissions to perform the operation
404	Error message	Not Found - a resource specified was not found
500	Error message	Internal Server Error

Any HTTP status code other than 204 indicates that the API did not complete successfully.

Sample request:

```
curl -k -H "X-API-Key:sample-api-key" -X DELETE "https://10.20.30.40:8444/v9/storage/object-replication/policies/313a3a3a30653834353530382d623365352d313164392d393830312d3062656637383762323633383a3a3a303a3a3a4f49445f24232140255f56/reports"
```

Sample response:

```
HTTP/1.1 204 No Content
```

Start An Object Replication

Start an object replication.

HTTP request syntax (URI)

```
POST <base_uri>/v9/storage/object-replication/policies/{objectReplicationPolicyObjectId}/start
```

Parameters

Parameter	Type	Required	Data Type	Description
-----------	------	----------	-----------	-------------

objectReplicationPolicyObjectId	path	Y	string	Object ID of the replication policy
type	body	N	string	Type of object replication to start - NORMAL means a real object replication. All the other types run tests with different level of detailed output information. Possible values are: - NORMAL - DRY - DETAILED - SIMPLE

Return Codes

Code	Data	Description
204	No Data	Operation successfully completed
400	Error message	Bad Request
401	No Data	Unauthorized
403	Error message	Forbidden - the client does not have the required permissions to perform the operation
404	Error message	Not Found - a resource specified was not found
500	Error message	Internal Server Error

Any HTTP status code other than 204 indicates that the API did not complete successfully.

Sample request:

```
curl -k -H "X-API-Key:sample-api-key" -X POST
"https://10.20.30.40:8444/v9/storage/object-
replication/policies/313a3a3a30653834353530382d623365352d313164392d393830312d
3062656637383762323633383a3a3a303a3a3a4f49445f24232140255f56/start" -d
'{"type": "NORMAL"}'
```

Sample response:

```
HTTP/1.1 204 No Content
```

Stop An Object Replication

Stop an object replication.

HTTP request syntax (URI)

```
POST <base_uri>/v9/storage/object-
replication/policies/{objectReplicationPolicyObjectId}/stop
```

Parameters

Parameter	Type	Required	Data Type	Description
objectReplicationPolicyObjectld	path	Y	string	Object ID of the replication policy

Return Codes

Code	Data	Description
204	No Data	Operation successfully completed
400	Error message	Bad Request
401	No Data	Unauthorized
403	Error message	Forbidden - the client does not have the required permissions to perform the operation
404	Error message	Not Found - a resource specified was not found
500	Error message	Internal Server Error

Any HTTP status code other than 204 indicates that the API did not complete successfully.

Sample request:

```
curl -k -H "X-API-Key:sample-api-key" -X POST
"https://10.20.30.40:8444/v9/storage/object-
replication/policies/313a3a3a30653834353530382d623365352d313164392d393830312d
306265663738376232323633383a3a3a303a3a3a4f49445f24232140255f56/stop"
```

Sample response:

```
HTTP/1.1 204 No Content
```

Get The Object Replication Listening Port

Get the object replication listening port.

HTTP request syntax (URI)

```
GET <base_uri>/v9/storage/object-replication/port
```

Return Codes

Code	Data	Description
200	objectReplicationListeningPort	integer object successfully retrieved
500	Error message	Internal Server Error

Any HTTP status code other than 200 indicates that the API did not complete successfully.

Sample request:

```
curl -k -H "X-API-Key:sample-api-key" -X GET
"https://10.20.30.40:8444/v9/storage/object-replication/port"
```

Sample response:

```
HTTP/1.1 200 OK
{
  "objectReplicationListeningPort": 12345
}
```

Set The Object Replication Listening Port

Set the object replication listening port.

HTTP request syntax (URI)

```
PUT <base_uri>/v9/storage/object-replication/port
```

Parameters

Parameter	Type	Required	Data Type	Description
port	body	Y	integer	TCP port used for object replication

Return Codes

Code	Data	Description
204	No Data	Operation successfully completed
400	Error message	Bad Request
401	No Data	Unauthorized
403	Error message	Forbidden - the client does not have the required permissions to perform the operation
500	Error message	Internal Server Error

Any HTTP status code other than 204 indicates that the API did not complete successfully.

Sample request:

```
curl -k -H "X-API-Key:sample-api-key" -X PUT
"https://10.20.30.40:8444/v9/storage/object-replication/port" -d '{"port":
59550}'
```

Sample response:

```
HTTP/1.1 204 No Content
```

Quotas Resource

The quotas resource provides quota management for file system quotas and virtual volume quotas.

Quotas are generally specific to users or groups of users, and the IDs can be specified in a variety of ways. Users and groups can be specified in either NFS format or SMB/CIFS format, depending on certain conditions.

For an NFS user or group, it can be NFS v2/3 format with its UNIX user/group ID optionally registered in the systems user/group mappings. For example, if user 'NFSuser' with its UNIX user ID 501 is added as a user mapping, then you can add a user quota with the user named 'NFSuser', and the same would be true for a group quota specified by name, provided that name was a valid group mapping. For NFS v4 format, the user or group must attach its host name in the format of user@host or group@host, e.g. NFSv4Group@deb5010-57-75.

SMB/CIFS users or groups can be discovered from the Windows Domain Controller or manually configured. Usually they are in the format of 'Domain\user' or 'Domain\group', such as 'BUILTIN\Current User' or 'BUILTIN\Current Group'. Backslash characters must be escaped when provided as input parameters.

Note: The user or group ID used to create the quota may not be in the same format when a quota is retrieved - the value returned may depend on the current state of the user or group mappings tables, but it will refer to the same user or group.

Quotas Object Model

The object model describing this resource contains the following objects.

quota - Quota details

Attribute	JSON type	Data type	Description
filesystemId	string	string	ID of the file system
fromDefaultTemplate	boolean	boolean	True indicates that the quota was created automatically from a default template. False indicates it has been updated or created manually
objectId	string	string	Unique ID of the object
quota	object	quotaUsage	object of type quotaUsage
targetDomain	string	string	Target domain, if the targetName is a CIFS/SMB user or group
targetName	string	string	User or group that the quota is targeted at
targetType	string	string	Target type of the quota. Possible values are: - VIRTUAL_VOLUME - USER - GROUP - UNKNOWN

virtualServerId	integer	integer	ID of the virtual server. 0 = management virtual server 255 = not assigned to virtual server
-----------------	---------	---------	--

quotaTemplate - Quota template details

Attribute	JSON type	Data type	Description
filesystemId	string	string	ID of the file system
ignoreDomainUsers	boolean	boolean	Indicates whether to apply a default group quota to the Windows Domain Users group
quota	object	quotaUsage	object of type quotaUsage
targetType	string	string	Target type of the quota. Possible values are: - VIRTUAL_VOLUME - USER - GROUP - UNKNOWN
virtualServerId	integer	integer	ID of the virtual server. 0 = management virtual server 255 = not assigned to virtual server

quotaThresholdPercentages - Percentages associated with a quota type

Attribute	JSON type	Data type	Description
isHard	boolean	boolean	True indicates there is a hard limit, rather than soft
limit	integer	integer	The upper limit allowed
reset	integer	integer	Percent of the amount of space size or file numbers specified in the limit field at which a reset alert is sent. This value cannot exceed the value of the warning alert. A minimum value is required
severe	integer	integer	Percent of the amount of space or number of file count specified in the limit field at which a severe alert is sent. This value cannot be bigger than 100. A minimum value is required
warning	integer	integer	Percent of the amount of space or number of the file count specified in the limit field at which a warning alert is sent. This value cannot exceed the value of the severe alert. A minimum value is required

quotaUsage - Quota usage details

Attribute	JSON type	Data type	Description
diskUsage	integer	integer	Actual usage of disk space of the quota in bytes
diskUsageThreshold	object	quotaThresholdPercentages	object of type quotaThresholdPercentages
fileCountThreshold	object	quotaThresholdPercentages	object of type quotaThresholdPercentages
fileUsage	integer	integer	Actual number of files covered by the quota
globalId	string	string	Global ID of the quota
logEvent	boolean	boolean	True indicates that quota related events will be logged

Get User And Group Quotas Of A Filesystem

Get user and group quotas of a filesystem.

HTTP request syntax (URI)

```
GET <base_uri>/v9/storage/filesystems/{filesystemId}/quotas
```

Parameters

Parameter	Type	Required	Data Type	Description
filesystemId	path	Y	string	Either the file system ID or the object ID of the file system

Return Codes

Code	Data	Description
200	quotas	List of quota objects successfully retrieved
400	Error message	Bad Request
404	Error message	Not Found - a resource specified was not found
500	Error message	Internal Server Error

Any HTTP status code other than 200 indicates that the API did not complete successfully.

Sample request:

```
curl -k -H "X-API-Key:sample-api-key" -X GET  
"https://10.20.30.40:8444/v9/storage/filesystems/7B263DFD1D71E65A000000000000  
0000/quotas"
```

Sample response:

```

HTTP/1.1 200 OK
{
  "quotas": [
    {
      "filesystemId": "7B263DFD1D71E65A0000000000000000",
      "fromDefaultTemplate": false,
      "objectId": "333a3a3a3a3a3a3a303a3a3a4f49445f24232140255f56",
      "quota": {
        "diskUsage": 12345,
        "diskUsageThreshold": {
          "isHard": false,
          "limit": 12345,
          "reset": 65,
          "severe": 95,
          "warning": 90
        },
        "fileCountThreshold": {
          "isHard": false,
          "limit": 12345,
          "reset": 65,
          "severe": 95,
          "warning": 90
        },
        "fileUsage": 12345,
        "globalId": "b79beb24-a716-11d8-900f-9c5547075e75",
        "logEvent": false
      },
      "targetDomain": "EXAMPLE",
      "targetName": "automation",
      "targetType": "VIRTUAL_VOLUME",
      "virtualServerId": 1
    }
  ]
}

```

Get A Filesystem User Quota

Get a filesystem user quota.

HTTP request syntax (URI)

```
GET <base_uri>/v9/storage/filesystems/{filesystemId}/quotas/user
```

Parameters

Parameter	Type	Required	Data Type	Description
filesystemId	path	Y	string	Either the file system ID or the object ID of the file system
userId	query	Y	string	User ID associated with the quota

Return Codes

Code	Data	Description
200	quota	quota object successfully retrieved
400	Error message	Bad Request
404	Error message	Not Found - a resource specified was not found
500	Error message	Internal Server Error

Any HTTP status code other than 200 indicates that the API did not complete successfully.

Sample request:

```
curl -k -H "X-API-Key:sample-api-key" -X GET
"https://10.20.30.40:8444/v9/storage/filesystems/7B263DFD1D71E65A0000000000000000
0000/quotas/user?userId=700"
```

Sample response:

```
HTTP/1.1 200 OK
{
  "quota": {
    "filesystemId": "7B263DFD1D71E65A0000000000000000",
    "fromDefaultTemplate": false,
    "objectId": "333a3a3a3a3a3a3a303a3a3a4f49445f24232140255f56",
    "quota": {
      "diskUsage": 12345,
      "diskUsageThreshold": {
        "isHard": false,
        "limit": 12345,
        "reset": 65,
        "severe": 95,
        "warning": 90
      },
      "fileCountThreshold": {
        "isHard": false,
        "limit": 12345,
        "reset": 65,
        "severe": 95,
        "warning": 90
      },
      "fileUsage": 12345,
      "globalId": "b79beb24-a716-11d8-900f-9c5547075e75",
      "logEvent": false
    },
    "targetDomain": "EXAMPLE",
    "targetName": "automation",
    "targetType": "VIRTUAL_VOLUME",
    "virtualServerId": 1
  }
}
```


Add A Filesystem User Quota

Add a filesystem user quota.

HTTP request syntax (URI)

```
POST <base_uri>/v9/storage/filesystems/{filesystemId}/quotas/user
```

Parameters

Parameter	Type	Required	Data Type	Description
filesystemId	path	Y	string	Either the file system ID or the object ID of the file system
diskUsageThreshold	body	Y	object	Object of type quotaThresholdPercentages
fileCountThreshold	body	Y	object	Object of type quotaThresholdPercentages
logEvent	body	Y	boolean	True indicates that quota related events will be logged
userId	body	Y	string	User ID associated with the quota

Return Codes

Code	Data	Description
201	quota	Successfully created new item
400	Error message	Bad Request
401	No Data	Unauthorized
403	Error message	Forbidden - the client does not have the required permissions to perform the operation
404	Error message	Not Found - a resource specified was not found
500	Error message	Internal Server Error

Any HTTP status code other than 201 indicates that the API did not complete successfully.

Sample request:

```
curl -k -H "X-Api-Key:sample-api-key" -X POST
"https://10.20.30.40:8444/v9/storage/filesystems/7B263DFD1D71E65A00000000000000000000/quotas/user" -d '{"diskUsageThreshold": {"isHard": false, "limit": 12345, "reset": 65, "severe": 95, "warning": 90}, "fileCountThreshold": {"isHard": false, "limit": 12345, "reset": 65, "severe": 95, "warning": 90}, "logEvent": false, "userId": "700"}'
```

Sample response:

```
HTTP/1.1 201 Created
{
  "quota": {
    "filesystemId": "7B263DFD1D71E65A0000000000000000",
    "fromDefaultTemplate": false,
    "objectId": "333a3a3a3a3a3a303a3a3a4f49445f24232140255f56",
```

```

"quota": {
  "diskUsage": 12345,
  "diskUsageThreshold": {
    "isHard": false,
    "limit": 12345,
    "reset": 65,
    "severe": 95,
    "warning": 90
  },
  "fileCountThreshold": {
    "isHard": false,
    "limit": 12345,
    "reset": 65,
    "severe": 95,
    "warning": 90
  },
  "fileUsage": 12345,
  "globalId": "b79beb24-a716-11d8-900f-9c5547075e75",
  "logEvent": false
},
"targetDomain": "EXAMPLE",
"targetName": "automation",
"targetType": "VIRTUAL_VOLUME",
"virtualServerId": 1
},
"uri":
"https://10.20.30.40:8444/v9/storage/quotas/333a3a3a3a3a3a303a3a3a4f49445f242
32140255f56"
}

```

Get A Filesystem Group Quota

Get a filesystem group quota.

HTTP request syntax (URI)

```
GET <base_uri>/v9/storage/filesystems/{filesystemId}/quotas/group
```

Parameters

Parameter	Type	Required	Data Type	Description
filesystemId	path	Y	string	Either the file system ID or the object ID of the file system
groupId	query	Y	string	Group ID associated with a quota

Return Codes

Code	Data	Description
200	quota	quota object successfully retrieved
400	Error message	Bad Request
404	Error message	Not Found - a resource specified was not found

500	Error message	Internal Server Error
-----	---------------	-----------------------

Any HTTP status code other than 200 indicates that the API did not complete successfully.

Sample request:

```
curl -k -H "X-API-Key:sample-api-key" -X GET
"https://10.20.30.40:8444/v9/storage/filesystems/7B263DFD1D71E65A00000000000000000000/quotas/group?groupId=group1"
```

Sample response:

```
HTTP/1.1 200 OK
{
  "quota": {
    "filesystemId": "7B263DFD1D71E65A0000000000000000",
    "fromDefaultTemplate": false,
    "objectId": "333a3a3a3a3a3a3a303a3a3a4f49445f24232140255f56",
    "quota": {
      "diskUsage": 12345,
      "diskUsageThreshold": {
        "isHard": false,
        "limit": 12345,
        "reset": 65,
        "severe": 95,
        "warning": 90
      },
      "fileCountThreshold": {
        "isHard": false,
        "limit": 12345,
        "reset": 65,
        "severe": 95,
        "warning": 90
      },
      "fileUsage": 12345,
      "globalId": "b79beb24-a716-11d8-900f-9c5547075e75",
      "logEvent": false
    },
    "targetDomain": "EXAMPLE",
    "targetName": "automation",
    "targetType": "VIRTUAL_VOLUME",
    "virtualServerId": 1
  }
}
```

Add A Filesystem Group Quota

Add a filesystem group quota.

HTTP request syntax (URI)

```
POST <base_uri>/v9/storage/filesystems/{filesystemId}/quotas/group
```

Parameters

Parameter	Type	Required	Data Type	Description
filesystemId	path	Y	string	Either the file system ID or the object ID of the file system
diskUsageThreshold	body	Y	object	Object of type quotaThresholdPercentages
fileCountThreshold	body	Y	object	Object of type quotaThresholdPercentages
groupId	body	Y	string	Group ID associated with a quota
logEvent	body	Y	boolean	True indicates that quota related events will be logged

Return Codes

Code	Data	Description
201	quota	Successfully created new item
400	Error message	Bad Request
401	No Data	Unauthorized
403	Error message	Forbidden - the client does not have the required permissions to perform the operation
404	Error message	Not Found - a resource specified was not found
500	Error message	Internal Server Error

Any HTTP status code other than 201 indicates that the API did not complete successfully.

Sample request:

```
curl -k -H "X-API-Key:sample-api-key" -X POST
"https://10.20.30.40:8444/v9/storage/filesystems/7B263DFD1D71E65A0000000000000000
0000/quotas/group" -d '{"diskUsageThreshold": {"isHard": false, "limit":
12345, "reset": 65, "severe": 95, "warning": 90}, "fileCountThreshold":
{"isHard": false, "limit": 12345, "reset": 65, "severe": 95, "warning": 90},
"groupId": "group1", "logEvent": false}'
```

Sample response:

```
HTTP/1.1 201 Created
{
  "quota": {
    "filesystemId": "7B263DFD1D71E65A0000000000000000",
    "fromDefaultTemplate": false,
    "objectId": "333a3a3a3a3a3a303a3a3a4f49445f24232140255f56",
    "quota": {
      "diskUsage": 12345,
      "diskUsageThreshold": {
        "isHard": false,
        "limit": 12345,
        "reset": 65,
        "severe": 95,
        "warning": 90
      },
    },
    "fileCountThreshold": {
```

```

        "isHard": false,
        "limit": 12345,
        "reset": 65,
        "severe": 95,
        "warning": 90
    },
    "fileUsage": 12345,
    "globalId": "b79beb24-a716-11d8-900f-9c5547075e75",
    "logEvent": false
},
"targetDomain": "EXAMPLE",
"targetName": "automation",
"targetType": "VIRTUAL_VOLUME",
"virtualServerId": 1
},
"uri":
"https://10.20.30.40:8444/v9/storage/quotas/333a3a3a3a3a3a303a3a3a4f49445f242
32140255f56"
}

```

Get The Default User Quota Template Of A File System

Get the default user quota template of a file system.

HTTP request syntax (URI)

```
GET <base_uri>/v9/storage/filesystems/{filesystemId}/quota-templates/user
```

Parameters

Parameter	Type	Required	Data Type	Description
filesystemId	path	Y	string	Either the file system ID or the object ID of the file system

Return Codes

Code	Data	Description
200	quotaTemplate	quotaTemplate object successfully retrieved
400	Error message	Bad Request
404	Error message	Not Found - a resource specified was not found
500	Error message	Internal Server Error

Any HTTP status code other than 200 indicates that the API did not complete successfully.

Sample request:

```

curl -k -H "X-API-Key:sample-api-key" -X GET
"https://10.20.30.40:8444/v9/storage/filesystems/7B263DFD1D71E65A000000000000
0000/quota-templates/user"

```

Sample response:

```

HTTP/1.1 200 OK
{
  "quotaTemplate": {
    "filesystemId": "7B263DFD1D71E65A0000000000000000",
    "ignoreDomainUsers": false,
    "quota": {
      "diskUsage": 12345,
      "diskUsageThreshold": {
        "isHard": false,
        "limit": 12345,
        "reset": 65,
        "severe": 95,
        "warning": 90
      },
      "fileCountThreshold": {
        "isHard": false,
        "limit": 12345,
        "reset": 65,
        "severe": 95,
        "warning": 90
      },
      "fileUsage": 12345,
      "globalId": "b79beb24-a716-11d8-900f-9c5547075e75",
      "logEvent": false
    },
    "targetType": "VIRTUAL_VOLUME",
    "virtualServerId": 1
  }
}

```

Set The Default User Quota Template Of A File System

Set the default user quota template of a file system.

HTTP request syntax (URI)

```
PATCH <base_uri>/v9/storage/filesystems/{filesystemId}/quota-templates/user
```

Parameters

Parameter	Type	Required	Data Type	Description
filesystemId	path	Y	string	Either the file system ID or the object ID of the file system
diskUsageThreshold	body	Y	object	Object of type quotaThresholdPercentages
fileCountThreshold	body	Y	object	Object of type quotaThresholdPercentages
logEvent	body	Y	boolean	True indicates that quota related events will be logged

Return Codes

Code	Data	Description
204	No Data	Operation successfully completed
400	Error message	Bad Request
401	No Data	Unauthorized
403	Error message	Forbidden - the client does not have the required permissions to perform the operation
404	Error message	Not Found - a resource specified was not found
500	Error message	Internal Server Error

Any HTTP status code other than 204 indicates that the API did not complete successfully.

Sample request:

```
curl -k -H "X-API-Key:sample-api-key" -X PATCH
"https://10.20.30.40:8444/v9/storage/filesystems/7B263DFD1D71E65A00000000000000000000/quota-templates/user" -d '{"diskUsageThreshold": {"isHard": false,
"limit": 12345, "reset": 65, "severe": 95, "warning": 90},
"fileCountThreshold": {"isHard": false, "limit": 12345, "reset": 65,
"severe": 95, "warning": 90}, "logEvent": false}'
```

Sample response:

```
HTTP/1.1 204 No Content
```

Delete The Default User Quota Template Of A File System

Delete the default user quota template for a filesystem, which effectively leaves a blank template.

HTTP request syntax (URI)

```
DELETE <base_uri>/v9/storage/filesystems/{filesystemId}/quota-templates/user
```

Parameters

Parameter	Type	Required	Data Type	Description
filesystemId	path	Y	string	Either the file system ID or the object ID of the file system

Return Codes

Code	Data	Description
204	No Data	Operation successfully completed
400	Error message	Bad Request
401	No Data	Unauthorized
403	Error message	Forbidden - the client does not have the required permissions to perform the operation

404	Error message	Not Found - a resource specified was not found
500	Error message	Internal Server Error

Any HTTP status code other than 204 indicates that the API did not complete successfully.

Sample request:

```
curl -k -H "X-Api-Key:sample-api-key" -X DELETE
"https://10.20.30.40:8444/v9/storage/filesystems/7B263DFD1D71E65A000000000000
0000/quota-templates/user"
```

Sample response:

```
HTTP/1.1 204 No Content
```

Get The Default Group Quota Template Of A File System

Get the default group quota template of a file system.

HTTP request syntax (URI)

```
GET <base_uri>/v9/storage/filesystems/{filesystemId}/quota-templates/group
```

Parameters

Parameter	Type	Required	Data Type	Description
filesystemId	path	Y	string	Either the file system ID or the object ID of the file system

Return Codes

Code	Data	Description
200	quotaTemplate	quotaTemplate object successfully retrieved
400	Error message	Bad Request
404	Error message	Not Found - a resource specified was not found
500	Error message	Internal Server Error

Any HTTP status code other than 200 indicates that the API did not complete successfully.

Sample request:

```
curl -k -H "X-Api-Key:sample-api-key" -X GET
"https://10.20.30.40:8444/v9/storage/filesystems/7B263DFD1D71E65A000000000000
0000/quota-templates/group"
```

Sample response:

```
HTTP/1.1 200 OK
{
  "quotaTemplate": {
```



```

"filesystemId": "7B263DFD1D71E65A0000000000000000",
"ignoreDomainUsers": false,
"quota": {
  "diskUsage": 12345,
  "diskUsageThreshold": {
    "isHard": false,
    "limit": 12345,
    "reset": 65,
    "severe": 95,
    "warning": 90
  },
  "fileCountThreshold": {
    "isHard": false,
    "limit": 12345,
    "reset": 65,
    "severe": 95,
    "warning": 90
  },
  "fileUsage": 12345,
  "globalId": "b79beb24-a716-11d8-900f-9c5547075e75",
  "logEvent": false
},
"targetType": "VIRTUAL_VOLUME",
"virtualServerId": 1
}
}

```

Set The Default Group Quota Template Of A File System

Set the default group quota template of a file system.

HTTP request syntax (URI)

```
PATCH <base_uri>/v9/storage/filesystems/{filesystemId}/quota-templates/group
```

Parameters

Parameter	Type	Required	Data Type	Description
filesystemId	path	Y	string	Either the file system ID or the object ID of the file system
diskUsageThreshold	body	Y	object	Object of type quotaThresholdPercentages
fileCountThreshold	body	Y	object	Object of type quotaThresholdPercentages
ignoreDomainUsers	body	N	boolean	Indicates whether to apply a default group quota to the Windows Domain Users group
logEvent	body	Y	boolean	True indicates that quota related events will be logged

Return Codes

Code	Data	Description
204	No Data	Operation successfully completed
400	Error message	Bad Request
401	No Data	Unauthorized
403	Error message	Forbidden - the client does not have the required permissions to perform the operation
404	Error message	Not Found - a resource specified was not found
500	Error message	Internal Server Error

Any HTTP status code other than 204 indicates that the API did not complete successfully.

Sample request:

```
curl -k -H "X-API-Key:sample-api-key" -X PATCH
"https://10.20.30.40:8444/v9/storage/filesystems/7B263DFD1D71E65A00000000000000
0000/quota-templates/group" -d '{"diskUsageThreshold": {"isHard": false,
"limit": 12345, "reset": 65, "severe": 95, "warning": 90},
"fileCountThreshold": {"isHard": false, "limit": 12345, "reset": 65,
"severe": 95, "warning": 90}, "ignoreDomainUsers": false, "logEvent": false}'
```

Sample response:

```
HTTP/1.1 204 No Content
```

Delete The Default Group Quota Template Of A File System

Delete the default group quota template for a filesystem, which effectively leaves a blank template.

HTTP request syntax (URI)

```
DELETE <base_uri>/v9/storage/filesystems/{filesystemId}/quota-templates/group
```

Parameters

Parameter	Type	Required	Data Type	Description
filesystemId	path	Y	string	Either the file system ID or the object ID of the file system

Return Codes

Code	Data	Description
204	No Data	Operation successfully completed
400	Error message	Bad Request
401	No Data	Unauthorized


```

HTTP/1.1 200 OK
{
  "quotas": [
    {
      "filesystemId": "7B263DFD1D71E65A0000000000000000",
      "fromDefaultTemplate": false,
      "objectId": "333a3a3a3a3a3a303a3a3a4f49445f24232140255f56",
      "quota": {
        "diskUsage": 12345,
        "diskUsageThreshold": {
          "isHard": false,
          "limit": 12345,
          "reset": 65,
          "severe": 95,
          "warning": 90
        },
        "fileCountThreshold": {
          "isHard": false,
          "limit": 12345,
          "reset": 65,
          "severe": 95,
          "warning": 90
        },
        "fileUsage": 12345,
        "globalId": "b79beb24-a716-11d8-900f-9c5547075e75",
        "logEvent": false
      },
      "targetDomain": "EXAMPLE",
      "targetName": "automation",
      "targetType": "VIRTUAL_VOLUME",
      "virtualServerId": 1
    }
  ]
}

```

Get A Virtual Volume User Quota

Get a virtual volume user quota.

HTTP request syntax (URI)

```
GET <base_uri>/v9/storage/virtual-volumes/{virtualVolumeObjectId}/quotas/user
```

Parameters

Parameter	Type	Required	Data Type	Description
virtualVolumeObjectId	path	Y	string	Object ID of the virtual volume
userId	query	Y	string	User ID associated with the quota

Return Codes

Code	Data	Description
------	------	-------------


```

    "isHard": false,
    "limit": 12345,
    "reset": 65,
    "severe": 95,
    "warning": 90
  },
  "fileCountThreshold": {
    "isHard": false,
    "limit": 12345,
    "reset": 65,
    "severe": 95,
    "warning": 90
  },
  "fileUsage": 12345,
  "globalId": "b79beb24-a716-11d8-900f-9c5547075e75",
  "logEvent": false
},
"targetDomain": "EXAMPLE",
"targetName": "automation",
"targetType": "VIRTUAL_VOLUME",
"virtualServerId": 1
},
"uri":
"https://10.20.30.40:8444/v9/storage/quotas/333a3a3a3a3a3a303a3a3a4f49445f242
32140255f56"
}

```

Get A Virtual Volume Group Quota

Get a virtual volume group quota.

HTTP request syntax (URI)

```
GET <base_uri>/v9/storage/virtual-
volumes/{virtualVolumeObjectId}/quotas/group
```

Parameters

Parameter	Type	Required	Data Type	Description
virtualVolumeObjectId	path	Y	string	Object ID of the virtual volume
groupId	query	Y	string	Group ID associated with a quota

Return Codes

Code	Data	Description
200	quota	quota object successfully retrieved
400	Error message	Bad Request
404	Error message	Not Found - a resource specified was not found
500	Error message	Internal Server Error

Any HTTP status code other than 200 indicates that the API did not complete successfully.


```

        "isHard": false,
        "limit": 12345,
        "reset": 65,
        "severe": 95,
        "warning": 90
    },
    "fileUsage": 12345,
    "globalId": "b79beb24-a716-11d8-900f-9c5547075e75",
    "logEvent": false
},
"targetDomain": "EXAMPLE",
"targetName": "automation",
"targetType": "VIRTUAL_VOLUME",
"virtualServerId": 1
},
"uri":
"https://10.20.30.40:8444/v9/storage/quotas/333a3a3a3a3a3a303a3a3a4f49445f242
32140255f56"
}

```

Create A Virtual Volume Quota

Create a virtual volume quota.

HTTP request syntax (URI)

```
POST <base_uri>/v9/storage/virtual-volumes/{virtualVolumeObjectId}/quotas
```

Parameters

Parameter	Type	Required	Data Type	Description
virtualVolumeObjectId	path	Y	string	Object ID of the virtual volume
diskUsageThreshold	body	Y	object	Object of type quotaThresholdPercentages
fileCountThreshold	body	Y	object	Object of type quotaThresholdPercentages
logEvent	body	Y	boolean	True indicates that quota related events will be logged

Return Codes

Code	Data	Description
201	quota	Successfully created new item
400	Error message	Bad Request
401	No Data	Unauthorized
403	Error message	Forbidden - the client does not have the required permissions to perform the operation
404	Error message	Not Found - a resource specified was not found


```

    },
    "fileUsage": 12345,
    "globalId": "b79beb24-a716-11d8-900f-9c5547075e75",
    "logEvent": false
  },
  "targetType": "VIRTUAL_VOLUME",
  "virtualServerId": 1
}
}

```

Set The Default User Quota Template For A Virtual Volume

Set the default user quota template for a virtual volume.

HTTP request syntax (URI)

```
PATCH <base_uri>/v9/storage/virtual-volumes/{virtualVolumeObjectId}/quota-templates/user
```

Parameters

Parameter	Type	Required	Data Type	Description
virtualVolumeObjectId	path	Y	string	Object ID of the virtual volume
diskUsageThreshold	body	Y	object	Object of type quotaThresholdPercentages
fileCountThreshold	body	Y	object	Object of type quotaThresholdPercentages
logEvent	body	Y	boolean	True indicates that quota related events will be logged

Return Codes

Code	Data	Description
204	No Data	Operation successfully completed
400	Error message	Bad Request
401	No Data	Unauthorized
403	Error message	Forbidden - the client does not have the required permissions to perform the operation
404	Error message	Not Found - a resource specified was not found
500	Error message	Internal Server Error

Any HTTP status code other than 204 indicates that the API did not complete successfully.

Sample request:

```
curl -k -H "X-API-Key:sample-api-key" -X PATCH
"https://10.20.30.40:8444/v9/storage/virtual-
```



```

    "reset": 65,
    "severe": 95,
    "warning": 90
  },
  "fileUsage": 12345,
  "globalId": "b79beb24-a716-11d8-900f-9c5547075e75",
  "logEvent": false
},
"targetType": "VIRTUAL_VOLUME",
"virtualServerId": 1
}
}

```

Set The Default Group Quota Template For A Virtual Volume

Set the default group quota template for a virtual volume.

HTTP request syntax (URI)

```
PATCH <base_uri>/v9/storage/virtual-volumes/{virtualVolumeObjectId}/quota-templates/group
```

Parameters

Parameter	Type	Required	Data Type	Description
virtualVolumeObjectId	path	Y	string	Object ID of the virtual volume
diskUsageThreshold	body	Y	object	Object of type quotaThresholdPercentages
fileCountThreshold	body	Y	object	Object of type quotaThresholdPercentages
ignoreDomainUsers	body	N	boolean	Indicates whether to apply a default group quota to the Windows Domain Users group
logEvent	body	Y	boolean	True indicates that quota related events will be logged

Return Codes

Code	Data	Description
204	No Data	Operation successfully completed
400	Error message	Bad Request
401	No Data	Unauthorized
403	Error message	Forbidden - the client does not have the required permissions to perform the operation
404	Error message	Not Found - a resource specified was not found
500	Error message	Internal Server Error


```

    },
    "fileCountThreshold": {
      "isHard": false,
      "limit": 12345,
      "reset": 65,
      "severe": 95,
      "warning": 90
    },
    "fileUsage": 12345,
    "globalId": "b79beb24-a716-11d8-900f-9c5547075e75",
    "logEvent": false
  },
  "targetDomain": "EXAMPLE",
  "targetName": "automation",
  "targetType": "VIRTUAL_VOLUME",
  "virtualServerId": 1
}
}

```

Modify A Quota

Modify a filesystem or virtual volume quota by object ID.

HTTP request syntax (URI)

```
PATCH <base_uri>/v9/storage/quotas/{quotaObjectId}
```

Parameters

Parameter	Type	Required	Data Type	Description
quotaObjectId	path	Y	string	Object ID of the quota
diskUsageThreshold	body	Y	object	Object of type quotaThresholdPercentages
fileCountThreshold	body	Y	object	Object of type quotaThresholdPercentages
logEvent	body	Y	boolean	True indicates that quota related events will be logged

Return Codes

Code	Data	Description
204	No Data	Operation successfully completed
400	Error message	Bad Request
401	No Data	Unauthorized
403	Error message	Forbidden - the client does not have the required permissions to perform the operation
404	Error message	Not Found - a resource specified was not found
500	Error message	Internal Server Error

Any HTTP status code other than 204 indicates that the API did not complete successfully.

Sample request:

```
curl -k -H "X-API-Key:sample-api-key" -X PATCH
"https://10.20.30.40:8444/v9/storage/quotas/303735454144394645464142344542393
03030303030303030303030303030303030303030303030303a3a3a62373962656232" -d
'{"diskUsageThreshold": {"isHard": false, "limit": 12345, "reset": 65,
"severe": 95, "warning": 90}, "fileCountThreshold": {"isHard": false,
"limit": 12345, "reset": 65, "severe": 95, "warning": 90}, "logEvent":
false}'
```

Sample response:

```
HTTP/1.1 204 No Content
```

Delete A Quota

Delete a filesystem or virtual volume quota by object ID.

HTTP request syntax (URI)

```
DELETE <base_uri>/v9/storage/quotas/{quotaObjectId}
```

Parameters

Parameter	Type	Required	Data Type	Description
quotaObjectId	path	Y	string	Object ID of the quota

Return Codes

Code	Data	Description
204	No Data	Operation successfully completed
400	Error message	Bad Request
401	No Data	Unauthorized
403	Error message	Forbidden - the client does not have the required permissions to perform the operation
404	Error message	Not Found - a resource specified was not found
500	Error message	Internal Server Error

Any HTTP status code other than 204 indicates that the API did not complete successfully.

Sample request:

```
curl -k -H "X-API-Key:sample-api-key" -X DELETE
"https://10.20.30.40:8444/v9/storage/quotas/303735454144394645464142344542393
03030303030303030303030303030303030303030303030303a3a3a62373962656232"
```

Sample response:

```
HTTP/1.1 204 No Content
```

Serving Names Resource

The serving names resource provides management for the serving names used by CIFS/SMB clients to access a virtual server.

Serving Names Object Model

The object model describing this resource contains the following objects.

domain - CIFS/SMB domain details

Attribute	JSON type	Data type	Description
adsName	string	string	Active directory name of the domain
dclpAddress	string	string	IP address of a domain controller that serves the active directory domain
domainGuid	string	string	GUID of the domain
forest	string	string	Forest name, for domains that are not members of a forest, this will be the same as the adsName
isAuthEnabled	boolean	boolean	True if authentication is being enforced for CIFS/SMB clients
isDdnsEnabled	boolean	boolean	True if dynamic DNS registration is enabled
isNetbiosEnabled	boolean	boolean	True if Netbios is enabled
kerberosRealm	string	string	Kerberos realm associated with the domain
nt4Name	string	string	Netbios/NT4 name of the domain
securityMode	string	string	Security mode of the domain. Possible values are: - MIXED - UNIX
virtualServerId	integer	integer	ID of the virtual server. 0 = management virtual server 255 = not assigned to virtual server

servingName - CIFS/SMB serving name

Attribute	JSON type	Data type	Description
dnsSuffix	string	string	Primary DNS suffix of new serving name, if it is different to the DNS name of the domain
domain	string	string	Domain that the serving name is a member of
isDisjoint	boolean	boolean	True if the DNS suffix does not match the DNS name of the domain

isOnline	boolean	boolean	True if the serving name is online and available for client access
mode	string	string	Operating mode of the domain. Possible values are: - NT4 - ADS
objectId	string	string	Unique ID of the object
servingName	string	string	CIFS/SMB serving name
virtualServerId	integer	integer	ID of the virtual server. 0 = management virtual server 255 = not assigned to virtual server

Get Serving Names Of A Virtual Server

Get a list of the CIFS/SMB serving names that the virtual server advertises to clients.

For CIFS/SMB clients to access a virtual server, it needs to have a name, and it must be a member of a specific domain. A virtual server can have multiple names, but they must be in the same domain, and all virtual servers in the global security context must also use the same domain.

HTTP request syntax (URI)

```
GET <base_uri>/v9/storage/virtual-servers/{virtualServerId}/serving-names
```

Parameters

Parameter	Type	Required	Data Type	Description
virtualServerId	path	Y	string or integer	Either the virtual server ID or the object ID of the virtual server

Return Codes

Code	Data	Description
200	servingNames	List of servingName objects successfully retrieved
400	Error message	Bad Request
404	Error message	Not Found - a resource specified was not found
500	Error message	Internal Server Error

Any HTTP status code other than 200 indicates that the API did not complete successfully.

Sample request:

```
curl -k -H "X-Api-Key:sample-api-key" -X GET
"https://10.20.30.40:8444/v9/storage/virtual-servers/1/serving-names"
```

Sample response:

```
HTTP/1.1 200 OK
{
  "servingNames": [
```

```

{
  "dnsSuffix": "accounting.example.com",
  "domain": "ACCOUNTING",
  "isDisjoint": false,
  "isOnline": false,
  "mode": "NT4",
  "objectId": "333a3a3a3a3a3a303a3a3a4f49445f24232140255f56",
  "servingName": "accounting-evs1",
  "virtualServerId": 1
}
]
}

```

Get A Serving Name Of A Virtual Server

Gets details about a specific CIFS/SMB serving name associated with a virtual server.

For CIFS/SMB clients to access a virtual server, it needs to have a name, and it must be a member of a specific domain. A virtual server can have multiple names, but they must be in the same domain, and all virtual servers in the global security context must also use the same domain.

HTTP request syntax (URI)

```
GET <base_uri>/v9/storage/serving-names/{servingNameObjectId}
```

Parameters

Parameter	Type	Required	Data Type	Description
servingNameObjectId	path	Y	string	Object ID of the CIFS/SMB serving name

Return Codes

Code	Data	Description
200	servingName	servingName object successfully retrieved
400	Error message	Bad Request
404	Error message	Not Found - a resource specified was not found
500	Error message	Internal Server Error

Any HTTP status code other than 200 indicates that the API did not complete successfully.

Sample request:

```
curl -k -H "X-Api-Key:sample-api-key" -X GET
"https://10.20.30.40:8444/v9/storage/serving-
names/313a3a3a6d6572637572793131306e312d733a3a3a303a3a3a4f49445f24232140255f5
6"
```

Sample response:

```
HTTP/1.1 200 OK
{
```

```

"servingName": {
  "dnsSuffix": "accounting.example.com",
  "domain": "ACCOUNTING",
  "isDisjoint": false,
  "isOnline": false,
  "mode": "NT4",
  "objectId": "333a3a3a3a3a3a3a303a3a3a4f49445f24232140255f56",
  "servingName": "accounting-evs1",
  "virtualServerId": 1
}
}

```

Add A Serving Name To A Virtual Server

Adds a CIFS/SMB serving name to a virtual server, and sets the domain association, if none is already set.

Active directory mode should be used in almost all cases, but to allow a virtual server to join an NT4 domain, the maximum supported SMB version needs to be set to 1.

HTTP request syntax (URI)

```
POST <base_uri>/v9/storage/virtual-servers/{virtualServerId}/serving-names
```

Parameters

Parameter	Type	Required	Data Type	Description
virtualServerId	path	Y	string or integer	Either the virtual server ID or the object ID of the virtual server
allowMove	body	N	boolean	If the name already exists within the active directory, allow it to be moved
dcFolder	body	N	string	Active directory folder to place the machine account in
dcIpAddress	body	N	string	IP address of a domain controller that serves the active directory domain
dcPassword	body	N	string	Active directory domain controller password
dcUsername	body	N	string	Active directory domain controller username, which needs to have permission to add computer accounts to the domain
dnsSuffix	body	N	string	DNS suffix to append to the serving name, to create the fully qualified serving name
domain	body	N	string	Domain to join - must be supplied, if no name already set for the current context

mode	body	Y	string	Mode of operation. Possible values are: - NT4 - ADS
servingName	body	Y	string	CIFS/SMB serving name

Return Codes

Code	Data	Description
201	servingName	Successfully created new item
400	Error message	Bad Request
401	No Data	Unauthorized
403	Error message	Forbidden - the client does not have the required permissions to perform the operation
404	Error message	Not Found - a resource specified was not found
500	Error message	Internal Server Error

Any HTTP status code other than 201 indicates that the API did not complete successfully.

Sample request:

```
curl -k -H "X-Api-Key:sample-api-key" -X POST
"https://10.20.30.40:8444/v9/storage/virtual-servers/1/serving-names" -d
'{"allowMove": false, "dcFolder": "", "dcIpAddress": "10.3.4.5",
"dcPassword": "pa$$word", "dcUsername": "Administrator", "dnsSuffix":
"accounting.example.com", "domain": "abcdefg", "mode": "NT4", "servingName":
"accounting-evs1"}'
```

Sample response:

```
HTTP/1.1 201 Created
{
  "servingName": {
    "dnsSuffix": "accounting.example.com",
    "domain": "ACCOUNTING",
    "isDisjoint": false,
    "isOnline": false,
    "mode": "NT4",
    "objectId": "333a3a3a3a3a3a303a3a3a4f49445f24232140255f56",
    "servingName": "accounting-evs1",
    "virtualServerId": 1
  },
  "uri": "https://10.20.30.40:8444/v9/storage/serving-
names/333a3a3a3a3a3a303a3a3a4f49445f24232140255f56"
}
```

Delete A Serving Name From A Virtual Server

Deletes a specific CIFS/SMB serving name associated with a virtual server.

If the name was part of an active directory, the name will also be removed from the domain. If it is not possible to contact the domain controllers, or if the name has already been removed from the domain, then use the force option, which will remove the name from the virtual server, irrespective of whether it can be removed from the domain.

HTTP request syntax (URI)

```
DELETE <base_uri>/v9/storage/serving-names/{servingNameObjectId}
```

Parameters

Parameter	Type	Required	Data Type	Description
servingNameObjectId	path	Y	string	Object ID of the CIFS/SMB serving name
force	query	N	boolean	Whether to force the operation, should it fail

Return Codes

Code	Data	Description
204	No Data	Operation successfully completed
400	Error message	Bad Request
401	No Data	Unauthorized
403	Error message	Forbidden - the client does not have the required permissions to perform the operation
404	Error message	Not Found - a resource specified was not found
500	Error message	Internal Server Error

Any HTTP status code other than 204 indicates that the API did not complete successfully.

Sample request:

```
curl -k -H "X-API-Key:sample-api-key" -X DELETE  
"https://10.20.30.40:8444/v9/storage/serving-  
names/313a3a3a6d6572637572793131306e312d733a3a3a303a3a3a4f49445f24232140255f5  
6?force=false"
```

Sample response:

```
HTTP/1.1 204 No Content
```

Get Domain Details For A Virtual Server

Get details about the domain that the virtual server is a member of.

HTTP request syntax (URI)

```
GET <base_uri>/v9/storage/virtual-servers/{virtualServerId}/domains
```

Parameters

Parameter	Type	Required	Data Type	Description
virtualServerId	path	Y	string or integer	Either the virtual server ID or the object ID of the virtual server

Return Codes

Code	Data	Description
200	domains	List of domain objects successfully retrieved
400	Error message	Bad Request
404	Error message	Not Found - a resource specified was not found
500	Error message	Internal Server Error

Any HTTP status code other than 200 indicates that the API did not complete successfully.

Sample request:

```
curl -k -H "X-Api-Key:sample-api-key" -X GET
"https://10.20.30.40:8444/v9/storage/virtual-servers/1/domains"
```

Sample response:

```
HTTP/1.1 200 OK
{
  "domains": [
    {
      "adsName": "accounts.example.com",
      "dcIpAddress": "10.3.4.5",
      "domainGuid": "9ee92771-6b9e-4c4a-9a2b-962e01d882c1",
      "forest": "accounts.example.com",
      "isAuthEnabled": false,
      "isDdnsEnabled": false,
      "isNetbiosEnabled": false,
      "kerberosRealm": "ACCOUNTS.EXAMPLE.COM",
      "nt4Name": "ACCOUNTS",
      "securityMode": "MIXED",
      "virtualServerId": 1
    }
  ]
}
```

Snapshot Rules Resource

The snapshot rules resources provides management for snapshot creation rules and their associated schedules.

Snapshot Rules Object Model

The object model describing this resource contains the following objects.

filesystemSnapshotRule - Snapshot rule

Attribute	JSON type	Data type	Description
filesystemId	string	string	ID of the file system
isValid	boolean	boolean	True if the snapshot rule is valid
name	string	string	Name of the snapshot rule
objectId	string	string	Unique ID of the object
queueSize	integer	integer	The maximum number of snapshots that can be created by this rule. When the maximum number has been reached, the newest snapshot overwrites the oldest one. The maximum is 1024 snapshots per rule
schedules	array	filesystemSnapshotSchedule	List of schedules
virtualServerId	integer	integer	ID of the virtual server. 0 = management virtual server 255 = not assigned to virtual server

filesystemSnapshotSchedule - Snapshot schedule

Attribute	JSON type	Data type	Description
emails	string	string	List of email addresses that will receive snapshot schedule alerts
handle	integer	integer	Index into an array of schedules associated with a snapshot rule
isValid	boolean	boolean	True if the snapshot schedule is valid
objectId	string	string	Unique ID of the object
time	string	string	Unix cron job time format indicating when the schedule will run
virtualServerId	integer	integer	ID of the virtual server. 0 = management virtual server 255 = not assigned to virtual server

snapshot - File system snapshot

Attribute	JSON type	Data type	Description
creationReason	string	string	Reason for snapshot creation. Possible values are: - SNAPSHOT_CREATED_MANUALLY - SNAPSHOT_CREATED_BY_RULE - SNAPSHOT_CREATED_FOR_BACKUP - SNAPSHOT_CREATED_FOR_DATA_MIGRATION_TARGET - SNAPSHOT_CREATED_BY_VSS - SNAPSHOT_CREATED_BY_CFN - SNAPSHOT_CREATED_BY_HSR - SNAPSHOT_CREATED_BY_JET_API - SNAPSHOT_CREATED_FS_UTILITY - SNAPSHOT_CREATED_FOR_DEDUPE - SNAPSHOT_CREATED_RESERVED - SNAPSHOT_CREATED_FOR_MIGRATION_RECOVERY - SNAPSHOT_CREATED_BY_APPLICATION
creationTime	integer	integer	Creation time of the snapshot in posix time format
displayName	string	string	Full name of the snapshot
filesystemId	string	string	ID of the file system
objectId	string	string	Unique ID of the object
snapshotSize	integer	integer	The preserved space that is in use by a snapshot. Note that if the snapshot is deleted, all of the space preserved for it may not be freed since some of the space may also be shared with older snapshots
state	string	string	State of the snapshot. Possible values are: - SNAPSHOT_MANAGEMENT_STATE_USABLE - SNAPSHOT_MANAGEMENT_STATE_DELETE_PENDING - SNAPSHOT_MANAGEMENT_STATE_DELETE_ONGOING - SNAPSHOT_MANAGEMENT_STATE_DEAD - SNAPSHOT_MANAGEMENT_STATE_DELETE_ROOT_ONODE_PASS

Get Snapshot Rules

Gets all snapshot rules associated with a virtual server.

HTTP request syntax (URI)

```
GET <base_uri>/v9/storage/virtual-servers/{virtualServerId}/snapshot-rules
```

Parameters

Parameter	Type	Required	Data Type	Description
-----------	------	----------	-----------	-------------

virtualServerId	path	Y	string or integer	Either the virtual server ID or the object ID of the virtual server
-----------------	------	---	-------------------	---

Return Codes

Code	Data	Description
200	filesystemSnapshotRules	List of filesystemSnapshotRule objects successfully retrieved
400	Error message	Bad Request
404	Error message	Not Found - a resource specified was not found
500	Error message	Internal Server Error

Any HTTP status code other than 200 indicates that the API did not complete successfully.

Sample request:

```
curl -k -H "X-API-Key:sample-api-key" -X GET
"https://10.20.30.40:8444/v9/storage/virtual-servers/1/snapshot-rules"
```

Sample response:

```
HTTP/1.1 200 OK
{
  "filesystemSnapshotRules": [
    {
      "filesystemId": "7B263DFD1D71E65A0000000000000000",
      "isValid": false,
      "name": "SnapshotRule1",
      "objectId": "333a3a3a3a3a3a303a3a3a4f49445f24232140255f56",
      "queueSize": 12345,
      "schedules": [
        {
          "emails": "user1@example.com;user2@example.com",
          "handle": 12345,
          "isValid": false,
          "objectId": "333a3a3a3a3a3a303a3a3a4f49445f24232140255f56",
          "time": "30 16 * * *",
          "virtualServerId": 1
        }
      ],
      "virtualServerId": 1
    }
  ]
}
```

Get A Snapshot Rule

Get a snapshot rule.

HTTP request syntax (URI)

```
GET <base_uri>/v9/storage/snapshot-rules/{snapshotRuleObjectId}
```


POST <base_uri>/v9/storage/snapshot-rules

Parameters

Parameter	Type	Required	Data Type	Description
filesystemId	body	Y	string	Either the file system ID or the object ID of the file system
queueSize	body	Y	integer	The maximum number of snapshots that can be created by this rule. When the maximum number has been reached, the newest snapshot overwrites the oldest one. The maximum is 1024 snapshots per rule
snapshotRuleName	body	Y	string	Name of the snapshot rule

Return Codes

Code	Data	Description
201	filesystemSnapshotRule	Successfully created new item
400	Error message	Bad Request
401	No Data	Unauthorized
403	Error message	Forbidden - the client does not have the required permissions to perform the operation
500	Error message	Internal Server Error

Any HTTP status code other than 201 indicates that the API did not complete successfully.

Sample request:

```
curl -k -H "X-Api-Key:sample-api-key" -X POST
"https://10.20.30.40:8444/v9/storage/snapshot-rules" -d '{"filesystemId":
"7B263DFD1D71E65A0000000000000000", "queueSize": 12345, "snapshotRuleName":
"SnapshotRule1"}'
```

Sample response:

```
HTTP/1.1 201 Created
{
  "filesystemSnapshotRule": {
    "filesystemId": "7B263DFD1D71E65A0000000000000000",
    "isValid": false,
    "name": "SnapshotRule1",
    "objectId": "333a3a3a3a3a3a303a3a3a4f49445f24232140255f56",
    "queueSize": 12345,
    "schedules": [
      {
        "emails": "user1@example.com;user2@example.com",
        "handle": 12345,
        "isValid": false,
        "objectId": "333a3a3a3a3a3a303a3a3a4f49445f24232140255f56",
        "time": "30 16 * * *",
        "virtualServerId": 1
      }
    ]
  }
}
```



```

HTTP/1.1 303 See Other
{
  "filesystemSnapshotRule": {
    "filesystemId": "7B263DFD1D71E65A0000000000000000",
    "isValid": false,
    "name": "SnapshotRule1",
    "objectId": "333a3a3a3a3a3a303a3a3a4f49445f24232140255f56",
    "queueSize": 12345,
    "schedules": [
      {
        "emails": "user1@example.com;user2@example.com",
        "handle": 12345,
        "isValid": false,
        "objectId": "333a3a3a3a3a3a303a3a3a4f49445f24232140255f56",
        "time": "30 16 * * *",
        "virtualServerId": 1
      }
    ],
    "virtualServerId": 1
  },
  "uri": "https://10.20.30.40:8444/v9/storage/snapshot-
rules/333a3a3a3a3a3a303a3a3a4f49445f24232140255f56"
}

```

Delete A Snapshot Rule

Deletes a snapshot rule, and all snapshots associated with the rule.

HTTP request syntax (URI)

```
DELETE <base_uri>/v9/storage/snapshot-rules/{snapshotRuleObjectId}
```

Parameters

Parameter	Type	Required	Data Type	Description
snapshotRuleObjectId	path	Y	string	Object ID of the snapshot rule

Return Codes

Code	Data	Description
204	No Data	Operation successfully completed
400	Error message	Bad Request
401	No Data	Unauthorized
403	Error message	Forbidden - the client does not have the required permissions to perform the operation
404	Error message	Not Found - a resource specified was not found
500	Error message	Internal Server Error

Any HTTP status code other than 204 indicates that the API did not complete successfully.

Statistics Resource

The statistics resource provides access to statistics related to various parts of the system. Note that most statistics report activity for a preset time interval, which is normally the interval of time between the reset time and the current system timestamp. Each statistical type may have its own reset time point.

Statistics Object Model

The object model describing this resource contains the following objects.

element - Statistic element

Attribute	JSON type	Data type	Description
text	string	string	Name of the statistics element
value	string	string	Value of the statistics element

genericStatistics - Statistics

Attribute	JSON type	Data type	Description
errorMessage	string	string	Any error associated with retrieving the statistics
resetTime	integer	integer	Statistics last reset time in posix time format
statistics	array	statistic	Array of statistics

statistic - Statistic group

Attribute	JSON type	Data type	Description
elements	array	element	Array of statistic elements
label	string	string	Label/name of the item
resetTime	integer	integer	Statistics last reset time in posix time format

storageStatistic - Individual statistic

Attribute	JSON type	Data type	Description
name	string	string	Name of the statistic
nodeId	integer	integer	Cluster node ID
nodeUUID	string	string	UUID of the cluster node

value	integer	integer	The value of the statistic. Depending on the type of statistic, this number can be in any units
-------	---------	---------	---

tcpConnection - TCP connection details

Attribute	JSON type	Data type	Description
connectionId	integer	integer	Connection ID
localAddress	string	string	Local address of the connection
localPort	integer	integer	Local TCP port of the connection
nodeId	integer	integer	Cluster node ID
remoteAddress	string	string	Remote address of the connection
remotePort	integer	integer	Remote TCP port of the connection
responses	integer	integer	Number of responses in the last second
rxData	integer	integer	Amount of data received in the last second
txData	integer	integer	Amount of data transmitted in the last second
virtualServerId	integer	integer	ID of the virtual server. 0 = management virtual server 255 = not assigned to virtual server

Get Busiest TCP Connections

Retrieves the busiest TCP connections for all cluster nodes.

This API call does not work on all platforms and will return a maximum of 64 connections for each cluster node, showing the amount of data that has been transmitted/received in the last second. Unlike all other API calls, the response data is pre-sorted before it is returned.

HTTP request syntax (URI)

```
GET <base_uri>/v9/storage/nodes/connections/top
```

Return Codes

Code	Data	Description
200	tcpConnections	List of tcpConnection objects successfully retrieved
500	Error message	Internal Server Error

Any HTTP status code other than 200 indicates that the API did not complete successfully.

Sample request:

```
curl -k -H "X-API-Key:sample-api-key" -X GET
"https://10.20.30.40:8444/v9/storage/nodes/connections/top"
```

Sample response:

```

HTTP/1.1 200 OK
{
  "tcpConnections": [
    {
      "connectionId": 8220,
      "localAddress": "10.1.2.3",
      "localPort": 12345,
      "nodeId": 1,
      "remoteAddress": "10.2.3.4",
      "remotePort": 12345,
      "responses": 12345,
      "rxData": 12345,
      "txData": 12345,
      "virtualServerId": 1
    }
  ]
}

```

Get Busiest TCP Connections For A Node

Retrieves the busiest TCP connections for a cluster node.

This API call does not work on all platforms and will return a maximum of 64 connections, showing the amount of data that has been transmitted/received in the last second. Unlike all other API calls, the response data is pre-sorted before it is returned.

HTTP request syntax (URI)

```
GET <base_uri>/v9/storage/nodes/{nodeId}/connections/top
```

Parameters

Parameter	Type	Required	Data Type	Description
nodeId	path	Y	string or integer	Either a node object ID or a cluster node ID

Return Codes

Code	Data	Description
200	tcpConnections	List of tcpConnection objects successfully retrieved
400	Error message	Bad Request
404	Error message	Not Found - a resource specified was not found
500	Error message	Internal Server Error

Any HTTP status code other than 200 indicates that the API did not complete successfully.

Sample request:

```

curl -k -H "X-API-Key:sample-api-key" -X GET
"https://10.20.30.40:8444/v9/storage/nodes/1/connections/top"

```

Sample response:

```

HTTP/1.1 200 OK
{
  "tcpConnections": [
    {
      "connectionId": 8220,
      "localAddress": "10.1.2.3",
      "localPort": 12345,
      "nodeId": 1,
      "remoteAddress": "10.2.3.4",
      "remotePort": 12345,
      "responses": 12345,
      "rxData": 12345,
      "txData": 12345,
      "virtualServerId": 1
    }
  ]
}

```

Get File Storage Node Statistics

Get file storage node statistics.

HTTP request syntax (URI)

```
GET <base_uri>/v9/storage/statistics/{id}/{statsType}
```

Parameters

Parameter	Type	Required	Data Type	Description
id	path	Y	string or integer	Node object ID or storage node ID. If the statsType parameter is Virus, then this parameter is used to specify a virtual server ID and not the node ID
statsType	path	Y	string	Type of statistics data to retrieve. Possible values are: - CIFS - iSCSI - NFS - NVRAM - TCPIP - DetailedTCPIP - TCPIPPerPort - FTP - SNMP - Virus - FibreChannel - FibreChannelPerPort - EtherNet - EtherNetPerPort - HTTPSManagement - SSCManagement

				- VSSManagement - ReadCache - FileSystemOpsPerSec
--	--	--	--	---

Return Codes

Code	Data	Description
200	genericStatistics	genericStatistics object successfully retrieved
400	Error message	Bad Request
404	Error message	Not Found - a resource specified was not found
500	Error message	Internal Server Error

Any HTTP status code other than 200 indicates that the API did not complete successfully.

Sample request:

```
curl -k -H "X-Api-Key:sample-api-key" -X GET
"https://10.20.30.40:8444/v9/storage/statistics/1/NFS"
```

Sample response:

```
HTTP/1.1 200 OK
{
  "genericStatistics": {
    "errorMessage": "",
    "resetTime": "0",
    "statistics": [
      {
        "elements": [
          {
            "text": "GetAttr",
            "value": "5234"
          }
        ],
        "label": "Version 4",
        "resetTime": "0"
      }
    ]
  }
}
```

Reset File Storage Node Statistics

Reset a specific set of statistics on a cluster node. Not all the statistics that can be retrieved can be reset, but a selection of them can be.

HTTP request syntax (URI)

```
DELETE <base_uri>/v9/storage/statistics/{id}/{statsType}
```

Parameters

Parameter	Type	Required	Data Type	Description
id	path	Y	string or integer	Node object ID or storage node ID. If the statsType parameter is Virus, then this parameter is used to specify a virtual server ID and not the node ID
statsType	path	Y	string	Type of statistics data to reset. Possible values are: - CIFS - iSCSI - NFS - NVRAM - TCPIP - DetailedTCPIP - TCPIPPerPort - FTP - SNMP - Virus - FibreChannel - FibreChannelPerPort - EtherNet - EtherNetPerPort - HTTPManagement - SSCManagement - VSSManagement - ReadCache - FileSystemOpsPerSec

Return Codes

Code	Data	Description
204	No Data	Operation successfully completed
400	Error message	Bad Request
401	No Data	Unauthorized
403	Error message	Forbidden - the client does not have the required permissions to perform the operation
404	Error message	Not Found - a resource specified was not found
500	Error message	Internal Server Error

Any HTTP status code other than 204 indicates that the API did not complete successfully.

Sample request:

```
curl -k -H "X-API-Key:sample-api-key" -X DELETE
"https://10.20.30.40:8444/v9/storage/statistics/1/NFS"
```

Sample response:

```
HTTP/1.1 204 No Content
```

Get File Storage System Statistics

Get file storage system statistics.

HTTP request syntax (URI)

```
GET <base_uri>/v9/storage/statistics/{systemStatsType}
```

Parameters

Parameter	Type	Required	Data Type	Description
systemStatsType	path	Y	string	Either an arbitrary filter string or the following pre-defined type of statistics data to retrieve. In case of an arbitrary string, certain restrictions such as minimum length and excluding some special characters will apply. Possible pre-defined values are: <ul style="list-style-type: none">- TOTAL_OPERATION_PER_SEC- FILESYSTEM_OPERATIONS_VALUE- NVRAM_WAITED_ALLOCS- FSI_CACHE_USAGE- HEAP_USAGE- FIBRECHANNEL_THROUGHPUT_RX- FIBRECHANNEL_THROUGHPUT_TX- ETHERNET_THROUGHPUT_RX- ETHERNET_THROUGHPUT_TX- MFB_LOAD- MMB_LOAD- DISK_READ_LATENCY- DISK_WRITE_LATENCY- DISK_STRIPE_WRITE_LATENCY- PI_TCP_SOCKETS_RECEIVE_FIBRES- CONTEXT_NODE- CONTEXT_FILESYSTEMS- CONTEXT_ALL

Return Codes

Code	Data	Description
200	storageStatistics	List of storageStatistic objects successfully retrieved
400	Error message	Bad Request
404	Error message	Not Found - a resource specified was not found
500	Error message	Internal Server Error

Any HTTP status code other than 200 indicates that the API did not complete successfully.

Sample request:

```
curl -k -H "X-API-Key:sample-api-key" -X GET  
"https://10.20.30.40:8444/v9/storage/statistics/HEAP_USAGE"
```

Sample response:

```

HTTP/1.1 200 OK
{
  "storageStatistics": [
    {
      "name": "Heap Usage (%)",
      "nodeId": 1,
      "nodeUUID": "328511ce-680f-11d1-9001-040400070206",
      "value": "60"
    }
  ]
}

```

Get Multiple File Storage System Statistics

Allows multiple search queries to be specified when retrieving file storage system statistics, allowing more statistics to be returned in a single API call.

HTTP request syntax (URI)

```
GET <base_uri>/v9/storage/statistics
```

Parameters

Parameter	Type	Required	Data Type	Description
systemStatsType	query	Y	array	<p>Either an arbitrary filter string or the following pre-defined type of statistics data to retrieve. In case of an arbitrary string, certain restrictions such as minimum length and excluding some special characters will apply. Possible pre-defined values are:</p> <ul style="list-style-type: none"> - TOTAL_OPERATION_PER_SEC - FILESYSTEM_OPERATIONS_VALUE - NVRAM_WAITED_ALLOCS - FSI_CACHE_USAGE - HEAP_USAGE - FIBRECHANNEL_THROUGHPUT_RX - FIBRECHANNEL_THROUGHPUT_TX - ETHERNET_THROUGHPUT_RX - ETHERNET_THROUGHPUT_TX - MFB_LOAD - MMB_LOAD - DISK_READ_LATENCY - DISK_WRITE_LATENCY - DISK_STRIPE_WRITE_LATENCY - PI_TCP_SOCKETS_RECEIVE_FIBRES - CONTEXT_NODE - CONTEXT_FILESYSTEMS - CONTEXT_ALL

Return Codes

Code	Data	Description
200	storageStatistics	List of storageStatistic objects successfully retrieved
400	Error message	Bad Request
500	Error message	Internal Server Error

Any HTTP status code other than 200 indicates that the API did not complete successfully.

Sample request:

```
curl -k -H "X-API-Key:sample-api-key" -X GET
"https://10.20.30.40:8444/v9/storage/statistics?systemStatsType=HEAP_USAGE"
```

Sample response:

```
HTTP/1.1 200 OK
{
  "storageStatistics": [
    {
      "name": "Heap Usage (%)",
      "nodeId": 1,
      "nodeUUID": "328511ce-680f-11d1-9001-040400070206",
      "value": "60"
    }
  ]
}
```


Storage Pools Resource

The storage pools resource allows management of storage pools, which are containers that provide storage for file systems. File systems consume storage pool space when they are created or as they expand.

Storage Pools Object Model

The object model describing this resource contains the following objects.

filesystem - File system details

Attribute	JSON type	Data type	Description
blockSize	integer	integer	Block size of the file system in bytes
capacity	integer	integer	Actual capacity of the file system in bytes
checkStatus	object	filesystemCheckStatus	object of type filesystemCheckStatus
deviceId	integer	integer	ID of the device
expansionLimits	integer	integer	The maximum size a file system can grow to if expanded
filesystemId	string	string	ID of the file system
freeCapacity	integer	integer	The actual amount of free space within the file system
isConfigTransferEnabled	boolean	boolean	True indicates that any shares or exports associated with the file system will get transferred during object replication
isConfigTransferEnabledValid	boolean	boolean	True if the isConfigTransferEnabled value is valid
isDedupeEnabled	boolean	boolean	True if dedupe is enabled on the file system
isDedupeSupported	boolean	boolean	True if dedupe is supported on the file system
isLogicalCapacityValid	boolean	boolean	True if the value of logicalCapacity is valid
isLogicalFreeCapacityValid	boolean	boolean	True if the value of logicalFreeCapacity is valid
isNDMPRecoveryTarget	boolean	boolean	Indicates if the file system is an NDMP recovery target or not

isNonStrictWORM	boolean	boolean	True if the file system is non-strict Write Once Read Many (WORM)
isObjectReplicationTarget	boolean	boolean	True if the file system is an object replication target
isReadCached	boolean	boolean	True if the file system is a read cache
isReadOnly	boolean	boolean	True if the file system is read-only
isSysLocked	boolean	boolean	True if file system is sys-locked, which is read-only to network protocols, but writeable via NDMP
isThinProvisioningEnabled	boolean	boolean	Indicates if thin provisioning is enabled for the file system or not
isThinProvisioningEnabledValid	boolean	boolean	True if the isThinProvisioningEnabled value is valid
isTiered	boolean	boolean	True if the file system is made up of multiple tiers
isTransferRawXVLSEnabled	boolean	boolean	True indicates that the file system is enabled to transfer links during object replication rather than the file contents
isTransferRawXVLSEnabledValid	boolean	boolean	True if the isTransferRawXVLSEnabled value is valid
isTrueSparseFileEnabled	boolean	boolean	True if sparse files can be created that report use of more than the available capacity of the file system
isTrueSparseFileEnabledValid	boolean	boolean	True if the isTrueSparseFileEnabled value is valid
isUnlimitedExpansion	boolean	boolean	True indicates unlimited expansion is allowed. False indicates expansion is restricted
isWORM	boolean	boolean	True if the file system is Write Once Read Many (WORM)
label	string	string	Label of the file system
logicalCapacity	integer	integer	The capacity value returned to clients. This value may be larger than the actual capacity if thin provisioning is enabled
logicalFreeCapacity	integer	integer	The free capacity value returned to clients. This value may be larger than the actual free capacity if thin provisioning is enabled
objectId	string	string	Unique ID of the object

status	string	string	Status of the file system. Possible values are: - FAILING - FORMATTING - CHECKING - FIXING - NOT_MOUNTED - MOUNTING - MOUNTED - NOT_ON_THIS_NODE - VOLUME_NOT_AVAILABLE_TO_BS
storagePoolId	integer	integer	Storage pool ID
thresholds	object	filesystemThreshold	object of type filesystemThreshold
tierInformation	array	filesystemTierInfo	List of information about each file system tier, if the file system is made up from multiple tiers. Empty if file system is only a single tier
usedCapacity	integer	integer	The amount of space consumed within the capacity
usedSnapshotCapacity	integer	integer	File system capacity that is taken up by snapshots
virtualServerId	integer	integer	ID of the virtual server. 0 = management virtual server 255 = not assigned to virtual server

filesystemCheckStatus - Checkfs/Fixfs status of a file system

Attribute	JSON type	Data type	Description
numberOfPhases	integer	integer	Total number of phases for checkfs or fixfs
phaseId	string	string	Description of the current checkfs/fixfs phase
phaseNumber	integer	integer	Number of the current checkfs/fixfs phase
status	string	string	Status of current operation in progress. Possible values are: - INACTIVE - CHECKING - CHECKED_OK - CHECK_FAILED - CHECK_ABORTED - FIXING - FIXED_OK - FIX_FAILED - FIX_ABORTED - DOES_NOT_EXIST
totalElapsedTime	integer	integer	Total elapsed time of the operation in progress

filesystemThreshold - Warning thresholds for a file system

Attribute	JSON type	Data type	Description
liveReset	integer	integer	Live file system capacity warning reset level percentage, 0 indicates warnings are disabled
liveSevere	integer	integer	Live file system capacity severe warning percentage, 0 indicates warnings are disabled
liveWarning	integer	integer	Live file system capacity warning percentage, 0 indicates warnings are disabled
snapshotReset	integer	integer	Snapshot space capacity warning reset level percentage, 0 indicates warnings are disabled
snapshotSevere	integer	integer	Snapshot space capacity severe warning percentage, 0 indicates warnings are disabled
snapshotWarning	integer	integer	Snapshot space capacity warning percentage, 0 indicates warnings are disabled
stopGrowingAtSevereLevel	boolean	boolean	Stop file system expanding above the severe level
totalReset	integer	integer	Total file system capacity warning reset level percentage, 0 indicates warnings are disabled
totalSevere	integer	integer	Total file system capacity severe warning percentage, 0 indicates warnings are disabled
totalWarning	integer	integer	Total file system capacity warning percentage, 0 indicates warnings are disabled

filesystemTierInfo - Tier information

Attribute	JSON type	Data type	Description
isUnlimitedExpansion	boolean	boolean	True indicates unlimited expansion is allowed. False indicates expansion is restricted
tierCapacity	integer	integer	Capacity of the tier in bytes
tierExpansionLimit	integer	integer	Expansion limit of the tier in bytes. The expansion limit is unlimited if the value is 0xFFFFFFFFFFFFFFFF
tierFreeSpace	integer	integer	Free capacity of the tier in bytes
tierNumber	integer	integer	Tier number

mirrorDrive - Mirrored system drive details

Attribute	JSON type	Data type	Description
label	string	string	Label of the mirror drive
rackName	string	string	The serial number of the storage system to which the system drive belongs
rawLuid	string	string	Globally unique string that represents a storage device
systemDriveId	integer	integer	System drive ID

poolId - Storage pool identifier

Attribute	JSON type	Data type	Description
poolId	integer	integer	Storage pool ID

storageLimits - Storage limits details

Attribute	JSON type	Data type	Description
chunkSize	integer	integer	Chunk size in bytes
defaultChunkSize	integer	integer	Default chunk size - the chunk size determines the ultimate scalability of storage pools and file systems, and determines the size increments in which space can be added to file systems
filesystemLimit	integer	integer	Maximum size a file system can achieve, with the given chunk size value
maxFilesystemSize	integer	integer	Theoretical maximum size of a file system on the current system
maxStoragePoolSize	integer	integer	Theoretical maximum size of a storage pool on the current system
storagePoolLimit	integer	integer	Maximum size a storage pool can achieve, with the given chunk size value

storagePool - Storage pool details

Attribute	JSON type	Data type	Description
capacityWarningThreshold	integer	integer	Percentage fullness at which auto-expansion causes a warning alert
chunkSize	integer	integer	Chunk size in bytes

freeCapacity	integer	integer	The actual amount of free space within the storage pool
isAssignedToLocalCluster	boolean	boolean	True if the storage pool is assigned to the local cluster
isFilesystemExpansionAllowed	boolean	boolean	True indicates that file systems on the storage pool can be expanded
isHealthy	boolean	boolean	True indicates that the storage pool is healthy
isTiered	boolean	boolean	True if the storage pool is made up of multiple tiers
label	string	string	Label of the storage pool
objectId	string	string	Unique ID of the object
storagePoolId	integer	integer	Storage pool ID
tierInformation	array	storagePoolTierInfo	List of information about each storage pool tier, if the storage pool is made up from multiple tiers. Empty if storage pool is only a single tier
totalCapacity	integer	integer	Total capacity in bytes
usedCapacity	integer	integer	The amount of space consumed within the capacity

storagePoolHdpPoolInfo - Underlying HDP pool details

Attribute	JSON type	Data type	Description
arraySerial	string	string	Storage array serial number
freeSpace	integer	integer	Free space (in bytes) of the HDP pool
poolIds	array	poolId	List of other storage pools that are included in this HDP pool
poolNumber	integer	integer	HDP pool number. A value of 65535 indicates the system drive is not part of an HDP pool

storagePoolTierInfo - Tier information

Attribute	JSON type	Data type	Description
tierCapacity	integer	integer	Capacity of the tier in bytes
tierFreeSpace	integer	integer	Free capacity of the tier in bytes
tierNumber	integer	integer	Tier number

stripeset - RAID stripeset details

Attribute	JSON type	Data type	Description
arraySerial	string	string	Storage array serial number
freeSpace	integer	integer	Reported free space. Free space reported may be more than the actual free space, due to virtualization
index	integer	integer	Stripeset index
lowFreePhysicalSpace	boolean	boolean	True if the amount of actual free space is getting low
poolNumber	integer	integer	HDP pool number. A value of 65535 indicates the system drive is not part of an HDP pool
spaceAvailableToFilesystem	integer	integer	Space available for file systems on this stripeset. This field should be ignored if the stripeset is not hosted on an HDP pool
systemDrives	array	systemDrive	A list of system drives
tier	string	string	The tier that the stripeset belongs to. Possible values are: - TIER0 - TIER1 - NO_TIER - BAD_TIER - UNKNOWN_TIER
tierNumber	integer	integer	Tier number
vacatedSpace	integer	integer	Space that was previously in use, that will be reused before new space is allocated
virtualizationType	string	string	Type of virtualization in use by the storage array. Possible values are: - HDP - UVM - DDM_UVM - OTHERS - UNKNOWN

systemDrive - System drive details

Attribute	JSON type	Data type	Description
capacity	integer	integer	Actual capacity of the item in bytes
comment	string	string	Comment associated with the item
controllerPort	string	string	Storage controller port
externalLUN	string	string	External LUN

formattedLuid	string	string	Globally unique string that represents a storage device
internalLUN	string	string	Internal LUN
isAccessAllowed	boolean	boolean	True if access to the system drive is enabled
isAssignedToStoragePool	boolean	boolean	True if the system drive is assigned to a storage pool
isDegraded	boolean	boolean	True if the system drive is degraded in some way
isGad	boolean	boolean	True if the system drive is part of a GAD pair
isInUse	boolean	boolean	True if the system drive is in use
isMirrorPrimary	boolean	boolean	True if the system drive is mirrored and it is the primary mirror
isMirrored	boolean	boolean	True if the drive has a mirror drive associated with it
label	string	string	Label of the system drive
mirrorDrive	object	mirrorDrive	object of type mirrorDrive
model	string	string	Model of the storage system
objectId	string	string	Unique ID of the object
poolNumber	integer	integer	HDP pool number. A value of 65535 indicates the system drive is not part of an HDP pool
queueDepth	integer	integer	The queue depth of a system drive. A value of -1 indicates the system drive is using the default system setting
rackName	string	string	The serial number of the storage system to which the system drive belongs
rawLuid	string	string	Globally unique string that represents a storage device
status	string	string	Status of the system drive. Possible values are: - NOT_PRESENT - DISCONNECTED - OFFLINE - INITIALISING - FAILED - OK - FORMATTING - WRITE_PROTECTED - SECONDARY - INVALID
storagePoolId	integer	integer	Storage pool ID
subModel	string	string	Storage array sub-model

systemDriveId	integer	integer	System drive ID
tier	string	string	The tier that the system drive belongs to. Possible values are: - TIER0 - TIER1 - NO_TIER - BAD_TIER - UNKNOWN_TIER
vendor	string	string	Vendor of storage system
virtualizationType	string	string	Type of virtualization in use by the storage array. Possible values are: - HDP - UVM - DDM_UVM - OTHERS - UNKNOWN

Get Storage Pools

Get storage pools.

HTTP request syntax (URI)

```
GET <base_uri>/v9/storage/storage-pools
```

Return Codes

Code	Data	Description
200	storagePools	List of storagePool objects successfully retrieved
500	Error message	Internal Server Error

Any HTTP status code other than 200 indicates that the API did not complete successfully.

Sample request:

```
curl -k -H "X-Api-Key:sample-api-key" -X GET
"https://10.20.30.40:8444/v9/storage/storage-pools"
```

Sample response:

```
HTTP/1.1 200 OK
{
  "storagePools": [
    {
      "capacityWarningThreshold": 90,
      "chunkSize": "19327352832",
      "freeCapacity": 12345,
      "isAssignedToLocalCluster": false,
      "isFilesystemExpansionAllowed": false,
      "isHealthy": false,
      "isTiered": false,
```

```

    "label": "Pool1",
    "objectId": "333a3a3a3a3a3a303a3a3a4f49445f24232140255f56",
    "storagePoolId": "8873842036252213788",
    "tierInformation": [
      {
        "tierCapacity": 12345,
        "tierFreeSpace": 12345,
        "tierNumber": 0
      }
    ],
    "totalCapacity": 12345,
    "usedCapacity": 12345
  }
]
}

```

Get A Storage Pool

Get a storage pool.

HTTP request syntax (URI)

```
GET <base_uri>/v9/storage/storage-pools/{storagePoolId}
```

Parameters

Parameter	Type	Required	Data Type	Description
storagePoolId	path	Y	string or integer	Either the storage pool ID or the object ID of the storage pool

Return Codes

Code	Data	Description
200	storagePool	storagePool object successfully retrieved
400	Error message	Bad Request
404	Error message	Not Found - a resource specified was not found
500	Error message	Internal Server Error

Any HTTP status code other than 200 indicates that the API did not complete successfully.

Sample request:

```
curl -k -H "X-Api-Key:sample-api-key" -X GET
"https://10.20.30.40:8444/v9/storage/storage-pools/8873842036252213788"
```

Sample response:

```
HTTP/1.1 200 OK
{
  "storagePool": {
    "capacityWarningThreshold": 90,
    "chunkSize": "19327352832",

```

```

"freeCapacity": 12345,
"isAssignedToLocalCluster": false,
"isFilesystemExpansionAllowed": false,
"isHealthy": false,
"isTiered": false,
"label": "Pool1",
"objectId": "333a3a3a3a3a3a3a303a3a3a4f49445f24232140255f56",
"storagePoolId": "8873842036252213788",
"tierInformation": [
  {
    "tierCapacity": 12345,
    "tierFreeSpace": 12345,
    "tierNumber": 0
  }
],
"totalCapacity": 12345,
"usedCapacity": 12345
}
}

```

Create A Storage Pool

Create a storage pool. To create a single tiered storage pool, use the `systemDrives` parameter to supply the list of system drives. To create a multi-tier storage pool, use both the `tier0SystemDrives` and `tier1SystemDrives` parameters to indicate which system drives are to be used for each tier.

HTTP request syntax (URI)

```
POST <base_uri>/v9/storage/storage-pools
```

Parameters

Parameter	Type	Required	Data Type	Description
<code>chunkSize</code>	body	Y	integer	Chunk size in bytes
<code>ignoreBestPractice</code>	body	N	boolean	Ignore storage best practice
<code>label</code>	body	Y	string	Label/name of the item
<code>systemDrives</code>	body	N	array	A list of system drives to be used to create or expand the storage pool. The number of system drives must be at least 4 but cannot exceed 32
<code>tier0SystemDrives</code>	body	N	array	Tier 0 system drives to be used to create the storage pool. The number of system drives must be at least 4 but cannot exceed 32
<code>tier1SystemDrives</code>	body	N	array	Tier 1 system drives to be used to create the storage pool. The number of system drives must be at least 4 but cannot exceed 32

Return Codes

Code	Data	Description
201	storagePool	Successfully created new item
400	Error message	Bad Request
401	No Data	Unauthorized
403	Error message	Forbidden - the client does not have the required permissions to perform the operation
500	Error message	Internal Server Error

Any HTTP status code other than 201 indicates that the API did not complete successfully.

Sample request:

```
curl -k -H "X-Api-Key:sample-api-key" -X POST
"https://10.20.30.40:8444/v9/storage/storage-pools" -d '{"chunkSize":
19327352832, "ignoreBestPractice": false, "label": "name1", "systemDrives": [
12345 ], "tier0SystemDrives": [ 12345 ], "tier1SystemDrives": [ 12345 ]}'
```

Sample response:

```
HTTP/1.1 201 Created
{
  "storagePool": {
    "capacityWarningThreshold": 90,
    "chunkSize": "19327352832",
    "freeCapacity": 12345,
    "isAssignedToLocalCluster": false,
    "isFilesystemExpansionAllowed": false,
    "isHealthy": false,
    "isTiered": false,
    "label": "Pool1",
    "objectId": "333a3a3a3a3a3a303a3a3a4f49445f24232140255f56",
    "storagePoolId": "8873842036252213788",
    "tierInformation": [
      {
        "tierCapacity": 12345,
        "tierFreeSpace": 12345,
        "tierNumber": 0
      }
    ],
    "totalCapacity": 12345,
    "usedCapacity": 12345
  },
  "uri": "https://10.20.30.40:8444/v9/storage/storage-
pools/333a3a3a3a3a3a303a3a3a4f49445f24232140255f56"
}
```

Update A Storage Pool

Update various storage pool related settings. Renaming a storage pool can be achieved by changing the label, and filesystem auto expansion can be controlled. Access to the storage pool can also be enabled or denied.

Access can only be enabled if partial access to the storage pool is already possible - partial access may be due to one or more of the system drives that hosts the storage pool having access granted, but not all of them.

Access can only be denied if there are no filesystems on the storage pool. Access to the associated system drives is also denied at the same time, if access is successfully denied to the storage pool.

The filesystem expansion setting allows or denies the auto-expansion of file systems hosted by the storage pool if they have not been individually confined.

HTTP request syntax (URI)

```
PATCH <base_uri>/v9/storage/storage-pools/{storagePoolId}
```

Parameters

Parameter	Type	Required	Data Type	Description
storagePoolId	path	Y	string or integer	Either the storage pool ID or the object ID of the storage pool
allowFilesystemExpansion	body	N	boolean	Allows or disallows filesystems hosted on the storage pool to automatically expand if not confined
capacityWarningThreshold	body	N	integer	Percentage fullness at which auto-expansion causes a warning alert
enableAccess	body	N	boolean	True to allow the server access to the resource or false to deny access
label	body	N	string	Label/name of the item

Return Codes

Code	Data	Description
204	No Data	Operation successfully completed
400	Error message	Bad Request
401	No Data	Unauthorized
403	Error message	Forbidden - the client does not have the required permissions to perform the operation
404	Error message	Not Found - a resource specified was not found
500	Error message	Internal Server Error

Any HTTP status code other than 204 indicates that the API did not complete successfully.

Sample request:

```
curl -k -H "X-API-Key:sample-api-key" -X PATCH
"https://10.20.30.40:8444/v9/storage/storage-pools/8873842036252213788" -d
'{"allowFilesystemExpansion": false, "capacityWarningThreshold": 90,
"enableAccess": false, "label": "name1"}'
```

Sample response:

Expand A Storage Pool

Expand an existing storage pool by adding a new stripeset. The number of system drives in the new stripeset must match the number of system drives each existing stripeset contains.

HTTP request syntax (URI)

```
POST <base_uri>/v9/storage/storage-pools/{storagePoolId}/expand
```

Parameters

Parameter	Type	Required	Data Type	Description
storagePoolId	path	Y	string or integer	Either the storage pool ID or the object ID of the storage pool
ignoreBestPractice	body	N	boolean	Ignore storage best practice
systemDrives	body	Y	array	A list of system drives to be used to create or expand the storage pool. The number of system drives must be at least 4 but cannot exceed 32
tier	body	N	string	Only required when expanding a tiered storage pool or file system. Possible values are: - TIER0 - TIER1

Return Codes

Code	Data	Description
204	No Data	Operation successfully completed
400	Error message	Bad Request
401	No Data	Unauthorized
403	Error message	Forbidden - the client does not have the required permissions to perform the operation
404	Error message	Not Found - a resource specified was not found
500	Error message	Internal Server Error

Any HTTP status code other than 204 indicates that the API did not complete successfully.

Sample request:

```
curl -k -H "X-API-Key:sample-api-key" -X POST
"https://10.20.30.40:8444/v9/storage/storage-
pools/8873842036252213788/expand" -d '{"ignoreBestPractice": false,
"systemDrives": [ 12345 ], "tier": "TIER0"}'
```

Sample response:

HTTP/1.1 204 No Content

Delete A Storage Pool

Deletes a storage pool. A storage pool can be deleted only after the file systems that were created using the storage pool have been deleted.

HTTP request syntax (URI)

```
DELETE <base_uri>/v9/storage/storage-pools/{storagePoolId}
```

Parameters

Parameter	Type	Required	Data Type	Description
storagePoolId	path	Y	string or integer	Either the storage pool ID or the object ID of the storage pool

Return Codes

Code	Data	Description
204	No Data	Operation successfully completed
400	Error message	Bad Request
401	No Data	Unauthorized
403	Error message	Forbidden - the client does not have the required permissions to perform the operation
404	Error message	Not Found - a resource specified was not found
500	Error message	Internal Server Error

Any HTTP status code other than 204 indicates that the API did not complete successfully.

Sample request:

```
curl -k -H "X-API-Key:sample-api-key" -X DELETE  
"https://10.20.30.40:8444/v9/storage/storage-pools/8873842036252213788"
```

Sample response:

HTTP/1.1 204 No Content

Get Storage Pool Default Capacity Warning Threshold

Get the default capacity warning threshold that is applied to newly created storage pools, and any that have not had the value specifically updated.

HTTP request syntax (URI)

```
GET <base_uri>/v9/storage/storage-pools/default-warning-threshold
```

Return Codes

Code	Data	Description
200	capacityWarningThreshold	integer object successfully retrieved
500	Error message	Internal Server Error

Any HTTP status code other than 200 indicates that the API did not complete successfully.

Sample request:

```
curl -k -H "X-Api-Key:sample-api-key" -X GET
"https://10.20.30.40:8444/v9/storage/storage-pools/default-warning-threshold"
```

Sample response:

```
HTTP/1.1 200 OK
{
  "capacityWarningThreshold": 12345
}
```

Set Storage Pool Default Capacity Warning Threshold

Set the default capacity warning threshold that is applied to newly created storage pools.

HTTP request syntax (URI)

```
PUT <base_uri>/v9/storage/storage-pools/default-warning-threshold
```

Parameters

Parameter	Type	Required	Data Type	Description
capacityWarningThreshold	body	Y	integer	Percentage fullness at which auto-expansion causes a warning alert

Return Codes

Code	Data	Description
204	No Data	Operation successfully completed
400	Error message	Bad Request
401	No Data	Unauthorized
403	Error message	Forbidden - the client does not have the required permissions to perform the operation
500	Error message	Internal Server Error

Any HTTP status code other than 204 indicates that the API did not complete successfully.

Sample request:

```
curl -k -H "X-Api-Key:sample-api-key" -X PUT
"https://10.20.30.40:8444/v9/storage/storage-pools/default-warning-threshold"
-d '{"capacityWarningThreshold": 90}'
```


Sample response:

```
HTTP/1.1 204 No Content
```

Get System Drives Associated With A Storage Pool

Get system drives associated with a storage pool.

HTTP request syntax (URI)

```
GET <base_uri>/v9/storage/storage-pools/{storagePoolId}/system-drives
```

Parameters

Parameter	Type	Required	Data Type	Description
storagePoolId	path	Y	string or integer	Either the storage pool ID or the object ID of the storage pool

Return Codes

Code	Data	Description
200	systemDrives	List of systemDrive objects successfully retrieved
400	Error message	Bad Request
404	Error message	Not Found - a resource specified was not found
500	Error message	Internal Server Error

Any HTTP status code other than 200 indicates that the API did not complete successfully.

Sample request:

```
curl -k -H "X-API-Key:sample-api-key" -X GET  
"https://10.20.30.40:8444/v9/storage/storage-  
pools/8873842036252213788/system-drives"
```

Sample response:

```
HTTP/1.1 200 OK  
{  
  "systemDrives": [  
    {  
      "capacity": 12345,  
      "comment": "This is a comment",  
      "controllerPort": "0100",  
      "externalLUN": "2",  
      "formattedLuid": "60:06:0E:80:12:D1:A9:00:50:40:D1:A9:00:00:00:0D",  
      "internalLUN": "0031",  
      "isAccessAllowed": false,  
      "isAssignedToStoragePool": false,  
      "isDegraded": false,  
      "isGad": false,  
      "isInUse": false,  
      "isMirrorPrimary": false,  
    }  
  ]  
}
```

```

    "isMirrored": false,
    "label": "SD1",
    "mirrorDrive": {
      "label": "name1",
      "rackName": "470651",
      "rawLuid": "03 01 00 60 06 0E 80 12 D1 A9 00 50 40 D1 A9 00 00 00
0D",
      "systemDriveId": 5
    },
    "model": "OPEN-V",
    "objectId": "333a3a3a3a3a3a3a303a3a3a4f49445f24232140255f56",
    "poolNumber": 12345,
    "queueDepth": -1,
    "rackName": "470651",
    "rawLuid": "03 01 00 60 06 0E 80 12 D1 A9 00 50 40 D1 A9 00 00 00 0D",
    "status": "NOT_PRESENT",
    "storagePoolId": "8873842036252213788",
    "subModel": "HM84",
    "systemDriveId": 5,
    "tier": "TIER0",
    "vendor": "HITACHI",
    "virtualizationType": "HDP"
  }
]
}

```

Get Stripesets Associated With A Storage Pool

Get the stripesets that make up a storage pool. When a storage pool is initially created it has one stripeset, and all the data is striped across the system drives in that stripeset. Each time a storage pool is expanded, a further stripeset is added.

HTTP request syntax (URI)

```
GET <base_uri>/v9/storage/storage-pools/{storagePoolId}/stripesets
```

Parameters

Parameter	Type	Required	Data Type	Description
storagePoolId	path	Y	string or integer	Either the storage pool ID or the object ID of the storage pool

Return Codes

Code	Data	Description
200	stripesets	List of stripeset objects successfully retrieved
400	Error message	Bad Request
404	Error message	Not Found - a resource specified was not found
500	Error message	Internal Server Error

Any HTTP status code other than 200 indicates that the API did not complete successfully.

Sample request:

```
curl -k -H "X-Api-Key:sample-api-key" -X GET
"https://10.20.30.40:8444/v9/storage/storage-
pools/8873842036252213788/stripesets"
```

Sample response:

```
HTTP/1.1 200 OK
{
  "stripesets": [
    {
      "arraySerial": "470651",
      "freeSpace": 12345,
      "index": 12345,
      "lowFreePhysicalSpace": false,
      "poolNumber": 12345,
      "spaceAvailableToFilesystem": 12345,
      "systemDrives": [
        {
          "capacity": 12345,
          "comment": "This is a comment",
          "controllerPort": "0100",
          "externalLUN": "2",
          "formattedLuid": "60:06:0E:80:12:D1:A9:00:50:40:D1:A9:00:00:00:0D",
          "internalLUN": "0031",
          "isAccessAllowed": false,
          "isAssignedToStoragePool": false,
          "isDegraded": false,
          "isGad": false,
          "isInUse": false,
          "isMirrorPrimary": false,
          "isMirrored": false,
          "label": "SD1",
          "mirrorDrive": {
            "label": "name1",
            "rackName": "470651",
            "rawLuid": "03 01 00 60 06 0E 80 12 D1 A9 00 50 40 D1 A9 00 00 00
0D",
            "systemDriveId": 5
          },
          "model": "OPEN-V",
          "objectId": "333a3a3a3a3a3a3a303a3a3a4f49445f24232140255f56",
          "poolNumber": 12345,
          "queueDepth": -1,
          "rackName": "470651",
          "rawLuid": "03 01 00 60 06 0E 80 12 D1 A9 00 50 40 D1 A9 00 00 00
0D",
          "status": "NOT_PRESENT",
          "storagePoolId": "8873842036252213788",
          "subModel": "HM84",
          "systemDriveId": 5,
          "tier": "TIER0",
          "vendor": "HITACHI",
          "virtualizationType": "HDP"
        }
      ]
    }
  ],
}
```

```

        "tier": "TIER0",
        "tierNumber": 0,
        "vacatedSpace": 12345,
        "virtualizationType": "HDP"
    }
]
}

```

Get File Systems Associated With A Storage Pool

Get file systems associated with a storage pool.

HTTP request syntax (URI)

```
GET <base_uri>/v9/storage/storage-pools/{storagePoolId}/filesystems
```

Parameters

Parameter	Type	Required	Data Type	Description
storagePoolId	path	Y	string or integer	Either the storage pool ID or the object ID of the storage pool

Return Codes

Code	Data	Description
200	filesystems	List of filesystem objects successfully retrieved
400	Error message	Bad Request
404	Error message	Not Found - a resource specified was not found
500	Error message	Internal Server Error

Any HTTP status code other than 200 indicates that the API did not complete successfully.

Sample request:

```
curl -k -H "X-API-Key:sample-api-key" -X GET
"https://10.20.30.40:8444/v9/storage/storage-pools/8873842036252213788/filesystems"
```

Sample response:

```
HTTP/1.1 200 OK
{
  "filesystems": [
    {
      "blockSize": 32768,
      "capacity": 12345,
      "checkStatus": {
        "numberOfPhases": 12345,
        "phaseId": "abcdefg",
        "phaseNumber": 12345,
        "status": "INACTIVE",
        "totalElapsedTime": 12345
      }
    }
  ]
}
```

```

},
"deviceId": 1024,
"expansionLimits": 12345,
"filesystemId": "7B263DFD1D71E65A0000000000000000",
"freeCapacity": 12345,
"isConfigTransferEnabled": false,
"isConfigTransferEnabledValid": false,
"isDedupeEnabled": false,
"isDedupeSupported": false,
"isLogicalCapacityValid": false,
"isLogicalFreeCapacityValid": false,
"isNDMPRecoveryTarget": false,
"isNonStrictWORM": false,
"isObjectReplicationTarget": false,
"isReadCached": false,
"isReadOnly": false,
"isSysLocked": false,
"isThinProvisioningEnabled": false,
"isThinProvisioningEnabledValid": false,
"isTiered": false,
"isTransferRawXVLSEnabled": false,
"isTransferRawXVLSEnabledValid": false,
"isTrueSparseFileEnabled": false,
"isTrueSparseFileEnabledValid": false,
"isUnlimitedExpansion": false,
"isWORM": false,
"label": "Filesystem1",
"logicalCapacity": 12345,
"logicalFreeCapacity": 12345,
"objectId": "333a3a3a3a3a3a303a3a3a4f49445f24232140255f56",
"status": "FAILING",
"storagePoolId": "8873842036252213788",
"thresholds": {
  "liveReset": 80,
  "liveSevere": 97,
  "liveWarning": 90,
  "snapshotReset": 80,
  "snapshotSevere": 97,
  "snapshotWarning": 90,
  "stopGrowingAtSevereLevel": false,
  "totalReset": 90,
  "totalSevere": 97,
  "totalWarning": 95
},
"tierInformation": [
  {
    "isUnlimitedExpansion": false,
    "tierCapacity": 12345,
    "tierExpansionLimit": 12345,
    "tierFreeSpace": 12345,
    "tierNumber": 0
  }
],
"usedCapacity": 12345,
"usedSnapshotCapacity": 12345,
"virtualServerId": 1
}

```

```
]
}
```

Get HDP Storage Pool Info

Get HDP storage pool info.

HTTP request syntax (URI)

```
GET <base_uri>/v9/storage/storage-pools/{storagePoolId}/hdp
```

Parameters

Parameter	Type	Required	Data Type	Description
storagePoolId	path	Y	string or integer	Either the storage pool ID or the object ID of the storage pool

Return Codes

Code	Data	Description
200	storagePoolHdpPoolInfo	storagePoolHdpPoolInfo object successfully retrieved
400	Error message	Bad Request
404	Error message	Not Found - a resource specified was not found
500	Error message	Internal Server Error

Any HTTP status code other than 200 indicates that the API did not complete successfully.

Sample request:

```
curl -k -H "X-API-Key:sample-api-key" -X GET
"https://10.20.30.40:8444/v9/storage/storage-pools/8873842036252213788/hdp"
```

Sample response:

```
HTTP/1.1 200 OK
{
  "storagePoolHdpPoolInfo": {
    "arraySerial": "470651",
    "freeSpace": 12345,
    "poolIds": [
      {
        "poolId": "530991019344831940"
      }
    ],
    "poolNumber": 12345
  }
}
```

Get Storage Theoretical Limits

Get theoretical limits for storage pools and filesystems, dependent on model type, and chunk size used when configuring storage pools. The results may also be model and license specific.

HTTP request syntax (URI)

```
GET <base_uri>/v9/storage/storage-pools/theoretical-limits
```

Parameters

Parameter	Type	Required	Data Type	Description
chunkSize	query	N	integer	Chunk size in bytes

Return Codes

Code	Data	Description
200	storageLimits	storageLimits object successfully retrieved
400	Error message	Bad Request
500	Error message	Internal Server Error

Any HTTP status code other than 200 indicates that the API did not complete successfully.

Sample request:

```
curl -k -H "X-Api-Key:sample-api-key" -X GET  
"https://10.20.30.40:8444/v9/storage/storage-pools/theoretical-  
limits?chunkSize=19327352832"
```

Sample response:

```
HTTP/1.1 200 OK  
{  
  "storageLimits": {  
    "chunkSize": "19327352832",  
    "defaultChunkSize": "19327352832",  
    "filesystemLimit": "1125899906842624",  
    "maxFilesystemSize": "1125899906842624",  
    "maxStoragePoolSize": "1125899906842624",  
    "storagePoolLimit": "1125899906842624"  
  }  
}
```

System Drives Resource

The system drives resource allows management of system drives that are available to the storage system. Each system drive is a logical unit (LUN) that has been made available from a block storage array.

System Drives Object Model

The object model describing this resource contains the following objects.

mirrorDrive - Mirrored system drive details

Attribute	JSON type	Data type	Description
label	string	string	Label of the mirror drive
rackName	string	string	The serial number of the storage system to which the system drive belongs
rawLuid	string	string	Globally unique string that represents a storage device
systemDriveId	integer	integer	System drive ID

systemDrive - System drive details

Attribute	JSON type	Data type	Description
capacity	integer	integer	Actual capacity of the item in bytes
comment	string	string	Comment associated with the item
controllerPort	string	string	Storage controller port
externalLUN	string	string	External LUN
formattedLuid	string	string	Globally unique string that represents a storage device
internalLUN	string	string	Internal LUN
isAccessAllowed	boolean	boolean	True if access to the system drive is enabled
isAssignedToStoragePool	boolean	boolean	True if the system drive is assigned to a storage pool
isDegraded	boolean	boolean	True if the system drive is degraded in some way
isGad	boolean	boolean	True if the system drive is part of a GAD pair
isInUse	boolean	boolean	True if the system drive is in use
isMirrorPrimary	boolean	boolean	True if the system drive is mirrored and it is the primary mirror

isMirrored	boolean	boolean	True if the drive has a mirror drive associated with it
label	string	string	Label of the system drive
mirrorDrive	object	mirrorDrive	object of type mirrorDrive
model	string	string	Model of the storage system
objectId	string	string	Unique ID of the object
poolNumber	integer	integer	HDP pool number. A value of 65535 indicates the system drive is not part of an HDP pool
queueDepth	integer	integer	The queue depth of a system drive. A value of -1 indicates the system drive is using the default system setting
rackName	string	string	The serial number of the storage system to which the system drive belongs
rawLuid	string	string	Globally unique string that represents a storage device
status	string	string	Status of the system drive. Possible values are: - NOT_PRESENT - DISCONNECTED - OFFLINE - INITIALISING - FAILED - OK - FORMATTING - WRITE_PROTECTED - SECONDARY - INVALID
storagePoolId	integer	integer	Storage pool ID
subModel	string	string	Storage array sub-model
systemDriveId	integer	integer	System drive ID
tier	string	string	The tier that the system drive belongs to. Possible values are: - TIER0 - TIER1 - NO_TIER - BAD_TIER - UNKNOWN_TIER
vendor	string	string	Vendor of storage system
virtualizationType	string	string	Type of virtualization in use by the storage array. Possible values are: - HDP - UVM - DDM_UVM - OTHERS - UNKNOWN

systemDriveLicensedSizes - Storage licensed size details

Attribute	JSON type	Data type	Description
allowedBytes	integer	integer	Maximum allowed storage size, according to the applied licenses
allowedSystemDrives	integer	integer	Maximum number of allowed system drives that can be used
usedBytes	integer	integer	Total available size of the currently configured system drives
usedSystemDrives	integer	integer	Number of system drives that are currently in use

systemDrivePath - System drive path

Attribute	JSON type	Data type	Description
currentHostPort	string	string	Current server host port being used to access the system drive
currentPortName	string	string	Storage array target port where the system drive is being accessed
currentRaidController	string	string	Array controller that the system drive is being access via
preferredHostPort	string	string	Preferred server host port to use when accessing the system drive
preferredPortName	string	string	Preferred storage array target port for accessing the system drive
preferredRaidController	string	string	Preferred array controller that the system drive should be accessed via

systemDrivePort - System drive port

Attribute	JSON type	Data type	Description
bestPathGranularity	string	string	The granularity of the best path. Possible values are: - NONE - CONTROLLER - PORT
currentActivePort	string	string	The storage array target port where the system drive is being accessed
notPreferredPorts	array	string	Ports that the server will use to access the system drive if the preferred ports are not available
preferredControllerWwn	string	string	A mapping to the controller target port

preferredPathGranularity	string	string	The granularity of the preferred path. Possible values are: - NONE - CONTROLLER - PORT
primaryPreferredPorts	array	string	Primary preferred ports that the server will use to access the system drive
secondaryPreferredPorts	array	string	Secondary preferred ports that the server will use to access the system drive

Get System Drives

Get system drives.

HTTP request syntax (URI)

```
GET <base_uri>/v9/storage/system-drives
```

Return Codes

Code	Data	Description
200	systemDrives	List of systemDrive objects successfully retrieved
500	Error message	Internal Server Error

Any HTTP status code other than 200 indicates that the API did not complete successfully.

Sample request:

```
curl -k -H "X-Api-Key:sample-api-key" -X GET
"https://10.20.30.40:8444/v9/storage/system-drives"
```

Sample response:

```
HTTP/1.1 200 OK
{
  "systemDrives": [
    {
      "capacity": 12345,
      "comment": "This is a comment",
      "controllerPort": "0100",
      "externalLUN": "2",
      "formattedLuid": "60:06:0E:80:12:D1:A9:00:50:40:D1:A9:00:00:00:0D",
      "internalLUN": "0031",
      "isAccessAllowed": false,
      "isAssignedToStoragePool": false,
      "isDegraded": false,
      "isGad": false,
      "isInUse": false,
      "isMirrorPrimary": false,
      "isMirrored": false,
      "label": "SD1",
      "mirrorDrive": {
```

```

    "label": "name1",
    "rackName": "470651",
    "rawLuid": "03 01 00 60 06 0E 80 12 D1 A9 00 50 40 D1 A9 00 00 00
0D",
    "systemDriveId": 5
  },
  "model": "OPEN-V",
  "objectId": "333a3a3a3a3a3a3a303a3a3a4f49445f24232140255f56",
  "poolNumber": 12345,
  "queueDepth": -1,
  "rackName": "470651",
  "rawLuid": "03 01 00 60 06 0E 80 12 D1 A9 00 50 40 D1 A9 00 00 00 0D",
  "status": "NOT_PRESENT",
  "storagePoolId": "8873842036252213788",
  "subModel": "HM84",
  "systemDriveId": 5,
  "tier": "TIER0",
  "vendor": "HITACHI",
  "virtualizationType": "HDP"
}
]
}

```

Get A System Drive

Get a system drive.

HTTP request syntax (URI)

```
GET <base_uri>/v9/storage/system-drives/{systemDriveId}
```

Parameters

Parameter	Type	Required	Data Type	Description
systemDriveId	path	Y	string or integer	Either the system drive ID or the object ID of the system drive

Return Codes

Code	Data	Description
200	systemDrive	systemDrive object successfully retrieved
400	Error message	Bad Request
404	Error message	Not Found - a resource specified was not found
500	Error message	Internal Server Error

Any HTTP status code other than 200 indicates that the API did not complete successfully.

Sample request:

```
curl -k -H "X-Api-Key:sample-api-key" -X GET
"https://10.20.30.40:8444/v9/storage/system-drives/5"
```

Sample response:

```
HTTP/1.1 200 OK
{
  "systemDrive": {
    "capacity": 12345,
    "comment": "This is a comment",
    "controllerPort": "0100",
    "externalLUN": "2",
    "formattedLuid": "60:06:0E:80:12:D1:A9:00:50:40:D1:A9:00:00:00:0D",
    "internalLUN": "0031",
    "isAccessAllowed": false,
    "isAssignedToStoragePool": false,
    "isDegraded": false,
    "isGad": false,
    "isInUse": false,
    "isMirrorPrimary": false,
    "isMirrored": false,
    "label": "SD1",
    "mirrorDrive": {
      "label": "name1",
      "rackName": "470651",
      "rawLuid": "03 01 00 60 06 0E 80 12 D1 A9 00 50 40 D1 A9 00 00 00 0D",
      "systemDriveId": 5
    },
    "model": "OPEN-V",
    "objectId": "333a3a3a3a3a3a3a303a3a3a4f49445f24232140255f56",
    "poolNumber": 12345,
    "queueDepth": -1,
    "rackName": "470651",
    "rawLuid": "03 01 00 60 06 0E 80 12 D1 A9 00 50 40 D1 A9 00 00 00 0D",
    "status": "NOT_PRESENT",
    "storagePoolId": "8873842036252213788",
    "subModel": "HM84",
    "systemDriveId": 5,
    "tier": "TIER0",
    "vendor": "HITACHI",
    "virtualizationType": "HDP"
  }
}
```

Update A System Drive

Update settings associated with a system drive.

HTTP request syntax (URI)

```
PATCH <base_uri>/v9/storage/system-drives/{systemDriveId}
```

Parameters

Parameter	Type	Required	Data Type	Description
-----------	------	----------	-----------	-------------

systemDriveId	path	Y	string or integer	Either the system drive ID or the object ID of the system drive
comment	body	N	string	Comment associated with the item
enableAccess	body	N	boolean	True to allow the server access to the resource or false to deny access
queueDepth	body	N	integer	The queue depth of a system drive. The value range for setting is 16 to 512. A value of -1 will reset to the default system setting

Return Codes

Code	Data	Description
204	No Data	Operation successfully completed
400	Error message	Bad Request
401	No Data	Unauthorized
403	Error message	Forbidden - the client does not have the required permissions to perform the operation
404	Error message	Not Found - a resource specified was not found
500	Error message	Internal Server Error

Any HTTP status code other than 204 indicates that the API did not complete successfully.

Sample request:

```
curl -k -H "X-Api-Key:sample-api-key" -X PATCH
"https://10.20.30.40:8444/v9/storage/system-drives/5" -d '{"comment": "This
is a comment", "enableAccess": false, "queueDepth": -1}'
```

Sample response:

```
HTTP/1.1 204 No Content
```

Delete System Drive

System drives maintain the same ID even if they disappear and then reappear. If the device is permanently removed from the storage array, the system will continue to remember the ID unless it's specifically asked to delete it.

HTTP request syntax (URI)

```
DELETE <base_uri>/v9/storage/system-drives/{systemDriveId}
```

Parameters

Parameter	Type	Required	Data Type	Description
systemDriveId	path	Y	string or integer	Either the system drive ID or the object ID of the system drive

Return Codes

Code	Data	Description
204	No Data	Operation successfully completed
400	Error message	Bad Request
401	No Data	Unauthorized
403	Error message	Forbidden - the client does not have the required permissions to perform the operation
404	Error message	Not Found - a resource specified was not found
500	Error message	Internal Server Error

Any HTTP status code other than 204 indicates that the API did not complete successfully.

Sample request:

```
curl -k -H "X-API-Key:sample-api-key" -X DELETE  
"https://10.20.30.40:8444/v9/storage/system-drives/5"
```

Sample response:

```
HTTP/1.1 204 No Content
```

Refresh SCSI System Drives

Refreshes all SCSI system drives of all nodes in a storage system. System drives should be refreshed when changes have been made, or new storage attached to a system.

HTTP request syntax (URI)

```
POST <base_uri>/v9/storage/system-drives/scsi-refresh
```

Return Codes

Code	Data	Description
204	No Data	Operation successfully completed
401	No Data	Unauthorized
403	Error message	Forbidden - the client does not have the required permissions to perform the operation
500	Error message	Internal Server Error

Any HTTP status code other than 204 indicates that the API did not complete successfully.

Sample request:

```
curl -k -H "X-API-Key:sample-api-key" -X POST  
"https://10.20.30.40:8444/v9/storage/system-drives/scsi-refresh"
```

Sample response:

Get System Drive Licensed Sizes

Get the total and current allowed bytes and number of system drives that can be used according to the currently applied licenses.

HTTP request syntax (URI)

```
GET <base_uri>/v9/storage/system-drives/licensed-sizes
```

Return Codes

Code	Data	Description
200	systemDriveLicensedSizes	systemDriveLicensedSizes object successfully retrieved
500	Error message	Internal Server Error

Any HTTP status code other than 200 indicates that the API did not complete successfully.

Sample request:

```
curl -k -H "X-API-Key:sample-api-key" -X GET
"https://10.20.30.40:8444/v9/storage/system-drives/licensed-sizes"
```

Sample response:

```
HTTP/1.1 200 OK
{
  "systemDriveLicensedSizes": {
    "allowedBytes": 12345,
    "allowedSystemDrives": 12345,
    "usedBytes": 12345,
    "usedSystemDrives": 12345
  }
}
```

Get Path Info For A System Drive

Get path info for a system drive.

HTTP request syntax (URI)

```
GET <base_uri>/v9/storage/system-drives/{systemDriveId}/paths
```

Parameters

Parameter	Type	Required	Data Type	Description
-----------	------	----------	-----------	-------------

systemDriveId	path	Y	string or integer	Either the system drive ID or the object ID of the system drive
---------------	------	---	-------------------	---

Return Codes

Code	Data	Description
200	systemDrivePath	systemDrivePath object successfully retrieved
400	Error message	Bad Request
404	Error message	Not Found - a resource specified was not found
500	Error message	Internal Server Error

Any HTTP status code other than 200 indicates that the API did not complete successfully.

Sample request:

```
curl -k -H "X-API-Key:sample-api-key" -X GET
"https://10.20.30.40:8444/v9/storage/system-drives/5/paths"
```

Sample response:

```
HTTP/1.1 200 OK
{
  "systemDrivePath": {
    "currentHostPort": "3",
    "currentPortName": "50:06:0E:80:12:D1:A9:00",
    "currentRaidController": "03/A/5040D1A9-1",
    "preferredHostPort": "",
    "preferredPortName": "",
    "preferredRaidController": ""
  }
}
```

Get Port Info For A System Drive

Get port info for a system drive.

HTTP request syntax (URI)

```
GET <base_uri>/v9/storage/system-drives/{systemDriveId}/ports
```

Parameters

Parameter	Type	Required	Data Type	Description
systemDriveId	path	Y	string or integer	Either the system drive ID or the object ID of the system drive

Return Codes

Code	Data	Description
200	systemDrivePort	systemDrivePort object successfully retrieved
400	Error message	Bad Request

404	Error message	Not Found - a resource specified was not found
500	Error message	Internal Server Error

Any HTTP status code other than 200 indicates that the API did not complete successfully.

Sample request:

```
curl -k -H "X-API-Key:sample-api-key" -X GET
"https://10.20.30.40:8444/v9/storage/system-drives/5/ports"
```

Sample response:

```
HTTP/1.1 200 OK
{
  "systemDrivePort": {
    "bestPathGranularity": "NONE",
    "currentActivePort": "CL1-1A",
    "notPreferredPorts": [
      ""
    ],
    "preferredControllerWwn": "00:00:00:00:00:00:00:00",
    "preferredPathGranularity": "NONE",
    "primaryPreferredPorts": [
      ""
    ],
    "secondaryPreferredPorts": [
      ""
    ]
  }
}
```

Virtual Servers Resource

The virtual servers resource allows management of virtualized file services or administrative services. Each virtual server is assigned unique network settings and storage resources, providing the flexibility to logically partition access to shared storage resources.

Virtual servers are may also be referenced using EVS (Enterprise Virtual Server).

Virtual Servers Object Model

The object model describing this resource contains the following objects.

auditLogCache - File system audit log cache for a virtual server

Attribute	JSON type	Data type	Description
filesystemId	string	string	ID of the file system
filesystemLabel	string	string	Label of the file system
isEnabled	boolean	boolean	True if enabled, false for disabled
logFileName	string	string	Name of the auditing log file
logFileSize	integer	integer	Maximum size that the log file can grow to, in bytes
state	string	string	State of the audit logging cache. Possible values are: - UNKNOWN - DISABLED - NOT_MOUNTED - LOG_FAILED - LOG_ACTIVE - UNLICENSED - UNSAFE - REPLICATION - RECOVERY_TARGET - EXTERNAL
virtualServerId	integer	integer	ID of the virtual server. 0 = management virtual server 255 = not assigned to virtual server

auditPolicy - Audit log policy for a file system

Attribute	JSON type	Data type	Description
auditNfsv3	boolean	boolean	True indicates that NFSv3 file access will be audited, in addition to SMB file access, which will always be audited

backupInterval	integer	integer	Time between backups of the active audit log, in seconds. A value of 0 indicates that backups are disabled
backupLimit	integer	integer	Number of backup audit log files that will be retained
external	boolean	boolean	True indicates that the logging is external, and not stored on the file system
filesystemId	string	string	ID of the file system
filesystemLabel	string	string	Label of the file system
isEnabled	boolean	boolean	True if enabled, false for disabled
logFileName	string	string	Name of the auditing log file
logFileSize	integer	integer	Maximum size that the log file can grow to, in bytes
rotatePolicy	string	string	Whether the audit log file overwrites old entries when the file is full, or if a new file is created. Possible values are: - OVERWRITE - CREATE
state	string	string	State of audit logging. Possible values are: - UNKNOWN - DISABLED - NOT_MOUNTED - LOG_FAILED - LOG_ACTIVE - UNLICENSED - UNSAFE - REPLICATION - RECOVERY_TARGET - EXTERNAL
unsafePolicy	string	string	Action taken when a non-audited protocol attempts access to a file system. Possible values are: - DENY - IGNORE

dnsConfig - DNS configuration

Attribute	JSON type	Data type	Description
context	string	string	Indicates if the object is specific to an EVS or global to the whole system. Possible values are: - INDIVIDUAL - GLOBAL
dnsDomain	string	string	DNS domain
dnsServers	array	string	List of IP addresses for DNS servers

searchOrder	array	string	Specifies a list of DNS search domains, in the order they should be used
-------------	-------	--------	--

icapScanServer - ICAP virus scan server details

Attribute	JSON type	Data type	Description
hostName	string	string	Hostname of the virus scan server
ipAddress	string	string	IP address of ICAP virus scan server
isEnabled	boolean	boolean	True if enabled, false for disabled
objectId	string	string	Unique ID of the object
port	integer	integer	TCP port used to communicate with the ICAP virus scan server
serviceName	string	string	Service name used for the virus scan service
status	string	string	Status of the ICAP virus scan server. Possible values are: - OK - NOT_RESPONDING - NOT_LICENSED - ERROR - CONNECTING - DISABLED - ADDRESS_LOOKUP_FAILED

ipAddressDetails - IP address details

Attribute	JSON type	Data type	Description
cidr	string	string	Length of the network mask, in bits, in a format that can be appended to the IP address
ipAddress	string	string	IPv4 or IPv6 address
netmask	string	string	Subnet mask
port	string	string	Port that the IP address is associated with - this can either be a physical, aggregate or VLAN interface

ldapConfig - LDAP configuration

Attribute	JSON type	Data type	Description
context	string	string	Indicates if the object is specific to an EVS or global to the whole system. Possible values are: - INDIVIDUAL - GLOBAL

domain	string	string	LDAP domain
isEnabled	boolean	boolean	True if enabled, false for disabled
ldapVersion	integer	integer	LDAP version to use when communicating with the LDAP servers
rebindPeriod	integer	integer	Period in minutes between attempts to rebind to the current server
schema	string	string	Schema used to lookup values from the LDAP. Possible values are: - RFC2307 - SFU - IMU - AD
servers	array	ldapServer	List of LDAP servers
useTls	boolean	boolean	True indicates secure (TLS) communications will be used for communication
userName	string	string	User name used to authenticate with the LDAP servers

ldapSearchConfig - LDAP search configuration

Attribute	JSON type	Data type	Description
common	array	string	List of common search paths within the LDAP structure
context	string	string	Indicates if the object is specific to an EVS or global to the whole system. Possible values are: - INDIVIDUAL - GLOBAL
group	array	string	List of search paths within the LDAP structure for group lookups
host	array	string	List of search paths within the LDAP structure for host lookups
netgroup	array	string	List of search paths within the LDAP structure for netgroup lookups
searchSubTree	boolean	boolean	True indicates that subtrees will be searched within the LDAP structure
user	array	string	List of search paths within the LDAP structure for user lookups

ldapServer - LDAP server details

Attribute	JSON type	Data type	Description
dnsName	string	string	DNS name of the LDAP server

ipAddress	string	string	IP address of LDAP server
port	integer	integer	TCP port used to communicate with the LDAP server
tlsPort	integer	integer	Port used for TLS, secure communication

nameServiceOrder - Name services order

Attribute	JSON type	Data type	Description
context	string	string	Indicates if the object is specific to an EVS or global to the whole system. Possible values are: - INDIVIDUAL - GLOBAL
order	array	string	List of name services - the services position in the list indicates its priority for name lookup

nfsVersions - NFS versions supported

Attribute	JSON type	Data type	Description
availableVersions	array	string	List of versions supported by the system
maxSupported	string	string	The maximum supported version of the file serving protocol that the system will allow clients to use. Possible values are: - NFS2 - NFS3 - NFS4 - NFS4_1
minSupported	string	string	The minimum supported version of the file serving protocol that the system will allow clients to use. Possible values are: - NFS2 - NFS3 - NFS4 - NFS4_1

nisConfig - NIS configuration

Attribute	JSON type	Data type	Description
broadcastServers	array	nisServer	List of NIS servers discovered by broadcast, if discovery by broadcast is enabled
characterSet	string	string	Character set to use when making NIS requests. [LATIN-1 UTF-8]
configuredServers	array	nisServer	List of specifically configured NIS servers

context	string	string	Indicates if the object is specific to an EVS or global to the whole system. Possible values are: - INDIVIDUAL - GLOBAL
currentMaster	string	string	Current server acting as the NIS master
domain	string	string	NIS domain
isEnabled	boolean	boolean	True if enabled, false for disabled
maxBindResponseTime	integer	integer	Time in milliseconds, that the NIS client will wait for a response from the NIS server
rebindPeriod	integer	integer	Period in minutes between attempts to rebind to the current server
useBroadcast	boolean	boolean	True indicates NIS servers can be discovered via broadcast messages

nisLdapMode - NIS or LDAP mode settings

Attribute	JSON type	Data type	Description
context	string	string	Indicates if the object is specific to an EVS or global to the whole system. Possible values are: - INDIVIDUAL - GLOBAL
isEnabled	boolean	boolean	True if enabled, false for disabled
mode	string	string	Mode of operation. Possible values are: - NIS - LDAP

nisServer - NIS server details

Attribute	JSON type	Data type	Description
ipAddress	string	string	IP address of NIS server
priority	integer	integer	Priority relating to the order with which the servers are used

node - Cluster node details

Attribute	JSON type	Data type	Description
UUID	string	string	Universally unique ID
firmwareVersion	string	string	Firmware version running on the cluster or node

hardware	string	string	Hardware platform
ipAddresses	array	string	List of one or more IP addresses
model	string	string	Model of the node
name	string	string	Name of the node
nodeId	integer	integer	Cluster node ID
objectId	string	string	Unique ID of the object
serial	string	string	Serial number of the node
status	string	string	Status of the node. Possible values are: - INVALID - UNKNOWN - UP - ONLINE - NOT_UP - DEAD - DORMANT
uptime	string	string	Textural representation of the node uptime
uptimeInSeconds	integer	integer	Node uptime in seconds

preferredNode - Preferred cluster node

Attribute	JSON type	Data type	Description
currentNodeId	integer	integer	Current node that the virtual server is running on
preferredNodeId	integer	integer	ID of the preferred node to host the virtual server. A value of 0 indicates that there is no preferred node
virtualServerId	integer	integer	ID of the virtual server. 0 = management virtual server 255 = not assigned to virtual server

rpcScanServer - RPC virus scan server details

Attribute	JSON type	Data type	Description
domain	string	string	Domain name of the virus scan service
inUse	boolean	boolean	True indicates virus scan server is in use
ipAddress	string	string	IP address of RPC virus scan server
name	string	string	Name of the RPC virus scan server
objectId	string	string	Unique ID of the object
status	string	string	Status of the RPC virus scan server. Possible values are: - OK - NOT_RESPONDING

			<ul style="list-style-type: none"> - NOT_LICENSED - ERROR - CONNECTING - DISABLED - ADDRESS_LOOKUP_FAILED
--	--	--	--

securityContext - Security context of virtual server

Attribute	JSON type	Data type	Description
context	string	string	Indicates if the object is specific to an EVS or global to the whole system. Possible values are: <ul style="list-style-type: none"> - INDIVIDUAL - GLOBAL

securityMode - Security mode of and item

Attribute	JSON type	Data type	Description
levelConfigured	string	string	An indication of which level the security mode is configured. If not specifically configured, the mode is inherited from a higher level. Possible values are: <ul style="list-style-type: none"> - VIRTUAL_SERVER - FILESYSTEM - VIRTUAL_VOLUME
mode	string	string	Security mode. Possible values are: <ul style="list-style-type: none"> - MIXED - UNIX

smbVersions - SMB versions supported

Attribute	JSON type	Data type	Description
availableVersions	array	string	List of versions supported by the system
maxSupported	string	string	The maximum supported version of the file serving protocol that the system will allow clients to use. Possible values are: <ul style="list-style-type: none"> - SMB1 - SMB2 - SMB2_1 - SMB3
minSupported	string	string	The minimum supported version of the file serving protocol that the system will allow clients to use. Possible values are: <ul style="list-style-type: none"> - SMB1 - SMB2

			- SMB2_1 - SMB3
--	--	--	--------------------

virtualServer - Virtual server (EVS) details

Attribute	JSON type	Data type	Description
UUID	string	string	Universally unique ID
ipAddresses	array	string	List of one or more IP addresses
isEnabled	boolean	boolean	True if enabled, false for disabled
name	string	string	Name of the virtual server (EVS)
objectId	string	string	Unique ID of the object
status	string	string	Status of the virtual server. Possible values are: - NOT_CONFIGURED - DISABLED - ONLINE - OFFLINE
type	string	string	Type of virtual server
virtualServerId	integer	integer	ID of the virtual server. 0 = management virtual server 255 = not assigned to virtual server

virusScan - Virus scanning configuration

Attribute	JSON type	Data type	Description
bestEffort	boolean	boolean	True indicates that access to files will not be denied if there are no available virus scanners available and the file requires scanning, or if there was an error from the virus scan server that did not indicate that a virus is present
isEnabled	boolean	boolean	True if enabled, false for disabled
mode	string	string	Mode of communication with virus scan servers. Possible values are: - RPC - ICAP
scanAllFileTypes	boolean	boolean	True indicates that all files will be scanned, irrespective of their file extension. False indicates that virus scanning will be restricted to files with extensions in the file extensions list
scanServers	array	rpcScanServer or icapScanServer	List of virus scan servers

virusScanInclusionList - File types to virus scan

Attribute	JSON type	Data type	Description
fileExtensions	array	string	A list of file extensions that will be included in virus scans
scanAllFileTypes	boolean	boolean	True indicates that all files will be scanned, irrespective of their file extension. False indicates that virus scanning will be restricted to files with extensions in the file extensions list

winsConfig - WINS configuration

Attribute	JSON type	Data type	Description
context	string	string	Indicates if the object is specific to an EVS or global to the whole system. Possible values are: - INDIVIDUAL - GLOBAL
servers	array	string	List of WINS server IP addresses

Get Virtual Servers

Get virtual servers.

HTTP request syntax (URI)

```
GET <base_uri>/v9/storage/virtual-servers
```

Return Codes

Code	Data	Description
200	virtualServers	List of virtualServer objects successfully retrieved
500	Error message	Internal Server Error

Any HTTP status code other than 200 indicates that the API did not complete successfully.

Sample request:

```
curl -k -H "X-API-Key:sample-api-key" -X GET  
"https://10.20.30.40:8444/v9/storage/virtual-servers"
```

Sample response:

```
HTTP/1.1 200 OK  
{  
  "virtualServers": [  
    {  
      "UUID": "14ea72ac-a546-11d6-9001-0bef787b2638",
```

```

    "ipAddresses": [
      "10.1.2.3"
    ],
    "isEnabled": false,
    "name": "evs1",
    "objectId": "333a3a3a3a3a3a303a3a3a4f49445f24232140255f56",
    "status": "NOT_CONFIGURED",
    "type": "File services",
    "virtualServerId": 1
  }
]
}

```

Get A Virtual Server

Get a virtual server.

HTTP request syntax (URI)

```
GET <base_uri>/v9/storage/virtual-servers/{virtualServerId}
```

Parameters

Parameter	Type	Required	Data Type	Description
virtualServerId	path	Y	string or integer	Either the virtual server ID or the object ID of the virtual server

Return Codes

Code	Data	Description
200	virtualServer	virtualServer object successfully retrieved
400	Error message	Bad Request
404	Error message	Not Found - a resource specified was not found
500	Error message	Internal Server Error

Any HTTP status code other than 200 indicates that the API did not complete successfully.

Sample request:

```
curl -k -H "X-API-Key:sample-api-key" -X GET
"https://10.20.30.40:8444/v9/storage/virtual-servers/1"
```

Sample response:

```

HTTP/1.1 200 OK
{
  "virtualServer": {
    "UUID": "14ea72ac-a546-11d6-9001-0bef787b2638",
    "ipAddresses": [
      "10.1.2.3"
    ],
    "isEnabled": false,

```

```

    "name": "evs1",
    "objectId": "333a3a3a3a3a3a303a3a3a4f49445f24232140255f56",
    "status": "NOT_CONFIGURED",
    "type": "File services",
    "virtualServerId": 1
  }
}

```

Create A Virtual Server

Create a virtual server.

HTTP request syntax (URI)

```
POST <base_uri>/v9/storage/virtual-servers
```

Parameters

Parameter	Type	Required	Data Type	Description
ipAddress	body	Y	string	IP address - generally IPv4 and IPv6 are supported in most cases
name	body	Y	string	Name to associate with the item
netmask	body	Y	string or integer	Netmask specified as either x.x.x.x for an IPv4 address or can be provided as a prefix length which would be valid for both IPv4 or IPv6 addresses
nodeId	body	N	string or integer	Either a node object ID or a cluster node ID
port	body	Y	string	Name or object ID of an aggregate port or a VLAN object ID to assign the IP address to

Return Codes

Code	Data	Description
201	virtualServer	Successfully created new item
400	Error message	Bad Request
401	No Data	Unauthorized
403	Error message	Forbidden - the client does not have the required permissions to perform the operation
500	Error message	Internal Server Error

Any HTTP status code other than 201 indicates that the API did not complete successfully.

Sample request:

```

curl -k -H "X-Api-Key:sample-api-key" -X POST
"https://10.20.30.40:8444/v9/storage/virtual-servers" -d '{"ipAddress":
"10.1.2.3", "name": "Name2", "netmask": 18, "nodeId": 1, "port": "ag1"}'

```

Sample response:

```
HTTP/1.1 201 Created
{
  "virtualServer": {
    "UUID": "14ea72ac-a546-11d6-9001-0bef787b2638",
    "ipAddresses": [
      "10.1.2.3"
    ],
    "isEnabled": false,
    "name": "evs1",
    "objectId": "333a3a3a3a3a3a303a3a3a4f49445f24232140255f56",
    "status": "NOT_CONFIGURED",
    "type": "File_services",
    "virtualServerId": 1
  },
  "uri": "https://10.20.30.40:8444/v9/storage/virtual-
servers/333a3a3a3a3a3a303a3a3a4f49445f24232140255f56"
}
```

Rename A Virtual Server

Rename a virtual server.

HTTP request syntax (URI)

```
PATCH <base_uri>/v9/storage/virtual-servers/{virtualServerId}
```

Parameters

Parameter	Type	Required	Data Type	Description
virtualServerId	path	Y	string or integer	Either the virtual server ID or the object ID of the virtual server
name	body	Y	string	Name to associate with the item

Return Codes

Code	Data	Description
204	No Data	Operation successfully completed
400	Error message	Bad Request
401	No Data	Unauthorized
403	Error message	Forbidden - the client does not have the required permissions to perform the operation
404	Error message	Not Found - a resource specified was not found
500	Error message	Internal Server Error

Any HTTP status code other than 204 indicates that the API did not complete successfully.

Sample request:

```
curl -k -H "X-Api-Key:sample-api-key" -X PATCH
"https://10.20.30.40:8444/v9/storage/virtual-servers/1" -d '{"name":
"Name2"}'
```

Sample response:

```
HTTP/1.1 204 No Content
```

Delete A Virtual Server

Delete a virtual server.

HTTP request syntax (URI)

```
DELETE <base_uri>/v9/storage/virtual-servers/{virtualServerId}
```

Parameters

Parameter	Type	Required	Data Type	Description
virtualServerId	path	Y	string or integer	Either the virtual server ID or the object ID of the virtual server

Return Codes

Code	Data	Description
204	No Data	Operation successfully completed
400	Error message	Bad Request
401	No Data	Unauthorized
403	Error message	Forbidden - the client does not have the required permissions to perform the operation
404	Error message	Not Found - a resource specified was not found
500	Error message	Internal Server Error

Any HTTP status code other than 204 indicates that the API did not complete successfully.

Sample request:

```
curl -k -H "X-Api-Key:sample-api-key" -X DELETE
"https://10.20.30.40:8444/v9/storage/virtual-servers/1"
```

Sample response:

```
HTTP/1.1 204 No Content
```

Enable A Virtual Server

Enable a virtual server.

HTTP request syntax (URI)

```
POST <base_uri>/v9/storage/virtual-servers/{virtualServerId}/enable
```

Parameters

Parameter	Type	Required	Data Type	Description
virtualServerId	path	Y	string or integer	Either the virtual server ID or the object ID of the virtual server

Return Codes

Code	Data	Description
204	No Data	Operation successfully completed
400	Error message	Bad Request
401	No Data	Unauthorized
403	Error message	Forbidden - the client does not have the required permissions to perform the operation
404	Error message	Not Found - a resource specified was not found
500	Error message	Internal Server Error

Any HTTP status code other than 204 indicates that the API did not complete successfully.

Sample request:

```
curl -k -H "X-API-Key:sample-api-key" -X POST  
"https://10.20.30.40:8444/v9/storage/virtual-servers/1/enable"
```

Sample response:

```
HTTP/1.1 204 No Content
```

Disable A Virtual Server

Disable a virtual server.

HTTP request syntax (URI)

```
POST <base_uri>/v9/storage/virtual-servers/{virtualServerId}/disable
```

Parameters

Parameter	Type	Required	Data Type	Description
virtualServerId	path	Y	string or integer	Either the virtual server ID or the object ID of the virtual server

Return Codes

Code	Data	Description
204	No Data	Operation successfully completed

400	Error message	Bad Request
401	No Data	Unauthorized
403	Error message	Forbidden - the client does not have the required permissions to perform the operation
404	Error message	Not Found - a resource specified was not found
500	Error message	Internal Server Error

Any HTTP status code other than 204 indicates that the API did not complete successfully.

Sample request:

```
curl -k -H "X-API-Key:sample-api-key" -X POST
"https://10.20.30.40:8444/v9/storage/virtual-servers/1/disable"
```

Sample response:

```
HTTP/1.1 204 No Content
```

Get IP Addresses Of A Virtual Server

Get IP addresses of a virtual server.

HTTP request syntax (URI)

```
GET <base_uri>/v9/storage/virtual-servers/{virtualServerId}/ip-addresses
```

Parameters

Parameter	Type	Required	Data Type	Description
virtualServerId	path	Y	string or integer	Either the virtual server ID or the object ID of the virtual server

Return Codes

Code	Data	Description
200	ipAddresses	List of string objects successfully retrieved
400	Error message	Bad Request
404	Error message	Not Found - a resource specified was not found
500	Error message	Internal Server Error

Any HTTP status code other than 200 indicates that the API did not complete successfully.

Sample request:

```
curl -k -H "X-API-Key:sample-api-key" -X GET
"https://10.20.30.40:8444/v9/storage/virtual-servers/1/ip-addresses"
```

Sample response:

```
HTTP/1.1 200 OK
{
  "ipAddresses": [
    "10.1.2.3"
  ]
}
```

Get IP Address Details For A Virtual Server

Get IP address details for a virtual server.

HTTP request syntax (URI)

```
GET <base_uri>/v9/storage/virtual-servers/{virtualServerId}/ip-address-
details
```

Parameters

Parameter	Type	Required	Data Type	Description
virtualServerId	path	Y	string or integer	Either the virtual server ID or the object ID of the virtual server

Return Codes

Code	Data	Description
200	ipAddressDetails	List of ipAddressDetails objects successfully retrieved
400	Error message	Bad Request
404	Error message	Not Found - a resource specified was not found
500	Error message	Internal Server Error

Any HTTP status code other than 200 indicates that the API did not complete successfully.

Sample request:

```
curl -k -H "X-API-Key:sample-api-key" -X GET
"https://10.20.30.40:8444/v9/storage/virtual-servers/1/ip-address-details"
```

Sample response:

```
HTTP/1.1 200 OK
{
  "ipAddressDetails": [
    {
      "cidr": "/18",
      "ipAddress": "10.1.2.3",
      "netmask": "255.255.192.0",
      "port": "ag1"
    }
  ]
}
```

Add An IP Address To A Virtual Server

Add an IP address to a virtual server.

HTTP request syntax (URI)

```
POST <base_uri>/v9/storage/virtual-servers/{virtualServerId}/ip-addresses
```

Parameters

Parameter	Type	Required	Data Type	Description
virtualServerId	path	Y	string or integer	Either the virtual server ID or the object ID of the virtual server
ipAddress	body	Y	string	IP address - generally IPv4 and IPv6 are supported in most cases
netmask	body	Y	string or integer	Netmask specified as either x.x.x.x for an IPv4 address or can be provided as a prefix length which would be valid for both IPv4 or IPv6 addresses
port	body	Y	string	Name or object ID of an aggregate port or a VLAN object ID to assign the IP address to

Return Codes

Code	Data	Description
204	No Data	Operation successfully completed
400	Error message	Bad Request
401	No Data	Unauthorized
403	Error message	Forbidden - the client does not have the required permissions to perform the operation
404	Error message	Not Found - a resource specified was not found
500	Error message	Internal Server Error

Any HTTP status code other than 204 indicates that the API did not complete successfully.

Sample request:

```
curl -k -H "X-API-Key:sample-api-key" -X POST  
"https://10.20.30.40:8444/v9/storage/virtual-servers/1/ip-addresses" -d  
'{"ipAddress": "10.1.2.3", "netmask": 18, "port": "ag1"}'
```

Sample response:

```
HTTP/1.1 204 No Content
```

Delete An IP Address From A Virtual Server

Delete an IP address from a virtual server.

HTTP request syntax (URI)

```
DELETE <base_uri>/v9/storage/virtual-servers/{virtualServerId}/ip-addresses/{ipAddress}
```

Parameters

Parameter	Type	Required	Data Type	Description
ipAddress	path	Y	string	IP address to delete
virtualServerId	path	Y	string or integer	Either the virtual server ID or the object ID of the virtual server

Return Codes

Code	Data	Description
204	No Data	Operation successfully completed
400	Error message	Bad Request
401	No Data	Unauthorized
403	Error message	Forbidden - the client does not have the required permissions to perform the operation
404	Error message	Not Found - a resource specified was not found
500	Error message	Internal Server Error

Any HTTP status code other than 204 indicates that the API did not complete successfully.

Sample request:

```
curl -k -H "X-API-Key:sample-api-key" -X DELETE  
"https://10.20.30.40:8444/v9/storage/virtual-servers/1/ip-addresses/10.1.2.3"
```

Sample response:

```
HTTP/1.1 204 No Content
```

Get The Node Associated With A Virtual Server

Get the node associated with a virtual server.

HTTP request syntax (URI)

```
GET <base_uri>/v9/storage/virtual-servers/{virtualServerId}/nodes
```

Parameters

Parameter	Type	Required	Data Type	Description
-----------	------	----------	-----------	-------------

virtualServerId	path	Y	string or integer	Either the virtual server ID or the object ID of the virtual server
-----------------	------	---	-------------------	---

Return Codes

Code	Data	Description
200	nodes	List of node objects successfully retrieved
400	Error message	Bad Request
404	Error message	Not Found - a resource specified was not found
500	Error message	Internal Server Error

Any HTTP status code other than 200 indicates that the API did not complete successfully.

Sample request:

```
curl -k -H "X-API-Key:sample-api-key" -X GET
"https://10.20.30.40:8444/v9/storage/virtual-servers/1/nodes"
```

Sample response:

```
HTTP/1.1 200 OK
{
  "nodes": [
    {
      "UUID": "14ea72ac-a546-11d6-9001-0bef787b2638",
      "firmwareVersion": "14.9.7916.02",
      "hardware": "NAS Platform",
      "ipAddresses": [
        "10.1.2.3"
      ],
      "model": "HNAS 5300",
      "name": "Node1",
      "nodeId": 1,
      "objectId": "333a3a3a3a3a3a303a3a3a4f49445f24232140255f56",
      "serial": "C1E1KW1922006",
      "status": "INVALID",
      "uptime": "2 days 16 hours 52 minutes 36 seconds",
      "uptimeInSeconds": 12345
    }
  ]
}
```

Get Virtual Server Automatic Failback

Get virtual server automatic failback.

HTTP request syntax (URI)

```
GET <base_uri>/v9/storage/virtual-servers/auto-failback
```

Return Codes

Code	Data	Description
200	automaticFailback	boolean object successfully retrieved
500	Error message	Internal Server Error

Any HTTP status code other than 200 indicates that the API did not complete successfully.

Sample request:

```
curl -k -H "X-Api-Key:sample-api-key" -X GET
"https://10.20.30.40:8444/v9/storage/virtual-servers/auto-failback"
```

Sample response:

```
HTTP/1.1 200 OK
{
  "automaticFailback": false
}
```

Disable Virtual Server Automatic Failback

Disable automatic failback of virtual servers to their preferred cluster nodes.

When disabled, if a virtual server is automatically migrated away from a failed node, it will not be automatically migrated back to the recovered node as per their preferred mapping.

HTTP request syntax (URI)

```
POST <base_uri>/v9/storage/virtual-servers/auto-failback/disable
```

Return Codes

Code	Data	Description
204	No Data	Operation successfully completed
401	No Data	Unauthorized
403	Error message	Forbidden - the client does not have the required permissions to perform the operation
500	Error message	Internal Server Error

Any HTTP status code other than 204 indicates that the API did not complete successfully.

Sample request:

```
curl -k -H "X-Api-Key:sample-api-key" -X POST
"https://10.20.30.40:8444/v9/storage/virtual-servers/auto-failback/disable"
```

Sample response:

```
HTTP/1.1 204 No Content
```

Enable Virtual Server Automatic Failback

Enable automatic failback of virtual servers to their preferred cluster nodes.

When enabled, the virtual servers that were automatically migrated away from a failed node will be migrated back automatically to the recovered node as per their preferred mapping, which will result in a short unplanned virtual server down time.

HTTP request syntax (URI)

```
POST <base_uri>/v9/storage/virtual-servers/auto-failback/enable
```

Return Codes

Code	Data	Description
204	No Data	Operation successfully completed
401	No Data	Unauthorized
403	Error message	Forbidden - the client does not have the required permissions to perform the operation
500	Error message	Internal Server Error

Any HTTP status code other than 204 indicates that the API did not complete successfully.

Sample request:

```
curl -k -H "X-Api-Key:sample-api-key" -X POST  
"https://10.20.30.40:8444/v9/storage/virtual-servers/auto-failback/enable"
```

Sample response:

```
HTTP/1.1 204 No Content
```

Get Preferred Node For All Virtual Servers

Get the preferred cluster node for all file serving virtual servers, and the current node that hosts each virtual server.

HTTP request syntax (URI)

```
GET <base_uri>/v9/storage/virtual-servers/preferred-node
```

Return Codes

Code	Data	Description
200	preferredNodes	List of preferredNode objects successfully retrieved
500	Error message	Internal Server Error

Any HTTP status code other than 200 indicates that the API did not complete successfully.

Sample request:


```
curl -k -H "X-Api-Key:sample-api-key" -X GET
"https://10.20.30.40:8444/v9/storage/virtual-servers/preferred-node"
```

Sample response:

```
HTTP/1.1 200 OK
{
  "preferredNodes": [
    {
      "currentNodeId": 1,
      "preferredNodeId": 1,
      "virtualServerId": 1
    }
  ]
}
```

Set Preferred Node For All Virtual Servers

Set the preferred cluster node for each virtual server, to the cluster node that it is currently hosted on. It is not possible to set a preferred node for the admin virtual server.

HTTP request syntax (URI)

```
POST <base_uri>/v9/storage/virtual-servers/preferred-node
```

Return Codes

Code	Data	Description
204	No Data	Operation successfully completed
401	No Data	Unauthorized
403	Error message	Forbidden - the client does not have the required permissions to perform the operation
500	Error message	Internal Server Error

Any HTTP status code other than 204 indicates that the API did not complete successfully.

Sample request:

```
curl -k -H "X-Api-Key:sample-api-key" -X POST
"https://10.20.30.40:8444/v9/storage/virtual-servers/preferred-node"
```

Sample response:

```
HTTP/1.1 204 No Content
```

Migrate Virtual Servers To Preferred Nodes

Migrate all virtual servers to their preferred cluster node, if it has been set. Virtual servers with no cluster node preference will not be migrated.

HTTP request syntax (URI)

```
POST <base_uri>/v9/storage/virtual-servers/migrate-preferred-node
```

Return Codes

Code	Data	Description
204	No Data	Operation successfully completed
401	No Data	Unauthorized
403	Error message	Forbidden - the client does not have the required permissions to perform the operation
500	Error message	Internal Server Error

Any HTTP status code other than 204 indicates that the API did not complete successfully.

Sample request:

```
curl -k -H "X-API-Key:sample-api-key" -X POST  
"https://10.20.30.40:8444/v9/storage/virtual-servers/migrate-preferred-node"
```

Sample response:

```
HTTP/1.1 204 No Content
```

Migrate Virtual Server To Specific Cluster Node

Migrates a virtual server from one physical node to another one. Any clients may experience a momentary disruption, as they will need to disconnect and reconnect once the virtual server has moved.

HTTP request syntax (URI)

```
POST <base_uri>/v9/storage/virtual-servers/{virtualServerId}/migrate
```

Parameters

Parameter	Type	Required	Data Type	Description
virtualServerId	path	Y	string or integer	Either the virtual server ID or the object ID of the virtual server
destinationNodeId	body	Y	string or integer	Either a node object ID or a cluster node ID of the destination node

Return Codes

Code	Data	Description
------	------	-------------

204	No Data	Operation successfully completed
400	Error message	Bad Request
401	No Data	Unauthorized
403	Error message	Forbidden - the client does not have the required permissions to perform the operation
404	Error message	Not Found - a resource specified was not found
500	Error message	Internal Server Error

Any HTTP status code other than 204 indicates that the API did not complete successfully.

Sample request:

```
curl -k -H "X-API-Key:sample-api-key" -X POST
"https://10.20.30.40:8444/v9/storage/virtual-servers/1/migrate" -d
'{"destinationNodeId": 2}'
```

Sample response:

```
HTTP/1.1 204 No Content
```

Set Virtual Server Preferred Node

Each virtual server can have a preferred cluster node, to allow for load to be distributed around a cluster. The preferred nodes can be set all at once or individually.

HTTP request syntax (URI)

```
POST <base_uri>/v9/storage/virtual-servers/{virtualServerId}/preferred-node
```

Parameters

Parameter	Type	Required	Data Type	Description
virtualServerId	path	Y	string or integer	Either the virtual server ID or the object ID of the virtual server
nodeId	body	Y	string or integer	Either a node object ID or a cluster node ID

Return Codes

Code	Data	Description
204	No Data	Operation successfully completed
400	Error message	Bad Request
401	No Data	Unauthorized
403	Error message	Forbidden - the client does not have the required permissions to perform the operation
404	Error message	Not Found - a resource specified was not found
500	Error message	Internal Server Error

Any HTTP status code other than 204 indicates that the API did not complete successfully.

Sample request:

```
curl -k -H "X-API-Key:sample-api-key" -X POST
"https://10.20.30.40:8444/v9/storage/virtual-servers/1/preferred-node" -d
'{"nodeId": 1}'
```

Sample response:

```
HTTP/1.1 204 No Content
```

Clear Virtual Server Preferred Node

Clear virtual server preferred node.

HTTP request syntax (URI)

```
DELETE <base_uri>/v9/storage/virtual-servers/{virtualServerId}/preferred-node
```

Parameters

Parameter	Type	Required	Data Type	Description
virtualServerId	path	Y	string or integer	Either the virtual server ID or the object ID of the virtual server

Return Codes

Code	Data	Description
204	No Data	Operation successfully completed
400	Error message	Bad Request
401	No Data	Unauthorized
403	Error message	Forbidden - the client does not have the required permissions to perform the operation
404	Error message	Not Found - a resource specified was not found
500	Error message	Internal Server Error

Any HTTP status code other than 204 indicates that the API did not complete successfully.

Sample request:

```
curl -k -H "X-API-Key:sample-api-key" -X DELETE
"https://10.20.30.40:8444/v9/storage/virtual-servers/1/preferred-node"
```

Sample response:

```
HTTP/1.1 204 No Content
```

Get File System Audit Policies For A Virtual Server

Get the audit policies for all file systems associated with a virtual server.

HTTP request syntax (URI)

```
GET <base_uri>/v9/storage/virtual-servers/{virtualServerId}/filesystems/audit-policies
```

Parameters

Parameter	Type	Required	Data Type	Description
virtualServerId	path	Y	string or integer	Either the virtual server ID or the object ID of the virtual server

Return Codes

Code	Data	Description
200	auditPolicies	List of auditPolicy objects successfully retrieved
400	Error message	Bad Request
404	Error message	Not Found - a resource specified was not found
500	Error message	Internal Server Error

Any HTTP status code other than 200 indicates that the API did not complete successfully.

Sample request:

```
curl -k -H "X-API-Key:sample-api-key" -X GET "https://10.20.30.40:8444/v9/storage/virtual-servers/1/filesystems/audit-policies"
```

Sample response:

```
HTTP/1.1 200 OK
{
  "auditPolicies": [
    {
      "auditNfsv3": false,
      "backupInterval": 12345,
      "backupLimit": 12345,
      "external": false,
      "filesystemId": "7B263DFD1D71E65A0000000000000000",
      "filesystemLabel": "Filesystem1",
      "isEnabled": false,
      "logFileName": "/.audit/events.evt",
      "logFileSize": 12345,
      "rotatePolicy": "OVERWRITE",
      "state": "UNKNOWN",
      "unsafePolicy": "DENY"
    }
  ]
}
```

Get Default File System Audit Policy For A Virtual Server

Get default file system audit policy for a virtual server.

HTTP request syntax (URI)

```
GET <base_uri>/v9/storage/virtual-servers/{virtualServerId}/filesystems/default-audit-policy
```

Parameters

Parameter	Type	Required	Data Type	Description
virtualServerId	path	Y	string or integer	Either the virtual server ID or the object ID of the virtual server

Return Codes

Code	Data	Description
200	auditPolicy	auditPolicy object successfully retrieved
400	Error message	Bad Request
404	Error message	Not Found - a resource specified was not found
500	Error message	Internal Server Error

Any HTTP status code other than 200 indicates that the API did not complete successfully.

Sample request:

```
curl -k -H "X-Api-Key:sample-api-key" -X GET "https://10.20.30.40:8444/v9/storage/virtual-servers/1/filesystems/default-audit-policy"
```

Sample response:

```
HTTP/1.1 200 OK
{
  "auditPolicy": {
    "auditNfsv3": false,
    "backupInterval": 12345,
    "backupLimit": 12345,
    "external": false,
    "filesystemId": "7B263DFD1D71E65A0000000000000000",
    "filesystemLabel": "Filesystem1",
    "isEnabled": false,
    "logFileName": "/.audit/events.evt",
    "logFileSize": 12345,
    "rotatePolicy": "OVERWRITE",
    "state": "UNKNOWN",
    "unsafePolicy": "DENY"
  }
}
```

Get File System Audit Log Cache File For A Virtual Server

Get the audit log cache file details for a virtual server.

HTTP request syntax (URI)

```
GET <base_uri>/v9/storage/virtual-servers/{virtualServerId}/filesystems/audit-log-cache
```

Parameters

Parameter	Type	Required	Data Type	Description
virtualServerId	path	Y	string or integer	Either the virtual server ID or the object ID of the virtual server

Return Codes

Code	Data	Description
200	auditLogCache	auditLogCache object successfully retrieved
400	Error message	Bad Request
404	Error message	Not Found - a resource specified was not found
500	Error message	Internal Server Error

Any HTTP status code other than 200 indicates that the API did not complete successfully.

Sample request:

```
curl -k -H "X-Api-Key:sample-api-key" -X GET "https://10.20.30.40:8444/v9/storage/virtual-servers/1/filesystems/audit-log-cache"
```

Sample response:

```
HTTP/1.1 200 OK
{
  "auditLogCache": {
    "filesystemId": "7B263DFD1D71E65A0000000000000000",
    "filesystemLabel": "Filesystem1",
    "isEnabled": false,
    "logFileName": "/.audit/events.evt",
    "logFileSize": 12345,
    "state": "UNKNOWN",
    "virtualServerId": 1
  }
}
```

Set File System Audit Log Cache File For A Virtual Server

Set file system audit log cache file for a virtual server.

HTTP request syntax (URI)

```
POST <base_uri>/v9/storage/virtual-servers/{virtualServerId}/filesystems/audit-log-cache
```

Parameters

Parameter	Type	Required	Data Type	Description
virtualServerId	path	Y	string or integer	Either the virtual server ID or the object ID of the virtual server
filesystemId	body	Y	string	Either the file system ID or the object ID of the file system
logFileName	body	Y	string	Name of the auditing log file. Must start with a / and have the extension .evt
logFileSize	body	N	integer	Maximum size that the log file can grow to, in bytes - maximum 50MB

Return Codes

Code	Data	Description
204	No Data	Operation successfully completed
400	Error message	Bad Request
401	No Data	Unauthorized
403	Error message	Forbidden - the client does not have the required permissions to perform the operation
404	Error message	Not Found - a resource specified was not found
500	Error message	Internal Server Error

Any HTTP status code other than 204 indicates that the API did not complete successfully.

Sample request:

```
curl -k -H "X-API-Key:sample-api-key" -X POST "https://10.20.30.40:8444/v9/storage/virtual-servers/1/filesystems/audit-log-cache" -d '{"filesystemId": "7B263DFD1D71E65A0000000000000000", "logFileName": "/.audit/events.evt", "logFileSize": 12345}'
```

Sample response:

```
HTTP/1.1 204 No Content
```


Delete File System Audit Log Cache File For A Virtual Server

Deletes the file system auditing consolidated cache file for a virtual server.

HTTP request syntax (URI)

```
DELETE <base_uri>/v9/storage/virtual-servers/{virtualServerId}/filesystems/audit-log-cache
```

Parameters

Parameter	Type	Required	Data Type	Description
virtualServerId	path	Y	string or integer	Either the virtual server ID or the object ID of the virtual server

Return Codes

Code	Data	Description
204	No Data	Operation successfully completed
400	Error message	Bad Request
401	No Data	Unauthorized
403	Error message	Forbidden - the client does not have the required permissions to perform the operation
404	Error message	Not Found - a resource specified was not found
500	Error message	Internal Server Error

Any HTTP status code other than 204 indicates that the API did not complete successfully.

Sample request:

```
curl -k -H "X-API-Key:sample-api-key" -X DELETE "https://10.20.30.40:8444/v9/storage/virtual-servers/1/filesystems/audit-log-cache"
```

Sample response:

```
HTTP/1.1 204 No Content
```

Disable File System Audit Log Cache File For A Virtual Server

Disables the file system auditing consolidated cache file.

HTTP request syntax (URI)

```
POST <base_uri>/v9/storage/virtual-servers/{virtualServerId}/filesystems/audit-log-cache/disable
```

Parameters

Parameter	Type	Required	Data Type	Description
virtualServerId	path	Y	string or integer	Either the virtual server ID or the object ID of the virtual server

Return Codes

Code	Data	Description
204	No Data	Operation successfully completed
400	Error message	Bad Request
401	No Data	Unauthorized
403	Error message	Forbidden - the client does not have the required permissions to perform the operation
404	Error message	Not Found - a resource specified was not found
500	Error message	Internal Server Error

Any HTTP status code other than 204 indicates that the API did not complete successfully.

Sample request:

```
curl -k -H "X-API-Key:sample-api-key" -X POST  
"https://10.20.30.40:8444/v9/storage/virtual-servers/1/filesystems/audit-log-cache/disable"
```

Sample response:

```
HTTP/1.1 204 No Content
```

Enable File System Audit Log Cache File For A Virtual Server

Enables the file system auditing consolidated cache file.

HTTP request syntax (URI)

```
POST <base_uri>/v9/storage/virtual-servers/{virtualServerId}/filesystems/audit-log-cache/enable
```

Parameters

Parameter	Type	Required	Data Type	Description
virtualServerId	path	Y	string or integer	Either the virtual server ID or the object ID of the virtual server

Return Codes

Code	Data	Description
204	No Data	Operation successfully completed

400	Error message	Bad Request
401	No Data	Unauthorized
403	Error message	Forbidden - the client does not have the required permissions to perform the operation
404	Error message	Not Found - a resource specified was not found
500	Error message	Internal Server Error

Any HTTP status code other than 204 indicates that the API did not complete successfully.

Sample request:

```
curl -k -H "X-Api-Key:sample-api-key" -X POST
"https://10.20.30.40:8444/v9/storage/virtual-servers/1/filesystems/audit-log-cache/enable"
```

Sample response:

```
HTTP/1.1 204 No Content
```

Get iSCSI Domain

Get iSCSI domain.

HTTP request syntax (URI)

```
GET <base_uri>/v9/storage/virtual-servers/{virtualServerId}/iscsi-domain
```

Parameters

Parameter	Type	Required	Data Type	Description
virtualServerId	path	Y	string or integer	Either the virtual server ID or the object ID of the virtual server

Return Codes

Code	Data	Description
200	iscsiDomain	string object successfully retrieved
400	Error message	Bad Request
404	Error message	Not Found - a resource specified was not found
500	Error message	Internal Server Error

Any HTTP status code other than 200 indicates that the API did not complete successfully.

Sample request:

```
curl -k -H "X-Api-Key:sample-api-key" -X GET
"https://10.20.30.40:8444/v9/storage/virtual-servers/1/iscsi-domain"
```

Sample response:

```
HTTP/1.1 200 OK
{
  "iscsiDomain": "example.com"
}
```

Set iSCSI Domain

Set iSCSI domain.

HTTP request syntax (URI)

```
POST <base_uri>/v9/storage/virtual-servers/{virtualServerId}/iscsi-domain
```

Parameters

Parameter	Type	Required	Data Type	Description
virtualServerId	path	Y	string or integer	Either the virtual server ID or the object ID of the virtual server
iscsiDomain	body	Y	string	iSCSI domain

Return Codes

Code	Data	Description
204	No Data	Operation successfully completed
400	Error message	Bad Request
401	No Data	Unauthorized
403	Error message	Forbidden - the client does not have the required permissions to perform the operation
404	Error message	Not Found - a resource specified was not found
500	Error message	Internal Server Error

Any HTTP status code other than 204 indicates that the API did not complete successfully.

Sample request:

```
curl -k -H "X-API-Key:sample-api-key" -X POST
"https://10.20.30.40:8444/v9/storage/virtual-servers/1/iscsi-domain" -d
'{"iscsiDomain": "example.com"}'
```

Sample response:

```
HTTP/1.1 204 No Content
```

Get Name Service Order For A Virtual Server

Retrieves the order that the various name services will be used to lookup names.

Specify a virtual server ID of 0 to ensure the global name service order settings are retrieved. If the virtual server specified has a global security context, then the global name service order settings will be retrieved, otherwise the name service order settings will be specific to the specified virtual server.

HTTP request syntax (URI)

```
GET <base_uri>/v9/storage/virtual-servers/{virtualServerId}/name-services
```

Parameters

Parameter	Type	Required	Data Type	Description
virtualServerId	path	Y	string or integer	Either the virtual server ID or the object ID of the virtual server

Return Codes

Code	Data	Description
200	nameServiceOrder	nameServiceOrder object successfully retrieved
400	Error message	Bad Request
404	Error message	Not Found - a resource specified was not found
500	Error message	Internal Server Error

Any HTTP status code other than 200 indicates that the API did not complete successfully.

Sample request:

```
curl -k -H "X-API-Key:sample-api-key" -X GET  
"https://10.20.30.40:8444/v9/storage/virtual-servers/1/name-services"
```

Sample response:

```
HTTP/1.1 200 OK  
{  
  "nameServiceOrder": {  
    "context": "INDIVIDUAL",  
    "order": [  
      "DNS"  
    ]  
  }  
}
```

Set Name Service Order For A Virtual Server

Set the name service order.

Specify a virtual server ID of 0 to ensure that the global name service order is set. If the virtual server specified has a global security context, then the global name service order will be set, otherwise the name service order will be set for the specified virtual server.

HTTP request syntax (URI)

```
POST <base_uri>/v9/storage/virtual-servers/{virtualServerId}/name-services
```

Parameters

Parameter	Type	Required	Data Type	Description
virtualServerId	path	Y	string or integer	Either the virtual server ID or the object ID of the virtual server
order	body	Y	array	List of name services - the services position in the list indicates its priority for name lookup

Return Codes

Code	Data	Description
204	No Data	Operation successfully completed
400	Error message	Bad Request
401	No Data	Unauthorized
403	Error message	Forbidden - the client does not have the required permissions to perform the operation
404	Error message	Not Found - a resource specified was not found
500	Error message	Internal Server Error

Any HTTP status code other than 204 indicates that the API did not complete successfully.

Sample request:

```
curl -k -H "X-API-Key:sample-api-key" -X POST
"https://10.20.30.40:8444/v9/storage/virtual-servers/1/name-services" -d
'{"order": [ "DNS" ]}'
```

Sample response:

```
HTTP/1.1 204 No Content
```

Get Virtual Server NIS LDAP Mode

Retrieves whether LDAP or traditional NIS servers are used to satisfy NIS requests.

Specify a virtual server ID of 0 to ensure the global NIS/LDAP mode is retrieved. If the virtual server specified has a global security context, then the global NIS/LDAP mode will be retrieved, otherwise the NIS/LDAP mode will be specific to the specified virtual server.

HTTP request syntax (URI)

```
GET <base_uri>/v9/storage/virtual-servers/{virtualServerId}/name-
services/nis-ldap-mode
```

Parameters

Parameter	Type	Required	Data Type	Description
virtualServerId	path	Y	string or integer	Either the virtual server ID or the object ID of the virtual server

Return Codes

Code	Data	Description
200	nisLdapMode	nisLdapMode object successfully retrieved
400	Error message	Bad Request
404	Error message	Not Found - a resource specified was not found
500	Error message	Internal Server Error

Any HTTP status code other than 200 indicates that the API did not complete successfully.

Sample request:

```
curl -k -H "X-API-Key:sample-api-key" -X GET  
"https://10.20.30.40:8444/v9/storage/virtual-servers/1/name-services/nis-  
ldap-mode"
```

Sample response:

```
HTTP/1.1 200 OK  
{  
  "nisLdapMode": {  
    "context": "INDIVIDUAL",  
    "isEnabled": false,  
    "mode": "NIS"  
  }  
}
```

Set NIS LDAP Mode For A Virtual Server

Sets whether LDAP or traditional NIS servers are used to satisfy NIS requests.

Specify a virtual server ID of 0 to ensure the global NIS/LDAP mode is updated. If the virtual server specified has a global security context, then the global NIS/LDAP mode will be updated, otherwise the NIS/LDAP mode will be updated for the specified virtual server.

HTTP request syntax (URI)

```
PATCH <base_uri>/v9/storage/virtual-servers/{virtualServerId}/name-  
services/nis-ldap-mode
```

Parameters

Parameter	Type	Required	Data Type	Description
virtualServerId	path	Y	string or integer	Either the virtual server ID or the object ID of the virtual server
isEnabled	body	N	boolean	True if enabled, false for disabled
mode	body	N	string	Mode of operation. Possible values are: - NIS - LDAP

Return Codes

Code	Data	Description
204	No Data	Operation successfully completed
400	Error message	Bad Request
401	No Data	Unauthorized
403	Error message	Forbidden - the client does not have the required permissions to perform the operation
404	Error message	Not Found - a resource specified was not found
500	Error message	Internal Server Error

Any HTTP status code other than 204 indicates that the API did not complete successfully.

Sample request:

```
curl -k -H "X-API-Key:sample-api-key" -X PATCH  
"https://10.20.30.40:8444/v9/storage/virtual-servers/1/name-services/nis-  
ldap-mode" -d '{"isEnabled": false, "mode": "NIS"}'
```

Sample response:

```
HTTP/1.1 204 No Content
```

Get NIS Config For A Virtual Server

Retrieves the NIS configuration if NIS is the selected mode of operation.

Specify a virtual server ID of 0 to ensure the global NIS configuration is retrieved. If the virtual server specified has a global security context, then the global NIS configuration will be retrieved, otherwise the NIS configuration will be specific to the specified virtual server.

HTTP request syntax (URI)

```
GET <base_uri>/v9/storage/virtual-servers/{virtualServerId}/name-services/nis
```

Parameters

Parameter	Type	Required	Data Type	Description
virtualServerId	path	Y	string or integer	Either the virtual server ID or the object ID of the virtual server

Return Codes

Code	Data	Description
200	nisConfig	nisConfig object successfully retrieved
400	Error message	Bad Request
404	Error message	Not Found - a resource specified was not found
500	Error message	Internal Server Error

Any HTTP status code other than 200 indicates that the API did not complete successfully.

Sample request:

```
curl -k -H "X-API-Key:sample-api-key" -X GET  
"https://10.20.30.40:8444/v9/storage/virtual-servers/1/name-services/nis"
```

Sample response:

```
HTTP/1.1 200 OK  
{  
  "nisConfig": {  
    "broadcastServers": [  
      {  
        "ipAddress": "10.1.2.3",  
        "priority": 1  
      }  
    ],  
    "characterSet": "abcdefg",  
    "configuredServers": [  
      {  
        "ipAddress": "10.1.2.3",  
        "priority": 1  
      }  
    ],  
    "context": "INDIVIDUAL",  
    "currentMaster": "10.1.2.3",  
    "domain": "example",  
    "isEnabled": false,  
    "maxBindResponseTime": 12345,  
    "rebindPeriod": 12345,  
    "useBroadcast": false  
  }  
}
```

Update NIS Config For A Virtual Server

Update the NIS configuration if NIS is the selected mode of operation.

Specify a virtual server ID of 0 to ensure the global NIS configuration is updated. If the virtual server specified has a global security context, then the global NIS configuration will be updated, otherwise the NIS configuration will be updated for the specified virtual server.

HTTP request syntax (URI)

```
PATCH <base_uri>/v9/storage/virtual-servers/{virtualServerId}/name-  
services/nis
```

Parameters

Parameter	Type	Required	Data Type	Description
virtualServerId	path	Y	string or integer	Either the virtual server ID or the object ID of the virtual server

characterSet	body	N	string	Character set to use when making NIS requests. [LATIN-1 UTF-8]. Possible values are: - LATIN-1 - Latin-1 - UTF-8
domain	body	N	string	Domain to join - must be supplied, if no name already set for the current context
isEnabled	body	N	boolean	True if enabled, false for disabled
maxBindResponseTime	body	N	integer	Time in milliseconds, that the NIS client will wait for a response from the NIS server
rebindPeriod	body	N	integer	Period in minutes between attempts to rebind to the current server
servers	body	N	array	List of NIS servers
useBroadcast	body	N	boolean	True indicates NIS servers can be discovered via broadcast messages

Return Codes

Code	Data	Description
204	No Data	Operation successfully completed
400	Error message	Bad Request
401	No Data	Unauthorized
403	Error message	Forbidden - the client does not have the required permissions to perform the operation
404	Error message	Not Found - a resource specified was not found
500	Error message	Internal Server Error

Any HTTP status code other than 204 indicates that the API did not complete successfully.

Sample request:

```
curl -k -H "X-Api-Key:sample-api-key" -X PATCH
"https://10.20.30.40:8444/v9/storage/virtual-servers/1/name-services/nis" -d
'{"characterSet": "LATIN-1", "domain": "abcdefg", "isEnabled": false,
"maxBindResponseTime": 12345, "rebindPeriod": 12345, "servers": [ "abcdefg"
], "useBroadcast": false}'
```

Sample response:

```
HTTP/1.1 204 No Content
```

Get LDAP Config For A Virtual Server

Retrieves the LDAP configuration if LDAP is the selected mode of operation.

Specify a virtual server ID of 0 to ensure the global LDAP configuration is retrieved. If the virtual server specified has a global security context, then the global LDAP configuration will be retrieved, otherwise the LDAP configuration will be specific to the specified virtual server.

HTTP request syntax (URI)

```
GET <base_uri>/v9/storage/virtual-servers/{virtualServerId}/name-services/ldap
```

Parameters

Parameter	Type	Required	Data Type	Description
virtualServerId	path	Y	string or integer	Either the virtual server ID or the object ID of the virtual server

Return Codes

Code	Data	Description
200	ldapConfig	ldapConfig object successfully retrieved
400	Error message	Bad Request
404	Error message	Not Found - a resource specified was not found
500	Error message	Internal Server Error

Any HTTP status code other than 200 indicates that the API did not complete successfully.

Sample request:

```
curl -k -H "X-Api-Key:sample-api-key" -X GET "https://10.20.30.40:8444/v9/storage/virtual-servers/1/name-services/ldap"
```

Sample response:

```
HTTP/1.1 200 OK
{
  "ldapConfig": {
    "context": "INDIVIDUAL",
    "domain": "example.com",
    "isEnabled": false,
    "ldapVersion": 12345,
    "rebindPeriod": 12345,
    "schema": "RFC2307",
    "servers": [
      {
        "dnsName": "server.example.com",
        "ipAddress": "10.1.2.3",
        "port": 398,
        "tlsPort": 636
      }
    ],
    "useTls": false,
    "userName": "cn=ldap,cn=Users,dc=test,dc=example,dc=com"
  }
}
```

Update LDAP Config For A Virtual Server

Updates the LDAP configuration if LDAP is the selected mode of operation.

Specify a virtual server ID of 0 to ensure the global LDAP configuration is updated. If the virtual server specified has a global security context, then the global LDAP configuration will be updated, otherwise the LDAP configuration will be updated for the specified virtual server.

HTTP request syntax (URI)

```
PATCH <base_uri>/v9/storage/virtual-servers/{virtualServerId}/name-services/ldap
```

Parameters

Parameter	Type	Required	Data Type	Description
virtualServerId	path	Y	string or integer	Either the virtual server ID or the object ID of the virtual server
domain	body	N	string	Domain to join - must be supplied, if no name already set for the current context
isEnabled	body	N	boolean	True if enabled, false for disabled
ldapVersion	body	N	integer	LDAP version to use when communicating with the LDAP servers . Possible values are: - 2 - 3
password	body	N	string	Password associated with the user name
rebindPeriod	body	N	integer	Period in minutes between attempts to rebind to the current server
schema	body	N	string	Schema used to lookup values from the LDAP. Possible values are: - RFC2307 - SFU - IMU - AD
servers	body	N	array	List of LDAP servers
useTls	body	N	boolean	True indicates secure (TLS) communications will be used for communication
userName	body	N	string	User name

Return Codes

Code	Data	Description
204	No Data	Operation successfully completed
400	Error message	Bad Request
401	No Data	Unauthorized

403	Error message	Forbidden - the client does not have the required permissions to perform the operation
404	Error message	Not Found - a resource specified was not found
500	Error message	Internal Server Error

Any HTTP status code other than 204 indicates that the API did not complete successfully.

Sample request:

```
curl -k -H "X-Api-Key:sample-api-key" -X PATCH
"https://10.20.30.40:8444/v9/storage/virtual-servers/1/name-services/ldap" -d
'{"domain": "abcdefg", "isEnabled": false, "ldapVersion": 2, "password":
"pa$$word", "rebindPeriod": 12345, "schema": "RFC2307", "servers": [
"abcdefg" ], "useTls": false, "userName": "User1"}'
```

Sample response:

```
HTTP/1.1 204 No Content
```

Get LDAP Search Config For A Virtual Server

Retrieves the LDAP search configuration if LDAP is the selected mode of operation.

Specify a virtual server ID of 0 to ensure the global LDAP search configuration is retrieved. If the virtual server specified has a global security context, then the global LDAP search configuration will be retrieved, otherwise the LDAP search configuration will be specific to the specified virtual server.

HTTP request syntax (URI)

```
GET <base_uri>/v9/storage/virtual-servers/{virtualServerId}/name-
services/ldap/search
```

Parameters

Parameter	Type	Required	Data Type	Description
virtualServerId	path	Y	string or integer	Either the virtual server ID or the object ID of the virtual server

Return Codes

Code	Data	Description
200	ldapSearchConfig	ldapSearchConfig object successfully retrieved
400	Error message	Bad Request
404	Error message	Not Found - a resource specified was not found
500	Error message	Internal Server Error

Any HTTP status code other than 200 indicates that the API did not complete successfully.

Sample request:

```
curl -k -H "X-API-Key:sample-api-key" -X GET
"https://10.20.30.40:8444/v9/storage/virtual-servers/1/name-
services/ldap/search"
```

Sample response:

```
HTTP/1.1 200 OK
{
  "ldapSearchConfig": {
    "common": [
      "cn=Users,dc=example,dc=com"
    ],
    "context": "INDIVIDUAL",
    "group": [
      "cn=Users,dc=example,dc=com"
    ],
    "host": [
      ""
    ],
    "netgroup": [
      ""
    ],
    "searchSubTree": false,
    "user": [
      "cn=Users,dc=example,dc=com"
    ]
  }
}
```

Get DNS Config For A Virtual Server

Retrieves DNS settings.

Specify a virtual server ID of 0 to ensure the global DNS settings are retrieved. If the virtual server specified has a global security context, then the global DNS settings will be retrieved, otherwise the DNS settings will be specific to the specified virtual server.

HTTP request syntax (URI)

```
GET <base_uri>/v9/storage/virtual-servers/{virtualServerId}/name-services/dns
```

Parameters

Parameter	Type	Required	Data Type	Description
virtualServerId	path	Y	string or integer	Either the virtual server ID or the object ID of the virtual server

Return Codes

Code	Data	Description
200	dnsConfig	dnsConfig object successfully retrieved
400	Error message	Bad Request

404	Error message	Not Found - a resource specified was not found
500	Error message	Internal Server Error

Any HTTP status code other than 200 indicates that the API did not complete successfully.

Sample request:

```
curl -k -H "X-API-Key:sample-api-key" -X GET
"https://10.20.30.40:8444/v9/storage/virtual-servers/1/name-services/dns"
```

Sample response:

```
HTTP/1.1 200 OK
{
  "dnsConfig": {
    "context": "INDIVIDUAL",
    "dnsDomain": "accounts.example.com",
    "dnsServers": [
      "10.60.70.80"
    ],
    "searchOrder": [
      "example.com"
    ]
  }
}
```

Update DNS Config For A Virtual Server

Update DNS settings.

Specify a virtual server ID of 0 to ensure the global DNS settings are updated. If the virtual server specified has a global security context, then the global DNS settings will be updated, otherwise the DNS settings will be updated for the specified virtual server.

HTTP request syntax (URI)

```
PATCH <base_uri>/v9/storage/virtual-servers/{virtualServerId}/name-
services/dns
```

Parameters

Parameter	Type	Required	Data Type	Description
virtualServerId	path	Y	string or integer	Either the virtual server ID or the object ID of the virtual server
dnsDomain	body	N	string	DNS domain
dnsServers	body	N	array	List of IP addresses for DNS servers
fileOnly	body	N	boolean	Whether to update only the file component of a Unified system
searchOrder	body	N	array	Specifies a list of DNS search domains, in the order they should be used

Return Codes

Code	Data	Description
204	No Data	Operation successfully completed
400	Error message	Bad Request
401	No Data	Unauthorized
403	Error message	Forbidden - the client does not have the required permissions to perform the operation
404	Error message	Not Found - a resource specified was not found
500	Error message	Internal Server Error

Any HTTP status code other than 204 indicates that the API did not complete successfully.

Sample request:

```
curl -k -H "X-API-Key:sample-api-key" -X PATCH
"https://10.20.30.40:8444/v9/storage/virtual-servers/1/name-services/dns" -d
'{"dnsDomain": "accounts.example.com", "dnsServers": [ "10.60.70.80" ],
"fileOnly": false, "searchOrder": [ "example.com" ]}'
```

Sample response:

```
HTTP/1.1 204 No Content
```

Get WINS Config For A Virtual Server

Retrieves WINS settings.

Specify a virtual server ID of 0 to ensure the global WINS configuration is retrieved. If the virtual server specified has a global security context, then the global WINS configuration will be retrieved, otherwise the WINS configuration will be specific to the specified virtual server.

HTTP request syntax (URI)

```
GET <base_uri>/v9/storage/virtual-servers/{virtualServerId}/name-
services/wins
```

Parameters

Parameter	Type	Required	Data Type	Description
virtualServerId	path	Y	string or integer	Either the virtual server ID or the object ID of the virtual server

Return Codes

Code	Data	Description
200	winsConfig	winsConfig object successfully retrieved
400	Error message	Bad Request
404	Error message	Not Found - a resource specified was not found

500	Error message	Internal Server Error
-----	---------------	-----------------------

Any HTTP status code other than 200 indicates that the API did not complete successfully.

Sample request:

```
curl -k -H "X-API-Key:sample-api-key" -X GET
"https://10.20.30.40:8444/v9/storage/virtual-servers/1/name-services/wins"
```

Sample response:

```
HTTP/1.1 200 OK
{
  "winsConfig": {
    "context": "INDIVIDUAL",
    "servers": [
      "10.4.5.6"
    ]
  }
}
```

Set WINS Config For A Virtual Server

Sets the WINS configuration.

Specify a virtual server ID of 0 to ensure the global WINS configuration is updated. If the virtual server specified has a global security context, then the global WINS configuration will be updated, otherwise the WINS configuration will be updated for the specified virtual server.

HTTP request syntax (URI)

```
POST <base_uri>/v9/storage/virtual-servers/{virtualServerId}/name-services/wins
```

Parameters

Parameter	Type	Required	Data Type	Description
virtualServerId	path	Y	string or integer	Either the virtual server ID or the object ID of the virtual server
servers	body	Y	array	List of WINS server IP addresses

Return Codes

Code	Data	Description
204	No Data	Operation successfully completed
400	Error message	Bad Request
401	No Data	Unauthorized
403	Error message	Forbidden - the client does not have the required permissions to perform the operation
404	Error message	Not Found - a resource specified was not found

500	Error message	Internal Server Error
-----	---------------	-----------------------

Any HTTP status code other than 204 indicates that the API did not complete successfully.

Sample request:

```
curl -k -H "X-API-Key:sample-api-key" -X POST
"https://10.20.30.40:8444/v9/storage/virtual-servers/1/name-services/wins" -d
'{"servers": [ "10.4.5.6" ]}'
```

Sample response:

```
HTTP/1.1 204 No Content
```

Enable DDNS For A Virtual Server

Enable dynamic DNS name registration of the serving names on a virtual server.

HTTP request syntax (URI)

```
POST <base_uri>/v9/storage/virtual-servers/{virtualServerId}/ddns/enable
```

Parameters

Parameter	Type	Required	Data Type	Description
virtualServerId	path	Y	string or integer	Either the virtual server ID or the object ID of the virtual server

Return Codes

Code	Data	Description
204	No Data	Operation successfully completed
400	Error message	Bad Request
401	No Data	Unauthorized
403	Error message	Forbidden - the client does not have the required permissions to perform the operation
404	Error message	Not Found - a resource specified was not found
500	Error message	Internal Server Error

Any HTTP status code other than 204 indicates that the API did not complete successfully.

Sample request:

```
curl -k -H "X-API-Key:sample-api-key" -X POST
"https://10.20.30.40:8444/v9/storage/virtual-servers/1/ddns/enable"
```

Sample response:

```
HTTP/1.1 204 No Content
```

Disable DDNS For A Virtual Server

Disable dynamic DNS name registration of the serving names on a virtual server.

HTTP request syntax (URI)

```
POST <base_uri>/v9/storage/virtual-servers/{virtualServerId}/ddns/disable
```

Parameters

Parameter	Type	Required	Data Type	Description
virtualServerId	path	Y	string or integer	Either the virtual server ID or the object ID of the virtual server

Return Codes

Code	Data	Description
204	No Data	Operation successfully completed
400	Error message	Bad Request
401	No Data	Unauthorized
403	Error message	Forbidden - the client does not have the required permissions to perform the operation
404	Error message	Not Found - a resource specified was not found
500	Error message	Internal Server Error

Any HTTP status code other than 204 indicates that the API did not complete successfully.

Sample request:

```
curl -k -H "X-API-Key:sample-api-key" -X POST  
"https://10.20.30.40:8444/v9/storage/virtual-servers/1/ddns/disable"
```

Sample response:

```
HTTP/1.1 204 No Content
```

Enable NetBios For A Virtual Server

Enable NetBios for a virtual server.

HTTP request syntax (URI)

```
POST <base_uri>/v9/storage/virtual-servers/{virtualServerId}/netbios/enable
```

Parameters

Parameter	Type	Required	Data Type	Description
virtualServerId	path	Y	string or integer	Either the virtual server ID or the object ID of the virtual server

Return Codes

Code	Data	Description
204	No Data	Operation successfully completed
400	Error message	Bad Request
401	No Data	Unauthorized
403	Error message	Forbidden - the client does not have the required permissions to perform the operation
404	Error message	Not Found - a resource specified was not found
500	Error message	Internal Server Error

Any HTTP status code other than 204 indicates that the API did not complete successfully.

Sample request:

```
curl -k -H "X-API-Key:sample-api-key" -X POST  
"https://10.20.30.40:8444/v9/storage/virtual-servers/1/netbios/enable"
```

Sample response:

```
HTTP/1.1 204 No Content
```

Disable NetBios For A Virtual Server

Disable NetBios for a virtual server.

HTTP request syntax (URI)

```
POST <base_uri>/v9/storage/virtual-servers/{virtualServerId}/netbios/disable
```

Parameters

Parameter	Type	Required	Data Type	Description
virtualServerId	path	Y	string or integer	Either the virtual server ID or the object ID of the virtual server

Return Codes

Code	Data	Description
204	No Data	Operation successfully completed
400	Error message	Bad Request
401	No Data	Unauthorized
403	Error message	Forbidden - the client does not have the required permissions to perform the operation
404	Error message	Not Found - a resource specified was not found
500	Error message	Internal Server Error

Any HTTP status code other than 204 indicates that the API did not complete successfully.

Sample request:

```
curl -k -H "X-API-Key:sample-api-key" -X POST
"https://10.20.30.40:8444/v9/storage/virtual-servers/1/netbios/disable"
```

Sample response:

```
HTTP/1.1 204 No Content
```

Get Virtual Server Security Context

Get virtual server security context.

HTTP request syntax (URI)

```
GET <base_uri>/v9/storage/virtual-servers/{virtualServerId}/security-context
```

Parameters

Parameter	Type	Required	Data Type	Description
virtualServerId	path	Y	string or integer	Either the virtual server ID or the object ID of the virtual server

Return Codes

Code	Data	Description
200	securityContext	securityContext object successfully retrieved
400	Error message	Bad Request
404	Error message	Not Found - a resource specified was not found
500	Error message	Internal Server Error

Any HTTP status code other than 200 indicates that the API did not complete successfully.

Sample request:

```
curl -k -H "X-API-Key:sample-api-key" -X GET
"https://10.20.30.40:8444/v9/storage/virtual-servers/1/security-context"
```

Sample response:

```
HTTP/1.1 200 OK
{
  "securityContext": {
    "context": "INDIVIDUAL"
  }
}
```

Set Virtual Server Security Context

Set the security context for a virtual server. The virtual server must be disabled to change this setting.

HTTP request syntax (URI)

```
POST <base_uri>/v9/storage/virtual-servers/{virtualServerId}/security-context
```

Parameters

Parameter	Type	Required	Data Type	Description
virtualServerId	path	Y	string or integer	Either the virtual server ID or the object ID of the virtual server
context	body	Y	string	Indicates if the object is specific to an EVS or global to the whole system. Possible values are: - INDIVIDUAL - GLOBAL

Return Codes

Code	Data	Description
204	No Data	Operation successfully completed
400	Error message	Bad Request
401	No Data	Unauthorized
403	Error message	Forbidden - the client does not have the required permissions to perform the operation
404	Error message	Not Found - a resource specified was not found
500	Error message	Internal Server Error

Any HTTP status code other than 204 indicates that the API did not complete successfully.

Sample request:

```
curl -k -H "X-API-Key:sample-api-key" -X POST  
"https://10.20.30.40:8444/v9/storage/virtual-servers/1/security-context" -d  
'{"context": "INDIVIDUAL"}'
```

Sample response:

```
HTTP/1.1 204 No Content
```

Get Virtual Server Security Mode

Get virtual server security mode.

HTTP request syntax (URI)

GET <base_uri>/v9/storage/virtual-servers/{virtualServerId}/security-mode

Parameters

Parameter	Type	Required	Data Type	Description
virtualServerId	path	Y	string or integer	Either the virtual server ID or the object ID of the virtual server

Return Codes

Code	Data	Description
200	securityMode	securityMode object successfully retrieved
400	Error message	Bad Request
404	Error message	Not Found - a resource specified was not found
500	Error message	Internal Server Error

Any HTTP status code other than 200 indicates that the API did not complete successfully.

Sample request:

```
curl -k -H "X-API-Key:sample-api-key" -X GET  
"https://10.20.30.40:8444/v9/storage/virtual-servers/1/security-mode"
```

Sample response:

```
HTTP/1.1 200 OK  
{  
  "securityMode": {  
    "levelConfigured": "VIRTUAL_SERVER",  
    "mode": "MIXED"  
  }  
}
```

Set Virtual Server Security Mode

Set the filesystem security mode for a specific virtual server.

HTTP request syntax (URI)

POST <base_uri>/v9/storage/virtual-servers/{virtualServerId}/security-mode

Parameters

Parameter	Type	Required	Data Type	Description
virtualServerId	path	Y	string or integer	Either the virtual server ID or the object ID of the virtual server
mode	body	Y	string	Mode of operation. Possible values are: - MIXED - UNIX

Return Codes

Code	Data	Description
204	No Data	Operation successfully completed
400	Error message	Bad Request
401	No Data	Unauthorized
403	Error message	Forbidden - the client does not have the required permissions to perform the operation
404	Error message	Not Found - a resource specified was not found
500	Error message	Internal Server Error

Any HTTP status code other than 204 indicates that the API did not complete successfully.

Sample request:

```
curl -k -H "X-Api-Key:sample-api-key" -X POST
"https://10.20.30.40:8444/v9/storage/virtual-servers/1/security-mode" -d
'{"mode": "MIXED"}'
```

Sample response:

```
HTTP/1.1 204 No Content
```

Get NFS Supported Versions

Get the versions of NFS supported by the system. NFS versions are set on a system wide basis.

HTTP request syntax (URI)

```
GET <base_uri>/v9/storage/virtual-servers/nfs-versions
```

Return Codes

Code	Data	Description
200	nfsVersions	nfsVersions object successfully retrieved
500	Error message	Internal Server Error

Any HTTP status code other than 200 indicates that the API did not complete successfully.

Sample request:

```
curl -k -H "X-Api-Key:sample-api-key" -X GET
"https://10.20.30.40:8444/v9/storage/virtual-servers/nfs-versions"
```

Sample response:

```
HTTP/1.1 200 OK
{
  "nfsVersions": {
    "availableVersions": [
      "NFS2"
    ]
  }
}
```



```

    ],
    "maxSupported": "NFS2",
    "minSupported": "NFS2"
  }
}

```

Set NFS Supported Version

Set the maximum version of NFS that is supported by the system. NFS versions are set on a system wide basis.

HTTP request syntax (URI)

```
POST <base_uri>/v9/storage/virtual-servers/nfs-versions
```

Parameters

Parameter	Type	Required	Data Type	Description
maxSupported	body	Y	string	The maximum supported version of the file serving protocol that the system will allow clients to use. Possible values are: - NFS3 - NFS4 - NFS4_1

Return Codes

Code	Data	Description
204	No Data	Operation successfully completed
400	Error message	Bad Request
401	No Data	Unauthorized
403	Error message	Forbidden - the client does not have the required permissions to perform the operation
500	Error message	Internal Server Error

Any HTTP status code other than 204 indicates that the API did not complete successfully.

Sample request:

```

curl -k -H "X-Api-Key:sample-api-key" -X POST
"https://10.20.30.40:8444/v9/storage/virtual-servers/nfs-versions" -d
'{"maxSupported": "NFS3"}'

```

Sample response:

```
HTTP/1.1 204 No Content
```

Get SMB Supported Versions For A Virtual Server

Get SMB supported versions for a virtual server.

HTTP request syntax (URI)

```
GET <base_uri>/v9/storage/virtual-servers/{virtualServerId}/smb-versions
```

Parameters

Parameter	Type	Required	Data Type	Description
virtualServerId	path	Y	string or integer	Either the virtual server ID or the object ID of the virtual server

Return Codes

Code	Data	Description
200	smbVersions	smbVersions object successfully retrieved
400	Error message	Bad Request
404	Error message	Not Found - a resource specified was not found
500	Error message	Internal Server Error

Any HTTP status code other than 200 indicates that the API did not complete successfully.

Sample request:

```
curl -k -H "X-API-Key:sample-api-key" -X GET  
"https://10.20.30.40:8444/v9/storage/virtual-servers/1/smb-versions"
```

Sample response:

```
HTTP/1.1 200 OK  
{  
  "smbVersions": {  
    "availableVersions": [  
      "SMB1"  
    ],  
    "maxSupported": "SMB1",  
    "minSupported": "SMB1"  
  }  
}
```

Set SMB Supported Versions For A Virtual Server

Set SMB supported versions for a virtual server.

HTTP request syntax (URI)

```
PATCH <base_uri>/v9/storage/virtual-servers/{virtualServerId}/smb-versions
```

Parameters

Parameter	Type	Required	Data Type	Description
virtualServerId	path	Y	string or integer	Either the virtual server ID or the object ID of the virtual server
maxSupported	body	N	string	The maximum supported version of the file serving protocol that the system will allow clients to use. Possible values are: - SMB1 - SMB2 - SMB2_1 - SMB3
minSupported	body	N	string	The minimum supported version of the file serving protocol that the system will allow clients to use. Possible values are: - SMB1 - SMB2 - SMB2_1 - SMB3

Return Codes

Code	Data	Description
204	No Data	Operation successfully completed
400	Error message	Bad Request
401	No Data	Unauthorized
403	Error message	Forbidden - the client does not have the required permissions to perform the operation
404	Error message	Not Found - a resource specified was not found
500	Error message	Internal Server Error

Any HTTP status code other than 204 indicates that the API did not complete successfully.

Sample request:

```
curl -k -H "X-Api-Key:sample-api-key" -X PATCH
"https://10.20.30.40:8444/v9/storage/virtual-servers/1/smb-versions" -d
'{"maxSupported": "SMB1", "minSupported": "SMB1"}'
```

Sample response:

```
HTTP/1.1 204 No Content
```

Get Virus Scan Info Of A Virtual Server

Get virus scan info of a virtual server.

HTTP request syntax (URI)

GET <base_uri>/v9/storage/virtual-servers/{virtualServerId}/virus-scan

Parameters

Parameter	Type	Required	Data Type	Description
virtualServerId	path	Y	string or integer	Either the virtual server ID or the object ID of the virtual server

Return Codes

Code	Data	Description
200	virusScan	virusScan object successfully retrieved
400	Error message	Bad Request
404	Error message	Not Found - a resource specified was not found
500	Error message	Internal Server Error

Any HTTP status code other than 200 indicates that the API did not complete successfully.

Sample request:

```
curl -k -H "X-API-Key:sample-api-key" -X GET  
"https://10.20.30.40:8444/v9/storage/virtual-servers/1/virus-scan"
```

Sample response:

```
HTTP/1.1 200 OK  
{  
  "virusScan": {  
    "bestEffort": false,  
    "isEnabled": false,  
    "mode": "RPC",  
    "scanAllFileTypes": false,  
    "scanServers": [  
      {  
        "domain": "abcdefg",  
        "inUse": false,  
        "ipAddress": "10.1.2.3",  
        "name": "Name2",  
        "objectId": "333a3a3a3a3a3a303a3a3a4f49445f24232140255f56",  
        "status": "OK",  
        "hostName": "scanner.example.com",  
        "isEnabled": false,  
        "port": 1344,  
        "serviceName": "AVSCANRESP"  
      }  
    ]  
  }  
}
```

Set Virus Scan Details For A Virtual Server

Set virus scan details for a virtual server.

HTTP request syntax (URI)

```
PATCH <base_uri>/v9/storage/virtual-servers/{virtualServerId}/virus-scan
```

Parameters

Parameter	Type	Required	Data Type	Description
virtualServerId	path	Y	string or integer	Either the virtual server ID or the object ID of the virtual server
bestEffort	body	N	boolean	True indicates that access to files will not be denied if there are no available virus scanners available and the file requires scanning, or if there was an error from the virus scan server that did not indicate that a virus is present
isEnabled	body	N	boolean	True if enabled, false for disabled
mode	body	N	string	Mode of operation. Possible values are: - RPC - ICAP

Return Codes

Code	Data	Description
204	No Data	Operation successfully completed
400	Error message	Bad Request
401	No Data	Unauthorized
403	Error message	Forbidden - the client does not have the required permissions to perform the operation
404	Error message	Not Found - a resource specified was not found
500	Error message	Internal Server Error

Any HTTP status code other than 204 indicates that the API did not complete successfully.

Sample request:

```
curl -k -H "X-API-Key:sample-api-key" -X PATCH  
"https://10.20.30.40:8444/v9/storage/virtual-servers/1/virus-scan" -d  
'{"bestEffort": false, "isEnabled": false, "mode": "RPC"}'
```

Sample response:

```
HTTP/1.1 204 No Content
```

Request Full Virus Scan On A Virtual Server

Request full virus scan on a virtual server.

HTTP request syntax (URI)

```
POST <base_uri>/v9/storage/virtual-servers/{virtualServerId}/virus-scan/full-scan
```

Parameters

Parameter	Type	Required	Data Type	Description
virtualServerId	path	Y	string or integer	Either the virtual server ID or the object ID of the virtual server

Return Codes

Code	Data	Description
204	No Data	Operation successfully completed
400	Error message	Bad Request
401	No Data	Unauthorized
403	Error message	Forbidden - the client does not have the required permissions to perform the operation
404	Error message	Not Found - a resource specified was not found
500	Error message	Internal Server Error

Any HTTP status code other than 204 indicates that the API did not complete successfully.

Sample request:

```
curl -k -H "X-API-Key:sample-api-key" -X POST "https://10.20.30.40:8444/v9/storage/virtual-servers/1/virus-scan/full-scan"
```

Sample response:

```
HTTP/1.1 204 No Content
```

Get Virus Scan Inclusion List For A Virtual Server

Get virus scan inclusion list for a virtual server.

HTTP request syntax (URI)

```
GET <base_uri>/v9/storage/virtual-servers/{virtualServerId}/virus-scan/inclusion-list
```

Parameters

Parameter	Type	Required	Data Type	Description
-----------	------	----------	-----------	-------------

virtualServerId	path	Y	string or integer	Either the virtual server ID or the object ID of the virtual server
-----------------	------	---	-------------------	---

Return Codes

Code	Data	Description
200	virusScanInclusionList	virusScanInclusionList object successfully retrieved
400	Error message	Bad Request
404	Error message	Not Found - a resource specified was not found
500	Error message	Internal Server Error

Any HTTP status code other than 200 indicates that the API did not complete successfully.

Sample request:

```
curl -k -H "X-API-Key:sample-api-key" -X GET
"https://10.20.30.40:8444/v9/storage/virtual-servers/1/virus-scan/inclusion-
list"
```

Sample response:

```
HTTP/1.1 200 OK
{
  "virusScanInclusionList": {
    "fileExtensions": [
      "EXE"
    ],
    "scanAllFileTypes": false
  }
}
```

Set Virus Scan Inclusion List For A Virtual Server

Set virus scan inclusion list for a virtual server.

HTTP request syntax (URI)

```
PATCH <base_uri>/v9/storage/virtual-servers/{virtualServerId}/virus-
scan/inclusion-list
```

Parameters

Parameter	Type	Required	Data Type	Description
virtualServerId	path	Y	string or integer	Either the virtual server ID or the object ID of the virtual server
fileExtensions	body	N	array	A list of file extensions that will be included in virus scans - the extensions should be supplied in upper case

scanAllFileTypes	body	N	boolean	True indicates that all files will be scanned, irrespective of their file extension. False indicates that virus scanning will be restricted to files with extensions in the file extensions list
------------------	------	---	---------	--

Return Codes

Code	Data	Description
204	No Data	Operation successfully completed
400	Error message	Bad Request
401	No Data	Unauthorized
403	Error message	Forbidden - the client does not have the required permissions to perform the operation
404	Error message	Not Found - a resource specified was not found
500	Error message	Internal Server Error

Any HTTP status code other than 204 indicates that the API did not complete successfully.

Sample request:

```
curl -k -H "X-API-Key:sample-api-key" -X PATCH
"https://10.20.30.40:8444/v9/storage/virtual-servers/1/virus-scan/inclusion-
list" -d '{"fileExtensions": [ "EXE" ], "scanAllFileTypes": false}'
```

Sample response:

```
HTTP/1.1 204 No Content
```

Clear Virus Scan Inclusion List For A Virtual Server

Clear all values from the virus scan inclusion list for a virtual server. Clearing the inclusion list will also ensure virus scanning is set to scan all file types, otherwise no files will be scanned.

HTTP request syntax (URI)

```
DELETE <base_uri>/v9/storage/virtual-servers/{virtualServerId}/virus-
scan/inclusion-list
```

Parameters

Parameter	Type	Required	Data Type	Description
virtualServerId	path	Y	string or integer	Either the virtual server ID or the object ID of the virtual server

Return Codes

Code	Data	Description
204	No Data	Operation successfully completed

400	Error message	Bad Request
401	No Data	Unauthorized
403	Error message	Forbidden - the client does not have the required permissions to perform the operation
404	Error message	Not Found - a resource specified was not found
500	Error message	Internal Server Error

Any HTTP status code other than 204 indicates that the API did not complete successfully.

Sample request:

```
curl -k -H "X-API-Key:sample-api-key" -X DELETE
"https://10.20.30.40:8444/v9/storage/virtual-servers/1/virus-scan/inclusion-
list"
```

Sample response:

```
HTTP/1.1 204 No Content
```

Reset Virus Scan Inclusion List For A Virtual Server

Reset virus scan inclusion list for a virtual server.

HTTP request syntax (URI)

```
POST <base_uri>/v9/storage/virtual-servers/{virtualServerId}/virus-
scan/inclusion-list/reset
```

Parameters

Parameter	Type	Required	Data Type	Description
virtualServerId	path	Y	string or integer	Either the virtual server ID or the object ID of the virtual server

Return Codes

Code	Data	Description
204	No Data	Operation successfully completed
400	Error message	Bad Request
401	No Data	Unauthorized
403	Error message	Forbidden - the client does not have the required permissions to perform the operation
404	Error message	Not Found - a resource specified was not found
500	Error message	Internal Server Error

Any HTTP status code other than 204 indicates that the API did not complete successfully.

Sample request:

```
curl -k -H "X-Api-Key:sample-api-key" -X POST
"https://10.20.30.40:8444/v9/storage/virtual-servers/1/virus-scan/inclusion-
list/reset"
```

Sample response:

HTTP/1.1 204 No Content

Add An ICAP Virus Scan Server To A Virtual Server

Add an ICAP virus scan server to a virtual server.

HTTP request syntax (URI)

```
POST <base_uri>/v9/storage/virtual-servers/{virtualServerId}/virus-scan/scan-
servers
```

Parameters

Parameter	Type	Required	Data Type	Description
virtualServerId	path	Y	string or integer	Either the virtual server ID or the object ID of the virtual server
hostName	body	Y	string	Hostname of the virus scan server
port	body	N	integer	TCP port used to communicate with the ICAP virus scan server
serviceName	body	N	string	Service name used for the virus scan service

Return Codes

Code	Data	Description
204	No Data	Operation successfully completed
400	Error message	Bad Request
401	No Data	Unauthorized
403	Error message	Forbidden - the client does not have the required permissions to perform the operation
404	Error message	Not Found - a resource specified was not found
500	Error message	Internal Server Error

Any HTTP status code other than 204 indicates that the API did not complete successfully.

Sample request:

```
curl -k -H "X-Api-Key:sample-api-key" -X POST
"https://10.20.30.40:8444/v9/storage/virtual-servers/1/virus-scan/scan-
servers" -d '{"hostName": "scanner.example.com", "port": 1344, "serviceName":
"AVSCANRESP"}'
```

Sample response:

Update An ICAP Virus Scan Server For A Virtual Server

Update an ICAP virus scan server for a virtual server.

HTTP request syntax (URI)

```
PATCH <base_uri>/v9/storage/virtual-servers/{virtualServerId}/virus-scan/scan-servers/{scanServerObjectId}
```

Parameters

Parameter	Type	Required	Data Type	Description
scanServerObjectId	path	Y	string	Object ID of the virus scan server
virtualServerId	path	Y	string or integer	Either the virtual server ID or the object ID of the virtual server
isEnabled	body	N	boolean	True if enabled, false for disabled
port	body	N	integer	TCP port used to communicate with the ICAP virus scan server
serviceName	body	N	string	Service name used for the virus scan service

Return Codes

Code	Data	Description
204	No Data	Operation successfully completed
400	Error message	Bad Request
401	No Data	Unauthorized
403	Error message	Forbidden - the client does not have the required permissions to perform the operation
404	Error message	Not Found - a resource specified was not found
500	Error message	Internal Server Error

Any HTTP status code other than 204 indicates that the API did not complete successfully.

Sample request:

```
curl -k -H "X-API-Key:sample-api-key" -X PATCH
"https://10.20.30.40:8444/v9/storage/virtual-servers/1/virus-scan/scan-servers/494341503a3a3a756b746573742d6463342e6578616d706c652e636f6d3a3a3a4f49445f24232140255f56" -d '{"isEnabled": false, "port": 1344, "serviceName": "AVSCANRESP"}'
```

Sample response:

HTTP/1.1 204 No Content

Delete A Virus Scan Server From A Virtual Server

Delete a virus scan server from a virtual server.

HTTP request syntax (URI)

```
DELETE <base_uri>/v9/storage/virtual-servers/{virtualServerId}/virus-scan/scan-servers/{scanServerObjectId}
```

Parameters

Parameter	Type	Required	Data Type	Description
scanServerObjectId	path	Y	string	Object ID of the virus scan server
virtualServerId	path	Y	string or integer	Either the virtual server ID or the object ID of the virtual server

Return Codes

Code	Data	Description
204	No Data	Operation successfully completed
400	Error message	Bad Request
401	No Data	Unauthorized
403	Error message	Forbidden - the client does not have the required permissions to perform the operation
404	Error message	Not Found - a resource specified was not found
500	Error message	Internal Server Error

Any HTTP status code other than 204 indicates that the API did not complete successfully.

Sample request:

```
curl -k -H "X-API-Key:sample-api-key" -X DELETE  
"https://10.20.30.40:8444/v9/storage/virtual-servers/1/virus-scan/scan-servers/494341503a3a3a756b746573742d6463342e6578616d706c652e636f6d3a3a3a4f49445f24232140255f56"
```

Sample response:

HTTP/1.1 204 No Content

Virtual Volumes Resource

The virtual volumes resource allows management of special directories that enables quota management. Virtual volumes can generate various email notifications to subscribed receivers indicating an exceeded quota.

Virtual Volumes Object Model

The object model describing this resource contains the following objects.

securityMode - Security mode of and item

Attribute	JSON type	Data type	Description
levelConfigured	string	string	An indication of which level the security mode is configured. If not specifically configured, the mode is inherited from a higher level. Possible values are: - VIRTUAL_SERVER - FILESYSTEM - VIRTUAL_VOLUME
mode	string	string	Security mode. Possible values are: - MIXED - UNIX

virtualVolume - Virtual volume details

Attribute	JSON type	Data type	Description
emails	array	string	List of email addresses that will receive virtual volume related alerts
fileCount	integer	integer	Current number of files in the virtual volume
filesystemId	string	string	ID of the file system
name	string	string	Name of the virtual volume
objectId	string	string	Unique ID of the object
path	string	string	Root file system location of the virtual volume
permanentId	integer	integer	Virtual volume permanent ID
totalVolumeCapacity	integer	integer	Total virtual volume capacity in bytes
usageVolumeCapacity	integer	integer	Total usage of capacity in bytes
virtualServerId	integer	integer	ID of the virtual server. 0 = management virtual server 255 = not assigned to virtual server
virtualVolumeId	integer	integer	ID of the virtual volume

Get Virtual Volumes

Get virtual volumes.

HTTP request syntax (URI)

```
GET <base_uri>/v9/storage/filesystems/{filesystemId}/virtual-volumes
```

Parameters

Parameter	Type	Required	Data Type	Description
filesystemId	path	Y	string	Either the file system ID or the object ID of the file system

Return Codes

Code	Data	Description
200	virtualVolumes	List of virtualVolume objects successfully retrieved
400	Error message	Bad Request
404	Error message	Not Found - a resource specified was not found
500	Error message	Internal Server Error

Any HTTP status code other than 200 indicates that the API did not complete successfully.

Sample request:

```
curl -k -H "X-API-Key:sample-api-key" -X GET  
"https://10.20.30.40:8444/v9/storage/filesystems/7B263DFD1D71E65A00000000000000000000/virtual-volumes"
```

Sample response:

```
HTTP/1.1 200 OK  
{  
  "virtualVolumes": [  
    {  
      "emails": [  
        "user1@example.com"  
      ],  
      "fileCount": 12345,  
      "filesystemId": "7B263DFD1D71E65A0000000000000000",  
      "name": "vv1",  
      "objectId": "333a3a3a3a3a3a3a303a3a3a4f49445f24232140255f56",  
      "path": "/vv1",  
      "permanentId": "531052708508683970",  
      "totalVolumeCapacity": 12345,  
      "usageVolumeCapacity": 12345,  
      "virtualServerId": 1,  
      "virtualVolumeId": "646464"  
    }  
  ]  
}
```


Create A Virtual Volume

Create a virtual volume.

HTTP request syntax (URI)

```
POST <base_uri>/v9/storage/virtual-volumes
```

Parameters

Parameter	Type	Required	Data Type	Description
createPathIfNotExists	body	N	boolean	Boolean flag to create the path if it doesn't exist
emails	body	N	array	An array of email addresses that will receive alerts relating to the virtual volume
filesystemId	body	Y	string	Either the file system ID or the object ID of the file system
filesystemPath	body	Y	string	Full path of a directory within the file system, which should be in UNIX format
virtualServerId	body	Y	string or integer	Either the virtual server ID or the object ID of the virtual server. NDMP devices also accept ANY
virtualVolumeName	body	Y	string	Name of the virtual volume

Return Codes

Code	Data	Description
201	virtualVolume	Successfully created new item
400	Error message	Bad Request
401	No Data	Unauthorized
403	Error message	Forbidden - the client does not have the required permissions to perform the operation
500	Error message	Internal Server Error

Any HTTP status code other than 201 indicates that the API did not complete successfully.

Sample request:

```
curl -k -H "X-Api-Key:sample-api-key" -X POST
"https://10.20.30.40:8444/v9/storage/virtual-volumes" -d
'{"createPathIfNotExists": false, "emails": [ "user1@example.com" ],
"filesystemId": "7B263DFD1D71E65A0000000000000000", "filesystemPath":
"/folder", "virtualServerId": 1, "virtualVolumeName": "vv1"}'
```

Sample response:

```
HTTP/1.1 201 Created
{
  "virtualVolume": {
```



```

"emails": [
  "user1@example.com"
],
"fileCount": 12345,
"filesystemId": "7B263DFD1D71E65A0000000000000000",
"name": "vv1",
"objectId": "333a3a3a3a3a3a3a303a3a3a4f49445f24232140255f56",
"path": "/vv1",
"permanentId": "531052708508683970",
"totalVolumeCapacity": 12345,
"usageVolumeCapacity": 12345,
"virtualServerId": 1,
"virtualVolumeId": "646464"
},
"uri": "https://10.20.30.40:8444/v9/storage/virtual-
volumes/333a3a3a3a3a3a3a303a3a3a4f49445f24232140255f56"
}

```

Update A Virtual Volume

Update a virtual volume.

HTTP request syntax (URI)

```
PATCH <base_uri>/v9/storage/virtual-volumes/{virtualVolumeObjectId}
```

Parameters

Parameter	Type	Required	Data Type	Description
virtualVolumeObjectId	path	Y	string	Object ID of the virtual volume
emails	body	N	array	An array of email addresses that will receive alerts relating to the virtual volume
newVirtualVolumeName	body	Y	string	New virtual volume name

Return Codes

Code	Data	Description
204	No Data	Operation successfully completed
400	Error message	Bad Request
401	No Data	Unauthorized
403	Error message	Forbidden - the client does not have the required permissions to perform the operation
404	Error message	Not Found - a resource specified was not found
500	Error message	Internal Server Error

Any HTTP status code other than 204 indicates that the API did not complete successfully.

Sample request:

Troubleshooting

This chapter provides steps for troubleshooting.

File storage failure cases

Failure Case 1

Incorrect cluster IP address of the HNAS system provided in the HTTP Request header. To provide the correct IP address, see **Acquiring the correct IP address**. Also, you may have mistakenly used the SMU IP address in the HTTP request header. If so, change it to the Admin EVS IP address.

Failure Case 2

Incorrect credential for the HNAS storage system provided in the HTTP Request header. To validate the HNAS storage system credentials being used in the HTTP request, see **Authenticating with the REST API server**. Also, you may have mistakenly used the SMU credentials in the HTTP request header. If so, change them to the HNAS cluster credentials.

Failure Case 3

New connection rejected by REST server. The REST management server has a fairly low maximum number of simultaneous connections that can be established, and when that limit is reached, new connections will fail to be established until any of the existing connections are closed, either by the calling client, or when the idle time expires – the default idle time is 30 minutes. The system will prioritize file serving over management requests, which is why there is a fairly low limit. To avoid this situation, clients of the REST server should ensure they either reuse connections for multiple requests, or close each connection once the response has been received, before opening another connection.

The `msstats rest` CLI command can be use check for connections and statistics, and the `mscfg rest` CLI command can be used to update setting associated with REST management server.

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