Actifio RESTful API Reference

For CDS & Sky Appliances

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Preface

The Actifio RESTful API Reference provides instructions on how to use the Actifio application programmers interface (API). This document assumes that you are familiar with Actifio and Actifio product suite.

Note: *The content and examples in this document are specific to Actifio appliances, unless specified otherwise.*

The ActifioNOW Customer Portal

During the configuration and initialization of your Actifio appliance, your Actifio representative provided you with a user name and password for the ActifioNOW customer portal.

From the customer portal you can obtain detailed reports about your Actifio appliance as well as search the portal's knowledge base for answers to specific questions.

To log into the ActifioNOW customer portal:

1.   Go to: **https://now.actifio.com**

2.   When prompted, enter the user name and password provided by your Actifio representative.

Actifio Support Centers

To contact an Actifio support representative, you can:

- Send email to: support@actifio.com

- Call:
  From anywhere: +1.315.261.7501
  US Toll-Free: +1.855.392.6810
  Australia: 0011 800-16165656
  Germany: 00 800-16165656
  New Zealand: 00 800-16165656
  UK: 0 800-0155019

1 Introduction

Using the **Actifio RESTful API Reference**, a system administrator, programmer, or other qualified personnel can access, configure, and monitor an Actifio appliance or node. The Actifio RESTful API works with Java Script Object Notation (JSON) data. Errors are returned using standard HTTP error code syntax. All features and functionality supported by the Actifio Desktop are also available in the Actifio API.

Note: *The content and examples in this document are specific to Actifio appliances, unless specified otherwise.*

This chapter describes:

Commands Supported by Actifio API

The Actifio API supports the following command types:

o **login** – Use this command to initiate a session. For more information, see Authentication or Login on page 1.

o **info** – Use this command to retrieve information, for example to retrieve a list of running jobs, a list of connectors, etc. For more information, see Info Commands on page 3.

o **task** – Use this command to configure or update configuration of an Actifio appliance. For more information, see Task Commands on page 4.

o **logout** – Use this command to end your API session. For more information, seeLogout Command on page 4.

Authentication or Login

All requests to the Actifio API require that you have the proper permissions to access the requested data. This section describes how to login to an Actifio appliance and obtain a session ID, which is then used to call all the other REST endpoints. In addition, you will also need the Actifio vendor key information.

This section includes:

Prerequisite

Request Details

Example

Prerequisite

Before you begin, verify that you have the Actifio vendor key. Contact Actifio Support to get the key and for details.

HTTP Authorization Header

The HTTP Authorization Header section contains information that will generate your session ID. It includes the login credentials, that is the username and password.

`Authorization: Basic {Base64-encoded octet sequence of {credentials}}`

where credentials is {name:password}

Combine the userid and password into a single string using a colon (:) separator. Then use either UTF-8 or ISO-8859-1 encoding to generate the octet representation of the userid:password credentials. Generate a Base64 encoding of the octet sequence to include in the authorization header. See [RFC7617, Section 2](#) for more information.

Request Details

URL
`POST https://{Actifio_API_HOST}/actifio/api/login?vendorkey={KEY}`

HTTP Request Header
`Authorization: Basic {Base64-encoded octet sequence of {username}:{password}}`

Example

Request
`POST https://{Actifio_API_HOST}/actifio/api/login?vendorkey={AssignedVendorKey}`

HTTP Request Header
`Authorization: Basic amRvZTpwYXNzd29yZDEyMw==`

Response
```
{
  "rights": [
    "Access Application Manager",
    "Access Domain Manager",
    "Access SLA Architect",
    "Access System Monitor",
    "Application Manage",
    "Backup Manage",
    "CLI Usage",
    "Clone Manage",
    "Host Manage",
    "Join Appliance",
    "LiveClone Manage",
    "Mirroring Manage",
    "Mount Manage",
    "Restore Manage",
    "SLA Assign",
    "SLA Manage",
    "SLA View",
    "Storage Manage",
    "Storage View",
    "System Manage",
    "System View",
    "Test-Failover",
    "WorkFlow Manage",
    "WorkFlow Run",
```

```
    "WorkFlow View"
  ],
  "sessionid": "92929a8b-a413-476f-a624-5b575cff54d3",
  "status": 0
}
```

Info Commands

The **info** commands retrieve information from an Actifio appliance. The following example displays a list of previously created organizations:

Request
```
GET https://{Actifio_API_HOST}/actifio/api/info/lsorg
```
HTTP Request Header
```
Authorization: Actifio 92929a8b-a413-476f-a624-5b575cff54d3
```

where 92929a8b-a413-476f-a624-5b575cff54d3 is the session ID.

Response
```
{
    "result": [
        {
            "createdate": "2015-05-19 18:28:29.245",
            "description": "ALL organization, all objects be...",
            "id": "3",
            "modifydate": "",
            "name": "ALL"
        },
        {
            "createdate": "2015-05-19 18:28:29.252",
            "description": "PUBLIC organization, every objec...",
            "id": "5",
            "modifydate": "",
            "name": "PUBLIC"
        },
        {
            "createdate": "2015-07-02 03:22:48.442",
            "description": "These are the application server...",
            "id": "17600",
            "modifydate": "2015-07-02 03:24:38.370",
            "name": "DevelopmentOrganization"
        },
        {
            "createdate": "2017-02-23 10:30:43.977",
            "description": "New organization description",
            "id": "164816",
            "modifydate": "",
            "name": "Organization_3"
        },
        {
            "createdate": "2017-04-13 10:21:40.095",
            "description": "newdesc",
            "id": "179297",
            "modifydate": "2017-04-20 11:42:40.200",
            "name": "Organization_4"
        }
    ],
    "status": 0
}
```

Task Commands

The **task** commands like backup and cloneimage make configuration changes to an Actifio appliance.

Note: Typically no message is returned if the command succeeds; however, helpful messages may be returned for certain commands.

For example, the following task command creates a new SNMP server configuration named Default-SNMP.

```
Request
POST https://{Actifio_API_HOST}/actifio/api/task/mksnmpconfig?name=Default-
SNMP&ipaddress={SNMP_HOST}&error=on&warning=off&info=off

HTTP Request Header
Authorization: Actifio 92929a8b-a413-476f-a624-5b575cff54d3
where 92929a8b-a413-476f-a624-5b575cff54d3 is the session ID.
Response
{
    "result": "Default-SNMP",
    "status": 0
}
```

Logout Command

The logout command ends a session.

Obtaining RestAPI Help

Use the below API endpoints to obtain the help for the RestAPI commands.

Info Command list

To get a list of all info commands, use the API endpoint as:

```
https://{Actifio_API_HOST}/actifio/api/info/help
```

Task Command list

To get a list of all task commands, use the API endpoint as:

```
https://{Actifio_API_HOST}/actifio/api/task/help
```

Info help

To get the help for a info command, use the API endpoint as:

```
https://{Actifio_API_HOST}/actifio/api/info/help/<task command>
```

For instance:

```
https://{Actifio_API_HOST}/actifio/api/info/help/lsversion
```

Task help

To get the help for a task command, use the API endpoint as:

```
https://{Actifio_API_HOST}/actifio/api/task/help/<task command>
```

For instance:

```
https://{Actifio_API_HOST}/actifio/api/task/help/mountimage
```

Operational Hints and Tips

delim and nohdr Parameters

Unlike the Actifio CLI, no 'nohdr' and 'delim' parameters are supported.

Using the filtervalue Parameter

When specifying filtervalue, all attribute=value arguments must be URL encoded. This means that the special symbols like equal to (=), less than or greater than (< or >), ampersand (&), space, and double quotes must be replaced by the %HH format where the HH represents the hexadecimal value of that character. Use the ASCII table for reference.

apistart and apiend Parameters

When using the get or list commands, you may get a large number of objects depending on your configuration. Results of objects returned are numbered from 0 to n-1. By specifying different apistart and apilimit, results are returned in chunks. Starting with apistart of 0, and apilimit of 100, the first 100 results are returned. Next with apistart of 100, and apilimit of 100, next 100 rows are returned. The end is reached when returned result is less than the specified apilimit. For example:

```
GET https://{Actifio_API_HOST}/actifio/api/info/lsapplication
```

2 User Management Commands

These commands are for user management.

Managing Users

User Commands

mkuser

About mkuser Command

Description

Use this command to create a user.

Rights

You must have the 'System Manage' right to create a user.

Parameters

Parameter	Description
comments =string	Optional. Specifies the comments for the user.
email=string	Optional. Specifies an email address for the user.
firstname=string	Optional. Specifies the first name.
lastname=string	Optional. Specifies the last name.
name=string	Required. Specifies the name of the user, which should be unique within the appliance.
org=string	Optional. Specifies a default organization id or organization name that the user should be added to after creation. Use lsorg to retrieve organization information. *Note: To use this option, the user must have the 'System Manage' right.*
password=string	Required. Specifies the password for the user.
timezone=string	Optional. Specifies a time zone. On , use following command to get a list of timezones o'usvcinfo lstimezones'.
denylogin=boolean	Optional. Specifies the login access for a user. Options include: • `false` –This user will be allowed to login. This is the default value. • `true` – This user will be restricted from being able to login. An error message appears when this user attempts to login. *Note: Set this to true only under the direction of a Support representative.*

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mkuser Request Details

Your `mkuser` request must pass a valid session ID. For information on how to obtain a session ID, see Authentication or Login on page 1.

Method	URI	Required Parameters
POST	/actifio/api/task/mkuser	name password

Note: *See the Parameters section for a list of supported parameters and their description.*

---

mkuser Example

Request

```
POST https://{Actifio_API_HOST}/actifio/api/task/mkuser
HTTP Request Header
Authorization: Actifio 92929a8b-a413-476f-a624-5b575cff54d3
```

where 92929a8b-a413-476f-a624-5b575cff54d3 is the session ID.

Response

```
Request success
{
    "result": "329754",
    "status": 0
}
```

lsuser

About lsuser Command

Description

Use this command to retrieve details of users. The reserved user 'admin' has full privileges. The 'admin' user cannot be deleted nor can the name be modified.

Rights

You must have the 'System View' or 'System Manage' right to use this command.

Parameters

Parameter	Description
filtervalue=attribute %3Dvalue	Optional. Specifies that you want your report to display any or the entire list of valid filter attributes. The valid filter attributes for lsuser are: • comments • clienabled [true | false] • email • firstname • isprotected [true | false] (**deprecated**) • lastname • name • timezone The filter is formed with an attribute and a value. When you specify more than one filter, they must be combined with '&' character. For example, to match users with the username that begins with 'foo', use filtervalue=name%3Dfoo.
argument=string	Optional. Specifies the name or ID of the user.

lsuser Request Details

Your `lsuser` request must pass a valid session ID. For information on how to obtain a session ID, see Authentication or Login on page 1.

Method	URI	Required Parameters
GET	/actifio/api/info/lsuser	None

Note: See the Parameters section for a list of supported parameters and their description.

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lsuser Example

Request

```
GET https://{Actifio_API_HOST}/actifio/api/info/lsuser
HTTP Request Header
Authorization: Actifio 92929a8b-a413-476f-a624-5b575cff54d3
```

where 92929a8b-a413-476f-a624-5b575cff54d3 is the session ID.

Response

```
{
    "result": [
        {
            "clienabled": "true",
            "isprotected": "true",
            "firstname": "System",
            "denylogin": "false",
            "comments": "admin",
            "dataaccesslevel": "0",
            "timezone": "",
            "name": "admin",
            "externalid": "",
            "id": "1",
            "email": "",
            "lastname": "Admin"
        },
        {
            "clienabled": "false",
            "isprotected": "false",
            "firstname": "",
            "denylogin": "false",
            "comments": "",
            "dataaccesslevel": "0",
            "timezone": "",
            "name": "newuser4",
            "externalid": "",
            "id": "121582",
            "email": "foo@gmail.com",
            "lastname": ""
        },
        {
            "clienabled": "true",
            "isprotected": "false",
            "firstname": "JIta",
            "denylogin": "false",
            "comments": "",
            "dataaccesslevel": "0",
            "timezone": "US/Eastern",
            "name": "jita_user",
            "externalid": "",
            "id": "180912",
            "email": "",
            "lastname": "Chatterjee"
        },
        {
            "clienabled": "false",
            "isprotected": "false",
            "firstname": "",
            "denylogin": "false",
            "comments": "",
```

```
            "dataaccesslevel": "0",
            "timezone": "",
            "name": "james",
            "externalid": "",
            "id": "329754",
            "email": "",
            "lastname": ""
        }
    ],
    "status": 0
}
```

chuser

About chuser Command

Description

Use this command to modify the details of a user. Use the lsuser command to obtain the ID or name of the user.

Rights

You must have the 'System Manage' right to modify the details of a user.

Parameters

Parameter	Description
comments=string	Optional. Specifies a comment.
email=string	Optional. Specifies an email address.
firstname=string	Optional. Specifies the first name.
lastname=string	Optional. Specifies the last name.
name=string	Optional. Specifies a unique name for the user.
password=string	Optional. Specifies a password.
timezone=string	Optional. Specifies a timezone.
denylogin=boolean	Optional. Specifies the login access for a user. Options include: • `false` -This user will be allowed to login. It is the default state. • `true` – This user will be restricted from being able to login and access the Actifio Desktop. An error message appears when this user attempts to login to the Actifio Desktopof an appliance. **Note:** *Set this to true only under the direction of a Support representative.*
-argument=string	Required. Specifies the ID or name of the user whose details should be modified.

chuser Request Details

Your `chuser` request must have a valid session ID. For information on how to obtain a session ID, see Authentication or Login on page 1.

Method	URI	Required Parameters
POST	/actifio/api/task/chuser	argument

Note: *See the Parameters section for a list of supported parameters and their description.*

---

chuser Examples

The following example changes a user's email address.

Request

```
POST https://{Actifio_API_HOST}/actifio/api/task/chuser?id=329754&email=james@foo.com
HTTP Request Header
Authorization: Actifio 92929a8b-a413-476f-a624-5b575cff54d3
```

where 92929a8b-a413-476f-a624-5b575cff54d3 is the session ID.

Response

```
{
    "status": 0
}
```

rmuser

About rmuser Command

Description

Use this command to delete a user.

Rights

You must have the "System Manage" right to delete a user.

Parameters

Parameter	Description
argument=string	Required. Specifies the ID or name of the user to be removed. Use lsuser to get the ID or name of the user.

rmuser Request Details

Your `rmuser` request must pass a valid session ID. For information on how to obtain a session ID, see Authentication or Login on page 1.

Method	URI	Required Parameters
POST	/actifio/api/task/rmuser	argument

Note: *See the Parameters section for a list of supported parameters and their description.*

rmuser Example

Request

```
POST https://{Actifio_API_HOST}/actifio/api/task/rmuser?argument=329754
HTTP Request Header
Authorization: Actifio 92929a8b-a413-476f-a624-5b575cff54d3
```

where 92929a8b-a413-476f-a624-5b575cff54d3 is the session ID.

Response

```
{
    "status": 0
}
```

Role Commands

mkrole

About mkrole Command

Description

Use this command to create a new role object.

Rights

You must have the 'System Manage' right to create a role.

Parameters

Parameter	Description
description=string	Optional. Specifies a description for the role.
name=string	Required. Specifies a name. The role name should be unique within the VDP appliance.

mkrole Request Details

Your `mkrole` request must pass a valid session ID. For information on how to obtain a session ID, see Authentication or Login on page 1.

Method	URI	Required Parameters
POST	/actifio/api/task/mkrole	name

Note: See the Parameters section for a list of supported parameters and their description.

mkrole Example

Request

```
POST https://{Actifio_API_HOST}/actifio/api/task/mkrole?name=myrole
HTTP Request Header
Authorization: Actifio 92929a8b-a413-476f-a624-5b575cff54d3
```

where 92929a8b-a413-476f-a624-5b575cff54d3 is the session ID.

Response

```
{
    "result": "1660761",
    "status": 0
}
```

lsrights

About lsrights Command

Description

Use this command to display a concise list of all rights available with the VDP appliance or the rights of a role.

Rights

You must have the 'System View' or 'System Manage' right to use this command.

Parameters

Parameter	Description
role=string	Optional. Specifies the role name or role ID. When you use this parameter, the rights of the role are listed. Use lsuserrole to get the ID or name of the role.

lsrights Request Details

Your `mkrole` request must pass a valid session ID. For information on how to obtain a session ID, see Authentication or Login on page 1.

Method	URI	Required Parameters
GET	/actifio/api/info/lsrights	None

> **Note:** See the Parameters section for a list of supported parameters and their description.

lsrights Example

Request

```
GET https://{Actifio_API_HOST}/actifio/api/info/lsrights
HTTP Request Header
Authorization: Actifio 92929a8b-a413-476f-a624-5b575cff54d3
```

where 92929a8b-a413-476f-a624-5b575cff54d3 is the session ID.

Response

```
{
"result": [
        "Access Domain Manager",
        "Access SLA Architect",
        "Application Manage",
        "Backup Manage",
        "CLI Usage",
        "Clone Manage",
        "Dedup-Async Manage",
        "Dedup-Async Test",
```

```
        "Host Manage",
        "LiveClone Manage",
        "Mount Manage",
        "Restore Manage",
        "SLA View",
        "Storage Manage",
        "Storage View"
    ],
    "status": 0
}
```

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roleaddrights

About roleaddrights Command

Description

Use this command to add rights to a role. The user-to-role mapping ID can be obtained using the lsuserrole command.

Rights

You must have the 'System Manage' right to add rights to a role.

Parameters

Parameter	Description
role=string	Required. Specifies the ID or name of the role to add rights to.
rights=string	Required. Specifies the rights to be added. The list should be colon-separated if more than one right is specified. The rights are: • *Access Application Manager* • *Access Domain Manager* • *Access SLA Architect* • *Access System Monitor* • *Application Manage* • *Backup Manage* • *CLI Usage* • *Clone Manage* • *Host Manage* • *Join Appliance* • *LiveClone Manage* • *Mirroring Manage* • *Mount Manage* • *Restore Manage* • *SLA Assign* • *SLA Manage* • *SLA View* • *Storage Manage* • *Storage View* • *System Manage* • *System View* • *Test-Failover* • *WorkFlow Manage* • *WorkFlow Run* • *WorkFlow View*

roleaddrights Request Details

Your `roleaddrights` request must pass a valid session ID. For information on how to obtain a session ID, see Authentication or Login on page 1.

Method	URI	Required Parameters
POST	/actifio/api/task/roleaddrights	rights role

Note: *See the Parameters section for a list of supported parameters and their description.*

---

roleaddrights Example

Request

```
POST https://{Actifio_API_HOST}/actifio/api/task/roleaddrights?role=myrole&rights="Host
Manage"
HTTP Request Header
Authorization: Actifio 92929a8b-a413-476f-a624-5b575cff54d3
```

where 92929a8b-a413-476f-a624-5b575cff54d3 is the session ID.

Response

```
{
    "status": 0
}
```

roledelrights

About roledelrights Command

Description

Use this command to delete rights from a role.

Rights

You must have the 'System Manage' right to delete rights from a role.

Parameters

Parameter	Description
role=string	Required. Specifies the ID or name of the role to delete the rights from.
rights=string	Required. Specifies the rights to be deleted. The list should be colon-separated if more than one right is specified. The rights are:
	• *Access Application Manager*
	• *Access Domain Manager*
	• *Access SLA Architect*
	• *Access System Monitor*
	• *Application Manage*
	• *Backup Manage*
	• *CLI Usage*
	• *Clone Manage*
	• *Host Manage*
	• *Join Appliance*
	• *LiveClone Manage*
	• *Mirroring Manage*
	• *Mount Manage*
	• *Restore Manage*
	• *SLA Assign*
	• *SLA Manage*
	• *SLA View*
	• *Storage Manage*
	• *Storage View*
	• *System Manage*
	• *System View*
	• *Test-Failover*
	• *WorkFlow Manage*
	• *WorkFlow Run*
	• *WorkFlow View*

roledelrights Request Details

Your `roledelrights` request must pass a valid session ID. For information on how to obtain a session ID, see Authentication or Login on page 1.

Method	URI	Required Parameters
POST	/actifio/api/task/roledelrights	rights role

Note: *See the Parameters section for a list of supported parameters and their description.*

---

roledelrights Example

Request

```
POST https://{Actifio_API_HOST}/actifio/api/task/roledelrights?role=myrole&rights="Host Manage"
HTTP Request Header
Authorization: Actifio 92929a8b-a413-476f-a624-5b575cff54d3
```

where 92929a8b-a413-476f-a624-5b575cff54d3 is the session ID.

Response

```
{
    "status": 0
}
```

lsrole

About lsrole Command

Description

Use this command to retrieve the details of roles. A role is made up of one or more rights. The reserved role 'administrator' has all privileges. The 'administrator' role cannot be deleted or modified. To retrieve the rights of a role use the lsrights command.

Rights

You must have the 'System View' or 'System Manage' right to use this command.

Parameters

Parameter	Description
filtervalue=attribute%3Dvalue	Optional. Specifies that you want your report to display any or the entire list of valid filter attributes. The valid filter attribute for the lsrole command is: name
	For string type of filters, the only operator allowed is '='. You can also use the wild card character '*'. For example, to match roles with name begins with 'foo', use filtervalue=name=%3Dfoo*.
argument=string	Optional. Specifies the name or ID of an object. When you use this parameter, a detailed view of the object is returned and any value specified by the `filtervalue` parameter is ignored. If you do not specify the argument parameter, a concise view of all objects matching the filter criteria is displayed.

lsrole Request Details

Your `lsrole` request must pass a valid session ID. For information on how to obtain a session ID, see Authentication or Login on page 1.

Method	URI	Required Parameters
GET	/actifio/api/info/lsrole	None

Note: See the Parameters section for a list of supported parameters and their description.

lsrole Examples

Fetching roles by id.

Request
```
GET https://{Actifio_API_HOST}/actifio/api/info/lsrole?argument=203
HTTP Request Header
Authorization: Actifio 92929a8b-a413-476f-a624-5b575cff54d3
```

where 92929a8b-a413-476f-a624-5b575cff54d3 is the session ID.

Response

```
{
    "result": {
        "id": "203",
        "name": "Storage Admin"
    },
    "status": 0
}
```

Fetching all roles.

Request

GET https://{Actifio_API_HOST}/actifio/api/info/lsrole

HTTP Request Header
Authorization: Actifio 92929a8b-a413-476f-a624-5b575cff54d3

where 92929a8b-a413-476f-a624-5b575cff54d3 is the session ID.

Response

```
{
"result": [
    {
      "name": "Administrator",
      "description": "System Administrator role",
      "id": "2"
    },
    {
      "name": "Basic",
      "description": "Basic role",
      "id": "4"
    },
    {
      "name": "Compliance Admin",
      "description": "Compliance Admin role",
      "id": "202"
    },
    {
      "name": "Storage Admin",
      "description": "Storage Admin role",
      "id": "203"
    },
    {
      "name": "Backup Admin",
      "description": "Backup Admin role",
      "id": "204"
    },
    {
      "name": "App Admin",
      "description": "App Admin role",
      "id": "205"
    },
    {
      "name": "cdsRDrole",
      "description": "for RD test",
      "id": "477557"
    },
    {
      "name": "rd-cds-role-s2",
      "description": "Enter description",
```

```
        "id": "482481"
    },
],
   "status": 0
}
```

mkuserrole

About mkuserrole Command

Description

Use this command to add a role to a user.

Rights

You must have the 'System Manage' right to assign a role to a user.

Parameters

Parameter	Description
roleid=integer	Required. Specifies the role ID to be assigned to a user. To learn roleid, use lsrole.
userid=integer	Required. Specifies the user ID that the role will be assigned to. To learn userid, use lsuser.

mkuserrole Request Details

Your `mkuserrole` request must pass a valid session ID. For information on how to obtain a session ID, see Authentication or Login on page 1.

Method	URI	Required Parameters
POST	/actifio/api/task/mkuserrole	roleid userid

Note: *See the Parameters section for a list of supported parameters and their description.*

mkuserrole Example

Request

```
POST https://{Actifio_API_HOST}/actifio/api/task/mkuserrole?roleid=2&userid=17510
HTTP Request Header
Authorization: Actifio 92929a8b-a413-476f-a624-5b575cff54d3
```

where 92929a8b-a413-476f-a624-5b575cff54d3 is the session ID.

Response

```
{
    "result": 261651,
    "status": 0
}
```

actifio

lsuserrole

About lsuserrole Command

Description

Use this command to retrieve the details of user-to-role mappings.

Rights

You must have the 'System View' right is to see all role mappings. Only a user with 'System Manage' right can create or delete the mappings.

Parameters

Parameter	Description
argument=integer	Optional. Specifies the userid of a particular user for which the role mapping is displayed. To learn userid, use lsuser.

lsuserrole Request Details

Your `lsuserrole` request must pass a valid session ID. For information on how to obtain a session ID, see Authentication or Login on page 1.

Method	URI	Required Parameters
GET	/actifio/api/info/lsuserrole	None

Note: See the Parameters section for a list of supported parameters and their description.

---

lsuserrole Example

Request

```
GET https://{Actifio_API_HOST}/actifio/api/info/lsuserroleHTTP Request Header
Authorization: Actifio 92929a8b-a413-476f-a624-5b575cff54d3
```

where 92929a8b-a413-476f-a624-5b575cff54d3 is the session ID.

Response
```
{
    "result": [
        {
            "rolename": "Basic",
            "roleid": "4",
            "rights": "Access Domain Manager,Access SLA Architect,Access Application
Manager,Access System Monitor",
            "id": "17512",
            "userid": "17510",
            "username": "User"
```

```
        },
        {
            "rolename": "Basic",
            "roleid": "4",
            "rights": "Access Domain Manager,Access SLA Architect,Access Application
Manager,Access System Monitor",
            "id": "17779",
            "userid": "17777",
            "username": "DevelopmentUser"
        },
        {
            "rolename": "Basic",
            "roleid": "4",
            "rights": "Access Domain Manager,Access SLA Architect,Access Application
Manager,Access System Monitor",
            "id": "121584",
            "userid": "121582",
            "username": "newuser4"
        },
        {
            "rolename": "Administrator",
            "roleid": "2",
            "rights": "",
            "id": "252672",
            "userid": "180912",
            "username": "jita_user"
        }
    ],
    "status": 0
}
```

actifio

chrole

About chrole Command

Description

Use this command to change the name or description attributes of a role. Use lsrole to obtain ID or name of the role.

Rights

You must have the 'System Manage' right to change the attributes of a role.

Parameters

Parameter	Description
description=string	Optional. Specifies new description for the role.
name=string	Optional. Specifies the new name for the role, which should be unique.
argument=string	Required. Specifies the role object to modify, either by ID or by name.

chrole Request Details

Your `chrole` request must pass a valid session ID. For information on how to obtain a session ID, see Authentication or Login on page 1.

Method	URI	Required Parameters
POST	/actifio/api/task/chrole	argument

Note: *See the Parameters section for a list of supported parameters and their description.*

---

chrole Example

Request

```
POST https://{Actifio_API_HOST}/actifio/api/task/
chrole?argument=181128&description=storageadmin
HTTP Request Header
Authorization: Actifio 92929a8b-a413-476f-a624-5b575cff54d3
```

where 92929a8b-a413-476f-a624-5b575cff54d3 is the session ID.

Response

```
{
    "status": 0
}
```

rmuserrole

About rmuserrole Command

Description

Use this command to delete a user-to-role mapping. The user-to-role mapping ID can be obtained using the lsuserrole command.

Rights

You must have the 'System Manage' right to delete a user-to-role mapping.

Parameters

Parameter	Description
argument=integer	Required. Specifies the ID of the user-to-role mapping to be deleted.

rmuserrole Request Details

Your `rmuserrole` request must pass a valid session ID. For information on how to obtain a session ID, see Authentication or Login on page 1.

Method	URI	Required Parameters
POST	/actifio/api/task/rmuserrole	argument

Note: See the Parameters section for a list of supported parameters and their description.

rmuserrole Example

Request

```
POST https://{Actifio_API_HOST}/actifio/api/task/rmuserrole?argument=261677
HTTP Request Header
Authorization: Actifio 92929a8b-a413-476f-a624-5b575cff54d3
```

where 92929a8b-a413-476f-a624-5b575cff54d3 is the session ID.

Response

```
{
    "status": 0
}
```

actifio

rmrole

About rmrole Command

Description

Use this command to delete a role.

Rights

You must have the "System Manage" right to delete a role.

Parameters

Parameter	Description
argument=string	Required. Specifies the ID or name of the role to be removed. Use lsrole to locate the ID or name of the role.

rmrole Request Details

Your `rmrole` request must pass a valid session ID. For information on how to obtain a session ID, see Authentication or Login on page 1.

Method	URI	Required Parameters
POST	/actifio/api/task/rmrole	argument

Note: See the Parameters section for a list of supported parameters and their description.

rmrole Example

Request

```
POST https://{Actifio_API_HOST}/actifio/api/task/rmrole?argument=myrole
HTTP Request Header
Authorization: Actifio 92929a8b-a413-476f-a624-5b575cff54d3
```

where 92929a8b-a413-476f-a624-5b575cff54d3 is the session ID.

Response

```
{
    "status": 0
}
```

Org Commands

mkorg

About mkorg Command

Description

Use this command to create a new organization object. An organization determines a user's access to organizational resources. An organization is effective after organizational resources are added to the organization.

Rights

You must have the 'System Manage' right to create an organization.

Parameters

Parameter	Description
description=string	Optional. Describes the organization.
name=string	Required. Specifies a name for the organization. The name should be unique.
org=string	Optional. Specifies a default organization in which the organization should be added to after creation. Use lsorg to retrieve organization information. *Note: To use this option user needs the 'System Manage' right.*

mkorg Request Details

Your `mkorg` request must pass a valid session ID. For information on how to obtain a session ID, see Authentication or Login on page 1.

Method	URI	Required Parameters
POST	/actifio/api/task/mkorg	name

Note: *See the Parameters section for a list of supported parameters and their description.*

mkorg Example

Request

```
POST https://{Actifio_API_HOST}/actifio/api/task/mkorg?name=org1
HTTP Request Header
Authorization: Actifio 92929a8b-a413-476f-a624-5b575cff54d3
```

where 92929a8b-a413-476f-a624-5b575cff54d3 is the session ID.

actifio

Response

```
{
    "result": 261533,
    "status": 0
}
```

mkorgresource

About mkorgresource Command

Description

Use this command to add a resource to an organization. An organization consists of resources and users. It allows the member users to access all its resources. An organization can contain one or more organizations as its members.

Rights

You must have the 'System Manage' right to add a resource to an organization.

Parameters

Parameter	Description
org=string	Required. Specifies the ID or name of the organization. Use lsorg to retrieve organization information.
resources=string	Required. Specifies the resource names or IDs to add to the organization. If there is more than one resource, they should be separated by a comma (','). Use the lsorgresource command to locate the ID of the organization resource by displaying a list of organization-to-resource mappings.
type=string	Required. Specifies the type of resource to be added to an organization. *Note: For information on adding an appliance to an organization through specification of **-type cluster** to define multi-tenancy access, see **Enabling Multi-Tenancy with Organizations** in NOW.*

mkorgresource Request Details

Your `mkorgresource` request must pass a valid session ID. For information on how to obtain a session ID, see Authentication or Login on page 1.

Method	URI	Required Parameters
POST	/actifio/api/task/mkorgresource	type org resources

Note: See the Parameters section for a list of supported parameters and their description.

mkorgresource Example

Request

```
POST https://{Actifio_API_HOST}/actifio/api/task/mkorgresource?type=user&org=Org1
HTTP Request Header
Authorization: Actifio 92929a8b-a413-476f-a624-5b575cff54d3
```

where 92929a8b-a413-476f-a624-5b575cff54d3 is the session ID.

Response

```
{
    "status": 0
}
```

lsorg

About lsorg Command

Description

Use this command to retrieve the details of organizations. There are two reserved organizations, 'all', which includes all objects within the system; and 'public', which includes objects that are viewable by everyone. The 'all', and 'public' organizations cannot be deleted or modified.

Rights

You must have the 'System View' or 'System Manage' right to use this command.

Parameters

Parameter	Description
filtervalue=attribute%3Dvalue	Optional. Specifies that you want your report to display any or the entire list of valid filter attributes. The valid filter attribute for the lsorg command is: `name`. A filter is formed with an attribute and a value. When you specify more than one filter, they must be combined with the ampersand (&) character (%26 in hexadecimal). For string type of filters, the only operator allowed is '='. You can also use wild card character '*'.
argument=string	Optional. Specifies the name or ID of an object. When you use this parameter, a detailed view of the object is returned and any value specified by the `filtervalue` parameter is ignored. If you do not specify the ID or name, a concise view of all objects matching the filter criteria is displayed.

lsorg Request Details

Your `lsorg` request must pass a valid session ID. For information on how to obtain a session ID, see Authentication or Login on page 1.

Method	URI	Required Parameters
GET	/actifio/api/info/lsorg	None

Note: *See the Parameters section for a list of supported parameters and their description.*

---

lsorg Example

Request

```
GET https://{Actifio_API_HOST}/actifio/api/info/lsorg
HTTP Request Header
Authorization: Actifio 92929a8b-a413-476f-a624-5b575cff54d3
```

where 92929a8b-a413-476f-a624-5b575cff54d3 is the session ID.

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Response

```
{
"result": [
        {
            "id": "3",
            "modifydate": "",
            "description": "ALL organization, all objects be...",
            "name": "ALL",
            "createdate": "2015-05-19 18:28:29.245"
        },
        {
            "id": "17600",
            "modifydate": "2015-07-02 03:24:38.370",
            "description": "These are the application server...",
            "name": "DevelopmentOrganization",
            "createdate": "2015-07-02 03:22:48.442"
        },
        {
            "id": "164816",
            "modifydate": "",
            "description": "New organization description",
            "name": "Organization_3",
            "createdate": "2017-02-23 10:30:43.977"
        },
        {
            "id": "179297",
            "modifydate": "",
            "description": "New organization description",
            "name": "Organization_4",
            "createdate": "2017-04-13 10:21:40.095"
        }
    ],
    "status": 0
}
```

chorg

About chorg Command

Description

Use this command to change the attributes of an organization object.

Rights

You must have the 'System Manage' right to change the attributes of an organization.

Parameters

Parameter	Description
description=string	Optional. Specifies a description for the organization.
name=string	Optional. Specifies a unique name for the organization, name must be unique.
argument=string	Required. Specifies the organization object to modify, either by ID or by name. Use lsorg to obtain the ID or name of the organization.

chorg Request Details

Your `chorg` request must pass a valid session ID. For information on how to obtain a session ID, see Authentication or Login on page 1.

Method	URI	Required Parameters
POST	/actifio/api/task/chorg	argument

Note: *See the Parameters section for a list of supported parameters and their description.*

chorg Example

Request

```
POST https://{Actifio_API_HOST}/actifio/api/task/chorg?argument=179297&description=SalesOrg
HTTP Request Header
Authorization: Actifio 92929a8b-a413-476f-a624-5b575cff54d3
```

where 92929a8b-a413-476f-a624-5b575cff54d3 is the session ID.

Response

```
{
    "status": 0
}
```

lsorgresource

About lsorgresource Command

Description

Use this command to retrieve the details of resource-to-organization mappings.

Rights

You must have the 'System View' or 'System Manage' right to use this command.

Parameters

Parameter	Description
filtervalue=attribute%3Dvalue	Optional. Specifies that you want your report to display any or the entire list of valid filter attributes. The valid filter attributes for the lsorgresource command are: • orgid • resourceid • typecode [app | host | org | slp | slt | user] The filter is formed with an attribute and a value. When you specify more than one filter, they must be combined with '&' character. Some filters allow only predefined constants. For example, typecode allows only app, host, org, slp, slt and user.
argument=integer	Optional. Specifies the ID of an object. When you use this parameter, a detailed view of the object is returned and any value specified by the `filtervalue` parameter is ignored. If you do not specify the *argument* parameter, a concise view of all objects matching the filter criteria is displayed.

lsorgresource Request Details

Your `lsorgresource` request must pass a valid session ID. For information on how to obtain a session ID, see Authentication or Login on page 1.

Method	URI	Required Parameters
GET	/actifio/api/info/ lsorgresource	None

> **Note:** See the Parameters section for a list of supported parameters and their description.

lsorgresource Example

Request

```
GET https://{Actifio_API_HOST}/actifio/api/info/lsorgresource
HTTP Request Header
Authorization: Actifio 92929a8b-a413-476f-a624-5b575cff54d3
```

where 92929a8b-a413-476f-a624-5b575cff54d3 is the session ID.

Response

```
{
  "result": [
    {
      "typecode": "host",
      "resourceid": "8759",
      "id": "17622",
      "orgid": "17600"
    },
    {
      "typecode": "host",
      "resourceid": "6853",
      "id": "17623",
      "orgid": "17600"
    },
    {
      "typecode": "host",
      "resourceid": "6855",
      "id": "17624",
      "orgid": "17600"
    },
    {
      "typecode": "host",
      "resourceid": "6820",
      "id": "17625",
      "orgid": "17600"
    },
    {
      "typecode": "host",
      "resourceid": "6861",
      "id": "17626",
      "orgid": "17600"
    },
    {
      "typecode": "host",
      "resourceid": "164521",
      "id": "165148",
      "orgid": "164816"
    },
    {
      "typecode": "user",
      "resourceid": "180912",
      "id": "180981",
      "orgid": "3"
    }
  ],
  "status": 0
}
```

rmorgresource

About rmorgresource Command

Description

Use this command to delete a resource from an organization.

Rights

You must have the "System Manage" right to delete a resource-to-organization mapping.

Parameters

Parameter	Description
argument=integer	Required. Specifies the ID of the resource-to-organization mapping to be deleted. Use the lsorgresource command to get the ID or name of the organization resource.

rmorgresource Request Details

Your `rmorgresource` request must pass a valid session ID. For information on how to obtain a session ID, see Authentication or Login on page 1.

Method	URI	Required Parameters
POST	/actifio/api/task/ rmorgresource	argument

Note: See the Parameters section for a list of supported parameters and their description.

rmorgresource Example

Request

```
POST https://{Actifio_API_HOST}/actifio/api/task/rmorgresource?argument=180981
HTTP Request Header
Authorization: Actifio 92929a8b-a413-476f-a624-5b575cff54d3
```

where 92929a8b-a413-476f-a624-5b575cff54d3 is the session ID.

Response

```
{
    "status": 0
}
```

rmorg

About rmorg Command

Description

Use this command to delete an organization.

Rights

You must have the 'System Manage right to delete an organization.

Parameters

Parameter	Description
argument=string	Required. Specifies the ID or name of the organization to be deleted. Use the `lsorg` command to get the ID or name of the organization.

rmorg Request Details

Your `rmorg` request must pass a valid session ID. For information on how to get a valid session ID, see Authentication or Login on page 1.

Method	URI	Required Parameters
POST	/actifio/api/task/rmorg	argument

Note: See the Parameters section for a list of supported parameters and their description.

rmorg Example

Request

```
POST https://{Actifio_API_HOST}/actifio/api/task/rmorg?argument=181389
HTTP Request Header
Authorization: Actifio 92929a8b-a413-476f-a624-5b575cff54d3
```

where 92929a8b-a413-476f-a624-5b575cff54d3 is the session ID.

Response

```
{
    "status": 0
}
```

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LDAP Commands

mkldapserver

About mkldapserver Command

Description

Use this command to configure an LDAP server for authentication.

Rights

You must have the 'System Manage' right to configure an LDAP server.

Parameters

Parameter	Description
ip=string	Required. Specifies the IP address for the server.
port=string	Required. Specifies the port for the server.
basedn=string	Required. Specifies the basedn for the LDAP lookups.
userattribute=string	Required. Specifies the attribute to use as the username.
lookupuser=string	Optional. Specifies the user to perform the LDAP lookups.
lookuppassword =string	Optional. Specifies the password for the lookup user.
nossl=boolean	Optional. When set, SSL is not used to connect to the LDAP server.
fallback=boolean	Optional. When true, cached credentials will be used if the LDAP server is unavailable.
uniqueidname=string	Optional. Specifies unique object attribute name to identify LDAP objects.

mkldapserver Request Details

Your `mkldapserver` request must pass a valid session ID. For information on how to obtain a session ID, see Authentication or Login on page 1.

Method	URI	Required Parameters
POST	/actifio/api/task/mkldapserver	ip port basedn userattribute

mkldapserver Example

Request

```
POST https://{Actifio_API_HOST}/actifio/api/task/
mkldapserver?ip={LDAP_IP}&port=389&nossl=true&basedn=CN%3DUsers%2CDC%3Drtad%2CDC%3Dcom&useratt
ribute=cn&fallback=true
HTTP Request Header
Authorization: Actifio 92929a8b-a413-476f-a624-5b575cff54d3
```

where 92929a8b-a413-476f-a624-5b575cff54d3 is the session ID.

Response

```
{
    "status": 0
}
```

testldapserver

About testldapserver Command

Description

Use this command to test the LDAP configuration.

Rights

You must have "System Manage" right to test the LDAP configuration.

Parameters

Parameter	Description
user=string	Required. The username with which to test.
password=string	Required. The password associated with the user.

testldapserver Request Details

Your `testldapserver` request must pass a valid session ID. For information on how to obtain a session ID, see Authentication or Login on page 1.

Method	URI	Required Parameters
POST	/actifio/api/task/testldapserver	user password

Note: *See the Parameters section for a list of supported parameters and their description.*

testldapserver Example

Request

```
POST https://{Actifio_API_HOST}/actifio/api/task/
testldapserver?user=Administrator&password={PASSWORD}
HTTP Request Header
Authorization: Actifio 92929a8b-a413-476f-a624-5b575cff54d3
where 92929a8b-a413-476f-a624-5b575cff54d3 is the session ID.
```

Response

```
{
    "result": "Success",
    "status": 0
}
```

lsldapserver

About lsldapserver Command

Description

Use this command to list LDAP server settings.

Rights

You must have the 'System View' right is allowed to view the LDAP server configuration.

Parameters

Parameter	Description
delim=string	Optional. By default, all columns of data are separated by a tab in the concise view. In the detailed view, each column of data is displayed in a separate row and if the headers are displayed, the header is separated from the data by a space. The -delim parameter overrides this behavior.
	Valid input for the -delim parameter is a one byte character. To display the data, use a comma (',') for list view, and equal ('=') for detail view.
nohdr=string	Optional. By default, headings are displayed for each column of data in a concise view, and for each item of data in a detailed view. The -nohdr parameter suppresses the display of these headings. If there is no data to be displayed, headings are not displayed.

lsldapserver Request Details

Your `lsldapserver` request must pass a valid session ID. For information on how to obtain a session ID, see Authentication or Login on page 1.

Method	URI	Required Parameters
GET	/actifio/api/info/lsldapserver	None

Note: *See the Parameters section for a list of supported parameters and their description.*

lsldapserver Example

Request

```
GET https://{Actifio_API_HOST}/actifio/api/info/lsldapserver
HTTP Request Header
Authorization: Actifio 92929a8b-a413-476f-a624-5b575cff54d3
```

where 92929a8b-a413-476f-a624-5b575cff54d3 is the session ID.

Response

```
Request success
```

actifio

```
{
    "result": [
        {
            "address": {LDAP_SERVER_IP},
            "basedn": "CN=Users,DC=SQA,DC=actifio,DC=com",
            "fallback": "false",
            "lookuppassword": "******",
            "lookupuser": "CN=Administrator,CN=Users,DC=SQA,DC=actifio,DC=com",
            "port": "389",
            "uniqueidname": "objectGUID",
            "userattribute": "SamAccountName",
            "usessl": "false"
        }
    ],
    "status": 0
}
```

chldapserver

About chldapserver Command

Description

Use this command to change the configuration of an LDAP server.

Rights

User must have 'System Manage' right to change the configuration of an LDAP server.

Parameters

Parameter	Description
basedn=string	Optional. Specifies the Base DN for the LDAP lookups.
fallback=boolean	Optional. When set, cached credentials will be used if the LDAP server is unavailable.
ip=string	Optional. Specifies the IP address of the server.
lookuppassword =string	Optional. Specifies the password for the lookup user.
lookupuser=string	Optional. Specifies the user to perform the LDAP lookups.
port=string	Optional. Specifies the port for the server.
ssl=boolean	Optional. When set, the LDAPS protocol is used instead of LDAP.
uniqueidname=string	Optional. Specifies unique object attribute name to identify LDAP objects for an VDP Appliance.
userattribute=string	Optional. Specifies the attribute to use as the username.

chldapserver Request Details

Your `chldapserver` request must pass a valid session ID. For information on how to obtain a session ID, see Authentication or Login on page 1.

Method	URI	Required Parameters
POST	/actifio/api/task/ chldapserver	None

Note: See the Parameters section for a list of supported parameters and their description.

actifio

chldapserver Example

Request

```
POST https://{Actifio_API_HOST}/actifio/api/task/chldapserver?fallback=false
HTTP Request Header
Authorization: Actifio 92929a8b-a413-476f-a624-5b575cff54d3
```

where 92929a8b-a413-476f-a624-5b575cff54d3 is the session ID.

Response

```
{
    "status": 0
}
```

mkldapgroup

About mkldapgroup Command

Description

Use this command to create an LDAP group object. This group must already exist in the LDAP server. Once the LDAP group is added with this command, use mkldapgrouprole to create the mapping.

Rights

You must have the 'System Manage' right to create an LDAP group.

Parameters

Parameter	Description
dn=string	Required. Specifies the Distinguished Name (DN) of the LDAP group.

mkldapgroup Request Details

Your `mkldapgroup` request must pass a valid session ID. For information on how to obtain a session ID, see Authentication or Login on page 1.

Method	URI	Required Parameters
POST	/actifio/api/task/ mkldapgroup	dn

Note: See the Parameters section for a list of supported parameters and their description.

mkldapgroup Example

Request

```
POST https://{Actifio_API_HOST}/actifio/api/task/
mkldapgroup?dn=CN%3Dtestgroup02,CN%3DUsers,DC%3DSQA,DC%3Dactifio,DC%3Dcom
HTTP Request Header
Authorization: Actifio 92929a8b-a413-476f-a624-5b575cff54d3
```

where 92929a8b-a413-476f-a624-5b575cff54d3 is the session ID.

Response

```
{
    "result": "5265494",
    "status": 0
}
```

lsldapgroup

About lsldapgroup Command

Description

Use this command to retrieve details of LDAP groups.

Rights

You must have the 'System View' or 'System Manage' right to view the LDAP groups.

Parameters

Parameter	Description
filtervalue=attribute%3Dvalue	Optional. Specifies that you want your report to display any or all of the list of valid filter attributes. The valid filter attribute for the lsldapgroup command is: **name**. For string filters, the only operator allowed is '='. You can use the wildcard '*'.
argument=string	Optional. Specifies the name or ID of an object. When you use this parameter, the detailed view of the specific object is returned and any value specified by the `filtervalue` parameter is ignored. If you do not specify the argument parameter, the concise view of all objects matching the filter criteria is displayed.

lsldapgroup Request Details

Your `lsldapgroup` request must pass a valid session ID. For information on how to obtain a session ID, see Authentication or Login on page 1.

Method	URI	Required Parameters
GET	/actifio/api/info/lsldapgroup	None

Note: *See the Parameters section for a list of supported parameters and their description.*

lsldapgroup Example

Request

```
GET https://{Actifio_API_Server}/actifio/api/info/lsldapgroup
HTTP Request Header
Authorization: Actifio 92929a8b-a413-476f-a624-5b575cff54d3
```

where 92929a8b-a413-476f-a624-5b575cff54d3 is the session ID.

Response

```
{
    "result": [
        {
```

```
            "dn": "CN=testgroup01,CN=Users,DC=sqa,DC=actifio,DC=com",
            "guid": "a915013c-8902-3264-a9bc-88cc4b87f56f",
            "id": "5215712",
            "name": "testgroup01"
        }
    ],
    "status": 0
}
```

mkldapgrouprole

About mkldapgrouprole Command

Description

Use this command to add a new LDAP group role mapping. An LDAP group can map to multiple roles. A user that belongs to the LDAP group automatically has the roles specified in the mapping. Use lsldapgroup to obtain ID of the LDAP group. Use lsroleto obtain the ID of the role.

Rights

You must have the 'System Manage' right to add a new LDAP group role mapping.

Parameters

Parameter	Description
groupid=integer	Required. Specifies the LDAP group ID.
roleid=integer	Required. Specifies the role ID to be assigned to the LDAP group.

mkldapgrouprole Request Details

Your `mkldapgrouprole` request must pass a valid session ID. For information on how to obtain a session ID, see Authentication or Login on page 1.

Method	URI	Required Parameters
POST	/actifio/api/task/mkldapgrouprole	groupid roleid

Note: *See the Parameters section for a list of supported parameters and their description.*

mkldapgrouprole Example

Request

```
POST https://{Actifio_API_HOST}/actifio/api/task/mkldapgrouprole?groupid=5215712&roleid=205
HTTP Request Header
Authorization: Actifio 92929a8b-a413-476f-a624-5b575cff54d3
```

where 92929a8b-a413-476f-a624-5b575cff54d3 is the session ID.

Response

```
{
    "result": 5265216,
    "status": 0
}
```

lsldapgrouprole

About lsldapgrouprole Command

Description

Use this command to retrieve LDAP group role mappings, for all LDAP groups or for a specific LDAP group.

Rights

You must have the 'System View' or 'System Manage' right to view role mappings.

Parameters

Parameter	Description
argument=integer	Optional. Specifies the ID of an LDAP group role object, to show the role mapping for a particular LDAP group role.

lsldapgrouprole Request Details

Your `lsldapgrouprole` request must pass a valid session ID. For information on how to obtain a session ID, see Authentication or Login on page 1.

Method	URI	Required Parameters
GET	/actifio/api/info/ lsldapgrouprole	None

Note: See the Parameters section for a list of supported parameters and their description.

lsldapgrouprole Example

Request

```
GET https://{Actifio_API_HOST}/actifio/api/info/lsldapgrouprole
HTTP Request Header
Authorization: Actifio 92929a8b-a413-476f-a624-5b575cff54d3
```

where 92929a8b-a413-476f-a624-5b575cff54d3 is the session ID.

Response

```
{
    "result": [
        {
            "groupid": "5215712",
            "id": "5215714",
            "roleid": "203"
        }
    ],
    "status": 0
}
```

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mkldapgrouporg

About mkldapgrouporg Command

Description

Use this command to add a new LDAP group organization mapping. An LDAP group can map to multiple organizations. A user that belongs to the LDAP group automatically has the organizations specified in the mapping. Use lsldapgroup to obtain ID of the LDAP group. Use lsorg to obtain ID of the organization.

Rights

You must have 'System Manage' right to add new LDAP group organization mapping.

Parameters

Parameter	Description
groupid=integer	Required. Specifies the LDAP group ID.
orgid=integer	Required. Specifies the organization id to be assigned to the LDAP group.

mkldapgrouporg Request Details

Your `mkldapgrouporg` request must pass a valid session ID. For information on how to obtain a session ID, see Authentication or Login on page 1.

Method	URI	Required Parameters
POST	/actifio/api/task/mkldapgrouporg	groupid orgid

Note: See the Parameters section for a list of supported parameters and their description.

mkldapgrouporg Example

Request
```
POST https://{Actifio_API_HOST}/actifio/api/task/mkldapgrouporg?groupid=5215712&orgid=3
HTTP Request Header
Authorization: Actifio 92929a8b-a413-476f-a624-5b575cff54d3
```

where 92929a8b-a413-476f-a624-5b575cff54d3 is the session ID.

Response
```
{
    "result": 5265064,
    "status": 0
}
```

lsldapgrouporg

About lsldapgrouporg Command

Description

Use this command to retrieve LDAP group organization mappings, for all LDAP groups or for a specific LDAP group.

Rights

You must have 'System View' or 'System Manage' rights to view the organization mappings.

Parameters

Parameter	Description
argument=integer	Optional. Specifies the ID of an LDAP group organization object.

lsldapgrouporg Request Details

Your `lsldapgroupog` request must pass a valid session ID. For information on how to obtain a session ID, see Authentication or Login on page 1.

Method	URI	Required Parameters
GET	`/actifio/api/info/lsldapgrouporg`	None

Note: *See the Parameters section for a list of supported parameters and their description.*

lsldapgrouporg Example

Request

```
GET https://{Actifio_API_HOST}/actifio/api/info/lsldapgrouporg
HTTP Request Header
Authorization: Actifio 92929a8b-a413-476f-a624-5b575cff54d3
```

where 92929a8b-a413-476f-a624-5b575cff54d3 is the session ID.

Response

```
Request success
{
    "result": [
        {
            "groupid": "5215712",
            "id": "5265064",
            "orgid": "3"
        }
    ],
```

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```
    "status": 0
}
```

rmldapgrouporg

About rmldapgrouporg Command

Description

Use this command to delete an LDAP group organization mapping. The group organization ID can be obtained using lsldapgrouporg command.

Rights

You must have "System Manage" right to delete an LDAP group org mapping.

Parameters

Parameter	Description
argument=integer	Required. Specifies the ID of the LDAP group organization mapping to be removed.

rmldapgrouporg Request Details

Your `rmldapgrouporg` request must pass a valid session ID. For information on how to obtain a session ID, see Authentication or Login on page 1.

Method	URI	Required Parameters
POST	/actifio/api/task/ rmldapgrouporg	argument

Note: *See the Parameters section for a list of supported parameters and their description.*

---

rmldapgrouporg Example

Request

```
POST https://{Actifio_API_HOST}/actifio/api/task/rmldapgrouporg?argument=5265064
HTTP Request Header
Authorization: Actifio 92929a8b-a413-476f-a624-5b575cff54d3
```

where 92929a8b-a413-476f-a624-5b575cff54d3 is the session ID.

Response

```
{
    "status": 0
}
```

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rmldapgrouprole

About rmldapgrouprole Command

Description

Use this command to delete an LDAP group role mapping.

Rights

You must have the 'System Manage' right to delete an LDAP group role mapping.

Parameters

Parameter	Description
argument=integer	Required. Specifies the ID of the LDAP group role mapping to be removed.

rmldapgrouprole Request Details

Your `rmldapgrouprole` request must pass a valid session ID. For information on how to obtain a session ID, see Authentication or Login on page 1.

Method	URI	Required Parameters
POST	/actifio/api/task/ rmldapgrouprole	argument

Note: See the Parameters section for a list of supported parameters and their description.

rmldapgrouprole Example

Request

```
POST https://{Actifio_API_HOST}/actifio/api/task/rmldapgrouprole?argument=5265216
HTTP Request Header
Authorization: Actifio 92929a8b-a413-476f-a624-5b575cff54d3
```

where 92929a8b-a413-476f-a624-5b575cff54d3 is the session ID.

Response

```
Request success
{
    "status": 0
}
```

rmldapgroup

About rmldapgroup Command

Description

Use this command to delete an LDAP group, including all of the mapping to roles.

Rights

You must have the 'System Manage' right to delete an LDAP group.

Parameters

Parameter	Description
argument=string	Required. Specifies the ID or name of the LDAP group to be removed.

rmldapgroup Request Details

Your `rmldapgroup` request must pass a valid session ID. For information on how to obtain a session ID, see Authentication or Login on page 1.

Method	URI	Required Parameters
POST	/actifio/api/task/rmldapgroup	argument

Note: *See the Parameters section for a list of supported parameters and their description.*

rmldapgroup Example

Request

```
POST https://{Actifio_API_HOST}/actifio/api/task/rmldapgroup?argument=5265494
HTTP Request Header
Authorization: Actifio 92929a8b-a413-476f-a624-5b575cff54d3
```

where 92929a8b-a413-476f-a624-5b575cff54d3 is the session ID.

Response

```
Request success
{
    "status": 0
}
```

rmldapserver

About rmldapserver Command

Description

Use this command to remove the LDAP server configuration.

Rights

You must have "System Manage" right to remove the LDAP configuration.

rmldapserver Request Details

Your `rmldapserver` request must pass a valid session ID. For information on how to obtain a session ID, see Authentication or Login on page 1.

Method	URI	Required Parameters
POST	/actifio/api/task/rmldapserver	None

rmldapserver Example

Request

```
POST https://{Actifio_API_HOST}/actifio/api/task/rmldapserver
HTTP Request Header
Authorization: Actifio 92929a8b-a413-476f-a624-5b575cff54d3
```

where 92929a8b-a413-476f-a624-5b575cff54d3 is the session ID.

Response

```
Request success
{
    "status": 0
}
```

3 Host Management Commands

These commands are used for managing hosts and appliances.

Managing Hosts

Host Commands

mkhost

About mkhost Command

Description

Use this command to create a new host object. The ID is displayed when the command completes. For generic or Hewlett Packard Unix (HP-UX) or Target Port Group Support (TPGS) or OpenVMS host, hostname must start with a letter, and can only use letter, digit or '_'. This is generally the DNS name for a host. For vCenter host, you may also use IP address of the host as the hostname.

Rights

You must have the 'Host Manage' right to create a host.

Parameters

Parameter	Description
alternateip=string	Optional. Specifies the alternate IP address of the host. Multiple `alternateip` can be specified in a comma-delimited list.
description=string	Optional. Specifies the description of the host.
diskpref=string	Optional. Specifies preference (BLOCK or NFS) for presenting the staging disk. Default value is BLOCK.
dbauthentication=boolean	Optional. For VDP appliance only, specifies whether the Oracle database running on this host should be using DB Authentication or Host authentication.
friendlypath=string	Optional. Specifies the friendly name for the host.
hbawwpn=string	Required for generic/HP-UX/TPGS/openvms hosts when an iSCSI name is not specified. Multiple `hbawwpn` can be specified in a *comma*-delimited list. Not allowed for virtual machine hosts. You can get a list of potential port names with `usvcinfo lshbaportcandidate`. Specifies one or more host bus adapter (HBA) worldwide port names (WWPNs) to add to the specified host. For generic/HP-UX/TPGS hosts, at least one WWPN or iSCSI name should be specified. You cannot use this parameter with the `iscsiname` parameter.
hostname=string	Required. Specifies the name of the host.
iogrp=string	Optional. Not allowed for virtual machine hosts. Specifies a set of one or more I/O groups that the host can access the VDisks from. I/O groups are specified using their names or IDs separated by a colon. Names and IDs can be mixed in the list. If this parameter is not specified, the host is associated with all I/O groups.

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Parameter	Description
ipaddress=string	Optional. Specifies IP address of the host. A DNS lookup will be attempted if this is not specified.
iscsiname=string	Required for generic/HP-UX/TPGS/openvms hosts. At least one WWPN or iSCSI name should be specified. You cannot use this parameter with the `hbawwpn` parameter. Multiple `iscsiname` can be specified in a comma-delimited list. However, this parameter is not allowed for virtual machine hosts.
mask=integer	Optional for generic/HP-UX/TPGS hosts. However, not allowed for virtual machine hosts. Specifies which node target ports the host can access. The port mask is four binary bits and is made up of a combination of zeros and ones, where 0 indicates that the corresponding target port cannot be used and 1 indicates that it can be used. The right-most bit in the mask corresponds to the lowest numbered target port (1 not 4) on a node. Valid mask values range from 0000 (no ports enabled) to 1111 (all ports enabled). For example, a mask of 0011 enables port 1 and port 2. The default value is 1111 (all ports enabled).
nfsoption=string	Optional. Comma (,) separated NFS options to use, when diskpref is NFS.Both server and client options are supported, separated by a semi-colon (;). For example: "server:writedelay=true,subtreecheck=false;client:retrans=2".
org=string	Optional. Specifies the ID or name of a default organization in which the host should be added to after creation. To use this option user needs to have 'System Manage' right. If a default organization is not specified, an organization that the user belongs to is used.
password=string	Required for vCenter type. Specifies the password to access the Actifio Connector of the host.
port=integer	Optional. Specifies the agent port number for the host. The default is 5106 for `generic/hpux/tpgs/openvms` hosts, and 0 for VM related hosts.
svcname=string	Optional. Specifies the SVC host name, which limits to 15 characters, first character cannot be a number, and no space, or '.' is allowed.
type=string	Required for vCenter or HMC type. Specifies the type of the new host: *generic, hmc, hpux, hyperv, isilon*, *netapp svm*, *netapp 7 mode, openvms, tpgs*, or *vcenter*. The *tpgs* type enables extra target port unit attentions. With the *vcenter* type, discovery (see `udstask` vmdiscovery) allows Virtual Machines to be discovered *isilon*, *netapp svm* and *netapp 7 mode* hosts are used with the NAS Director. hyperv and isilon types are for VDP only. A host can be of more than one type, one of generic/hpux/tpgs/openvms, and of vcenter. Separate the two types with a colon, ':', if the vCenter also has access to storage configured.
username=string	Required for vCenter. Specifies the username to access the Actifio Connector running on the host.
transport=string	Optional. Specifies the transport option for host. This is applicable only for VMware vCenters and manually discovered ESX hosts.

mkhost Request Details

Your `mkhost` request must pass a valid session ID. For information on how to get a valid session ID, see Authentication or Login on page 1.

Method	URI	Required Parameters
POST	/actifio/api/task/mkhost	hostname=<name of host>

Note: *See the Parameters section for a list of supported parameters and their description.*

---

mkhost Example

Request

```
POST https://{Actifio_API_HOST}/actifio/api/task/mkhost?hostname=shark-
linux&type=generic&ipaddress={IP_ADDRESS}
HTTP Request Header
Authorization: Actifio 92929a8b-a413-476f-a624-5b575cff54d3
```

where 92929a8b-a413-476f-a624-5b575cff54d3 is the session ID.

Response

```
Request success
{
    "result": "154829",
    "status": 0
}
```

lshost

About lshost Command

Description

Use this command to display a concise list of hosts or a detailed view of a host. There are various types of hosts that exist within the system. They can be divided into two types in general: Virtual Machine related hosts and non-Virtual Machine related.

Non-Virtual Machine related hosts have applications running on the host with primary storage connected.

Virtual Machine related hosts can be the vCenter type, which manage Virtual Machines. Virtual Machines are discovered through the vCenter hosts. There are also ESX servers as well as the actual Virtual Machines.

Rights

No rights are required for lshost.

Parameters

Parameter	Description
filtervalue=attrib%3D value	Optional. Specifies that you want your report to display any or the entire list of valid filter attributes. The valid filter attributes for the lshost command are:
	• alternateip
	• description
	• diskpref
	• friendlypath
	• hasagent
	• hostname
	• hosttype
	• isclusterhost
	• ipaddress
	• isesxhost
	• isvcenterhost
	• isvm
	• originalhostid
	• osrelease
	• ostype
	• osversion
	• sourcecluster
	• svcname
	• uniquename
	• vcenterhostid
	• cloudcredentialid
	The filter is formed with an attribute and a value. When you specify more than one filter, they must be combined with '&' character. For string type of filters, the only operator allowed is '='. You can also use the wild card character '*'. For example, to match users with the username that begins with 'foo', use filtervalue username=foo*.

Parameter	Description
argument=string	Optional. Specifies the ID of an object. When you use this parameter, a detailed view of the object is returned and any value specified by the `filtervalue` parameter is ignored. If you do not specify the argument, a concise view of all objects matching the filter criteria is displayed.

lshost Request Details

Your `lshost` request must pass a valid session ID. For information on how to get a valid session ID, see Authentication or Login on page 1.

Method	URI	Required Parameters
GET	/actifio/api/info/lshost	None

Note: *See the Parameters section for a list of supported parameters and their description.*

---

lshost Example

Request

```
GET https://{Actifio_API_Server}/actifio/api/info/lshost?argument=44758
HTTP Request Header
Authorization: Actifio 92929a8b-a413-476f-a624-5b575cff54d3
```

where 92929a8b-a413-476f-a624-5b575cff54d3 is the session ID.

Response

```
Request success
{
    "result": {
        "uniquename": "466cf196-c15b-4555-879d-0e1197b1a49c",
        "ipaddress": "172.28.6.20",
        "svcname": "h006020_0004475",
        "vsphereagent.username": "administrator@dev.actifio.com",
        "hosttype": "vcenter",
        "friendlypath": "172.28.6.20",
        "isvcenterhost": "true",
        "type": "vcenter",
        "vsphereagent.port": "0",
        "hasagent": "true",
        "isvm": "false",
        "hostname": "172.28.6.20",
        "modifydate": "2019-01-16 07:51:59.840",
        "dbauthentication": "false",
        "isproxyhost": "false",
        "sourcecluster": "142021223569",
        "id": "4475",
        "isesxhost": "false",
        "maxjobs": "0",
        "vsphereagent.password": "******",
        "transport": "NFS",
        "isclusterhost": "false",
        "diskpref": "BLOCK",
        "originalhostid": "0",
```

```
        "guestvmiscsi": "false",
        "properties": "0"
    },
    "status": 0
```

chhost

About chhost Command

Description

Use this command to changes the attributes of a host.

Rights

You must have the 'Host Manage' right to change the attributes of a host.

Parameters

Parameter	Description
alternateip=string	Optional. Specifies the alternate IP address of the host. Multiple `alternateip` can be specified in a comma-delimited list.
connect2actip =string	(Optional) Comma-separated list of IP address that can be used for iSCSI communication. The list of IP address should be prepended with the protocol, for example, iscsi:10.10.111.111,iscsi:10.10.112.112
clearconnector=boolean	(Optional) Clears udsagent information for the host if the connector has been already uninstalled from the host. Use it cautiously.
forceclearconnector=boolean	Optional. If *forceclearconnector* flag is used with the *clearconnector*, then udsagent (connector) information for the host will be removed from the database regardless of its installation status on the host. Use it cautiously.
dbauthentication=boolean	Optional. Specifies whether Oracle database running on this host should be using DB Authentication or Host authentication.
description=string	Optional. Specifies a description of the host.
diskpref=string	Optional. Specifies preference (BLOCK or NFS) for presenting the staging disk. Default value is BLOCK.
friendlypath=string	Optional. Specifies a new friendly name for the host. Change of friendly path of a VM is not allowed.
hostname=string	Optional. Specifies the new host name for the host.
ipaddress=string	Optional. Specifies an IP address of the host.
iscsiname=string	Optional. Specifies the comma-separated list of iSCSI names for the host, replacing existing iSCSI names.

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Parameter	Description
hbawwpn=string	Optional. Specifies the comma-separated list of WWPN names for the host, replacing existing WWPN names.
mask=integer	Optional. Specifies the node target ports that the host can access. The port mask has four binary bits and is made up of a combination of zeros and ones, where 0 indicates that the corresponding target port cannot be used and 1 indicates that it can be used. The right-most bit in the mask corresponds to the lowest numbered target port on a node. Valid mask values range from 0000 (no ports enabled) to 1111 (all ports enabled). For example, a mask of 0011 enables port 1 and port 2. The default value is 1111 (all ports enabled).
maxjobs=integer	Optional. Max number of jobs allowed, 0 to use system default.
nfsoption=string	Optional. Comma (,) separated NFS options to use, when diskpref is NFS.Both server and client options are supported, separated by a semi-colon (;). For example: "server:writedelay=true,subtreecheck=false;client:retrans=2".
password=string	Optional. Specifies the password to start the Actifio Connector running on the host.
properties=boolean	Optional. Enables/disables various properties of the host. - guestvmiscsi: true to map lun to VM directly, false to map through hypervisor
port=integer	Optional. Specifies a port for the Actifio Connector running on the host.
svcname=string	Optional. Specifies the SVC host name. The name should not exceed 15 characters. The first character should not be a number. The name should not contain the space (' ') or period ('.') characters. *Note: The **-svcname** parameter is not supported for Sky.*
type=string	Optional. This is required if the host has multiple usernames, passwords, or ports with different type of connections. This can happen when a vCenter also has connector installed. In which use '-type' to specify the correct username, password, and port to be changed. *Note: The hpux, openvms, and tpgs, are not supported on Sky appliance.*
username=string	Optional. Specifies the user name to start the Connector running on the host.
blockcbt=enable|disable	Optional. Activates/deactivates CBT tracking for the application connector of a Linux host.
argument=integer	Required. Specifies the ID of the host to be modified.

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Parameter	Description
transport NFS | SAN | GUESTVMISCSI	Optional. Specifies the transport option for host. This is applicable only for VMware vCenters and manually discovered ESX hosts. GUESTVMISCSI is only applicable for VMware VM.

chhost Request Details

Your `chhost` request must pass a valid session ID. For information on how to get a valid session ID, see Authentication or Login on page 1.

Method	URI	Required Parameters
POST	/actifio/api/task/chhost	argument=<Id of host>

Note: See the Parameters section for a list of supported parameters and their description.

chhost Example

Request

```
POST https://{Actifio_API_HOST}/actifio/api/task/
chhost?argument=154829&alternateip={ALTERNATE_IP}
HTTP Request Header
Authorization: Actifio 92929a8b-a413-476f-a624-5b575cff54d3
```

where 92929a8b-a413-476f-a624-5b575cff54d3 is the session ID.

Response

```
Request success
{
    "result": "154829",
    "status": 0
}
```

actifio

rmhost

About rmhost Command

Description

Use this command to delete a host.

Rights

You must have the 'Host Manage' right to delete a host.

Parameters

Parameter	Description
argument=integer	Required. Specifies the ID of the host to be deleted.

rmhost Request Details

Your `rmhost` request must pass a valid session ID. For information on how to get a valid session ID, see Authentication or Login on page 1.

Method	URI	Required Parameters
POST	/actifio/api/task/rmhost	argument=<ID of host>

Note: See the Parameters section for a list of supported parameters and their description.

rmhost Example

Request

```
POST https://{Actifio_API_HOST}/actifio/api/task/rmhost?argument=154829
HTTP Request Header
Authorization: Actifio 92929a8b-a413-476f-a624-5b575cff54d3
```

where 92929a8b-a413-476f-a624-5b575cff54d3 is the session ID.

Response

```
Request success
{
    "status": 0
}
```

chproxyhost

About chproxyhost Command

Description

Use this command to configure the proxy host server. It allows a proxy host server to:

- Join an ADS or NT Domain membership.

- Leave from an ADS or NT Domain membership.

Applicability of this Command

This command can be used on:

CDS appliance	✓
Sky appliance	✓
NAS Director	-

Rights

You must have the 'Host Manage' right to configure a proxy host server.

Parameters

Parameter	Description
domain=string	Optional. Specifies the name of the domain to be joined. Required when the `joindomain` option is specified.
joindomain=boolean	Optional. If specified, adds the membership to an ADS or NT Domain. KDC details are automatically determined by the **ads net lookup** command.
leavedomain=boolean	Optional. If specified, removes the membership from an ADS or NT Domain.
username=string	Optional. Specifies the user name to authenticate to join/leave an ADS or NT Domain. Required when either the `joindomain` or `leavedomain` option is specified.
password=string	Optional. Specifies the password of the user to authenticate to join/leave an ADS or NT domain. Required when either the `joindomain` or `leavedomain` option is specified.
port3ip=string	Optional. Specifies the IP address for the port 3 interface.
port3netmask=integer	Optional. Specifies the netmask for the port 3 interface.

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Parameter	Description
port3mtu=integer	Optional. Specifies the MTU value for the port 3 interface. Setting an incorrect MTU value can result in serious networking issues. If `port3ip` and `port3netmask` are not being set and are not currently set, trying to set `port3mtu` will result in an error. Setting the value to an empty string (`""`) will remove an existing MTU setting.
port4ip=string	Optional. Specifies the IP address for the port 4 interface.
port4netmask=integer	Optional. Specifies the netmask for the port 4 interface.
port4mtu=integer	Optional. Specifies the MTU value for the port 4 interface. Setting an incorrect MTU value can result in serious networking issues. If `port4ip` and `port4netmask` are not being set and are not currently set, trying to set `port4mtu` will result in an error. Setting the value to an empty string (`""`) will remove an existing MTU setting.
argument=string	Required. Specifies the object id or name of the proxy host. To see the proxy host server details refer to .

chproxyhost Request Details

Your `chproxyhost` request must pass a valid session ID. For information on how to get a valid session ID, see Authentication or Login on page 1.

Method	URI	Required Parameters
POST	/actifio/api/task/chproxyhost	argument=<Id or name of host>

Note: See the Parameters section for a list of supported parameters and their description.

chproxyhost Example

Request

```
POST https://{Actifio_API_HOST}/actifio/api/task/
chproxyhost?argument=120620&joindomain=true&domain=actifio.com&username=Administrator&password
={PASSWORD}
HTTP Request Header
Authorization: Actifio 92929a8b-a413-476f-a624-5b575cff54d3
```

where 92929a8b-a413-476f-a624-5b575cff54d3 is the session ID.

Response

```
Request success
{
    "status": 0
}
```

addroutetohost

About addroutetohost Command

Description

Use this command to add a network route to a host to route traffic over a specified interface. You may want to do this based on your network configurations and different network hardware on your host.

This command will connect to the host and update its routing table based on the given parameters. This command will return an error if the host with the provided host ID is not a Proxy Host (BDD).

Note: Changing network routing can have significant consequences including loss of connectivity so be sure you understand the consequences before making changes to the host's routing tables.

Applicability of this Command

This command can be used on:

CDS appliance	✓
Sky appliance	-
NAS Director	-

Rights

You must have the 'Host Manage' right to add a network route to a host.

Parameters

Parameter	Description
route=string	Required. The route to apply to the host. it can be a single IP address or a network range in CIDR notation.
gateway=string	Required. The gateway to use for this route.
interface=string	Required. The network interface on the host to which this routing should apply.
argument=string	Required. The host to which this route should be applied.

addroutetohost Request Details

Your addroutetohost request must pass a valid session ID. For information on how to get a valid session ID, see Authentication or Login on page 1.

Method	URI	Required Parameters

actifio

POST	/actifio/api/task/addroutetohost	route=<route IP address> gateway=<gateway IP address> interface=<network interface> argument=<host Id>

Note: *See the Parameters section for a list of supported parameters and their description.*

---

addroutetohost Example

Request

```
POST https://{Actifio_API_HOST}/actifio/api/task/
addroutetohost?argument=83098&route={ROUTE_IP_ADDRESS}&gateway={GATEWAY_IP_ADDRESS}&interface=
eth2
HTTP Request Header
Authorization: Actifio 92929a8b-a413-476f-a624-5b575cff54d3
```

where 92929a8b-a413-476f-a624-5b575cff54d3 is the session ID.

Response

```
Request success
{
    "status": 0
}
```

removeroutefromhost

About removeroutefromhost Command

Description

Use this command to remove a network route to a host. The route to be removed is based on an exact match of the interface, route, and gateway parameters. If no matching route can be found, this command will return an error saying that the route could not be found. This command will connect to the host and update its routing table based on the given parameters.

Note: *Changing network routing can have significant consequences including loss of connectivity so be sure you understand the consequences before making changes to the host's routing tables.*

Applicability of this Command

This command can be used on:

CDS appliance	✓
Sky appliance	-
NAS Director	-

Rights

You must have the 'Host Manage' right to remove a network route to a host.

Parameters

removeroutefromhost Request Details

Your `removeroutefromhost` request must pass a valid session ID. For information on how to get a valid session ID, see Authentication or Login on page 1.

Method	URI	Required Parameters
POST	/actifio/api/task/ removeroutefromhost	route=<IP address of route> gateway=<IP address of gateway> interface=<network interface> argument=<host ID>

Note: *See the Parameters section for a list of supported parameters and their description.*

removeroutefromhost Example

Request

```
POST https://{Actifio_API_HOST}/actifio/api/task/
removeroutefromhost?argument=83098&route={ROUTE_IP_ADDRESS}&gateway={GATEWAY_IP_ADDRESS}&inter
face=eth2
HTTP Request Header
Authorization: Actifio 92929a8b-a413-476f-a624-5b575cff54d3
```

where 92929a8b-a413-476f-a624-5b575cff54d3 is the session ID.

Response

```
Request success
{
    "status": 0
}
```

setautodiscovery

About setautodiscovery Command

Description

Use this command to configure/remove a host from the auto-discovery list. For a vCenter, an auto-discovery automatically adds all discovered VMs. For non-vCenter, all discovered applications are added.

For VDP appliances only: use `setschedule` to set the schedule for `autodiscovery`. By default, `autodiscovery` is performed once a day at 3 am.

Applicability of this Command

This command can be used on:

Rights

CDS appliance	✓
Sky appliance	✓
NAS Director	-

You must have the "Application Manage", "Host Manage", or "System Manage" right to add or remove a host to the auto-discovery host list.

Parameters

Parameter	Description
clear=boolean	Optional. Specifies the host to be removed from the auto-discovery list.
host=string	Required. Specifies the name or ID of the host. Use lshost to locate the ID or name of the host.

setautodiscovery Request Details

Your `setautodiscovery` request must pass a valid session ID. For information on how to get a valid session ID, see Authentication or Login on page 1.

Method	URI	Required Parameters
POST	/actifio/api/task/ setautodiscovery	host=<name or ID of host>

Note: See the Parameters section for a list of supported parameters and their description.

setautodiscovery Example

Request

```
POST https://{Actifio_API_HOST}/actifio/api/task/setautodiscovery?host=154908&clear=true
HTTP Request Header
Authorization: Actifio 92929a8b-a413-476f-a624-5b575cff54d3
```

where 92929a8b-a413-476f-a624-5b575cff54d3 is the session ID.

Response

```
Request success
{
    "status": 0
}
```

getautodiscovery

About getautodiscovery Command

Description

Use this command to return a concise list of hosts to perform auto-discovery on a schedule. For a vCenter, an auto-discovery automatically adds all discovered VMs. For non-vCenter, all discovered applications are added.

Note: *For VDP appliances only, by default, the schedule runs once a day at 3 am.*

Applicability of this Command

This command can be used on:

Rights

CDS appliance	✓
Sky appliance	✓
NAS Director	-

You must have 'System View' or 'System Manage' or 'Application Manage' or 'Host Manage' right to perform auto-discovery on a schedule.

Parameters

Parameter	Description
hostid=integer	Optional. For VDP appliances only, it specifies the ID of the host to get its hostname if autodiscovery is set.

getautodiscovery Request Details

Your `getautodiscovery` request must pass a valid session ID. For information on how to get a valid session ID, see Authentication or Login on page 1.

Method	URI	Required Parameters
GET	/actifio/api/info/ getautodiscovery	None

Note: *See the Parameters section for a list of supported parameters and their description.*

---

getautodiscovery Example

Request

```
GET https://{Actifio_API_HOST}/actifio/api/info/getautodiscovery
HTTP Request Header
Authorization: Actifio 92929a8b-a413-476f-a624-5b575cff54d3
```

where 92929a8b-a413-476f-a624-5b575cff54d3 is the session ID.

Response

```
Request success
{
  "result": [
    {
      "hostname": "APPLE-PI"
    }
  ],
  "status": 0
}
```

lsetchosts

About lsetchosts Command

Description

Use this command to retrieve contents of /etc/hosts.

Applicability of this Command

This command can be used on:

Rights

CDS appliance	✓
VDP appliance	✓
NAS Director	-

You must have 'System View' or 'System Manage' right to view contents of /etc/hosts.

lsetchosts Request Details

Your `lsetchosts` request must pass a valid session ID. For information on how to get a valid session ID, see Authentication or Login on page 1.

Method	URI	Required Parameters
GET	/actifio/api/info/ lsetchosts	None

lsetchosts Example

Request

```
GET https://{Actifio_API_HOST}/actifio/api/info/lsetchosts
HTTP Request Header
Authorization: Actifio 92929a8b-a413-476f-a624-5b575cff54d3
```

where 92929a8b-a413-476f-a624-5b575cff54d3 is the session ID.

Response

```
Request success
{
  "result": [
    {
      "ipaddress": "172.31.296.2",
      "hostname": "esxhost",
      "alias": "e..."
    }
  ],
  "status": 0
}
```

mketchosts

About mketchosts Command

Description

Use this command to add an entry to /etc/hosts.

Applicability of this Command

This command can be used on:

Rights

CDS appliance	✓
Sky appliance	✓
NAS Director	-

You must have 'System Manage' right to add a host into /etc/hosts.

Parameters

Parameter	Description
alias=string	Optional. Specifies the alias of the host (comma separated if more than one alias). Each alias has to be unique.
ipaddress=string	Required. Specifies the unique IP address of the host to be added.
name=string	Required. Specifies the name of the host. The name has to be unique.

mketchosts Request Details

Your `mketchosts` request must have a valid session ID. For information on how to get a valid session ID, see Authentication or Login on page 1.

Method	URI	Required Parameters
POST	/actifio/api/task/ mketchosts	name=<host name> ipaddress=<IP address>

Note: See the Parameters section for a list of supported parameters and their description.

mketchosts Examples

Request

```
POST https://{Actifio_API_HOST}/actifio/api/task/
mketchosts?ipaddress={IP_ADDRESS}&name={HOSTNAME}&alias=esx1
HTTP Request Header
Authorization: Actifio 92929a8b-a413-476f-a624-5b575cff54d3
```

where 92929a8b-a413-476f-a624-5b575cff54d3 is the session ID.

Response

```
Request success
{
  "status": 0
}
```

rmetchosts

About rmetchosts Command

Description

Use this command to delete an entry from /etc/hosts.

Applicability of this Command

This command can be used on:

CDS appliance	✓
Sky appliance	✓
NAS Director	-

Rights

You must have 'System Manage' right to delete a host from /etc/hosts.

Parameters

Parameter	Description
name=string	Required. Specifies the name of the host to be removed from /etc/hosts.

rmetchosts Request Details

Your `rmetchosts` request must have a valid session ID. For information on how to get a session ID, see Authentication or Login on page 1.

Method	URI	Required Parameters
POST	/actifio/api/task/ rmetchosts	name

Note: *See the Parameters section for a list of supported parameters and their description.*

rmetchosts Examples

Request

```
POST https://{Actifio_API_HOST}/actifio/api/task/rmetchosts?name={HOSTNAME}
HTTP Request Header
Authorization: Actifio 92929a8b-a413-476f-a624-5b575cff54d3
```

where 92929a8b-a413-476f-a624-5b575cff54d3 is the session ID.

Response

```
Request success
{
    "status": 0
}
```

Other Commands

getsysteminfo

About getsysteminfo Command

Description

Use this command to return a unique fingerprint of the VDP appliance. This fingerprint is used when applying an VDP software license. A software license is required by some VDP products, such as the appliance.

Applicability of this Command

This command can be used on:

Rights

CDS appliance	✓
Sky appliance	✓
NAS Director	-

You should have the 'System View' or 'System Manage' right to execute this command.

getsysteminfo Request Details

Your `getsysteminfo` request must pass a valid session ID. For information on how to get a valid session ID, see Authentication or Login on page 1.

Method	URI	Required Parameters
GET	/actifio/api/info/ getsysteminfo	None

getsysteminfo Example

Request

```
GET https://{Actifio_API_HOST}/actifio/api/info/getsysteminfo
HTTP Request Header
Authorization: Actifio 92929a8b-a413-476f-a624-5b575cff54d3
```

where 92929a8b-a413-476f-a624-5b575cff54d3 is the session ID.

Response

```
Request success
{
  "result": "1415056619:b930ad2c-70c5-362a-aff0-c263b384f494:6c3155ff",
  "status": 0
}
```

configdns

About configdns Command

Description

Use this command to configure DNS settings.

Applicability of this Command

This command can be used on:

Rights

CDS appliance	✓
Sky appliance	✓
NAS Director	-

You must have 'System Manage' right to configure DNS settings.

Parameters

Parameter	Description
type=string	Optional. Specifies the type of DNS settings to change: • servers: DNS servers, maximum of 3 servers are supported. • domain: DNS domain, system uses 'local' if no domain is specified. • search: search domain, set name to 'disable' to clear the search domain list. Maximum of 6 search domains are supported.
name=string	Required. Specifies server name or domain name (comma separated if more than one is needed).

configdns Request Details

Your `configdns` request must pass a valid session ID. FFor information on how to get a valid session ID, see Authentication or Login on page 1.

Method	URI	Required Parameters
POST	/actifio/api/task/configdns	name=<server_name,domain_name>

Note: *See the Parameters section for a list of supported parameters and their description.*

---

actifio

configdns Example

Request

```
POST https://{Actifio_API_HOST}/actifio/api/task/configdns?name={server_name}
HTTP Request Header
Authorization: Actifio 92929a8b-a413-476f-a624-5b575cff54d3
```

where 92929a8b-a413-476f-a624-5b575cff54d3 is the session ID.

Response

```
Request success
{
    "status": 0
}
```

lsdns

About lsdns Command

Description

Use this command to retrieve a concise list of DNS servers.

Applicability of this Command

This command can be used on:

Rights

CDS appliance	✓
Sky appliance	✓
NAS Director	-

You must have 'System View' or 'System Manage' right to use this command.

lsdns Request Details

Your lsdns request must pass a valid session ID. For information on how to get a valid session ID, see Authentication or Login on page 1.

Method	URI	Required Parameters
GET	/actifio/api/info/lsdns	None

lsdns Example

Request

```
GET https://{Actifio_API_HOST}/actifio/api/info/lsdns
HTTP Request Header
Authorization: Actifio 92929a8b-a413-476f-a624-5b575cff54d3
```

where 92929a8b-a413-476f-a624-5b575cff54d3 is the session ID.

Response

```
Request success
{
  "result": [
    {
      "dnsserver": "172.123.456.789"
    }
  ],
  "status": 0
}
```

actifio

testdns

About testdns Command

Description

Use this command to test the name or IP address of a host.

Applicability of this Command

This command can be used on:

CDS appliance	✓
Sky appliance	✓
NAS Director	-

Rights

You must have 'System View' or 'System Manage' right to use this command.

Parameter	Description
type=string	Optional. Specifies the either the host name or the IP address to lookup.
value=string	Required. Specifies the host name or IP address to lookup.

testdns Request Details

Your testdns request must pass a valid session ID. For information on how to get a valid session ID, see Authentication or Login on page 1.

Method	URI	Required Parameters
POST	/actifio/api/task/testdns	value

testdns Example

```
POST https://{Actifio_API_HOST}/actifio/api/task/testdns
HTTP Request Header
Authorization: Actifio 92929a8b-a413-476f-a624-5b575cff54d3
```

where 92929a8b-a413-476f-a624-5b575cff54d3 is the session ID.

Response

```
Request success
{
  "result": [
    {
```

```
      "value": "172.123.456.789"
    }
  ],
  "status": 0
}
```

configinterface

About configinterface Command

Description

Use this command to set an IP address on an interface on the appliance.

Applicability of this Command

This command can be used on:

CDS appliance	✓
Sky appliance	✓
NAS Director	-

Rights

You must have the 'System Manage' right to be able to set IP address.

Parameters

Parameter	Description
ipaddress=string	Required. Specifies the IP address to assign. To remove an IP address, specify '0.0.0.0' and select the node, interface and type.
mask=integer	Optional. (required except with ipaddress of '0.0.0.0'). Specifies subnet mask or pre-fix length. For example 255.255.255.0 (subnet mask) or 24 (prefix length).
dhcp=string	Optional. Specifies whether DHCP is used to configure a node.
gateway=string	Optional. Specifies the default gateway for the interface. Must be a valid IP address that's within the network described by ipaddress and mask. Optional, to support the case of non-routed subnets. Specify '0.0.0.0' to remove an existing gateway.
interface=string	Required. Specifies the interface.
node=string	Optional. Specifies the node name (panelname), blank, or "peer" to automatically select the "CLU" (secondary) node. *Note:* *This option is not valid on Sky appliances.*
mtu=integer	Optional. Specifies the maximum transmit unit for the interface. Can only be set on the node IP, but affects all IPs on the interface. Minimum legal value is 84 (but not recommended). Maximum legal value is dependent upon the interface hardware. Specify 'default' to revert to the default value of 1500.

Parameter	Description
type=string	Optional. Specifies type of IP: node, iscsi, or cluster. Sky appliances only support type 'node'. Type 'cluster' may only be specified with interface eth0 or eth1. Default to node if not specified. Only node is allowed for DHCP.

configinterface Request Details

Your `configinterface` request must pass a valid session ID. For information on how to get a valid session ID, see Authentication or Login on page 1.

Method	URI	Required Parameters
POST	/actifio/api/task/configinterface	ipaddress interface

Note: See the Parameters section for a list of supported parameters and their description.

---

configinterface Example

Request
```
POST https://{Actifio_API_HOST}/actifio/api/task/
configinterface?ipaddress={IP_ADDRESS}&interface=eth0
HTTP Request Header
Authorization: Actifio 92929a8b-a413-476f-a624-5b575cff54d3
```

where 92929a8b-a413-476f-a624-5b575cff54d3 is the session ID.

Response
```
Request success
{
    "status": 0
}
```

actifio

configipfailover

About configipfailover Command

Description

Use this command to configure or remove IP fail-over interface pair. This puts the node IP on the alternate port if the primary port goes down. Associations are mutual; that is, if interface1 goes down, interface2 takes over, and vice versa.

Applicability of this Command

This command can be used on:

Rights

CDS appliance	✓
Sky appliance	✓
NAS Director	-

You must have the 'System Manage' right to configure or remove IP fail-over interface pair.

Parameters

Parameter	Description
clear=boolean	Optional. Specifies that the IP fail-over interface pair to be removed. Otherwise, the interface pair is added.
interface1=string	Required. Specifies the first interface in the pair.
interface2=string	Optional, but required for configuration. Specifies the second interface in the pair.

configipfailover Request Details

Your `configipfailover` request must pass a valid session ID. For information on how to get a valid session ID, see Authentication or Login on page 1.

Method	URI	Required Parameters
POST	/actifio/api/task/ configipfailover	interface1

configipfailover Example

Request

```
POST https://{Actifio_API_HOST}/actifio/api/task/
configipfailover?interface1=eth1&interface2=eth2
HTTP Request Header
Authorization: Actifio 92929a8b-a413-476f-a624-5b575cff54d3
```

where 92929a8b-a413-476f-a624-5b575cff54d3 is the session ID.

Response

```
Request success

{
    "status": 0
}
```

actifio

lsipfailover

About lsipfailover Command

Description

Use this command to retrieve a concise list of IP fail-over interface pairs. This command is supported only on CDS appliances. If you run this command on a Sky appliance, you will see the error: "Command lsipfailover not supported."

Applicability of this Command

This command can be used on:

CDS appliance	✓
Sky appliance	-
NAS Director	-

Rights

You must have the 'System View' or 'System Manage' right to view IP fail-over interface pairs.

Parameters

Parameter	Description
--**delim** *delimiter*	Optional. By default in a concise view, all columns of data are space-separated. In a detailed view, each item of data has its own row, and if the headers are displayed the data is separated from the header by a space. The `-delim` parameter overrides this behavior.
	Valid input for the `-delim` parameter is a one byte character. To display the data, use a comma (',') for list view, and equal ('=') for detail view. If you enter `-delim:` on the command line, the colon character (:) separates all items of data in a concise view; for example, the spacing of columns does not occur.
--**nohdr**	Optional. By default, headings are displayed for each column of data in a concise style view, and for each item of data in a detailed style view. The `-nohdr` parameter suppresses the display of these headings.
	Note: *If there is no data to be displayed, headings are not displayed.*

lsipfailover Request Details

Your `lsipfailover` request must pass a valid session ID. For information on how to get a valid session ID, see Authentication or Login on page 1.

Method	URI	Required Parameters

GET	/actifio/api/info/lsipfailover	None

lsipfailover Example

Request

```
GET https://{Actifio_API_HOST}/actifio/api/info/lsipfailover
HTTP Request Header
Authorization: Actifio 92929a8b-a413-476f-a624-5b575cff54d3
```

where 92929a8b-a413-476f-a624-5b575cff54d3 is the session ID.

actifio

iscsitest

About iscsitest Command

Description

Use this command to determine if the iSCSI configuration is properly set up in the appliance and host. The iSCSI test can be performed on the generic host and ESX hosts. It also recommends users with corrective action.

Applicability of this Command

This command can be used on:

Rights

CDS appliance	✓
Sky appliance	✓
NAS Director	-

You must have the 'Host Manage' rights to perform iSCSI test.

Parameters

Parameter	Description
host=string	Required. Specifies the host on which the iSCSI test is to be performed, either the source ID or name of the host is required. Use lshost to locate the ID or name of the host.
port=integer	Optional. Specifies the port that the Actifio Connector is running on. The default is 5106.
iscsiports=integer	Optional. Specifies the iSCSI port on which the test needs to be performed. If you do not specify this option, the test will be run for all iSCSI ports.

iscsitest Request Details

Your `iscsitest` request must pass a valid session ID. For information on how to get a valid session ID, see Authentication or Login on page 1.

Method	URI	Required Parameters
POST	/actifio/api/task/iscsitest	host=<name or ID of host>

Note: *See the Parameters section for a list of supported parameters and their description.*

iscsitest Example

Request

```
POST https://{Actifio_API_HOST}/actifio/api/task/iscsitest?host=198180
HTTP Request Header
Authorization: Actifio 92929a8b-a413-476f-a624-5b575cff54d3
```

where 92929a8b-a413-476f-a624-5b575cff54d3 is the session ID.

Response

```
Request success
{
  "result": [
    {
      "iSCSIport": "iqn.1991-05.com.microsoft:taupoexch16-s06.taupo.local",
      "Status": "Passed",
      "Test": "Host iSCSI initiator installed and configured"
    },
    {
      "iSCSIport": "iqn.1991-05.com.microsoft:taupoexch16-s06.taupo.local",
      "Status": "Passed",
      "Test": "Appliance has valid IQN"
    },
    {
      "iSCSIport": "iqn.1991-05.com.microsoft:taupoexch16-s06.taupo.local",
      "Status": "Passed",
      "Test": "Host has logged into the Appliance iSCSI target"
    },
    {
      "iSCSIport": "iqn.1991-05.com.microsoft:taupoexch16-s06.taupo.local",
      "Status": "Passed",
      "Test": "Mapping disk from Appliance to host"
    }
  ],
  "status": 0
}
```

configchap

About configchap Command

Description

Use this command to configure or remove a CHAP secret for authentication between iSCSI initiators and iSCSI target.

Applicability of this Command

This command can be used on:

Rights

CDS appliance	✓
Sky appliance	✓
NAS Director	-

You must have the 'System Manage' right to configure or clear the CHAP secret.

Parameters

Parameter	Description
clear=boolean	Optional. Specifies that the CHAP secret is to be cleared. This effectively disables CHAP authentication.
password=string	Optional. Specifies the password for CHAP authentication, the value must be between 12 and 16 characters. For CDS, this is the chap secret for the host.
username=string	Optional. Specifies the username for CHAP authentication. The limit is a maximum of 16 characters for Sky. For CDS, username is not supported.
host=string	Optional. Specifies the host name or ID for the CHAP authentication to be configured. If host is not specified, the loopback CHAP authentication is configured for Sky. For CDS, host is required.

configchap Request Details

Your `configchap` request must pass a valid session ID. For information on how to get a valid session ID, see Authentication or Login on page 1.

Method	URI	Required Parameters
POST	/actifio/api/task/configchap	None

configchap Example

Request

```
POST https://{Actifio_API_HOST}/actifio/api/task/
configchap?username=Administrator&password={PASSWORD}
HTTP Request Header
Authorization: Actifio 92929a8b-a413-476f-a624-5b575cff54d3
```

where 92929a8b-a413-476f-a624-5b575cff54d3 is the session ID.

Response

```
Request success
{
    "status": 0
}
```

actifio

lsdatastore

About lsdatastore Command

Description

Use this command to retrieve a concise list of data stores that the specified vCenter and ESX host can reference.

Applicability of this Command

This command can be used on:

CDS appliance	✓
Sky appliance	✓
NAS Director	-

Rights

You must have 'System View' or 'System Manage' right to use this command.

Parameters

Parameter	Description
esxhost=string	Required. ESX host that data stores can reference.
vcenter=string	Required. vCenter host that data stores can reference.

lsdatastore Request Details

Your `lsdatastore` request must pass a valid session ID. For information on how to get a valid session ID, see Authentication or Login on page 1.

Method	URI	Required Parameters
GET	/actifio/api/info/lsdatastore	esxhost vcenter

Note: *See the Parameters section for a list of supported parameters and their description.*

lsdatastore Example

Request

```
GET https://{Actifio_API_HOST}/actifio/api/info/
lsdatastore?esxhost=esx02.doc.actifio.com&vcenter=6820
{

HTTP Request Header
Authorization: Actifio 92929a8b-a413-476f-a624-5b575cff54d3
```

where 92929a8b-a413-476f-a624-5b575cff54d3 is the session ID.

Response

```
Request success
  "result": [
    {
      "name": "NetApp-NFS",
      "freespace": "171573866496",
      "type": "NFS",
      "capacity": "429496729600"
    },
    {
      "name": "esx02_local",
      "freespace": "71125958656",
      "type": "VMFS",
      "capacity": "137975824384"
    },
    {
      "name": "v3700_doc_disk_1",
      "freespace": "72089600000",
      "type": "VMFS",
      "capacity": "4397778075648"
    }
  ],
  "status": 0
}
```

Example for returning datastore for virtual machine, where vm can be an application ID, host ID, hostname or host UUID

Request

```
GET https://{Actifio_API_HOST}/actifio/api/info/lsdatastore?vm=84363
HTTP Request Header
Authorization: Actifio 92929a8b-a413-476f-a624-5b575cff54d3
```

where 92929a8b-a413-476f-a624-5b575cff54d3 is the session ID.

Response

```
Request success
{
    "result": [
        {
            "isrdmsupported": "true",
            "name": "Sky-Snap",
            "freespace": "10056728838144",
            "type": "VMFS",
            "capacity": "10994847842304"
        },
        {
            "isrdmsupported": "true",
```

```
            "name": "datastore2",
            "freespace": "3807630065664",
            "type": "VMFS",
            "capacity": "5497289703424"
        },
        {
            "isrdmsupported": "true",
            "name": "datastore1",
            "freespace": "289962721280",
            "type": "VMFS",
            "capacity": "290984034304"
        },
        {
            "isrdmsupported": "false",
            "name": "DVC",
            "freespace": "118492901376",
            "type": "NFS",
            "capacity": "429126578176"
        }
    ],
    "status": 0
}
```

lsssd

About lsssd Command

Description

Use this command to retrieve a concise list of SSD (Solid State Disk) devices, or a detailed view of an SSD device.

Applicability of this Command

This command can be used on:

Rights

CDS appliance	✓
Sky appliance	✓
NAS Director	-

You must have 'System View', or 'System Manage' right to view SSDs.

Parameters

Parameter	Description
ssdname=string	Optional. Specifies the name of the SSD device to get detailed information.

lsssd Request Details

Your `lsssd` request must pass a valid session ID. For information on how to get a valid session ID, see Authentication or Login on page 1.

Method	URI	Required Parameters
GET	/actifio/api/info/lsssd	None

Note: *See the Parameters section for a list of supported parameters and their description.*

lsssd Example

Fetching ssd details from a CDS appliance.

Request

```
GET https://{Actifio_API_HOST}/actifio/api/info/lsssd
HTTP Request Header
Authorization: Actifio 92929a8b-a413-476f-a624-5b575cff54d3
```

where 92929a8b-a413-476f-a624-5b575cff54d3 is the session ID.

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Response

Request success

```
{
    "result": [
        {
            "id": "1",
            "slot": "2",
            "status": "managed",
            "wwid": "scsi-3500117310031efb0"
        },
        {
            "id": "2",
            "slot": "3",
            "status": "managed",
            "wwid": "scsi-3500117310031f4dc"
        }
    ],
    "status": 0
}
```

lsnasshare

About lsnasshare Command

Description

Use this command to return a concise list of NAS shares as well as their details.

Rights

You must have the 'System Manage', or 'System View' rights to be able to retrieve NAS share data.

Parameters

Parameter	Description
argument=string	Optional. Specifies the ID of an object. When you use this parameter, the detailed view of the specific object is returned. If you do not specify the parameter, the concise view of all objects matching the filter criteria is displayed.

lsnasshare Request Details

Your `lsnasshare` request must pass a valid session ID. For information on how to get a valid session ID, see Authentication or Login on page 1.

Method	URI	Required Parameters
GET	/actifio/api/info/lsnasshare	None

Note: See the Parameters section for a list of supported parameters and their description.

lsnasshare Example

Request

```
GET https://{Actifio_API_HOST}/actifio/api/info/lsnasshare
HTTP Request Header
Authorization: Actifio 92929a8b-a413-476f-a624-5b575cff54d3
```

where 92929a8b-a413-476f-a624-5b575cff54d3 is the session ID.

Response

```
Request success
{
  "result": [
    {
      "modifydate": "",
      "fileripspace": "1xx.xxx.xxx.xxx",
      "hostid": "33945",
      "shareuid": "/vol/deepdir_vol_500g",
      "id": "35008",
```

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```
      "sharetype": "2",
      "sharedesc": "/vol/deepdir_vol_500g : /vol/deepdir_vol_500g",
      "exportpath": "/vol/deepdir_vol_500g",
      "filerpath": "/vol/deepdir_vol_500g",
      "snapshotpath": "deepdir_vol_500g"
    },
    {
      "modifydate": "",
      "fileripspace": "1xx.xxx.xxx.xxx",
      "hostid": "33924",
      "shareuid": "sush_CIFS_testing",
      "id": "41092",
      "sharetype": "3",
      "sharedesc": "sush_CIFS_testing",
      "exportpath": "sush_CIFS_testing",
      "filerpath": "/ifs/sush_CIFS_testing",
      "snapshotpath": "/ifs/sush_CIFS_testing"
    },
    {
      "modifydate": "",
      "fileripspace": "1xx.xxx.xxx.xxx",
      "hostid": "34950",
      "shareuid": "/KT_CIFS",
      "id": "205727",
      "sharetype": "3",
      "sharedesc": "/KT_CIFS : KT_CIFS",
      "exportpath": "KT_CIFS",
      "filerpath": "/KT_CIFS",
      "snapshotpath": "/KT_CIFS"
    }
  ],
  "status": 0
}
```

nfstest

About nfstest Command

Description

Use this to test NFS configuration in the appliance and host. The NFS test can be performed on generic hosts and ESX hosts.

Rights

You must have the 'Host Manage' right to run NFS test.

Parameters

Parameter	Description
host=string	Required. Specifies the host in which NFS test to be performed, either ID or name of the host is needed. Use 'lshost' to locate the ID or name of the host.
port=string	Optional. Specifies the port that the Actifio Connector is running on, defaults to 56789.
options=string	Optional. Comma (,) separated NFS options to use, when diskpref is NFS. Both server and client options are supported, separated by a semi-colon (;).

nfstest Request Details

Your `nfstest` request must pass a valid session ID. For information on how to get a valid session ID, see Authentication or Login on page 1.

Method	URI	Required Parameters
POST	/actifio/api/task/nfstest	host

Note: See the Parameters section for a list of supported parameters and their description.

nfstest Example

Request

```
POST https://{Actifio_API_HOST}/actifio/api/task/nfstest?host=254339
HTTP Request Header
Authorization: Actifio 92929a8b-a413-476f-a624-5b575cff54d3
```

where 92929a8b-a413-476f-a624-5b575cff54d3 is the session ID.

Response

```
Sky/CDS error:10017 Host 172.27.26.21 of type esxhost does not support nfs
Request error
null
```

4 Appliance Management Commands

These commands are used for managing hosts and appliances.

Managing Appliances

Managing Pools

Auto Update and Remote Setup Commands

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Certificate Command

installtrustedcertificate

About installtrustedcertificate command

Description

The **installtrustedcertificate** command installs/replaces a SSL server certificate on the appliance. The certificate and key files have to be in "/home/admin/upload".

The **installtrustedcertificate** also restarts Tomcat, and all active GUI sessions will be lost.

If the certificate is not a wildcard certificate, this command also updates the GUI links to have consistent hostname as the one defined in certificate's Subject attribute. Please make sure the certificate has the correct hostname that resolves to the IP address of the appliance.

Rights

There are no specific rights associated with this operation. Admin/User with 'administrator' role can install the trusted certificate on to the appliance server.

Parameters

Parameter	Description
certfile	Required. Specifies the filename of the certificate(s). The certificate(s) should be in PEM formats. All certificates that build up the trust chain need to be concatenated together in this file. Typically they include one SSL certificate, an intermediate CA certificate and a root CA certificate. If any of the certificates is missing, the command will fail.
keyfile	Required. Specifies the filename of the private key. The key should be in raw format (not encrypted).

installtrustedcertificate Request Details

Your `installtrustedcertificate` request must pass a valid session ID. For information on how to get a valid session ID, see Authentication or Login on page 1.

Method	URI	Required Parameters
POST	/actifio/api/task/ installtrustedcertificate	certfile keyfile

---

Note: *See the Parameters section for a list of supported parameters and their description.*

---

installtrustedcertificate Examples

```
POST https://{Actifio_API_Server}}/actifio/api/task/
installtrustedcertificate?certfile={cert.pem}&keyfile={key.pem}&sessionid={SESSIONID}
Request success
```

```
{
    "result": "Install of Certificate Complete",
    "status": 0
}
```

certexchange

About certexchange command

Description

Use this command to exchanges certificates with a remote VDP appliance to establish a trusted relationship for SSL.

Rights

You must have the 'System Manage' right to exchange certificates.

Parameters

Parameter	Description
ipaddress=string	Required. Specifies the IP address of the remote VDP appliance.
password=string	Optional. Specifies the password for the user on the remote VDP appliance.

certexchange Request Details

Your `certexchange` request must pass a valid session ID. For information on how to get a valid session ID, see Authentication or Login `on page 1`.

Method	URI	Required Parameters
POST	/actifio/api/task/certexchange	ipaddress

Note: *See the Parameters section for a list of supported parameters and their description.*

certexchange Example

Request

```
POST https://{Actifio_API_Server}}/actifio/api/task/certexchange?ipaddress={IP_ADD}
&password={PW}
HTTP Request Header
Authorization: Actifio 92929a8b-a413-476f-a624-5b575cff54d3
```

where 92929a8b-a413-476f-a624-5b575cff54d3 is the session ID.

Response

```
Request success
{
    "result": "xJob Completed",
    "status": 0
}
```

Cluster Commands

joincluster

About joincluster command

Description

Use this to join two VDP appliances. Prior to joining, the two VDP appliances must exchange security certificates to allow secure communication between them.

When a VDP appliance joins another appliance, the former becomes the slave and the latter, the master. The slave appliance takes on the shared data of the master appliance. The shared data includes users, roles, organizations, and templates. You may want to review the shared data on the slave, as it may be removed after joining the master, if it is not present on the master already.

Example: When the `joincluster` command is executed on the 'seattle' appliance to join the 'boston' appliance, the 'boston' appliance becomes the master and 'seattle', the slave. After the join operation, both 'seattle' and 'boston' appliance will contain the same shared data, that is, users, roles, organizations, and templates.

Note: *Before running this command use the `certexchange` command to exchange certificates between the EM server and the target cluster.*

Rights

You must have the 'System Manage' right to join two VDP appliances.

Parameters

Parameter	Description
ipaddress=string	Required. Specifies the IP address of the appliance to join to.

joincluster Request Details

Your `joincluster` request must pass a valid session ID. For information on how to get a valid session ID, see Authentication or Login on page 1.

Method	URI	Required Parameters
POST	/actifio/api/task/joincluster	ipaddress

Note: *See the Parameters section for a list of supported parameters and their description.*

joincluster Example

Request

```
POST https://{Actifio_API_Server}}/actifio/api/task/
joincluster?ipaddress={IP_ADD}&password={PW}
HTTP Request Header
Authorization: Actifio 92929a8b-a413-476f-a624-5b575cff54d3
```

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where 92929a8b-a413-476f-a624-5b575cff54d3 is the session ID.

Response

```
Request success
{
    "result": "xJob Completed",
    "status": 0
}
```

addcluster

About addcluster Command

Description

Use this command to add an appliance, either as part of a domain (which shares all appliance specific data, such as organizations, templates, roles, and users), or to be used as a dedup-only VDP appliance (which allows for remote dedup or dedup-async target).

Note: *Before adding two* VDP *appliances, the appliances must exchange certificates to communicate securely. Before running this command use the* `certexchange` *command to exchange certificates between the EM server and the target cluster.*

Rights

You must have 'System Manage' right to add two VDP appliances.

Parameters

Parameter	Description
ipaddress=string	Required. Specifies the IP address of the appliance to be added.
deduponly=boolean	Optional. Specifies whether the added appliance is used for dedup-only. The default value is false.

addcluster Request Details

Your addcluster request must pass a valid session ID. For information on how to get a valid session ID, see Authentication or Login .

Method	URI	Required Parameters
POST	/actifio/api/task/addcluster	ipaddress

Note: *See the Parameters section for a list of supported parameters and their description.*

---

addcluster Examples

Add an Actifio appliance as part of the domain

Request
```
POST https://{{Actifio_API_Server}}/actifio/api/task/addcluster?ipaddress={IP_ADD}
HTTP Request Header
Authorization: Actifio 92929a8b-a413-476f-a624-5b575cff54d3
```

where 92929a8b-a413-476f-a624-5b575cff54d3 is the session ID.

Response

```
Request success
{
    "result": "xJob Completed",
    "status": 0
}
```

Add an Actifio cluster for dedup-only.

Request

```
POST https://{Actifio_API_Server}}/actifio/api/task/addcluster?ipaddress={IP_ADD}&dedup=true
HTTP Request Header
Authorization: Actifio 92929a8b-a413-476f-a624-5b575cff54d3
```

where 92929a8b-a413-476f-a624-5b575cff54d3 is the session ID.

Response

```
Request success
{
    "result": "xJob Completed",
    "status": 0
}
```

synccluster

About synccluster Command

Description

Use this command to trigger a synchronization between joined VDP appliances. All of the shared data between the appliances is resynchronized. The command triggers the sync from the master so that all joined appliances will be synced regardless of whether a slave or the master initiates the command.

Rights

You must have the 'System Manage' right to synchronize the persistent data between VDP appliances.

synccluster Request Details

Your `synccluster` request must pass a valid session ID. For information on how to get a valid session ID, see Authentication or Login on page 1.

Method	URI	Required Parameters
POST	/actifio/api/task/synccluster	None

synccluster Example

```
POST https://{Actifio_API_Server}}/actifio/api/task/synccluster
HTTP Request Header
Authorization: Actifio 92929a8b-a413-476f-a624-5b575cff54d3
```

where 92929a8b-a413-476f-a624-5b575cff54d3 is the session ID.

Response

```
Request success
{
    "result": "xJob Completed",
    "status": 0
}
```

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lscluster

About lscluster Command

Description

Use this command to retrieve details of an appliance. There is only one VDP appliance that describes the local appliance with the name 'thisisme'. All other appliances are added or joined from remote appliances. Use the **addcluster** or **joincluster** command to add an appliance to an existing appliance

Rights

You must have the 'System View' or 'System Manage' right to retrieve details of an appliance.

Parameters

Parameter	Description
filtervalue=attrib%3Dvalue	Optional. Specifies that you want your report to display any or the entire list of valid filter attributes. The valid filter attributes for `lscluster` are: • clusterid • bandwidth • dedupid • defaultdiskpool • description • ipaddress • masterid • name • streamsnapbw • thisisme The filter is formed with an attribute and a value. When specifying more than one filter, the filters must be combined with the '&' character . For string type of filters, the only operator allowed is '='. You can also use wild card character '*'. For example, to match users with the username that begins with 'foo', use filtervalue username=foo*.
argument=string	Optional. Specifies the name or ID of an object. When you use this parameter, a detailed view of the object is returned and any value specified by the `filtervalue` parameter is ignored. If you do not specify the argument, a concise view of all objects matching the filter criteria is displayed.

lscluster Request Details

Your `lscluster` request must pass a valid session ID. For information on how to get a valid session ID, see Authentication or Login on page 1.

Method	URI	Required Parameters
GET	/actifio/api/info/lscluster	None

Note: *See the Parameters section for a list of supported parameters and their description.*

---

lscluster Example

Request

```
GET https://{Actifio_API_Server}/actifio/api/info/lscluster
HTTP Request Header
Authorization: Actifio 92929a8b-a413-476f-a624-5b575cff54d3
```

where 92929a8b-a413-476f-a624-5b575cff54d3 is the session ID.

Response

```
Request success
{
    "result": [
        {
            "bandwidth": "0",
            "bwschedule": "true",
            "clusterid": "1415017322",
            "datastore": "",
            "dedupid": "1415017322",
            "defaultdiskpool": "act_per_pool000",
            "description": "",
            "disabled": "false",
            "esxhost": "",
            "id": "11",
            "ipaddress": "172.27.26.103",
            "location": "",
            "masterid": "1415017322",
            "name": "JitaSky2",
            "operativeip": "172.24.28.11",
            "override": "false",
            "props": "sharing",
            "readyvm": "false",
            "thisisme": "true",
            "vcenter": ""
        },
        {
            "bandwidth": "0",
            "bwschedule": "true",
            "clusterid": "1415017327",
            "datastore": "",
            "dedupid": "1415017327",
            "defaultdiskpool": "act_per_pool000",
            "description": "",
            "disabled": "false",
            "esxhost": "",
            "id": "4548",
            "ipaddress": "172.24.28.12",
            "location": "",
            "masterid": "1415017322",
            "name": "JitaSky1",
            "operativeip": "172.27.26.102",
            "override": "false",
            "props": "sharing",
            "readyvm": "false",
            "thisisme": "false",
            "vcenter": ""
        }
    ],
    "status": 0
}
```

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chcluster

About chcluster Command

Description

Use this command to change the properties of an appliance.

Rights

You must have the 'System Manage' right to modify the attributes of an appliance.

Parameters

Parameter	Description
bandwidth=integer	Optional. Specifies out-going bandwidth limit used by dedup for the appliance, in Mb/s. Enter 0 to indicate unlimited bandwidth.
bwschedule=boolean	Optional. Specifies whether bandwidth schedule for the appliance should be enabled. Setting this to false will suspend the bandwidth schedule for the appliance.
datastore=string	Optional. Specifies data store to be used when replicating VM to a data store during dedup-async operation. This applies to Virtual Machine replication if `readyvm` is true.For multiple datastores, use a comma ',' to separate them, if a data store has a comma ',' or backslash '\' in it's name, it needs to be escaped with '\'.
defaultdiskpool=string	Optional. Specifies the default disk pool name for the specified appliance. This is the pool to be used for remote target (such as dedup-async) appliance.
description=string	Optional. Specifies the description of the appliance.
esxhost=string	Optional. Specifies ESX host to be used when replicating VM to a data store during dedup-async operation. This applies to VM replication if `readyvm` is true.
location=string	Optional. Specifies the location of the appliance.
operativeip=string	Optional. Specifies the IP address for communication with remote VDP appliance, typically the same as IP address.
ipaddress=string	Optional. Specifies the new IP address for the cluster. Note that for SVC, cluster IP of port 1 is also changed, if applicable. This requires scheduler to be turned off, and no jobs running before the cluster IP address can be changed. (Deprecated) this option is not supported for Sky appliance, please use udstask configinterface to change ipaddress on Sky appliance.
streamsnapbw=integer	Optional. Specifies outgoing bandwidth limit (in Mb/s) to the specified appliance for StreamSnap replication. Enter 0 to indicate unlimited bandwidth.

Parameter	Description
timezone=string	Optional. Specifies a new timezone. • For the Sky appliance, the timezone entry must be a valid timezone path (for example, "America/Chicago"). • For the CDS appliance, the timezone must be a valid timezone value. *Note: Use the **lstimezones** command to find the appropriate timezone for the appliance.*
name=string	Optional. Specifies a new name for the appliance*CDS/Sky*
vcenter=string	Optional. Specifies vCenter to be used when replicating VM to a datastore during dedup-async operation. This applies to VM replication if `readyvm` is true.
readyvm=boolean	Optional. Specifies whether a VM should be ready to fail-over for dedup-async replication. It is applied to Virtual Machine dedup-async replication only, if set to true. It affects only the first subsequent dedup-async replication.
argument=string	Required. Specifies the ID or name of the appliance to be changed. Use `lscluster` to retrieve the ID or name of the appliance.

chcluster Request Details

Your chcluster request must pass a valid session ID. For information on how to get a valid session ID, see Authentication or Login on page 1.

Method	URI	Required Parameters
POST	/actifio/api/task/chcluster	argument

Note: See the Parameters section for a list of supported parameters and their description.

chcluster Example

Request

```
POST https://{Actifio_API_Server}/actifio/api/task/
chcluster?bandwidth=2&bwschedule=true&argument=4611
HTTP Request Header
Authorization: Actifio 92929a8b-a413-476f-a624-5b575cff54d3
```

where 92929a8b-a413-476f-a624-5b575cff54d3 is the session ID.

Response

```
Request success
{
    "result": "xJob Completed",
    "status": 0
}
```

chappcluster

About chappcluster Command

Description

Use this command to change the property of an application-to-node mapping.

Applicability of this Command

This command can be used on:

Rights

CDS appliance	✓
Sky appliance	✓
NAS Director	–

You must have 'Application Manage' or 'Host Manage' right to change the property of an application to node mapping.

Parameters

Parameter	Description
noprotection=boolean	Optional. Specifies whether the node is used for protection for this application.
ordering=integer	Optional. Specifies order of protection.
argument=string	Required. Specifies the ID of the application mapping to be changed. Use `lsappgroup` to locate the ID.

chappcluster Request Details

Your `chappcluster` request must pass a valid session ID. For information on how to get a valid session ID, see Authentication or Login on page 1.

Method	URI	Required Parameters
POST	/actifio/api/task/chappcluster	argument

Note: *See the Parameters section for a list of supported parameters and their description.*

chappcluster Example

Request

```
POST https://{Actifio_API_Server/actifio/api/task/chappcluster?ordering=2&argument=165416
HTTP Request Header
Authorization: Actifio 92929a8b-a413-476f-a624-5b575cff54d3
```

where 92929a8b-a413-476f-a624-5b575cff54d3 is the session ID.

Response

```
Request success
{
    "result": "xJob Completed",
    "status": 0
}
```

lsappcluster

About lsappcluster Command

Description

Use this command to retrieve details of application-to-node mappings.

Parameters

Parameter	Description
filtervalue=attrib%3D value	Optional. Specifies that you want your report to display any or all of the list of valid filter attributes. The valid filter attributes for `lsappcluster` are: • nodeid • appid The filter will be formed with an attribute and a value. When specifying more than one filter, the filters must be combined with '&' character).
argument=string	Optional. Specifies the ID of an object. When you use this parameter, the detailed view of the specific object is returned and any value that is specified by the `filtervalue` parameter is ignored. If you do not specify the argument, the concise view of all objects matching the filter criteria is displayed.

lsappcluster Request Details

Your `lsappcluster` request must pass a valid session ID. For information on how to get a valid session ID, see Authentication or Login on page 1.

Method	URI	Required Parameters
GET	/actifio/api/info/lsappcluster	None

Note: *See the Parameters section for a list of supported parameters and their description.*

lsappcluster Example

Request

```
GET https://{Actifio_API_Server/actifio/api/task/lsappcluster
HTTP Request Header
Authorization: Actifio 92929a8b-a413-476f-a624-5b575cff54d3
```

where 92929a8b-a413-476f-a624-5b575cff54d3 is the session ID.

Response

```
Request success
{
    "result": [
        {
```

```
                "active": "false",
                "appid": "165415",
                "id": "165416",
                "nodeid": "165404",
                "noprotection": "false",
                "ordering": "0"
        },
        {
                "active": "true",
                "appid": "165415",
                "id": "165417",
                "nodeid": "83040",
                "noprotection": "false",
                "ordering": "0"
        },
    ],
    "status": 0
}
```

lsclustermember

About lsclustermember Command

Description

Use this command to retrieve details of a concise list of node to appliance mappings, or a detailed view of node to appliance mapping.

Applicability of this Command

This command can be used on:

Parameters

CDS appliance	✓
Sky appliance	✓
NAS Director	✓

Parameter	Description
filtervalue=attrib%3D value	Optional. Specifies that you want your report to display any or all of the valid filter attributes. The valid filter attributes for `lsappcluster` are: • nodeid • appid The filter will be formed with an attribute and a value. When specifying more than one filter, the filters must be combined with '&' character
argument=*string*	Optional. Specifies the ID of an object. When you use this parameter, the detailed view of the specific object is returned and any value that is specified by the `filtervalue` parameter is ignored. If you do not specify the argument, the concise view of all objects matching the filter criteria is displayed.

lsclustermember Request Details

Your lsclustermember request must pass a valid session ID. For information on how to get a valid session ID, see Authentication or Login on page 1.

Method	URI	Required Parameters
GET	/actifio/api/info/lsclustermember	None

Note: See the Parameters section for a list of supported parameters and their description.

lsclustermember Example

Request

```
GET https://{Actifio_API_Server}/actifio/api/info/lsclustermember
HTTP Request Header
Authorization: Actifio 92929a8b-a413-476f-a624-5b575cff54d3
```

where 92929a8b-a413-476f-a624-5b575cff54d3 is the session ID.

Response

```
Request success
{
  "result": [
    {
      "id": "6854",
      "clusterid": "6852",
      "nodeid": "6853"
    },
    {
      "id": "6856",
      "clusterid": "6852",
      "nodeid": "6855"
    }
  ],
  "status": 0
}
```

rmappcluster

About rmappcluster Command

Description

Use this command to remove an application-to-node mapping. Use **lsappcluster** to locate the ID of the mapping.

Applicability of this Command

This command can be used on:

Rights

CDS appliance	✓
Sky appliance	✓
NAS Director	✓

You must have 'Application Manage' or 'System Manage' right to remove an application-to-node mapping.

Parameters

Parameter	Description
argument=string	Required. Specifies the ID of the application to node mapping to be removed. Use `lsappgroup` to locate the ID.

rmappcluster Request Details

Your `rmappcluster` request must pass a valid session ID. For information on how to get a valid session ID, see Authentication or Login on page 1.

Method	URI	Required Parameters
POST	/actifio/api/task/ rmappcluster	argument

Note: *See the Parameters section for a list of supported parameters and their description.*

rmappcluster Example

Request

```
POST https://{Actifio_API_Server/actifio/api/task/rmappcluster?argument=4001
```

```
HTTP Request Header
Authorization: Actifio 92929a8b-a413-476f-a624-5b575cff54d3
```

where 92929a8b-a413-476f-a624-5b575cff54d3 is the session ID.

Response

```
Request success
{
    "result": "xJob Completed",
    "status": 0
}
```

rmclustermember

About rmclustermember Command

Description

Use this command to remove a node from an appliance. Use `lsclustermember` to locate the ID of the node to appliance mapping.

Rights

You must have 'System Manage' right to remove a node from an appliance.

Parameters

Parameter	Description
argument=string	Required. Specifies the ID of the node to appliance mapping to be removed.

rmclustermember Request Details

Your `rmclustermember` request must pass a valid session ID. For information on how to get a valid session ID, see Authentication or Login on page 1.

Method	URI	Required Parameters
POST	/actifio/api/task/rmclustermember	argument

Note: *See the Parameters section for a list of supported parameters and their description.*

rmclustermember Example

Request

```
POST https://{Actifio_API_Server/actifio/api/task/rmclustermember?argument=84318
HTTP Request Header
Authorization: Actifio 92929a8b-a413-476f-a624-5b575cff54d3
```

where 92929a8b-a413-476f-a624-5b575cff54d3 is the session ID.

Response

```
Request success
{
    "result": "xJob Completed",
    "status": 0
}
```

rmcluster

About rmcluster Command

Description

Use the **rmcluster** command to delete an appliance. Use the `lscluster` command to retrieve the ID or name of the appliance. You cannot delete a appliance when the appliance is a member of an SLP unless the -force flag is set. When a appliance is removed, the corresponding certificate for that appliance is also removed. In addition, an attempt is made to remove the entry for this appliance from the other appliance. An explicit `rmcluster` must be performed on the other appliance to completely dissolve the two appliances.

Rights

You must have the 'System Manage' right to delete a VDP appliance.

Parameters

Parameter	Description
force=boolean	Optional. When set, this removes an appliance even if the appliance is used in an SLP.
argument=string	Required. Specifies the ID or name of the appliance to be removed. Use `lscluster`to retrieve the appliance name or ID to help you identify the correct appliance to remove.

rmcluster Request Details

Your `rmcluster` request must pass a valid session ID. For information on how to get a valid session ID, see Authentication or Login on page 1.

Method	URI	Required Parameters
POST	/actifio/api/task/rmcluster	argument

Note: *See the Parameters section for a list of supported parameters and their description.*

rmcluster Example

Request

```
POST https://{Actifio_API_Server/actifio/api/task/rmcluster?argument=8437
HTTP Request Header
Authorization: Actifio 92929a8b-a413-476f-a624-5b575cff54d3
```

where 92929a8b-a413-476f-a624-5b575cff54d3 is the session ID.

Response

```
Request success
{
    "result": "xJob Completed",
    "status": 0
}
```

Job Commands

lsjob

About lsjob Command

Description

Use this command to retrieve a concise list of jobs, or a detailed view of a job.

Rights

For Sky appliance, you only require access to the System Monitor. You can only view jobs for applications that in your organizations, unless you are in the ALL Org.

Parameters

Parameter	Description
argument =string	Optional. Specifies the name or ID of an object. When you use this parameter, a detailed view of the object is returned and any value specified by the `filtervalue` parameter is ignored. If you do not specify the argument, a concise view of all objects matching the filter criteria is displayed.

actifio

Parameter	Description

filtervalue =attrib%3Dvalue	Optional. Specifies that you want your report to display any or the entire list of valid filter attributes. The valid filter attributes for `lsjob` are:
	 • appid
	 • appname
	 • component
	 • enddate
	 • errorcode
	 • expirationdate
	 • hostname
	 • immutabilitydate
	 • isscheduled [true | false]
	 • jobclass [snapshot | dedup | expiration | gc | mount | unmount | clone | restore | delete | syncback | unmount-delete | remote-dedup | remote-restore | remote-clone | remote-mount | logreplicate | createliveclone | refreshliveclone | failover | failovertest | deletetest | failback | directdedup | seedin | seedout | verification | rollbackliveclone | OnVault | StreamSnap | LogReplicate | reprovision]
	 • jobname
	 • jobtag
	 • parentid
	 • policyname
	 • priority
	 • progress
	 • date
	 • relativesize
	 • retrycount
	 • sltname
	 • startdate
	 • status [running | queued | paused | interrupted | stalled]
	 • sourceid
	 • virtualsize
	
	 When you specify more than one filter, they must be combined with '&' character. For string type of filters, the only operator allowed is '='. You can also use wild card character '*'. For example, to list all jobs with a job name that begins with 'Job_0001', use 'filtervalue jobname=Job_0001*'.
	
	 Some filters allow only predefined constants. For example, status allows only running, queued, paused, interrupted, or stalled. To match job status that is running, used 'filtervalue status=running'.
	
	 For number and date types, allowed operators are: =, >, >=, <, <=. . For example,
	
	     filtervalue=errorcode\>0
	     filtervalue= errorcode>0
	     filtervalue=errorcode>0
	
	 The expirationdate, date, startdate, and enddate parameters can also use these operators. For example:
	
	     filtervalue= startdate>2010-09-28
	     filtervalue= expirationdate>2010-09-28 6:50:00
	
	 Note that a job may have sub-jobs. To filter out sub-jobs, it is common to use filtervalue parentid=0 to list the top level jobs.

lsjob Request Details

Your `lsjob` request must pass a valid session ID. For information on how to get a valid session ID, see Authentication or Login on page 1.

Method	URI	Required Parameters
GET	/actifio/api/info/lsjob	None

Note: *See the Parameters section for a list of supported parameters and their description.*

---

lsjob Examples

Request

```
GET https://{Actifio_API_Server}/actifio/api/info/lsjob
HTTP Request Header
Authorization: Actifio 92929a8b-a413-476f-a624-5b575cff54d3
```

where 92929a8b-a413-476f-a624-5b575cff54d3 is the session ID.

Response

```
Request success
{
  "result": [
    {
      "jobcount": "1",
      "retrycount": "0",
      "flags": "0",
      "sltname": "Tier-4 - Local Protection Only",
      "description": "",
      "pid": "0",
      "startdate": "",
      "parentid": "0",
      "jobtag": "",
      "hostname": "w2k8.doc.actifio.com",
      "appname": "w2k8.doc.actifio.com",
      "relativesize": "100",
      "id": "334643",
      "jobname": "Job_0334643",
      "errorcode": "0",
      "sourceid": "",
      "changerequest": "IGNORE",
      "date": "2017-12-12 00:00:00.000",
      "jobclass": "snapshot",
      "expirationdate": "2017-12-14 00:00:00.000",
      "priority": "medium",
      "targethost": "",
      "enddate": "",
      "isscheduled": "true",
      "appid": "6862",
      "progress": "0",
      "policyname": "Daily snap",
      "virtualsize": "100",
      "consistencydate": "2017-12-12 00:00:01.000",
      "status": "d"
    },
    {
```

```
        "jobcount": "1",
        "retrycount": "0",
        "flags": "0",
        "sltname": "Tier-4 - Local Protection Only",
        "description": "",
        "pid": "0",
        "startdate": "",
        "parentid": "0",
        "jobtag": "",
        "hostname": "ctos6.4wp-13",
        "appname": "/boot",
        "relativesize": "100",
        "id": "334654",
        "jobname": "Job_0334654",
        "errorcode": "0",
        "sourceid": "",
        "changerequest": "IGNORE",
        "date": "2017-12-12 00:00:00.000",
        "jobclass": "dedup",
        "expirationdate": "2017-12-26 00:00:00.000",
        "priority": "medium",
        "targethost": "",
        "enddate": "",
        "isscheduled": "true",
        "appid": "198376",
        "progress": "0",
        "policyname": "Daily dedup",
        "virtualsize": "100",
        "consistencydate": "2017-12-12 00:00:03.000",
        "status": "d"
    }
  ],
  "status": 0
}
```

View details of a specific job

Request

```
GET https://{Actifio_API_Server}/actifio/api/info/lsjob?argument=Job_22179743
HTTP Request Header
Authorization: Actifio 92929a8b-a413-476f-a624-5b575cff54d3
```

where 92929a8b-a413-476f-a624-5b575cff54d3 is the session ID.

Response

```
Request success
{
  "result": {
    "progress": "9",
    "virtualsize": "100",
    "date": "2015-11-27 00:08:12.328",
    "currentstep": "0",
    "jobname": "Job_22179743",
    "expirationdate": "2015-12-04 00:08:12.327",
    "appid": "21681349",
    "parentid": "0",
    "policyname": "Daily Dedup",
    "originaljobclass": "dedup",
    "id": "22179743",
```

```
    "jobcount": "2",
    "priority": "high",
    "changerequest": "IGNORE",
    "isscheduled": "true",
    "jobclass": "dedup",
    "flags": "0",
    "relativesize": "100",
    "status": "running",
    "hostname": "oracle-rac-1",
    "pid": "23720",
    "consistencydate": "2015-11-27 00:05:56.000",
    "startdate": "2015-11-27 00:08:12.328",
    "retrycount": "0",
    "sltname": "Gold-LogSmart",
    "totalsteps": "0",
    "sourcecluster": "590021596788",
    "appname": "racbigdb",
    "sourceid": "Image_22179670,Image_22174655",
    "errorcode": "0"
  },
  "status": 0
}
```

lsjobhistory

About lsjobhistory Command

Description

Use this command to retrieve a list of jobs details and their details based on a filter or the detailed view of a job.

Rights

For Sky appliance, you only require access to the System Monitor. You can only view jobs for applications that in your organizations, unless you are in the ALL Org.

Parameters

Parameter	Description
argument=string	Optional. Specifies the name or ID of an object. When you use this parameter, a detailed view of the object is returned and any value specified by the `filtervalue` parameter is ignored. If you do not specify the argument, a concise view of all objects matching the filter criteria is displayed.

Parameter	Description

filtervalue=attrib%3Dvalue	Optional. Specifies that you want your report to display any or the entire list of valid filter attributes. The valid filter attributes for `lsjobhistory` are:
	• appid
	• appname
	• enddate [usage: 'enddate since 24 hours' for jobs started since last 24 hours, 'enddate before 7 days' for jobs started older than 7 days]
	• errorcode
	• expiration
	• hostname
	• immutabilitydate
	• isscheduled [true | false]
	• isexpired [true | false]
	• jobclass [snapshot | dedup | expiration | gc | mount | unmount | clone | restore | delete | syncback | unmount-delete | remote-dedup | remote-restore | remote-clone | remote-mount | liveclone | refreshliveclone | failover | failovertest | deletetest | failback | directdedup | seedin | seedout | verification | rollbackliveclone | dedupasync | OnVault | StreamSnap | LogReplicate | prep-mount | prep-unmount | cleanupmirroring | filebrowse | Clone (Mount) | Restore (Mount) |Clone (Migrate) | Restore (Migrate) | Restore (ASM Rebalance) | Restore (ASM Switch)]
	• jobname
	• jobtag
	• policyname
	• priority
	• relativesize
	• sltname
	• sourceid
	• status [succeeded | failed | canceled | succeeded with warning | retry | notrun]
	• startdate [usage: 'startdate since 24 hours' for jobs started since last 24 hours, 'startdate before 7 days' for jobs started older than 7 days]
	
	The filter is formed with an attribute and a value. When you specify more than one filter, they must be combined with the '&' character .
	
	For string type of filters, the only operator allowed is '='. You can also use the wild card character '*'.
	
	For example, to list all jobs with a jobname that begins with 'Job_0001', use 'filtervalue jobname=Job_0001*.
	
	Some filters allow only predefined constants. For example, status allows only running, d, paused, interrupted, or stalled. To match job status that is running, used 'filtervalue status=running'.
	
	For number and date types, allowed operators are: =, >, >=, <, <=. :
	    filtervalue=errorcode\>0
	    filtervalue=errorcode>0
	    filtervalue=errorcode>0
	
	Date parameters startdate, enddate and expiration can also use these operators. For example:
	    filtervalue=startdate\>2010-01-01 00:00:00
	    filtervalue=startdate\>2010-01-01

Example to get the YAML code details:

```
udsinfo lsjobhistory Job_0011504
originatinguds 143086340917
constraintdetail
retrycount 0
sourcepoolname
originaljobclass snapshot
sltname logsmart
flags 2305843009482129424
hostid 0
sourcepoolid 0
startdate 2020-05-04 07:49:53.813
sourceuds 143086340917
jobtag
hostname 172.16.202.235
appname mysqld_3306
policyid 7320
isexpired false
beginpit
poolid 0
sourcecluster 143086340917
id 11519
jobname Job_0011504
errorcode 0
targetpoolname
sourceid Image_0010786,Image_0011007,Image_0011504,Image_0011506
queuedate 2020-05-04 07:49:52.983
apptype MYSQLInstance
lastconstraintdate 2020-05-04 07:49:52.983
jobclass mount
label
priority medium
message Success
immutabilitydate
targetuds 143086340917
targethost 172.16.202.235, 172.16.202.29
enddate 2020-05-04 07:50:34.000
isscheduled false
endpit
appid 7178
policyname Production to Snap 1
expiration 2100-01-01 00:00:00.000
constraintinfo
virtualsize 35437674496
GET https://{Actifio_API_Server}/actifio/api/info/lsjobhistoryconsistencydate 2020-05-04
06:44:07.000
status succeeded
transport NFS to guest
duration 00:00:40
Application size (GB) 30.000
Number of volumes 1
migratevm false

Yaml Details:
#Copy and paste the following volumeMounts declaration within your container definition
#Copy and paste the following volumes definition below your container definition
containers:
volumeMounts:
- name: vdp-mysqld-3306-logs
mountPath: /vdp_mnt/7178_TransactionLog
```

```
- name: vdp-mysqld-3306-dev-mysqlvg-mysqllv
mountPath: /vdp_mnt/dev/mysqlvg/mysqllv
volumes:
- name: vdp-mysqld-3306-logs
nfs:
server: 172.29.11.20
path: /tmp/cmounts/act7178_TransactionLog_1588578624679_act_staging_vol_Job_0011504
- name: vdp-mysqld-3306-dev-mysqlvg-mysqllv
nfs:
server: 172.29.11.20
path: /tmp/cmounts/act1588531137434_1588578615367_act_staging_vol_Job_0011504HTTP Request
Header
Authorization: Actifio 92929a8b-a413-476f-a624-5b575cff54d3
```

where 92929a8b-a413-476f-a624-5b575cff54d3 is the session ID.ResponseRequest Success

```
{
  "result": [
    {
      "sourceid": "Image_0285950",
      "originatinguds": "1415056619",
      "retrycount": "0",
      "date": "2017-10-15 02:04:04.627",
      "flags": "16",
      "sltname": "Tier-4 - Local Protection Only",
      "jobclass": "cleanup",
      "startdate": "2017-10-15 02:04:04.627",
      "priority": "",
      "sourceuds": "1415056619",
      "targetuds": "1415056619",
      "jobtag": "",
      "hostname": "ctos6.4wp-13",
      "targethost": "",
      "enddate": "2017-10-15 02:04:15.374",
      "appname": "/",
      "appid": "198375",
      "expiration": "2017-10-15 02:03:53.262",
      "policyname": "Daily snap",
      "id": "286048",
      "jobname": "Job_0286047",
      "consistencydate": "2017-10-15 02:04:04.627",
      "status": "failed"
    },
    {
      "sourceid": "Image_0316610",
      "originatinguds": "1415056619",
      "retrycount": "0",
      "date": "2017-11-23 15:10:06.951",
      "flags": "16",
      "sltname": "Tier-4 - Local Protection Only",
      "jobclass": "cleanup",
      "startdate": "2017-11-23 15:10:06.951",
      "priority": "",
      "sourceuds": "1415056619",
      "targetuds": "1415056619",
      "jobtag": "",
      "hostname": "ctos6.4wp-13",
      "targethost": "",
      "enddate": "2017-11-23 15:10:17.684",
      "appname": "/",
      "appid": "198375",
      "expiration": "2017-11-23 15:09:55.520",
```

actifio

```
         "policyname": "Daily snap",
         "id": "317084",
         "jobname": "Job_0317083",
         "consistencydate": "2017-11-23 15:10:06.951",
         "status": "failed"
      }
   ],
   "status": 0
}
```

lsjobhistory Request Details

Your lsjobhistory request must pass a valid session ID. For information on how to get a valid session ID, see Authentication or Login on page 1.

Method	URI	Required Parameters
GET	/actifio/api/info/lsjobhistory	None

___

Note: *See the Parameters section for a list of supported parameters and their description.*

___

lsjobhistory Example

Request

```
GET https://{Actifio_API_Server}/actifio/api/info/lsjobhistory
HTTP Request Header
Authorization: Actifio 92929a8b-a413-476f-a624-5b575cff54d3
```

where 92929a8b-a413-476f-a624-5b575cff54d3 is the session ID.

Response

```
Request Success
{
  "result": [
    {
      "sourceid": "Image_0285950",
      "originatinguds": "1415056619",
      "retrycount": "0",
      "date": "2017-10-15 02:04:04.627",
      "flags": "16",
      "sltname": "Tier-4 - Local Protection Only",
      "jobclass": "cleanup",
      "startdate": "2017-10-15 02:04:04.627",
      "priority": "",
      "sourceuds": "1415056619",
      "targetuds": "1415056619",
      "jobtag": "",
      "hostname": "ctos6.4wp-13",
      "targethost": "",
      "enddate": "2017-10-15 02:04:15.374",
      "appname": "/",
      "appid": "198375",
      "expiration": "2017-10-15 02:03:53.262",
      "policyname": "Daily snap",
      "id": "286048",
```

```
      "jobname": "Job_0286047",
      "consistencydate": "2017-10-15 02:04:04.627",
      "status": "failed"
    },
    {
      "sourceid": "Image_0316610",
      "originatinguds": "1415056619",
      "retrycount": "0",
      "date": "2017-11-23 15:10:06.951",
      "flags": "16",
      "sltname": "Tier-4 - Local Protection Only",
      "jobclass": "cleanup",
      "startdate": "2017-11-23 15:10:06.951",
      "priority": "",
      "sourceuds": "1415056619",
      "targetuds": "1415056619",
      "jobtag": "",
      "hostname": "ctos6.4wp-13",
      "targethost": "",
      "enddate": "2017-11-23 15:10:17.684",
      "appname": "/",
      "appid": "198375",
      "expiration": "2017-11-23 15:09:55.520",
      "policyname": "Daily snap",
      "id": "317084",
      "jobname": "Job_0317083",
      "consistencydate": "2017-11-23 15:10:06.951",
      "status": "failed"
    }
  ],
  "status": 0
}
```

lsjobwarnings

About lsjobwarnings Command

Description

Use this command to retrieve details of warnings for jobs with a status of "succeeded with warnings". If the image created by a job is removed, the list of warnings are no longer be available.

If a job has no warning, the command returns an empty list.

Rights

User with 'administrator' role can retrieve a list of job warnings.

Parameters

Parameter	Description
argument=string	Optional. Specifies the name or ID of an object. When you use this parameter, a detailed view of the object is returned and any value specified by the `filtervalue` parameter is ignored.
	If you do not specify the argument, a concise view of all objects matching the filter criteria is displayed.

lsjobwarnings Request Details

Your `lsjobwarnings` request must pass a valid session ID. For information on how to get a valid session ID, see Authentication or Login on page 1.

Method	URI	Required Parameters
GET	/actifio/api/info/lsjobwarnings	None

Note: See the Parameters section for a list of supported parameters and their description.

lsjobwarnings Example

Request

```
GET https://{Actifio_API_Server}/actifio/api/info/lsjobwarnings
HTTP Request Header
Authorization: Actifio 92929a8b-a413-476f-a624-5b575cff54d3
```

where 92929a8b-a413-476f-a624-5b575cff54d3 is the session ID.

Response

```
Request success
{
    "result": {
        "volumefile": "reason"
```

```
    },
    "status": 0
}
```

chjob

About chjob Command

Description

Use this command to change the attribute of a running job. Use `lsjob` to obtain the ID or name of the job.

Rights

You must have the 'System Manage', or 'Application Manage' or 'Host Manage' right to change the attribute of a job.

Parameters

Parameter	Description
changerequest=string	Optional. Specifies a change request for a job. For VDP appliances, the allowed value is cancel.
priority=string	Optional. Specifies the priority of a job.
argument=string	Required. Specifies the ID or name of the job to be modified.

chjob Request Details

Your `chjob` request must pass a valid session ID. For information on how to get a valid session ID, see Authentication or Login on page 1.

Method	URI	Required Parameters
POST	/actifio/api/task/chjob	name id

Note: See the Parameters section for a list of supported parameters and their description.

chjob Examples

Request

```
POST https://{Actifio_API_Server}/actifio/api/task/
chjob?argument=Job_0334654&changerequest=pause
HTTP Request Header
Authorization: Actifio 92929a8b-a413-476f-a624-5b575cff54d3
```

where 92929a8b-a413-476f-a624-5b575cff54d3 is the session ID.

Response

```
Request success
{
```

```
    "status": 0
}
```

actifio

Schedule Commands

setschedule

About setschedule Command

Description

Use this command to change/create various administrative schedule for appliance maintenance.

Rights

You must have the 'System Manage' right to configure a schedule.

Parameters

Parameter	Description
day=integer	Optional. Specifies the day of the frequency, 0- based. For weekly frequency, 0 indicates Sunday, and 1 is Monday, etc. For monthly, 0 is first day of the month, and 1 is 2nd day of the month. This is ignored for SLA analysis.
frequency=string	Optional. Specifies the frequency of the schedule. This is ignored for SLA analysis.
name=string	Required. Specifies the name of the schedule.
op=string	Optional. Specifies operation for the schedule. Specifying *now* for the operation, results in the schedule being run immediately. This is ignored for SLA analysis.
repeatinterval=integer	Optional. Specifies the repeat interval of the schedule, default to 1, which means every week or every month, depending on the frequency. This is ignored for SLA analysis.
time=string	Optional. Specifies the time of the schedule.

setschedule Request Details

Your `setschedule` request must pass a valid session ID. For information on how to get a valid session ID, see Authentication or Login on page 1.

Method	URI	Required Parameters
POST	/actifio/api/task/setschedule	name

Note: *See the Parameters section for a list of supported parameters and their description.*

setschedule Example

Request

```
POST https://{Actifio_API_Server}/actifio/api/task/setschedule?name=archive&frequency=monthly
HTTP Request Header
Authorization: Actifio 92929a8b-a413-476f-a624-5b575cff54d3
```

where 92929a8b-a413-476f-a624-5b575cff54d3 is the session ID.

Response

```
Request success
{
    "status": 0
}
```

getschedule

About getschedule Command

Description

Use this command to display a schedule.

Rights

You must have the 'System View' or 'System Manage' right to view the schedule.

Parameters

Parameter	Description
name=string	Required. Specifies the name of the schedule to display.

getschedule Request Details

Your `getschedule` request must pass a valid session ID. For information on how to get a valid session ID, see Authentication or Login on page 1.

Method	URI	Required Parameters
GET	/actifio/api/info/getschedule	name

Note: See the Parameters section for a list of supported parameters and their description.

getschedule Example

Request

```
GET https://{Actifio_API_Server}/actifio/api/info/getschedule?name=archive
HTTP Request Header
Authorization: Actifio 92929a8b-a413-476f-a624-5b575cff54d3
```

where 92929a8b-a413-476f-a624-5b575cff54d3 is the session ID.

Response

```
Request success
{
  "result": {
    "dataage": "12",
    "measure": "weeks",
    "filename": "archive",
    "filepath": "/act/pg/archive",
    "time": "02:00 AM",
    "day": "0",
    "frequency": "weekly",
    "delim": ","
```

```
    },
    "status": 0
}
```

setgcschedule

About setgcschedule Command

Description

Use this command to create, modify, or run a garbage collection schedule. There are four types of garbage collection tasks:

- **gc**: Performs full GC mark to mark unreferenced objects so the space can be reclaimed during the sweep phase.
- **sweep**: Performs a full GC sweep to reclaim space marked in the *gc* phase.
- **igc**: *Incremental GC has been deprecated. Due to GC performance improvements, it is no longer needed.*
- **isweep**: *Incremental GC has been deprecated. It is no longer needed.*

If a sweep schedule is not set up, a sweep is performed at the end of the corresponding *gc* phase.

Rights

You must have the 'System Manage' right to configure the garbage collection schedule.

Parameters

Parameter	Description
day=integer	Optional. Specifies the day of the frequency. For weekly frequency, 0 indicates that the schedule should run on Sunday, 1 indicates Monday, and so on. For monthly frequency, 0 indicates that the schedule should run on the first day of a month, and 1 indicates the second day of the month, and so on.
duration=min	Optional. Specifies the duration (in minutes), for the sweep or isweep phase. The phase runs as long as necessary if duration is not specified.
frequency=string	Optional. Specifies the frequency of the schedule.

op=string	Optional. Specifies whether the operation should run immediately or delete the schedule type.
	
	    • now: runs scheduled operation right away, using saved options
	
	    • delete: deletes specified schedule type, for VDP appliances gc cannot be deleted

repeatinterval=integer	Optional. Specifies the repeat interval of the schedule (default of 1), which means every week or every month depending on the schedule frequency.
time=string	Optional. Specifies the time of the schedule, in 24- hour format.
type=string	Required. Specifies the type of the GC schedule to be created or modified.

setgcschedule Request Details

Your `setgcschedule` request must pass a valid session ID. For information on how to get a valid session ID, see Authentication or Login on page 1.

Method	URI	Required Parameters
POST	/actifio/api/task/setgcschedule	type

Note: See the Parameters section for a list of supported parameters and their description.

setgcschedule Example

Request

```
POST https://{Actifio_API_Server}/actifio/api/task/setgcschedule?type=gc&frequency=monthly
HTTP Request Header
Authorization: Actifio 92929a8b-a413-476f-a624-5b575cff54d3
```
where 92929a8b-a413-476f-a624-5b575cff54d3 is the session ID.

Response

```
Request success
{
    "status": 0
}
```

getgcschedule

About getgcschedule Command

Description

Use this command to display specific garbage collection schedules.

Rights

You must have the 'System View' or 'System Manage' right to view the garbage collection schedule.

Parameters

Parameter	Description
type=string	Required. Specifies the type of GC schedule.

getgcschedule Request Details

Your getgcschedule request must pass a valid session ID. For information on how to get a valid session ID, see Authentication or Login on page 1.

Method	URI	Required Parameters
GET	/actifio/api/info/getgcschedule	type

Note: See the Parameters section for a list of supported parameters and their description.

getgcschedule Example

Request

```
GET https://{Actifio_API_Server}/actifio/api/info/getgcschedule?type=gc
HTTP Request Header
Authorization: Actifio 92929a8b-a413-476f-a624-5b575cff54d3
```

where 92929a8b-a413-476f-a624-5b575cff54d3 is the session ID.

Response

```
Request success
{
  "result": {
    "time": "01:00 AM",
    "day": "6",
    "repeatinterval": "4",
    "frequency": "weekly"
  },
  "status": 0
}
```

rmgcschedule

About rmgcschedule Command

Description

Use this command to delete GC schedules. The following GC schedule types can be deleted:

- **sweep**: Performs a full GC sweep to reclaim space marked in the *gc* phase.
- **igc**: *Incremental GC has been deprecated. Due to GC performance improvements, it is no longer needed.*
- **isweep**: *Incremental GC has been deprecated. It is no longer needed.*

Rights

You must have the 'System Manage' right to delete a GC schedule.

Parameters

Parameter	Description
type=string	Required. Specifies the type of GC schedule to delete.

rmgcschedule Request Details

Your `rmgcschedule` request must pass a valid session ID. For information on how to get a valid session ID, see Authentication or Login on page 1.

Method	URI	Required Parameters
POST	/actifio/api/task/rmgcschedule	type

Note: See the Parameters section for a list of supported parameters and their description.

rmgcschedule Example

Request
```
POST https://{Actifio_API_Server}/actifio/api/task/rmgcschedule?type=sweep
HTTP Request Header
Authorization: Actifio 92929a8b-a413-476f-a624-5b575cff54d3
```

where 92929a8b-a413-476f-a624-5b575cff54d3 is the session ID.

Response
```
Request success
{
    "status": 0
}
```

actifio

Cloud Commands

mkcloudcredential

About mkcloudcredential Command

Description

Use this command to create a new cloud credential.

Rights

You must have 'System Manage' right to create a cloud credential.

Parameters

Parameter	Description
credentialjson=string	Optional. Specifies the JSON text for the service account with the access credentials. This is applicable to GCP cloud.
endpoint=string	Optional, required for GCP. Specifies the endpoint for the GCP cloud credential.
name=string	Optional. Specifies a friendly name that has been assigned.
clientid=string	Optional, required for Azure. Signifies the Client Id for the Azure cloud.
domain=string	Optional, required for Azure. Signifies the Domain or Tenant Id for the Azure cloud.
secretkey=string	Optional, required for Azure. Signifies the Secret Key for the Azure cloud.
subscriptionid=string	Optional, required for Azure. Signifies the Subscription Id for the Azure cloud.
privatekey=string	Optional, required for AWS. Signifies the Secret Key for the AWS cloud.
publickey=string	Optional, required for AWS. Signifies the Access Key for the AWS cloud.
region=string	Required. Signifies a location, which is completely isolated from each other.

mkcloudcredential Request Details

Your `mkcloudcredential` request must pass a valid session ID. For information on how to get a valid session ID, see Authentication or Login on page 1.

Method	URI	Required Parameters

POST	actifio/api/task/mkcloudcredential	Region
		private key and public key for AWS
		end point and credentialjson for GCP

Note: *See the Parameters section for a list of supported parameters and their description.*

---

mkcloudcredential Examples

Request

```
POST https://{Actifio_API_HOST}/actifio/api/task/mkcloudcredential&name=my-aws-
creds&cloudtype=AWS&region=us-east-
1&publickey=AKIAV7YCEC4VSGJNOU&privatekey=tMzht%2BISpHQZ1ZawnyUEQ%2BbrkIWTzUuVmzLdYm

HTTP Request Header
Authorization: 92929a8b-a413-476f-a624-5b575cff54d3
```

where 92929a8b-a413-476f-a624-5b575cff54d3 is the session ID.

Response

```
Request success
{
      "result":1125848,
      "status":0

}
```

chcloudcredential

About chcloudcredential Command

Description

Use this command to change the attributes or properties of a cloud credential.

Rights

You must have 'System Manage' right to change a cloud credential.

Parameters

Parameter	Description
credentialjson=string	Optional. Specifies the JSON text for the service account with the access credentials. This is applicable to GCP cloud.
endpoint=string	Optional. Specifies the endpoint for the cloud credential.
name=string	Optional. Specifies a friendly name that has been assigned.
clientid=string	Optional. Signifies the Client Id for the Azure cloud.
domain=string	Optional. Signifies the Domain or Tenant Id for the Azure cloud.
secretkey=string	Optional. Signifies the Secret Key for the Azure cloud.
subscriptionid=string	Optional. Signifies the Subscription Id for the Azure cloud.
privatekey=string	Optional. Signifies the Secret Key for the AWS cloud.
publickey=string	Optional. Signifies the Access Key for the AWS cloud.
region=string	Required. Signifies a location, which is completely isolated from each other.
argument=string	Required. Specifies the ID or name of the cloud credential data to be changed.

chcloudcredential Request Details

Your `chcloudcredential` request must pass a valid session ID. For information on how to get a valid session ID, see Authentication or Login on page 1.

Method	URI	Required Parameters

POST	/actifio/api/task/chcloudcredential	Region
		credentialjson for GCP
		private and public key for AWS
		argument = ID or name of the cloud credential

Note: *See the Parameters section for a list of supported parameters and their description.*

---

chcloudcredential Examples

Request

```
POST https://{Actifio_API_HOST}/actifio/api/task/
chcloudcredential&cloudtype=AWS&argument=1125848&region=us-east-
1&publickey=AKIAV7YCEC4VSGJNOU&privatekey=tMzht%2BISpHQZ1ZawnyUEQ%2BbrkIWTzUuVmzLdYm

HTTP Request Header
Authorization: 92929a8b-a413-476f-a624-5b575cff54d3
```

where 92929a8b-a413-476f-a624-5b575cff54d3 is the session ID.

Response

```
Request success
{
        "result": "xJob Completed",
        "status": 0
}
```

actifio

lscloudcredential

About lscloudcredential Command

Description

Use this command to retrieve details of cloud credentials. There are potentially multiple type of clouds that exist within the appliance, such as AWS, and GCP.

Rights

You must have 'System View' to list cloud credential.

Parameters

Parameter	Description
delim=string	Optional. By default in a concise view, all columns of data are space-separated. In a detailed view, each item of data has its own row, and if the headers are displayed the data is separated from the header by a space. The **-delim** parameter overrides this behavior. Valid input for the **-delim** parameter is a one-byte character. If you enter **-delim**: on the command line, the colon character (:) separates all items of data in a concise view; for example, the spacing of columns does not occur. In a detailed view, the data is separated from its header by the specified delimiter.
filtervalue=string	Optional. Specifies that you want your report to display any or all of the list of valid filter attributes. The valid filter attributes for the 'udsinfo lscloudcredential' command are: • name • cloudtype • endpoint • availabilityzone The filter will be formed with an attribute and a value. When user specifies more than one filter, they must be combined with '&' character (which needs to be escaped with '\'). For string type of filters, the only operator allowed is '='. One can also use wildcard character '*'. For example, to match cloudcredentials with name begins with 'foo', use '-filtervalue name=foo*'.
nohdr=string	Optional. By default, headings are displayed for each column of data in a concise style view, and for each item of data in a detailed style view. The -**nohdr** parameter suppresses the display of these headings. *Note: If there is no data to be displayed, headings are not displayed.*
argument=string	Optional. Specifies the ID of an object. When you use this parameter, the detailed view of the specific object is returned and any value that is specified by the -filtervalue parameter is ignored. If you do not specify the object_id parameter, the concise view of all objects matching the filtering requirements are displayed.

lscloudcredential Request Details

Your `lscloudcredential` request must pass a valid session ID. For information on how to get a valid session ID, see Authentication or Login on page 1.

Method	URI	Required Parameters
GET	/actifio/api/info/lscloudcredential	none

Note: *See the Parameters section for a list of supported parameters and their description.*

lscloudcredential Examples

Request

```
GET https://{Actifio_API_HOST}/actifio/api/info/lscloudcredential

HTTP Request Header
Authorization: 92929a8b-a413-476f-a624-5b575cff54d3
```

where 92929a8b-a413-476f-a624-5b575cff54d3 is the session ID.

Response

```
Request success
{
    "result": [
        {
            "cloudtype": "AWS",
            "id": "820632",
            "name": "qa-aws-cloudsnap",
            "region": "us-east-1"
        },
        {
            "cloudtype": "AWS",
            "id": "1125891",
            "name": "",
            "region": "us-east-1"
        },
        {
            "cloudtype": "AWS",
            "id": "1125899",
            "name": "",
            "region": "us-east-1"
        }
    ],
    "status": 0
}
```

rmcloudcredential

About rmcloudcredential Command

Description

Use this command to delete a cloud credential.

Rights

You must have 'System Manage' right to delete a cloud credential.

Parameters

Parameter	Description
argument=string	Required. Specifies ID or name of the cloud credential to be removed.

rmcloudcredential Request Details

Your `rmcloudcredential` request must pass a valid session ID. For information on how to get a valid session ID, see Authentication or Login on page 1.

Method	URI	Required Parameters
POST	/actifio/api/task/rmcloudcredential	argument = ID or name of the cloud credential

Note: *See the Parameters section for a list of supported parameters and their description.*

rmcloudcredential Examples

Request

```
POST https://{Actifio_API_HOST}/actifio/api/task/rmcloudcredential&argument=1125848

HTTP Request Header
Authorization: 92929a8b-a413-476f-a624-5b575cff54d3
```

where 92929a8b-a413-476f-a624-5b575cff54d3 is the session ID.

Response

```
Request success
{
     "result": "xJob Completed",
     "status": 0
}
```

testcredential

About testcredential Command

Description

Use this command to test the cloud credential. This command tests the cloud credential by connecting to the respective cloud and returns the associated privileges.

Rights

You must have 'System Manage' right to test the cloud credential.

Parameters

Parameter	Description
name=string	Optional. Specifies a friendly name that has been assigned.
credentialjson=string	Optional. Specifies the JSON text for the service account with the access credentials. This is applicable to GCP cloud.
privatekey=string	Optional, required for AWS. Signifies the Secret Key for the AWS cloud.
publickey=string	Optional, required for AWS. Signifies the Access Key for the AWS cloud.
clientid=string	Optional, required for Azure. Signifies the Client Id for the Azure cloud.
domain=string	Optional, required for Azure. Signifies the Domain or Tenant Id for the Azure cloud.
secretkey=string	Optional, required for Azure. Signifies the Secret Key for the Azure cloud.
subscriptionid=string	Optional, required for Azure. Signifies the Subscription Id for the Azure cloud.
region=string	Required. Signifies a location, which is completely isolated from each other.
cloudcredential=string	Optional. Specifies the cloud credential to perform the test on, either ID or name is needed. Use 'udsinfo lscloudcredential' to locate the ID or name of the cloud credential.

testcredential Request Details

Your `testcredential` request must pass a valid session ID. For information on how to get a valid session ID, see Authentication or Login on page 1.

Method	URI	Required Parameters

actifio

GET	/actifio/api/info/testcredential	Region
		credentialjson for GCP
		public key and private key for AWS

Note: *See the Parameters section for a list of supported parameters and their description.*

testcredential Examples

Request

```
GET https://{Actifio_API_Server}/actifio/api/info/testcredential&cloudcredential=820632
```

```
HTTP Request Header
Authorization: 92929a8b-a413-476f-a624-5b575cff54d3
```

where 92929a8b-a413-476f-a624-5b575cff54d3 is the session ID.

Response

```
Request success
{
"result": {
    "default-vpc": "vpc-07c096b9e9be14ec8",
    "max-elastic-ips": "5",
    "max-instances": "20",
    "supported-platforms": "VPC",
    "vpc-max-elastic-ips": "5",
    "vpc-max-security-groups-per-interface": "5"
},
"status": 0
}
```

lsresourcehistory

About lsresourcehistory Command

Description

Use this command to retrieve details of resource history. The lsresourcehistory command returns a concise list of resource history, or a detailed view of a resource history.

Rights

You must have 'System View' to list resource history.

Parameters

Parameter	Description
delim=string	Optional. By default in a concise view, all columns of data are space-separated. In a detailed view, each item of data has its own row, and if the headers are displayed the data is separated from the header by a space. The -**delim** parameter overrides this behavior. Valid input for the -**delim** parameter is a one-byte character. If you enter -**delim** : on the command line, the colon character (:) separates all items of data in a concise view; for example, the spacing of columns does not occur. In a detailed view, the data is separated from its header by the specified delimiter.
filtervalue=string	Optional. Specifies that you want your report to display any or all of the list of valid filter attributes. The valid filter attributes for the 'udsinfo lsresourcehistory' command are: • appid • poolid • issuedate • resourcetype • operation • uniquename • resourceclass • resourcedetailstr • jobname • imagename • magnitude • resourcedetailint The filter will be formed with an attribute and a value. When user specifies more than one filter, they must be combined with '&' character (which needs to be escaped with '\'). For string type of filters, the only operator allowed is '='. One can also use wildcard character '*'. For example, to match cloudcredentials with name begins with 'foo', use '-filtervalue name=foo*'.

actifio

Parameter	Description
nohdr=string	Optional. By default, headings are displayed for each column of data in a concise style view, and for each item of data in a detailed style view. The -**nohdr** parameter suppresses the display of these headings. *Note: If there is no data to be displayed, headings are not displayed.*
argument=string	Optional. Specifies the ID of an object. When you use this parameter, the detailed view of the specific object is returned and any value that is specified by the -filtervalue parameter is ignored. If you do not specify the object_id parameter, the concise view of all objects matching the filtering requirements are displayed.

lsresourcehistory Request Details

Your `lsresourcehistory` request must pass a valid session ID. For information on how to get a valid session ID, see Authentication or Login on page 1.

Method	URI	Required Parameters
GET	/actifio/api/info/lsresourcehistory	none

Note: See the Parameters section for a list of supported parameters and their description.

lsresourcehistory Examples

Request

GET https://{Actifio_API_Server}/actifio/api/info/lsresourcehistory

HTTP Request Header
Authorization: 92929a8b-a413-476f-a624-5b575cff54d3

where 92929a8b-a413-476f-a624-5b575cff54d3 is the session ID.

Response
```
Request success
{
    "result": [
        {
            "id": "731829",
            "imagename": "Image_0731827",
            "issuedate": "2020-03-13 08:20:07.852",
            "jobname": "Job_0731827",
            "magnitude": "10737418240",
            "operation": "create",
            "resourceclass": "",
            "resourcedetailint": "0",
            "resourcetype": "cloud-snapshot",
            "uniquename": "snapshot-actifio-demo-2-971"
        },
        {
            "id": "752110",
            "imagename": "Image_0731827",
            "issuedate": "2020-03-16 12:12:22.627",
```

```
                "jobname": "Job_0752109",
                "magnitude": "0",
                "operation": "delete",
                "resourceclass": "",
                "resourcedetailint": "0",
                "resourcetype": "cloud-snapshot",
                "uniquename": "snapshot-actifio-demo-2-971"
          },
        {
                "id": "861021",
                "imagename": "Image_0861017",
                "issuedate": "2020-04-22 19:00:06.078",
                "jobname": "Job_0861017",
                "magnitude": "10737418240",
                "operation": "create",
                "resourceclass": "",
                "resourcedetailint": "0",
                "resourcetype": "cloud-snapshot",
                "uniquename": "snap-0fe8e1f8989680ef4"
        }
    ],
    "status": 0
}
```

Iscloudvm

About Iscloudvm Command

Description

Use this command to discover all the instances, managed by a cloud credential on cloud provider.

Rights

You must have 'System Manage' right to perform the discovery.

Parameters

Parameter	Description
credential=string	Required. Specifies the cloud credential to perform the discovery on, either ID or name is needed. Use 'udsinfo Iscloudcredential' to locate the ID or name of the cloud credential.
sortby=string	Optional. Signifies sorting order. The default is ASC.
sortkey=integer	Optional. Signifies the key that instance results to be sorted by. By default, they are sorted by instanceid.
filtervalue=string	Optional. Specifies that you want your results to display any or al of the list of valid filter attributes. The valid filter attributes for the 'udsinfo Iscloudvm' command are: • instanceid • vmname • vmstate • vmtype • privateip • publicip For string type of filters, the only operator allowed is '='. Empty string can be also matched by using '-filtervalue name='.
operation=string	Optional. Signifies the operation that is performed between any filters. For example, '-operation AND' would consider the intersection of filter results. The default is '-operation OR' which performs the union of results.
modes=string	Optional. Specifies that the instance results to be filtered with Actifio mode.
region=string	Optional. Signifies a location, which is completely isolated from each other.
offset=integer	Optional. Signifies the offset to serve the instance results. Default: 0.
limit=integer	Optional. Signifies the max results that returns. Default: 10.

Parameter	Description
delim=string	Optional. The delimiter to be used when displaying results.
nohdr=string	Optional. By default, headings are displayed for each column of data in a concise style view, and for each item of data in a detaile style view. The -nohdr parameter suppresses the display of these headings. *Note: If there is no data to be displayed, headings are not displayed.*

lscloudvm Request Details

Your `lscloudvm` request must pass a valid session ID. For information on how to get a valid session ID, see Authentication or Login on page 1.

Method	URI	Required Parameters
GET	/actifio/api/info/lscloudvm	credential = ID or name of the cloud credential

Note: See the Parameters section for a list of supported parameters and their description.

lscloudvm Examples

Request

```
GET https://{Actifio_API_Server}/actifio/api/info/lscloudvm&cloudcredential=820632


HTTP Request Header
Authorization: 92929a8b-a413-476f-a624-5b575cff54d3
```

where 92929a8b-a413-476f-a624-5b575cff54d3 is the session ID.

Response

```
Request success
{
    "result": [
        {
            "availabilityzone": "us-east-1b",
            "bootdisk": "/dev/xvda",
            "createdtimestamp": "1588709278000",
            "instanceid": "i-00c3f2d8ae2a43a99",
            "privateip": "10.7.0.249",
            "project": "null",
            "publicip": "",
            "securitygroups": "sg-03097571423afb443",
            "serviceaccount": "null",
            "sourceimageid": "ami-0a887e401f7654935",
            "subnet": "subnet-09b963f73528625f2",
            "tag": "{Project=Cloud-Snapshots,
                    actifio-role=managed-1415082932,
                    contact=actifio, Name=mgm-aws-1}",
            "totalcount": "10",
            "vmname": "mgm-aws-1",
            "vmstate": "running",
            "vmtype": "t2.micro",
```

```json
            "volume": "null",
            "vpcname": "vpc-0f8e7dfdb6b05118e"
        },
        {
            "availabilityzone": "us-east-1b",
            "bootdisk": "/dev/sda1",
            "createdtimestamp": "1590175919000",
            "instanceid": "i-0ea77eab631caaf5c",
            "privateip": "10.7.0.170",
            "project": "null",
            "publicip": "",
            "securitygroups": "sg-03097571423afb443",
            "serviceaccount": "null",
            "sourceimageid": "ami-0bbae8bd5a242ee8c",
            "subnet": "subnet-09b963f73528625f2",
            "tag": "{Project=Cloud-Snapshots, Owner=qa@actifio.com,
                    actifio-info=144612475251-job_0273769-image_0273769,
                    actifio-role=unmanaged-144612475251, Name=kt-aws-rh-1-mount}",
            "totalcount": "10",
            "vmname": "kt-aws-rh-1-mount",
            "vmstate": "running",
            "vmtype": "t1.micro",
            "volume": "null",
            "vpcname": "vpc-0f8e7dfdb6b05118e"
        }
    ],
    "status": 0
}
```

Other Commands

addssd

About addssd Command

Description

Use this command to add SSD devices to the appliance.

Applicability of this Command

This command can be used on:

Rights

CDS appliance	✓
Sky appliance	✓
NAS Director	✓

You must have the 'System Manage' right to add SSD devices.

Parameters

Parameter	Description
component =string	Optional. Specifies the pool name or adhd (dedup) to add the SSD device(s) to the Sky appliance. If a component is not specified, the specified devices is designated as an SSD device, which is used for a virtual SSD device that cannot be automatically detected. For the CDS appliance, the SSD device is added to the dedup engine only.
argument =string	Required. For the Sky appliance, this is a comma (,) separated list of devices to be added. For the CDS appliance, only one device can be specified.

addssd Request Details

Your addssd request must pass a valid session ID. For information on how to get a valid session ID, see Authentication or Login on page 1.

Method	URI	Required Parameters
POST	/actifio/api/task/addssd	argument

> **Note:** *See the Parameters section for a list of supported parameters and their description.*

addssd Example

Request

```
POST https://{Actifio_API_Server}/actifio/api/task/addssd?argument=pci-0000:03:00.0-scsi-
0:0:3:0
HTTP Request Header
Authorization: Actifio 92929a8b-a413-476f-a624-5b575cff54d3
```

where 92929a8b-a413-476f-a624-5b575cff54d3 is the session ID.

Response

```
Request success
{
    "status": 0

}
```

rmssd

About rmssd Command

Description

Use this command to remove SSD devices from the appliance.

Rights

You must have the 'System Manage' right to remove SSD devices.

Parameters

Parameter	Description
argument=string	Required. For the Sky appliance, this is a comma (,) separated list of devices to be removed. For the CDS appliance, only one device can be specified.

rmssd Request Details

Your rmssd request must pass a valid session ID. For information on how to get a valid session ID, see Authentication or Login on page 1.

Method	URI	Required Parameters
POST	/actifio/api/task/rmssd	argument

Note: See the Parameters section for a list of supported parameters and their description.

rmssd Example

Request
```
POST https://{Actifio_API_Server}/actifio/api/task/rmssd?argument=pci-0000:03:00.0-scsi-
0:0:3:0
HTTP Request Header
Authorization: Actifio 92929a8b-a413-476f-a624-5b575cff54d3
```

where 92929a8b-a413-476f-a624-5b575cff54d3 is the session ID.

Response
```
Request success

{
    "status": 0

}
```

setarchiveconfig

About setarchiveconfig Command

Description

Use this command to configure historical data archive attributes. The appliance archives historical data, job histories, and event (traps) data into archived files. This data that is archived is removed from the persistent storage. These archived files can then be downloaded (through UI) for future references.

Rights

You must have the 'System Manage' right to configure the archiving of historical data.

Parameters

Parameter	Description
dataage=integer	Optional. Specifies the data age for job history and event data before they are archived. The default value is set to 12 (weeks). Data older than this age is archived to a file and removed from the appliance persistent data storage. Units for the age depends on the 'measure' value.
retention=integer	Optional. Specifies the retention age for archived job history and event data. The default value is set to 6 (weeks). Archives created older than this age are discarded. Units for the age depends on the 'measure' value.
measure=string	Optional. Specifies the period to store data before it is archived. The default value is weeks.
filepath=string	Optional. Specifies the file path to store the archive files. The default file path is /act/pg/archive
outputfile=string	Optional. Specifies the output file name to store the archived data in. The default name is 'archive'.

setarchiveconfig Request Details

Your `setarchiveconfig` request must pass a valid session ID. For information on how to get a valid session ID, see Authentication or Login on page 1.

Method	URI	Required Parameters
POST	/actifio/api/task/setarchiveconfig	None

Note: See the Parameters section for a list of supported parameters and their description.

setarchiveconfig Example

Request

```
POST https://{Actifio_API_Server}/actifio/api/task/
setarchiveconfig?dataage=24&retention=12&measure=weeks&filepath=/act/pg/
archive&outputfile=archive
HTTP Request Header
Authorization: Actifio 92929a8b-a413-476f-a624-5b575cff54d3
```

where 92929a8b-a413-476f-a624-5b575cff54d3 is the session ID.

Response

```
Request success
{
    "status": 0
}
```

setparameter

About setparameter Command

Description

Use this command to set a new system parameter value for the VDP appliance. You can set the appliance system parameters listed under lsaudit on page 188. See Appendix D, List of Parameters Used With getparameter and setparameter for more information. Prior to changing any system parameters, please consult your customer support representative.

Rights

You must have the 'System Manage' right to set a new parameter value.

Parameters

Parameter	Description
param=string	Required. Specifies the name of the parameter to be set. Use `getparameter` to retrieve the name and range of values for the parameter. `setparameter` uses the parameters detailed in Appendix D, List of Parameters Used With getparameter and setparameter.
value=string	Required. Specifies the value of the parameter.

setparameter Request Details

Your `setparameter` request must pass a valid session ID. For information on how to get a valid session ID, see Authentication or Login on page 1.

Method	URI	Required Parameters
POST	/actifio/api/task/setparameter	param value
PUT	/actifio/saml/idp/metadata	None
DELETE	/actifio/saml/idp/metadata	None

Note: *See the Parameters section for a list of supported parameters and their description.*

setparameter Example

Request
```
POST https://{Actifio_API_Server}/actifio/api/task/setparameter?param=gcminthreshold&value=70
HTTP Request Header
Authorization: Actifio 92929a8b-a413-476f-a624-5b575cff54d3
```

where 92929a8b-a413-476f-a624-5b575cff54d3 is the session ID.

Response

```
Request success
{
    "status": 0

}
```

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getparameter

About getparameter Command

Description

Use this command to display the appliance system parameters. These system parameters are detailed in Appendix D, List of Parameters Used With getparameter and setparameter.

Note: *Prior to changing any system parameters, please consult your customer support representative.*

Rights

You must have the 'System Manage' or 'System View' right to view the appliance parameters.

Parameters

Parameter	Description
param=string	Optional. Specifies the name of the parameter to retrieve the value. If you do not use this option, it displays all the appliance parameters with their values.
type=backup | dedup | psrv | udppm	Optional. Specifies the type of system parameter.

getparameter Request Details

Your `getparameter` request must pass a valid session ID. For information on how to get a valid session ID, see Authentication or Login on page 1.

Method	URI	Required Parameters
GET	/actifio/api/info/getparameter	None
GET	/actifio/saml/sp/metadata	None

Note: *See the Parameters section for a list of supported parameters and their description.*

---

getparameter Example

Request
```
GET https://{Actifio_API_Server}/actifio/api/info/getparameter
HTTP Request Header
Authorization: Actifio 92929a8b-a413-476f-a624-5b575cff54d3
```

where 92929a8b-a413-476f-a624-5b575cff54d3 is the session ID.

Response

Request success

```
{
  "result": {
    "PreserveLdedupsOfPriority": "low                                          ",
    "enablestreamsnap": "1                                                      ",
    "firstbackupwholevmdk": "1                                                  ",
    "disable.TLSv1.0": "false                                                   ",
    "enableindexing": "false                                                    ",
    "vmnocbtdocompare": "1                                                      ",
    "vmconsolidatedisks": "fail                                                 ",
    "streamsnapdnetalerttime": "900                          [1..10000]",
    "http.concurrentsession.allow": "true                                       ",
    "reservedldedupslots": "3                                [0..25]",
    "schedulerrdedupperiodpercentage": "90                   [0..100]",
    "checkpoolspace": "0                                                        ",
    "default.ssh.session.timeout": "60                       [0..1800000]",
    "removeduplicateevents": "false                                             ",
    "OracleChildLimit": "0                                                      ",
    "auditchanges": "true                                                       ",
    "sweepthreshold": "50                                     [1..-1]",
    "onejobperhostoverride": "none                                              ",
    "ignoredtraps": "0                                                          ",
    "datastoreutilizationpollfreqinmins": "15                [1..7200]",
    "schedulerinterval": "10                                  [1..120]",
    "networkinterfacecheck": "none                                              ",
    "ldap.referral.support": "false                                             ",
    "streamsnapdconnectiontimeout": "60                      [1..1200]",
    "vmlowsplashwithcbt": "never                                                ",
    "enableexpiration": "1                                                      ",
    "default.v3700.ssh.connect.timeout": "60                 [0..1800000]",
    "appminshrinksizefornewstagingdisk": "34359738368                          ",
    "rfcsnappooloverallocationpercent": "20                  [0..1000]",
    "liveclonerefreshcreatereference": "0                                       ",
    "daronrampslots": "0                                      [0..100]",
    "default.ssh.connect.timeout": "60                       [0..1800000]",
    "truepathdefaultdriveletter": "1                                            ",
    "SQLServerChildLimit": "0                                                   ",
    "maxvaultslots": "4                                       [0..1000]",
    "EnableMountToVirtualSqlCluster": "false                                    ",
    "snmp.community.string": "public                                            ",
    "GC_ZTR_PARALLEL_MAX_WORKERS": "-1                        [1..16]",
    "reservedondemandslots": "3                               [0..25]",
    "licensedcapacity": "1                                    [0..10240]",
    "reservedsnapslots": "3                                   [0..25]",
    "reservedrdedupslots": "3                                 [0..25]",
    "vmexistingsnapshotwarrning": "0                                            ",
    "vmorgenericbackupmountpvidchange": "1                   [0..2]",
    "dontexpirededupsduringgc": "0                            [0..1]",
    "slaAnalysis.analysisType": "version1                                       ",
    "reservedstreamsnapslots": "2                             [0..25]",
    "hostheartbeattimeoutinmins": "60                         [0..43200]",
    "vmdatastorefullwarnthreshold": "80                       [50..-1]",
    "vixdisklibdebuglevel": "4                                [0..7]",
    "changeratedb": "6                                        [0..100]",
    "enablesnapshots": "1                                                       ",
    "expirerloadcount": "2500                                 [100..10000]",
    "retriesonfailure": "3                                    [0..20]",
    "streamsnapdmillispertick": "1000                         [100..10000]",
    "vmtaskcompletiontimeout": "60                            [1..43200]",
```

```
"critical.events.exclude": "10011,10013,10023,10025,10039        ",
"https.request.timeout": "420000                                 [0..1800000]",
"limitdedupexpirations": "2                                      [0..25]",
"preflight.default.timeout": "5                                  [5..30]",
"GC_ZTR_PARALLEL_ACTIVE_WORKERS": "-1                            [0..16]",
"streamsnapdreconnectdelay": "100                                [1..10000]",
"maxesxscans": "10                                               [1..50]",
"secureconnect.proxy_server": "                                  ",
"disableguardrails": "false                                      ",
"https.socket.timeout": "420000                                  [0..1800000]",
"streamsnapdmaxtunnelconnections": "50                           [5..256]",
"firewall.icmp.redirect.drop.threshold": "5000                   [1..1000000]",
"dontfullingestdedupsduringgc": "1                               [0..1]",
"auditage": "90                                                  [1..365]",
"secureconnect.local": "                                         ",
"maxiscsisessionspertarget": "15                                 [15..100]",
"snmptablesize": "500                                            [100..5000]",
"streamsnapdmaxserverconnections": "320                          [5..1024]",
"streamsnapdmaxsslconnections": "160                             [5..1024]",
"deduprehydratedimageexpirationinhours": "24                     [0..100000]",
"netapp.enable": "0                                              ",
"webserver.TLS.protocols": "TLSv1,TLSv1.1,TLSv1.2                ",
"secureconnect.server": "secureconnect2.actifio.com              ",
"delegatingpoolstatecachetimeout": "5                            [1..20]",
"session-timeout-minutes": "60                                   ",
"ExpirerEventLogFrequency": "86400                               [3600..86400]",
"maxvmtasktimeout": "600                                         [60..7200]",
"readyvmtargetlowsplash": "1                                     ",
"systemcontact": "                                               ",
"retrydecay": "400                                               [100..10000]",
"scheduleroptimizations": "1                                     [0..1]",
"template.agm.lock": "true                                       ",
"enableremotededups": "1                                         ",
"enablereplicationscripts": "0                                   ",
"streamsnapdmaxwindowsize": "64                                  [8..1024]",
"streamsnaponrampslots": "0                                      [0..100]",
"preservelastimage": "1                                          ",
"slaAnalysis.notificationtype": "warning                         ",
"systemlocation": "                                              ",
"expirerretrylocked": "60                                        [30..900]",
"maxvmtaskretrycount": "10                                       [1..100]",
"vmlowsplashwithcbtthreshold": "50                               ",
"ldeduponrampslots": "2                                          [0..100]",
"genericappfailonconnecterror": "0                               ",
"maxrdedupslots": "6                                             [0..1000]",
"disablenbdvmbackups": "0                                        ",
"hourlystatexpirationindays": "14                                [0..360]",
"ChildLimit": "5                                                 ",
"prefernbdssl": "0                                               ",
"reservedvaultslots": "4                                         [0..25]",
"vmfilesthreshold": "32                                          [5..100]",
"default.v3700.ssh.session.timeout": "60                         [0..1800000]",
"expirerjobspercycle": "10                                       [1..20]",
"copywarninglimit": "14                                          [2..1000]",
"enablededupasync": "1                                           ",
"maxondemandslots": "6                                           [0..1000]",
"dosnapshotonreplicationfailure": "1                             ",
"streamsnapdheartbeattimeout": "60                               [1..1800]",
"PreserveSnapsOfPriority": "low                                  ",
"enablelocaldedups": "1                                          ",
```

```
"scriptexectimeout": "60                                            [1..120]",
"EnableGenericLVM": "false                                          ",
"rdeduponrampslots": "2                                             [0..100]",
"vmdatastorefullcriticalthreshold": "95                             [10..99]",
"maxexpirationslots": "10                                           [0..1000]",
"DBAuthentication": "false                                          ",
"maptoallnodesincluster": "1                                        ",
"expirerretrydependent": "900                                       [60..3600]",
"enableencryptedreplication": "1                                    ",
"maxdarslots": "3                                                   [0..1000]",
"streamsnapdmaxrunningjobs": "90                                    [1..1024]",
"autoconfigsanports": "1                                            ",
"enableesxmount": "false                                            ",
"usegcjob": "false                                                  ",
"vaultrehydratedimageexpirationinhours": "24                        [0..100000]",
"maxconcurrentvaultsubjobs": "12                                    [4..1000]",
"snapshotonrampslots": "2                                           [0..100]",
"dailystatexpirationindays": "60                                    [30..360]",
"retrydelay": "240                                                  [30..3600]",
"secureconnect.proto": "udp                                         ",
"streamsnapdinternaltimeout": "10                                   [1..1800]",
"schedulerldedupperiodpercentage": "90                              [0..100]",
"reserveddarslots": "3                                              [0..25]",
"streamsnapdprogressupdateinterval": "5                             [1..600]",
"enablecompressedreplication": "1                                   ",
"reservedlogreplicateslots": "2                                     [0..25]",
"maxlogreplicateslots": "6                                          [0..1000]",
"missed.cluster.ping.threshold": "-1                                ",
"maxldedupslots": "8                                                [0..1000]",
"streamsnapdmaxmemorysize": "4                                      [1..1024]",
"GC_ZTR_PARALLEL_HI_PRIO": "10                                      [1..10]",
"maxconnectorupgradetimeout": "10                                   [5..60]",
"nasserversnapexpirationindays": "3                                 [0..365]",
"expirerrefailure": "3600                                           [900..86400]",
"delegatingpoolstatecachesize": "30                                 [10..200]",
"expirerreloadinterval": "900                                       [120..3600]",
"backupjobsperhost": "1                                             [1..1000]",
"authentication.method": "database                                  ",
"ignore.schedule.off.violation": "0                                 ",
"bdd.ip.test.timeout": "30                                          [0..300]",
"zpoolcompression": "on                                             ",
"enablevaults": "1                                                  ",
"schedulerjobspercycle": "4                                         [1..20]",
"changeratenondb": "3                                               [0..100]",
"operatingwindowintonextday": "1                                    [0..1]",
"maxsnapslots": "6                                                  [0..1000]",
"remotepsrvrequesttimeout": "5                                      [5..30]",
"slaAnalysis.enable": "true                                         ",
"maptoallesxincluster": "1                                          ",
"streamsnapdnetworkretries": "5                                     [1..1000]",
"streamsnapdnossl": "0                                              [0..1]",
"maxoutofbandappsize": "140737488355328                             ",
"minlaststagingdisksize": "274877906944                             ",
"secureconnect.proxy_port": "0                                      [0..65536]",
"reservedexpirationslots": "3                                       [0..25]",
"secureconnect.port": "1194                                         [1..65536]",
"maxldapresults": "50000                                            ",
"ldap.user.autocreate": "false                                      ",
"unreservedslots": "12                                              [0..100]",
"maxstreamsnapslots": "6                                            [0..1000]",
```

```
        "critical.events.include": "9052,999999999,45005            ",
        "stagingdiskgranularity": "1099511627776                    ",
        "createmultiplestagingdisks": "1                           [0..1]",
        "enablenasserversnapexpiration": "1                         ",
        "enablestreamingreplication": "1                            ",
        "expirerinterval": "5                                       [1..120]",
        "streamsnapdmaxreservedconnections": "10                    [5..256]",
        "sla.tolerance": "0                                         ",
        "enablescheduler": "1                                       ",
        "gcminthreshold": "65                                       [1..100]",
        "scriptinittimeout": "300                                   [1..600]"
    },
    "status": 0
}
```

lsaudit

About lsaudit Command

Description

Use this command to retrieve a concise list of system audit trail data, or a detailed view of a system audit trail data.

Rights

You must have 'System Manage', or 'System View' rights to be able to retrieve audit trail data.

Parameters

Parameter	Description
filtervalue=attrib%3D value	Optional. Specifies that you want your report to display any or all of the list of valid filter attributes. The valid filter attributes for `lsaudit` are: • command • component • ipaddress • issuedate [usage: 'issuedate since 24 hours' for audited logs since last 24 hours, 'issuedate before 7 days' for audited logs older than 7 days] • status • username The filter will be formed with an attribute and a value. When specifying more than one filter, the filters must be combined with '&' character . For string type of filters, the only operator allowed is '='. You can also use the wildcard character '*'. For example, to match disk pools with name begins with 'foo', use `filtervalue name=foo*`. For numbers and date types, allowed operators are: =, >, >=, <, <=. For example: • filtervalue=status\>0 • filtervalue=status>0 • filtervalue=status>0 Date parameter issuedate can also use these operators, for example, filtervalue=issuedate>2010-09-28 filtervalue=issuedate>2010-09-28 6:50:00
argument=string	Optional. Specifies the name or ID of an object. When you use this parameter, a detailed view of the object is returned and any value specified by the `filtervalue` parameter is ignored. If you do not specify the *argument*, a concise view of all objects matching the filter criteria is displayed.

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lsaudit Request Details

Your `lsaudit` request must pass a valid session ID. For information on how to get a valid session ID, see Authentication or Login on page 1.

Method	URI	Required Parameters
GET	/actifio/api/info/lsaudit	None

Note: See the Parameters section for a list of supported parameters and their description.

lsaudit Example

Request

```
GET https://{Actifio_API_Server}/actifio/api/info/lsaudit
HTTP Request Header
Authorization: Actifio 92929a8b-a413-476f-a624-5b575cff54d3
```

where 92929a8b-a413-476f-a624-5b575cff54d3 is the session ID.

Response

```
Request success
{
  "result": [
    {
      "privileged": "false",
      "proxy": "",
      "ipaddress": "1xx.xxx.xxx.xxx",
      "component": "udstask",
      "id": "284610",
      "issuedate": "2017-10-13 04:34:09.046",
      "command": "debug  sy",
      "username": "admin",
      "status": "0"
    },
    {
      "privileged": "false",
      "proxy": "",
      "ipaddress": "1xx.xxx.xxx.xxx",
      "component": "udsinfo",
      "id": "284611",
      "issuedate": "2017-10-13 04:34:09.061",
      "command": "getsysteminfo",
      "username": "admin",
      "status": "0"
    },
    {
      "privileged": "false",
      "proxy": "",
      "ipaddress": "1xx.xxx.xxx.xxx",
      "component": "udsinfo",
      "id": "354263",
      "issuedate": "2017-12-31 22:34:09.130",
      "command": "lsversion",
      "username": "admin",
      "status": "0"
```

```
      },
      {
        "privileged": "false",
        "proxy": "",
        "ipaddress": "1xx.xxx.xxx.xxx",
        "component": "udsinfo",
        "id": "354264",
        "issuedate": "2017-12-31 22:34:19.904",
        "command": "lsjobhistory  -filtervalue jobhistory since 12 hours&status=failed",
        "username": "admin",
        "status": "0"
      }
    ],
    "status": 0
}
```

lsmetricstat

About lsmetricstat Command

Description

Use this command to retrieve a concise list of stats, or a detailed view of stats thats are collected for each application or for a group of resources.

Applicability of this Command

This command can be used on:

CDS appliance	✓
Sky appliance	✓
NAS Director	✓

Rights

You must have 'System Manage', or 'System View' rights to be able to view details of metric statistics.

Parameters

Parameter	Description
filtervalue=attrib%3D value	Optional. Specifies that you want your report to display any or all of the list of valid filter attributes. The valid filter attributes for `lsmetricstat` are: • appid • appname • hostid • hostname • apptype [FileSystem | SystemState | SqlInstance | SQLServerAvailabilityGroup | SqlServerWriter | Microsoft Exchange Writer | SharePoint Services Writer | Oracle | CIFS | NFS | Microsoft Hyper-V VSS Writer | ConsistGrp | LVM Volume | SystemState | SAPHANA | DB2Instance | SYBASEInstance | MYSQLInstance | MARIADBInstance | SYBASEIQ] • jobclass [snapshot | StreamSnap | OnVault] • stattype [Daily | Hourly] • clusterid • poolid • poolname • jobname • metricname [dataingest | networkdata | dataread | vdiskcount | totalused] • status [succeeded | failed | cancelled] • starttime • endtime • stattime • grouptype [application | jobclass | hostid | apptype | poolid | clusterid] The filter will be formed with an attribute and a value. When user specifies more than one filter, they must be combined with '&' character . For string type of filters, the only operator allowed is '='. One can also use wildcard character '*'. For example, to match metric stats with jobname begins with 'Job_0001', use 'filtervalue jobname=Job_0001*'. Some filters allow only predefined constants. For example, stattype allows only Daily or Hourly stats, to match metrics with stattype "Daily" use 'filtervalue status=Daily'. For number and date types, allowed operators are: =, >, >=, <, <=. Use URL-encoded values for these operators. For example:filtervalue=appid%3E0 Date parameters startdate, enddate and expiration can also use these operators, for example, • filtervalue=starttime%3E2010-01-01+00:00:00 • filtervalue=starttime%3E2010-01-0
argument=string	Optional. Specifies the name or ID of an object. When you use this parameter, the detailed view of the specific object is returned and any value that is specified by the `filtervalue` parameter is ignored. If you do not specify the argument, the concise view of all objects matching the filter criteria is displayed.

lsmetricstat Request Details

Your `lsmetricstat` request must pass a valid session ID. For information on how to get a valid session ID, see Authentication or Login on page 1.

Method	URI	Required Parameters
GET	/actifio/api/info/lsmetricstat	None

Note: *See the Parameters section for a list of supported parameters and their description.*

lsmetricstat Example

Request
```
GET https://{Actifio_API_Server}/actifio/api/info/lsmetricstat
HTTP Request Header
Authorization: Actifio 92929a8b-a413-476f-a624-5b575cff54d3
```

where 92929a8b-a413-476f-a624-5b575cff54d3 is the session ID.

Response
```
Request success
{
  "result": [
    {
      "poolname": "act_per_pool000",
      "apptype": "",
      "hostid": "164687",
      "endtime": "2017-11-12 03:00:00.091",
      "clusterid": "0",
      "jobclass": "unknown",
      "starttime": "2017-11-11 03:00:00.091",
      "metricvalue": "4",
      "hostname": "ctos6.4wp-13",
      "grouptype": "application",
      "appname": "CTOS6.4WP-13",
      "appid": "164689",
      "stattype": "Daily",
      "poolid": "73",
      "stattime": "2017-11-12 03:00:00.098",
      "id": "308105",
      "metricname": "vdiskcount",
      "jobname": "",
      "valueunit": "Number"
    },
    {
      "poolname": "",
      "apptype": "",
      "hostid": "0",
      "endtime": "2018-01-11 03:00:00.097",
      "clusterid": "1415056619",
      "jobclass": "unknown",
      "starttime": "2018-01-10 03:00:00.097",
      "metricvalue": "4824566988",
      "hostname": "",
      "grouptype": "clusterid",
      "appname": "",
```

```
      "appid": "0",
      "stattype": "Daily",
      "poolid": "0",
      "stattime": "2018-01-11 03:00:00.116",
      "id": "364185",
      "metricname": "totalused",
      "jobname": "",
      "valueunit": "Bytes"
    }
  ],
  "status": 0
}
```

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runpreflight

About runpreflight Command

Description

Use this command to run `preflight` to look for updates that are available for installation on the appliance. This command also checks if the system is in a good state to apply the available update.

Rights

User must have 'administrator' role and privileges.

Parameters

Parameter	Description
name=string	Required. Specifies the name of the update to run the preflight check.

runpreflight Request Details

Your `runpreflight` request must pass a valid session ID. For information on how to get a valid session ID, see Authentication or Login on page 1.

Method	URI	Required Parameters
POST	/actifio/api/task/runpreflight	name

Note: *See the Parameters section for a list of supported parameters and their description.*

---

runpreflight Example

Request

```
POST https://{Actifio_API_Server}/actifio/api/task/runpreflight?runpreflight?name=patch-
SKY8.0.0.100

HTTP Request Header
Authorization: Actifio 92929a8b-a413-476f-a624-5b575cff54d3
```

where 92929a8b-a413-476f-a624-5b575cff54d3 is the session ID.

Response

```
Request success

{
    "result": " Preflight check for update  patch-SKY8.0.0.1578 type patch completed
successfully with warnings.\\nWARNING:  One or more other type of images are mounted.  Please
contact Actifio support.\\nINFO:  Dedup is actively running with version : 7.1.8.811\\nINFO:
Running Actifio Preflight check version: 1.0\\nINFO:  Appliance configuration has expiration
enabled ( 1 ).\\nINFO:  Appliance configuration has scheduler enabled ( 1 ).\\nINFO:  / has
```

enough space for upgrade: available: 4666 MB free: 51%.\\nINFO: /var has enough space for upgrade: available: 1749 MB free: 91%.\\nINFO: /var/log has enough space for upgrade: available: 1810 MB free: 94%.\\nINFO: /tmp has enough space for upgrade: available: 3690 MB free: 96%.\\nINFO: /dumps has enough space for upgrade: available: 286517 MB free: 99%.\\nINFO: /home has enough space for upgrade: available: 1847 MB free: 96%.\\nINFO: /act has enough space for upgrade: available: 4666 MB free: 51%.\\nINFO: /act/pg has enough space for upgrade: available: 91144 MB free: 95%.\\nINFO: No active running jobs.\\nINFO: No mount job or restore job is currently in progress.\\nINFO: No backup job is currently in progress.\\nINFO: No ESX server with version 6.0.0 require upgrade.\\nINFO: Permissions on 1 VCenter hosts are ok.\\nINFO: There are no appaware SQL clustered images active or mounted.\\nINFO: There are no appaware SQL images active or mounted.\\nINFO: There are no appaware Oracle images active or mounted.\\nINFO: There are no VMWare or Hyper-V images active or mounted.\\nINFO: Actifio preflight check completed successfully.",

    "status": 0

}

lssystemdetail

About lssystemdetail Command

Description

lssystemdetail returns the system properties information used in the systemprops argument of mountimage when doing a systemstate recovery in a cloud. For more information, refer mountimage.

Rights

User must have 'administrator' role and privileges.

Parameters

Parameter	Description
cloudtype=string	Required. To get the parameters needed for systemstate recovery in the required cloud.
image=string	Optional. Based on the imagename/id, get the sourceimage default values like cpu, memory and ostype, and show them under default header of display.
structure=string	Optional. To fetch the subproperties of a structure.
subselect=string	Optional. Name for the subselect type. This property is related to the selectvalue property. For a selectvalue, return the properties for the subselect. *Note: subselect property is related to the selectvalue property. For a selected value, there would be a subselect list. If the output contains a value for the subselect property, it indicates that one more call is needed to fetch the subselect list for the selected value.*
selectvalue=string	Optional. Value to be used for the subselect.

lssystemdetail Request Details

Your `lssystemdetail` request must pass a valid session ID. For information on how to get a valid session ID, see Authentication or Login on page 1.

Method	URI	Required Parameters
GET	/actifio/api/info/lssystemdetail	cloudtype

Note: See the Parameters section for a list of supported parameters and their description.

lssystemdetail Example

Request
```
GET https://{Actifio_API_Server}/actifio/api/info/lssystemdetail?cloudtype=AWS
HTTP Request Header
Authorization: Actifio 92929a8b-a413-476f-a624-5b575cff54d3
```

where 92929a8b-a413-476f-a624-5b575cff54d3 is the session ID.

Response
```
Request success
{
  "result": [
    {
      "default": "",
      "min": "",
      "selection": "",
      "name": "CPU",
      "description": "Number of CPU",
      "type": "number",
      "value": "",
      "required": "",
      "multi": ""
    },
    {
      "default": "",
      "min": "",
      "selection": "",
      "name": "Memory",
      "description": "Memory in GB",
      "type": "number",
      "value": "",
      "required": "",
      "multi": ""
    },
    {
      "default": "",
      "min": "",
      "selection": "",
      "name": "OSType",
      "description": "OS Type",
      "type": "string",
      "value": "",
      "required": "",
      "multi": ""
    },
    {
      "default": "AWS",
      "min": "",
      "selection": "true",
      "name": "CloudType",
      "description": "Cloud type",
      "type": "string",
      "value": "AWS,VMware",
      "required": "true",
      "multi": ""
    },
    {
      "default": "",
      "min": "",
```

```
      "selection": "",
      "name": "AccessKeyID",
      "description": "Access Key ID",
      "type": "string",
      "value": "",
      "required": "true",
      "multi": ""
    },
    {
      "default": "",
      "min": "",
      "selection": "",
      "name": "SecretKey",
      "description": "Secret Access Key",
      "type": "string",
      "value": "",
      "required": "true",
      "multi": ""
    },
    {
      "default": "",
      "min": "",
      "selection": "",
      "name": "NICInfo",
      "description": "Amazon NIC Details",
      "type": "structure",
      "value": "",
      "required": "true",
      "multi": "true"
    },
    {
      "default": "",
      "min": "",
      "selection": "",
      "name": "BootDiskSize",
      "description": "Boot Disk Size in GB",
      "type": "number",
      "value": "",
      "required": "",
      "multi": ""
    }
  ],
  "status": 0
}
```

lssystemimages

About lssystemimages Command

Description

Use this command to retrieve the images required for SystemstateRecovery. The lssystemimages command returns the default source image value for performing the systemstate recovery in a cloud.

Rights

You must have 'System View' right to retrieve the images required for SystemstateRecovery.

Parameters

Parameter	Description
cloudtype=string	Required. Target cloud type to get the parameters needed for systemstaterecovery, such as AWS, GCP, AZURE.
delim=sting	Optional. By default in a concise view, all columns of data are space-separated. In a detailed view, each item of data has its own row, and if the headers are displayed the data is separated from the header by a space. The -**delim** parameter overrides this behavior. Valid input for the -**delim** parameter is a one-byte character. If you enter -**delim**: on the command line, the colon character (:) separates all items of data in a concise view; for example, the spacing of columns does not occur.
nohdr=string	Optional. By default, headings are displayed for each column of data in a concise style view, and for each item of data in a detailed style view. The -**nohdr** parameter suppresses the display of these headings. **Note:** *If there is no data to be displayed, headings are not displayed.*

lssystemimages Request Details

Your lssystemimages request must pass a valid session ID. For information on how to get a valid session ID, see Authentication or Login on page 1.

Method	URI	Required Parameters
GET	//api/info/lssystemimages	cloudtype

Note: *See the Parameters section for a list of supported parameters and their description.*

lssystemimages Example

Request

```
GET https://{Actifio_API_Server}//api/info/lssystemimages&cloudtype=aws
HTTP Request Header
Authorization:  92929a8b-a413-476f-a624-5b575cff54d3
```

where 92929a8b-a413-476f-a624-5b575cff54d3 is the session ID.

Response

```
Request success
{
    "result": [
        {
            "image": "ami-03dffc617aef0522d",
            "ostype": "windows",
            "region": "us-east-1"
        },
        {
            "image": "ami-029da94da5ed8f4e8",
            "ostype": "windows",
            "region": "us-east-2"
        },
        {
            "image": "ami-0f0d0acd69273338f",
            "ostype": "windows",
            "region": "ap-southeast-1"
        },
        {
            "image": "ami-069a0405a7c695924",
            "ostype": "linux",
            "region": "ap-northeast-2"
        }
    ],
    "status": 0
}
```

Disk Commands

mkdiskpool

About mkdiskpool Command

Description

Use this command to create a new disk pool object.

Rights

You must have the 'Storage Manage' right to create a new disk pool.

Parameters

Parameter	Description
array=string	Optional. Specifies the external array where the pool storage is from.
cloudcredential =string	Optional. Specifies the ID or name of the cloud credential.
ext=integer	Optional. Specifies the size of the extents for this disk pool in MB. The `extent_size` parameter must be one of the following values: 16, 32, 64, 128, 256, 512, 1024, or 2048 (MB). If not specified, the default size of 512 MB is used.
mdisk=string	Optional. Specifies a colon-separated list of managed disks to add to the disk pool. The mdisks added to the performance pool should be named as 'act_per_mdknnnn', where nnnn is a 4-digit number. Similarly, the mdisks added to the primary pool should be named as 'act_pri_mdknnnn', where nnnn is a 4-digit number.Their mdisk name will be renamed if they do not follow this convention. Once added to the pool, they cannot be removed from the pool. *Note: To change the name of a managed disk, use usvctask chmdisk -name new_name old_name. Use the usvctask addmdisk command to add mdisks to a diskpool.*
name=string	Required. Specifies the name for the disk pool.
org=string	Optional. Specifies a default organization to which the disk pool should be added. To use this option you must have the 'System Manage' right.

Parameter	Description
properties=string	Optional. Specifies properties for vault type of pools, comma (,) separated name value pair. Use `lsvaulttype` to view a list of available properties for a specific type of vault pool. For example, `-properties "bucket=mybucket,accessId=myid"`. Special characters ',' and '=' must be escaped, by repeating the same character. For ("xx,=x") `-properties "bucket=mybucket,accessKey=xx,,==x"`.
safepct=string	Optional. Specifies the safe percentage for the disk pool. When the disk usage exceeds this value, some operations are turned off and attention is required, such as adding more storage to the pool or expiring some backup images. The value should be between 10 and 99%.
type=string	Required. Specifies the type of pool (performance/ primary/vault) to create. Pool of 'performance' type is used for snapshot backup images, and 'ext_snapshot' is for pool on external arrays.
warnpct=string	Optional. Specifies the warning percentage for the disk pool. The value must be between 10 and 99. The value of `warnpct` should be equal to or less than that of `safepct`. When the disk usage exceeds this percentage, a warning event is raised. For a dedup disk pool, the warnpct cannot be more than 75%.

mkdiskpool Request Details

Your `mkdiskpool` request must pass a valid session ID. For information on how to get a valid session ID, see Authentication or Login on page 1.

Method	URI	Required Parameters
POST	/actifio/api/task/mkdiskpool	type mdisk name

Note: See the Parameters section for a list of supported parameters and their description.

mkdiskpool Example

Request

```
POST https://{Actifio_API_Server}/actifio/api/task/
mkdiskpool?name=mktpool&warnpct=70&type=perf&mdisk=mdisk3

HTTP Request Header
Authorization: Actifio 92929a8b-a413-476f-a624-5b575cff54d3
```

where 92929a8b-a413-476f-a624-5b575cff54d3 is the session ID.

Response

```
Request success

{
```

```
    "result": "328581",
    "status": 0
}
```

lsdiskpool

About lsdiskpool Command

Description

Use this command to retrieve the details of disk pools. vDisks reside in a disk pool. VDP maintains three reserved diskpools,: 'act_per_pool000' to store the snapshot backup images, 'act_ded_pool000' to store the dedup images, and 'act_pri_pool000' to store some internal metadata as well as the cloned images.

Each diskpool maintains two thresholds, warnpct and safepct. When the diskpool usage exceeds warnpct, more storage can be added, or some obsolete backup images can be expired. When the usage exceeds the safepct, relevant backup schedule is turned off immediately. For example, when the safepct of act_ded_pool000 is exceeded, dedup schedule is turned off. No more dedup is allowed, until the usage drops below the safepct.

For act_ded_pool000, perform a garbage collection to reclaim space in the dedup diskpool with `setschedule -name gc -op now`. Note that warnpct should be less than safepct for each diskpool. For 'act_ded_pool000', safepct cannot be more than 75%.

Each OnVault diskpool has an unique id generated, using pool credentials and cloud type to uniquely identify an OnVault diskpool. This unique id, udsuid, is reserved for other pool types.

Rights

You must have 'Storage View', 'Storage Manage', 'SLA View', 'SLA Assign', or 'SLA Manage' rights to be able to retrieve disk-pool data.

Parameters

Parameter	Description
-**delim** *delimiter*	Optional. By default in a concise view, all columns of data are space-separated. In a detailed view, each item of data has its own row, and if the headers are displayed the data is separated from the header by a space. The `-delim` parameter overrides this behavior. Valid input for the `-delim` parameter is a one-byte character. If you enter `-delim:` on the command line, the colon character (:) separates all items of data in a concise view; for example, the spacing of columns does not occur. In a detailed view, the data is separated from its header by the specified delimiter.

Parameter	Description
filtervalue=attrib%3D value	Optional. Specifies that you want your report to display any or the entire list of valid filter attributes. The valid filter attributes for `lsdiskpool` are: • name • safepct • warnpct • udsuid The filter is formed with an attribute and a value. When you specify more than one filter, they must be combined with '&' character . For string type of filters, the only operator allowed is '='. You can also use wild card character '*'. For example, to match disk pools with name begins with 'foo', use 'filtervalue name=foo*'. For number types, allowed operators are: =, >, >=, <, <=. Use the URL-encoded value of these operators. For example: • -filtervalue warnpct\>=80 • -filtervalue "warnpct>=80" • -filtervalue 'warnpct>=80 • filtervalue=warnpct%3E%3D80
-nohdr	Optional. By default, headings are displayed for each column of data in the concise view, and for each item of data in the detailed view. The `-nohdr` parameter suppresses the display of headings. If there is no data to display, headings are not displayed.
argument=string	Optional. Specifies the name or ID of an object. When you use this parameter, a detailed view of the object is returned and any value that is specified by the `filtervalue` parameter is ignored. If you do not specify the argument, a concise view of all objects matching the filter criteria is displayed.

lsdiskpool Request Details

Your `lsdiskpool` request must pass a valid session ID. For information on how to get a valid session ID, see Authentication or Login on page 1.

Method	URI	Required Parameters
GET	/actifio/api/info/lsdiskpool	None

lsdiskpool Example

Request
```
GET https://{Actifio_API_Server}/actifio/api/info/lsdiskpool
HTTP Request Header
Authorization: Actifio 92929a8b-a413-476f-a624-5b575cff54d3
```

where 92929a8b-a413-476f-a624-5b575cff54d3 is the session ID.

Response

```
Request success
```

```
{
    "result": [
        {
            "id": "71",
            "mdiskgrp": "act_pri_pool000",
            "modifydate": "2018-01-09 10:08:39.056",
            "name": "act_pri_pool000",
            "pooltype": "primary",
            "safepct": "90",
            "warnpct": "80"
        },
        {
            "id": "72",
            "mdiskgrp": "act_ded_pool000",
            "modifydate": "2018-01-09 10:08:39.056",
            "name": "act_ded_pool000",
            "pooltype": "dedup",
            "safepct": "100",
            "warnpct": "88"
        },
        {
            "id": "73",
            "mdiskgrp": "act_per_pool000",
            "modifydate": "2018-01-09 10:08:39.056",
            "name": "act_per_pool000",
            "pooltype": "perf",
            "safepct": "90",
            "warnpct": "80"
        },
        {
            "id": "328581",
            "mdiskgrp": "act_per_pool001",
            "modifydate": "2018-03-01 22:55:18.837",
            "name": "jitapool1",
            "pooltype": "perf",
            "safepct": "90",
            "warnpct": "80"
        }
    ],
    "status": 0
}
```

lsvaulttype

About lsvaulttype Command

Description

Use this command to provide a list of available OnVault types or provide details of parameters required to specify a OnVault, when a OnVault type name is specified.

Rights

You must have 'System View', 'System Manage', 'Storage View', or 'Storage Manage' rights to view OnVault type information.

Parameters

Parameter	Description
argument=string	Optional. The OnVault type name (Google, Amazon, and so on).

lsvaulttype Request Details

Your `lsvaulttype` request must pass a valid session ID. For information on how to get a valid session ID, see Authentication or Login on page 1.

Method	URI	Required Parameters
GET	/actifio/api/info/lsvaulttype	None

lsvaulttype Example

Request

```
GET https://{Actifio_API_Server}/actifio/api/info/lsvaulttype
HTTP Request Header
Authorization: Actifio 92929a8b-a413-476f-a624-5b575cff54d3
```

where 92929a8b-a413-476f-a624-5b575cff54d3 is the session ID.

Response

```
Request success
{
    "result": [
        {
            "label": "Cloud - Amazon S3 Standard",
            "name": "Amazon"
        },
        {
            "label": "Cloud - Amazon S3 Standard - IA (Infrequent Access)",
            "name": "AmazonS3IA"
        },
        {
            "label": "Cloud - Google Nearline Storage",
```

```
            "name": "Google"
        },
        {
            "label": "Cloud - Microsoft Azure",
            "name": "Microsoft"
        },
        {
            "label": "Self Managed - IBM Cloud Object Storage (Cleversafe)",
            "name": "Cleversafe"
        },
        {
            "label": "Self Managed - Other Amazon S3 compatible object storage",
            "name": "S3compatible"
        }
    ],
    "status": 0
}
```

lsvaultstat

About lsvaultstat Command

Description

Use this command to provide a list of vault pool stats for each application and pool.

Rights

You must have 'System View', 'System Manage' rights to retrieve lsvaultstat data.

lsvaultstat Request Details

Your `lsvaultstat` request must pass a valid session ID. For information on how to get a valid session ID, see Authentication or Login on page 1.

Method	URI	Required Parameters
GET	/actifio/api/info/lsvaultstat	None

lsvaultstat Example

Request

```
GET https://{Actifio_API_Server}/actifio/api/info/lsvaultstat
HTTP Request Header
Authorization: Actifio 92929a8b-a413-476f-a624-5b575cff54d3
```

where 92929a8b-a413-476f-a624-5b575cff54d3 is the session ID.

Response

```
Request success
{
    "result": [
        {
            "label": "Cloud - Amazon S3 Standard",
            "name": "Amazon"
        },
        {
            "label": "Cloud - Amazon S3 Standard - IA (Infrequent Access)",
            "name": "AmazonS3IA"
        },
        {
            "label": "Cloud - Google Nearline Storage",
            "name": "Google"
        },
        {
            "label": "Cloud - Microsoft Azure",
            "name": "Microsoft"
        },
        {
            "label": "Self Managed - IBM Cloud Object Storage (Cleversafe)",
            "name": "Cleversafe"
```

```
        },
        {
            "label": "Self Managed - Other Amazon S3 compatible object storage",
            "name": "S3compatible"
        }
    ],
    "status": 0
}
```

chdiskpool

About chdiskpool Command

Description

Use this command to change the attributes of a disk pool. Use lsdiskpool to obtain the ID or name of the disk pool.

When the disk usage exceeds warnpct, a warning event is generated.

When the disk usage exceeds safepct, some operations are disabled based on the type of disk pool and an error is raised. For example, when a performance pool's safe percentage is exceeded, access to snapshots is disabled. To change the name of a managed disk, use `svctask chmdisk`.

Rights

You must have the 'Storage Manage' right to change the attributes of a disk pool.

Parameters

Parameter	Description
adddevice=string	Optional. For specifies a colon (:) separated list of managed disks to be naming convention. For disk pool of type 'perf', the mdisk to be added has to be named as 'act_per_mdknnnn', where nnnn is a 4-digit number. The same is true for 'primary' pool mdisks, which should be named as 'act_pri_mdknnnn'. And 'act_ded_mdknnnn' for dedup pool mdisks. Their mdisk name will be renamed if they do not follow this convention. Once added to the pool, they cannot be removed from the pool.
	For Sky appliance specifies the device name to be added to the disk pool.
cloudcredential=string	Optional. Specifies the ID or name of the cloud credential.
nocache=string	Optional. Enable/Disable the cache mode for volumes created on this disk pool. Setting this to true (which disables cache) improves performance for pool made up of flash storage on .
name=string	Optional. Specifies a name for the disk pool.
safepct=integer	Optional. Specifies the safe percentage for the disk pool. Disk usage exceeding this value results in some operations getting suspended. Immediate attention is required, such as adding more storage to the pool or expiring some backup images. The value must be between 10 and 100. For dedup pool, the safepct is 100 and cannot be modified.
warnpct=string	Optional. Specifies warning percentage for the disk pool. The value must be between 10 and 100. The value for `warnpct` must be less than or equal to that of `safepct`.

Parameter	Description
properties=string	Optional. Specifies properties for vault type of pools, comma (,) separated name value pair. Use lsvaulttype to view a list of available properties for a specific type of vault pool.
	Use the URL-encoded format of special characters.
	For example: to specify "bucket=mybucket,access=myid", pass the information as `properties=bucket%3Dmybucket%2CaccessId%3Dmyid`.
	(VDP appliances only.)
argument=string	Required. Specifies the ID or name of the diskpool to be modified.

For a CDS appliance:

```
$ udstask chdiskpool -warnpct 60 pool1
$ udstask chdiskpool ?warnpct 60 ?addmdisk mdisk1:mdisk2 act_ded_pool000
```

For a CDS appliance:

```
$ udstask chdiskpool -warnpct 60 pool1
$ udstask chdiskpool -warnpct 60 -adddevice mdisk1:mdisk2 act_ded_pool000
```

chdiskpool Request Details

Your chdiskpool request must pass a valid session ID. For information on how to get a valid session ID, see Authentication or Login on page 1.

> **Note:** See the Parameters section for a list of supported parameters and their description.

Method	URI	Required Parameters
POST	/actifio/api/task/chdiskpool	argument

chdiskpool Example

Request

```
POST https://{Actifio_API_Server}/actifio/api/task/
chdiskpool?argument=328581&name=TestDiskPool&warnpct=70
HTTP Request Header
Authorization: Actifio 92929a8b-a413-476f-a624-5b575cff54d3
```

where 92929a8b-a413-476f-a624-5b575cff54d3 is the session ID.

Response

```
Request success
{
  "result": "328581",
  "status": 0
}
```

rmdiskpool

About rmdiskpool Command

Description

Use this command to delete a disk pool.

Rights

You must have the 'Storage Manage' right to delete a disk pool.

Parameters

Parameter	Description
argument=string	Required. Specifies the ID or name of the diskpool to be deleted. Use lsdiskpool to locate the ID or name of the disk pool.
force=boolean	Optional. Forces the removal of an OnVault storage pool, The `force` argument applies only to an OnVault pool. VDP appliances only)

rmdiskpool Request Details

Your `rmdiskpool` request must pass a valid session ID. For information on how to get a valid session ID, see Authentication or Login on page 1.

Method	URI	Required Parameters
POST	/actifio/api/task/rmdiskpool	argument

Note: See the Parameters section for a list of supported parameters and their description.

rmdiskpool Example

Request
```
POST https://{Actifio_API_Server}/actifio/api/task/rmdiskpool?argument=81251
HTTP Request Header
Authorization: Actifio 92929a8b-a413-476f-a624-5b575cff54d3
```

where 92929a8b-a413-476f-a624-5b575cff54d3 is the session ID.

Response
```
Request success
{
    "result": "1",
    "status": 0
}
```

lsdeduppoolstat

About lsdeduppoolstat Command

Description

Use this command to retrieve statistics of deduppool usage for each protected application. The statistics are collected once a day.

Rights

You must have 'System View' or 'System Manage' rights to be able to retrieve deduppoolstat data.

Parameters

Parameter	Description

filtervalue=attrib%3D value	Optional. Specifies that you want your report to display any or all of the list of valid filter attributes. The valid filter attributes for `lsdeduppoolstat` are:
	• stattime
	• sourcecluster
	• appid
	• hostname
	• appname
	• dedupusage
	• totalappsize
	• appsize
	• newsize
	• dedupsize
	• compresssize
	• dedupcount
	
	The filter will be formed with an attribute and a value. When specifying more than one filter, the filters must be combined with '&' character .
	
	For string type of filters, the only operator allowed is '='. You can also use the wildcard character '*'. For example, to match disk pools with name begins with 'foo', use 'filtervalue name=foo*'.
	
	For number types, allowed operators are: =, >, >=, <, <=. For example:
	
	    filtervalue=dedupcount\>=80
	    filtervalue=dedupcount>=80
	    filtervalue=dedupcount>=80

argument=integer	Optional. Specifies the ID of an object. When you use this parameter, a detailed view of the object is returned and any value that is specified by the `filtervalue` parameter is ignored. If you do not specify the argument, a concise view of all objects matching the filter criteria is displayed.

lsdeduppoolstat Request Details

Your `lsdeduppoolstat` request must pass a valid session ID. For information on how to get a valid session ID, see Authentication or Login on page 1.

Method	URI	Required Parameters
GET	/actifio/api/info/lsdeduppoolstat	None

Note: See the Parameters section for a list of supported parameters and their description.

lsdeduppoolstat Example

Request

```
GET https://{Actifio_API_Server}/actifio/api/info/lsdeduppoolstat
HTTP Request Header
Authorization: Actifio 92929a8b-a413-476f-a624-5b575cff54d3
```

where 92929a8b-a413-476f-a624-5b575cff54d3 is the session ID.

Response

```
Request success
{
  "result": [
    {
      "dedupusage": "19221118976",
      "totalappsize": "124554051584",
      "newsize": "0",
      "hostname": "ctos6.4wp-13",
      "appname": "CTOS6.4WP-13",
      "dedupcount": "0",
      "compresssize": "0",
      "appid": "164689",
      "dedupsize": "0",
      "stattime": "2017-10-12 03:00:00.104",
      "appsize": "124554051584",
      "sourcecluster": "1415056619",
      "id": "283782"
    },
    {
      "dedupusage": "19221118976",
      "totalappsize": "124554051584",
      "newsize": "0",
      "hostname": "ctos6.4wp-13",
      "appname": "CTOS6.4WP-13",
      "dedupcount": "0",
      "compresssize": "0",
      "appid": "164689",
      "dedupsize": "0",
      "stattime": "2017-10-13 03:00:00.104",
      "appsize": "124554051584",
      "sourcecluster": "1415056619",
      "id": "284562"
    }
    ],
  "status": 0
}
```

lsdiskpoolstat

About lsdiskpoolstat Command

Description

Use this command to retrieve statistics of deduppool usage for each protected application. The statistics are collected once a day.

Use this command to retrieve statistics of an appliance's disk pools. The stats shows disk's capacity, used space and free space by pool type. The statistics are collected once a day. To see the details on disk pools use `diskpool` command.

Rights

You must have 'System View' or 'System Manage' rights to be able to retrieve diskpoolstat data.

Parameters

Parameter	Description
delim=string	Optional. By default in a concise view, all columns of data are space-separated. In a detailed view, each item of data has its own row, and if the headers are displayed the data is separated from the header by a space. The `-delim` parameter overrides this behavior. Valid input for the `-delim` parameter is a one-byte character. If you enter `-delim`: on the command line, the colon character (:) separates all items of data in a concise view; for example, the spacing of columns does not occur. In a detailed view, the data is separated from its header by the specified delimiter.
nohdr=string	Optional. By default, headings are displayed for each column of data in the concise view, and for each item of data in the detailed view. The `-nohdr` parameter suppresses the display of headings. If there is no data to display, headings are not displayed.
argument=integer	Optional. Specifies the ID of an object. When you use this parameter, a detailed view of the object is returned and any value that is specified by the `filtervalue` parameter is ignored. If you do not specify the argument, a concise view of all objects matching the filter criteria is displayed.

Parameter	Description
filtervalue=attrib%3D value	Optional. Specifies that you want your report to display any or all of the list of valid filter attributes. The valid filter attributes for `lsdiskpoolstat` are: • stattime • poolname • pooltype • capacity • used The filter will be formed with an attribute and a value. When specifying more than one filter, the filters must be combined with '&' character (which needs to be escaped with '\'). For string type of filters, the only operator allowed is '='. You can also use the wildcard character '*'. For example, to match disk pools with names that begin with 'foo', use 'filtervalue name=foo*'. For number types, allowed operators are: =, >, >=, <, <=. For example: • filtervalue=pooltype\>=1 • filtervalue=pooltype>=1 • filtervalue=pooltype>=1

lsdiskpoolstat Request Details

Your `lsdiskpoolstat` request must pass a valid session ID. For information on how to get a valid session ID, see Authentication or Login on page 1.

Method	URI	Required Parameters
GET	/actifio/api/info/lsdiskpoolstat	None

Note: *See the Parameters section for a list of supported parameters and their description.*

---

lsdiskpoolstat Example

Request

```
GET https://{Actifio_API_Server}/actifio/api/info/lsdiskpoolstat
HTTP Request Header
Authorization: Actifio 92929a8b-a413-476f-a624-5b575cff54d3
```

where 92929a8b-a413-476f-a624-5b575cff54d3 is the session ID.

Response

```
Request success
{
  "result": [
    {
      "poolname": "act_pri_pool000",
      "stattime": "2017-11-18 03:00:00.345",
      "id": "8408",
      "used": "7371309056",
      "pooltype": "1",
      "capacity": "105688035328"
```

```
        },
        {
            "poolname": "act_ded_pool000",
            "stattime": "2017-11-18 03:00:00.345",
            "id": "8409",
            "used": "15388901376",
            "pooltype": "2",
            "capacity": "1865519045017"
        },
        {
            "poolname": "act_per_pool000",
            "stattime": "2017-11-18 03:00:00.345",
            "id": "8410",
            "used": "47244640256",
            "pooltype": "3",
            "capacity": "2196875771904"
        },
        {
            "poolname": "act_per_pool000",
            "stattime": "2018-01-31 03:00:00.321",
            "id": "254935",
            "used": "397284474880",
            "pooltype": "3",
            "capacity": "2196875771904"
        }
    ],
    "status": 0
}
```

lssnappoolstat

About lssnappoolstat Command

Description

Use this command to retrieve statistics of snapshot pool usage for each protected application in the appliance. The statistics are collected once a day.

Rights

You must have 'System View' or 'System Manage' rights to be able to retrieve snappoolstat data.

Parameters

Parameter	Description
argument=string	Optional. Specifies the name or ID of an object. When you use this parameter, a detailed view of the object is returned and any value that is specified by the **filtervalue** parameter is ignored. If you do not specify the argument, a concise view of all objects matching the filter criteria is displayed.
filtervalue=attrib%3D value	Optional. Specifies that you want your report to display any or all of the list of valid filter attributes. The valid filter attributes for `lssnappoolstat` are: • sourcecluster • appid • hostname • appname • appsize • vdiskcount • totalused • totalstaging The filter will be formed with an attribute and a value. When specifying more than one filter, the filters must be combined with '&' character (which needs to be escaped with '\'). For string type of filters, the only operator allowed is '='. You can also use the wildcard character '*'. For example, to match disk pools with name begins with 'foo', use '-filtervalue name=foo*'. For number types, allowed operators are: =, >, >=, <, <=. These must be escaped with '\' or enclosed in ' or ", as required by shell. For example: • -filtervalue vdiskcount\>=10 • -filtervalue "vdiskcount>=10" • -filtervalue 'vdiskcount>=10'

lssnappoolstat Request Details

Your `lssnappoolstat` request must pass a valid session ID. For information on how to get a valid session ID, see

Method	URI	Required Parameters
GET	/actifio/api/info/lssnappoolstat	None

lssnappoolstat Example

Request

```
GET https://{Actifio_API_Server}/actifio/api/info/lssnappoolstat
HTTP Request Header
Authorization: Actifio 92929a8b-a413-476f-a624-5b575cff54d3
```

where 92929a8b-a413-476f-a624-5b575cff54d3 is the session ID.

Response

```
Request success
{
  "result": [
    {
      "hostname": "EXCH10W2K8-N1.AUTO2010.ACTIFIO.COM",
      "appname": "hfdb7",
      "totalstaging": "150732800",
      "vdiskcount": "12",
      "appid": "7373",
      "totalused": "177209344",
      "stattime": "2017-11-18 03:00:00.449",
      "appsize": "238236467200",
      "sourcecluster": "590021132826",
      "id": "8411"
    },
    {
      "hostname": "Exchg_2016_standalone",
      "appname": "hfdb4",
      "totalstaging": "177209344",
      "vdiskcount": "8",
      "appid": "5043",
      "totalused": "217317376",
      "stattime": "2017-11-18 03:00:00.449",
      "appsize": "90022346752",
      "sourcecluster": "590021132826",
      "id": "8414"
    },
    {
      "hostname": "Isilon",
      "appname": "test_isilon_cifs_all",
      "totalstaging": "3778019328",
      "vdiskcount": "3",
      "appid": "73324",
      "totalused": "3783262208",
      "stattime": "2018-01-31 03:00:00.645",
      "appsize": "63157829632",
      "sourcecluster": "590021132826",
      "id": "255027"
    },
    {
      "hostname": "Isilon",
      "appname": "CIFS_rename",
      "totalstaging": "3163291648",
```

```
      "vdiskcount": "3",
      "appid": "68217",
      "totalused": "6318718976",
      "stattime": "2018-01-31 03:00:00.645",
      "appsize": "6312427520",
      "sourcecluster": "590021132826",
      "id": "255030"
    },
  ],
  "status": 0
}
```

Dedup Load Factor Commands

lsdedupefficiency

About lsdedupefficiency Command

Description

Use this command to retrieve dedup efficiency statistics for a list of applications with successful local dedup, direct dedup, or dedup-async jobs.The average FIDI and IIDI are average values for all applications in the system.The statistics are collected once a day and are also updated when this command is run.

Applicability of this Command

This command can be used on:

Rights

CDS appliance	✓
Sky appliance	✓
NAS Director	✓

You must have 'System View' or 'System Manage' rights to view the dedup efficiency data.

lsdedupefficiency Request Details

Your `lsdedupefficiency` request must pass a valid session ID. For information on how to get a valid session ID, see Authentication or Login on page 1.

Method	URI	Required Parameters
GET	/actifio/api/info/lsdedupefficiency	None

lsdedupefficiency Example

Request

```
GET https://{Actifio_API_Server}/actifio/api/info/lsdedupefficiency
HTTP Request Header
Authorization: Actifio 92929a8b-a413-476f-a624-5b575cff54d3
```

where 92929a8b-a413-476f-a624-5b575cff54d3 is the session ID.

Response

```
Request success
{
  "result": [
    {
      "baseappsize": "6427.00",
      "avgIIDI": "0.000000",
      "lastjobenddate": "2017-12-11 23:59:01",
      "appid": "164689",
```

```
      "id": "165467",
      "avgingestion": "0.00",
      "avgFIDI": "0.452042"
    },
    {
      "baseappsize": "0.00",
      "avgIIDI": "0.000000",
      "lastjobenddate": "2017-12-11 23:59:01",
      "appid": "6862",
      "id": "188223",
      "avgingestion": "0.00",
      "avgFIDI": "0.452042"
    },
    {
      "baseappsize": "0.00",
      "avgIIDI": "0.000000",
      "lastjobenddate": "2017-12-11 23:59:02",
      "appid": "8760",
      "id": "260043",
      "avgingestion": "0.00",
      "avgFIDI": "0.452042"
    },
    {
      "baseappsize": "0.00",
      "avgIIDI": "0.000000",
      "lastjobenddate": "2017-12-11 23:59:02",
      "appid": "198375",
      "id": "260044",
      "avgingestion": "0.00",
      "avgFIDI": "0.452042"
    },
    {
      "baseappsize": "0.00",
      "avgIIDI": "0.000000",
      "lastjobenddate": "2017-12-11 23:59:03",
      "appid": "198377",
      "id": "260045",
      "avgingestion": "0.00",
      "avgFIDI": "0.452042"
    },
    {
      "baseappsize": "0.00",
      "avgIIDI": "0.000000",
      "lastjobenddate": "2017-12-11 23:59:03",
      "appid": "198376",
      "id": "321738",
      "avgingestion": "0.00",
      "avgFIDI": "0.452042"
    }
  ],
  "status": 0
}
```

actifio

getdedupsafelimits

About getdedupsafelimits Command

Description

Use this command to retrieve the safe limits for the various dedup load metrics.

Applicability of this Command

This command can be used on:

Rights

CDS appliance	✓
Sky appliance	✓
NAS Director	✓

You must have the 'System View' or 'System Manage' right to view safe limit for dedup load metrics.

getdedupsafelimits Request Details

Your `getdedupsafelimits` request must pass a valid session ID. For information on how to get a valid session ID, see Authentication or Login on page 1.

Method	URI	Required Parameters
GET	/actifio/api/info/getdedupsafelimits	None

getdedupsafelimits Example

Request
```
GET https://{Actifio_API_Server}/actifio/api/info/getdedupsafelimits
HTTP Request Header
Authorization: Actifio 92929a8b-a413-476f-a624-5b575cff54d3
```

where 92929a8b-a413-476f-a624-5b575cff54d3 is the session ID.

Response
```
Request success
{
  "result": [
    {
      "metricname": "dedup max load",
      "value": "16.0"
    },
    {
      "metricname": "dedup datamovement safelimit",
      "value": "9.6"
    },
```

```json
    {
      "metricname": "dedup max uniqueblocks",
      "value": "268435456"
    },
    {
      "metricname": "dedup ingest throughput safelimit",
      "value": "0.0"
    }
  ],
  "status": 0
}
```

getdedupstats

About getdedupstats Command

Description

Use this command to retrieve statistics for an identified dedup load metric (uniqueblocks, ingestdata, or dedupload).

Applicability of this Command

This command can be used on:

Rights

CDS appliance	✓
Sky appliance	✓
NAS Director	✓

You must have the 'System View' or 'System Manage' right to view statistics for dedup load metrics.

Parameters

Parameter	Description
startdate=DateTime	Optional. Specifies the start date value of the date range window. Date format can be in `yyyy-MM-dd` or in `yyyy-MM-dd HH:mm:ss`. If you do not specify the `-startdate` argument, the appliance assumes 30 days earlier from the end date (the `enddate` argument).
enddate=DateTime	Optional. Specifies the end date value of the date range window. Date format can be in `yyyy-MM-dd` or in `yyyy-MM-dd HH:mm:ss`. If you do not specify the `enddate` argument then the end date would be set to the current appliance system date.
metricname=string	Required. Specifies the name of dedup metric whose statistics need to be retrieved. Choices include: • *uniqueblocks* – Lists a summary of unique blocks information. **Note:** *This selection does not require a value in the **startdate** and **enddate** arguments.* • ingestdata – Lists a summary of ingest data metrics. • dedupload – Lists a summary of dedup slot utilization metrics.
units=string	Optional. Specifies the units parameter to display the ingested data in the output. By default, data is displayed in bytes. You can specify KB, MB, GB, or TB to display the data in a specific unit format.

getdedupstats Request Details

Your `getdedupstats` request must pass a valid session ID. For information on how to get a valid session ID, see Authentication or Login on page 1.

Method	URI	Required Parameters
GET	/actifio/api/info/getdedupstats	metricname

Note: *See the Parameters section for a list of supported parameters and their description.*

getdedupstats Example

Request

```
GET https://{Actifio_API_Server}/actifio/api/info/getdedupstats?metricname=ingestdata
HTTP Request Header
Authorization: Actifio 92929a8b-a413-476f-a624-5b575cff54d3
```

where 92929a8b-a413-476f-a624-5b575cff54d3 is the session ID.

Response

```
Request success
{
  "result": [
    {
      "value(bytes)": "0.000",
      "metricname": "dedup ingest throughput safelimit"
    },
    {
      "value(bytes)": "0.000",
      "metricname": "dedup average ingest data per day "
    },
    {
      "value(bytes)": "0.000",
      "metricname": "95thpercentile"
    }
  ],
  "status": 0
}
```

lsdeduploadstat

About lsdeduploadstat Command

Description

Use this command to retrieve details of dedup load stats.

Applicability of this Command

This command can be used on:

Rights

CDS appliance	✓
Sky appliance	✓
NAS Director	✓

You must have the 'System View' or 'System Manage' right to list statistics for dedup load metrics.

Parameters

Parameter	Description
startdate=DateTime	Optional. Specifies the start date value of the date range window. Date format can be in `yyyy-MM-dd` or in `yyyy-MM-dd HH:mm:ss`. If you do not specify the `startdate` argument, the appliance assumes 30 days earlier from the end date (the `enddate` argument).
enddate=DateTime	Optional. Specifies the end date value of the date range window. Date format can be in `yyyy-MM-dd` or in `yyyy-MM-dd HH:mm:ss`. If you do not specify the `enddate` argument, then it is set to the current appliance system date.

lsdeduploadstat Request Details

Your `lsdeduploadstat` request must pass a valid session ID. For information on how to get a valid session ID, see Authentication or Login on page 1.

Method	URI	Required Parameters
GET	/actifio/api/info/lsdeduploadstat	None

Note: *See the Parameters section for a list of supported parameters and their description.*

lsdeduploadstat Example

Request
```
GET https://{Actifio_API_Server}/actifio/api/info/lsdeduploadstat
HTTP Request Header
Authorization: Actifio 92929a8b-a413-476f-a624-5b575cff54d3
```

where 92929a8b-a413-476f-a624-5b575cff54d3 is the session ID.

Response
```
Request success
{
  "result": [
    {
      "backgroundload": "0.000",
      "datamovementload": "0.000",
      "stattime": "2018-01-01 04:11:31",
      "totalload": "0.000",
      "id": "142310"
    },
    {
      "backgroundload": "0.000",
      "datamovementload": "0.000",
      "stattime": "2018-01-01 04:26:31",
      "totalload": "0.000",
      "id": "142352"
    },
    {
      "backgroundload": "0.000",
      "datamovementload": "0.000",
      "stattime": "2018-01-01 04:41:31",
      "totalload": "0.000",
      "id": "142389"
    },
    {
      "backgroundload": "0.000",
      "datamovementload": "0.000",
      "stattime": "2018-01-01 04:56:31",
      "totalload": "0.000",
      "id": "142438"
    },
    {
      "backgroundload": "0.000",
      "datamovementload": "0.000",
      "stattime": "2018-01-31 03:52:05",
      "totalload": "0.000",
      "id": "255238"
    }
  ],
  "status": 0
}
```

SLP Commands

mkslp

About mkslp Command

Description

Use this command to create a new server level profile (SLP) object.

Rights

You must have the 'SLA Manage' right to create a profile.

Parameters

Parameter	Description
dedupasyncnode=string	Optional. Specifies the name of the remote dedup-async node. The remotenode is used if not specified
description=string	Optional. Specifies the description for new profile.
name=string	Required. Specifies the name for new profile. The name must be unique within the appliance.
org=string	Optional. Specifies a default organization in which the profile should be added after creation. To use this, you must have 'System Manage' right.
performancepool=string	Required. Specifies the name of the performance pool.
primarystorage=string	Optional. Specifies the name of the primary storage.
remotenode=string	Optional. Specifies the name of the remote appliance node.
vaultpool=string	*Note:* Optional. Specifies the name or ID of the OnVault storage pool.

mkslp Request Details

Your `mkslp` request must pass a valid session ID. For information on how to get a valid session ID, see Authentication or Login on page 1.

Method	URI	Required Parameters
POST	/actifio/api/task/mkslp	performancepool name

> ***Note:*** *See the Parameters section for a list of supported parameters and their description.*

mkslp Example

Request

```
POST https://{Actifio_API_Server}/actifio/api/task/mkslp?name=slp1&performancepool=mktpool
HTTP Request Header
Authorization: Actifio 92929a8b-a413-476f-a624-5b575cff54d3
```

where 92929a8b-a413-476f-a624-5b575cff54d3 is the session ID.

Response

```
Request success
{
    "result": 364648,
    "status": 0

}
```

lsslp

About lsslp Command

Description

Use this command to retrieve details of profiles (SLPs). A profile (SLP) specifies mapping of a name in a policy to an actual resource in the appliance.

Rights

You must have the 'SLA View', 'SLA Assign', or 'SLA Manage' right to view the details of profiles.

Parameters

Parameter	Description
filtervalue= attrib%3Dvalue	Optional. Specifies that you want your report to display any or the entire list of valid filter attributes. The valid filter attributes for `lsslp` are: • name • localnode • performancepool • primarystorage • remotenode The filter is formed with an attribute and a value. When you specify more than one filter, they must be combined with '&' character . For string type of filters, the only operator allowed is '='. You can also use wild card character '*'. For example, to list all profiles (SLPs) with a name that begins with 'foo', use 'filtervalue name=foo*'.
argument=string	Optional. Specifies the name or ID of an object. When you use this parameter, a detailed view of the object is returned and any value that is specified by the `filtervalue` parameter is ignored. If you do not specify the argument, a concise view of all objects matching the filter criteria is displayed.

lsslp Request Details

Your `lsslp` request must pass a valid session ID. For information on how to get a valid session ID, see Authentication or Login on page 1.

Method	URI	Required Parameters
GET	/actifio/api/info/lsslp	None

lsslp Example

Request
```
GET https://{Actifio_API_Server}/actifio/api/info/lsslp
HTTP Request Header
Authorization: Actifio 92929a8b-a413-476f-a624-5b575cff54d3
```

where 92929a8b-a413-476f-a624-5b575cff54d3 is the session ID.

Response

```
Request success
{
    "result": [
        {
            "primarystorage": "",
            "remotenode": "",
            "name": "LocalProfile",
            "performancepool": "act_per_pool000",
            "localnode": "Waltham",
            "description": "Local profile",
            "id": "51"
        },
        {
            "primarystorage": "",
            "remotenode": "none",
            "name": "New Profile0",
            "performancepool": "act_per_pool000",
            "localnode": "Waltham",
            "description": "New Profile Description",
            "id": "121674"
        },
        {
            "primarystorage": "",
            "remotenode": "none",
            "name": "New Profile1",
            "performancepool": "none",
            "localnode": "Waltham",
            "description": "New Profile Description",
            "id": "164152"
        }
    ],
    "status": 0
}
```

chslp

About chslp Command

Description

Use this command to change the properties of a profile. Use **lsslp** to obtain the ID or name of the profile.

Rights

You must have the 'SLA Manage' right to modify a profile.

Parameters

Parameter	Description
description=string	Optional. Specifies new description for the SLP.
dedupasyncnode=string	Optional. Specifies the name of the remote dedup-async node, remote node is used if not specified.
name=string	Optional. Specifies new name for the SLP.
performancepool=string	Optional. Specifies new performance pool for the SLP.
primarystorage=string	Optional. Specifies new primary storage for the SLP.
remotenode=string	Optional. Specifies new remote appliance node for the SLP.
argument=string	Required. Specifies the ID or name of the profile (SLP) to be changed.
vaultpool=string	Optional. Specifies the name or ID of the OnVault pool. Use 0 to clear the OnVault pool of the profile.

chslp Request Details

Your `chslp` request must pass a valid session ID. For information on how to get a valid session ID, see Authentication or Login on page 1.

Method	URI	Required Parameters
POST	/actifio/api/task/chslp	argument

Note: See the Parameters section for a list of supported parameters and their description.

chslp Example

Request

```
POST https://{Actifio_API_Server}/actifio/api/task/chslp?argument=slp1&description=salespool
HTTP Request Header
Authorization: Actifio 92929a8b-a413-476f-a624-5b575cff54d3
```

where 92929a8b-a413-476f-a624-5b575cff54d3 is the session ID.

Response

```
Request success
{
    "status": 0

}
```

rmslp

About rmslp Command

Description

Use this command to delete a profile.

Rights

You must have the 'SLA Manage' right to delete a profile.

Parameters

Parameter	Description
argument=string	Required. Specifies the ID or name of the profile to be deleted.

rmslp Request Details

Your `rmslp` request must pass a valid session ID. For information on how to get a valid session ID, see Authentication or Login on page 1.

Method	URI	Required Parameters
POST	/actifio/api/task/rmslp	argument

Note: See the Parameters section for a list of supported parameters and their description.

rmslp Example

Request
```
POST https://{Actifio_API_Server}/actifio/api/task/rmslp?argument=slp1
HTTP Request Header
Authorization: Actifio 92929a8b-a413-476f-a624-5b575cff54d3
```

where 92929a8b-a413-476f-a624-5b575cff54d3 is the session ID.

Response
```
Request success
{
    "status": 0

}
```

Other Commands

chauthservice

About chauthservice Command

Description

Use this command to change the authentication service in use.

Rights

You must have 'System Manage' right to change the authentication service.

Parameters

Parameter	Description
type=string	Required. Specifies the new authentication service to use. Either LDAP or database.

chauthservice Request Details

Your `chauthservice` request must pass a valid session ID. For information on how to get a valid session ID, see Authentication or Login on page 1.

Method	URI	Required Parameters
POST	/actifio/api/task/chauthservice	type
PUT	/actifio/config/auth	none
GET	/actifio/config/auth	none
GET	/acitifio/config/authinfo	none

Note: *See the Parameters section for a list of supported parameters and their description.*

chauthservice Example

Request`POST https://{`Actifio_API_Server`}/actifio/api/task/chauthservice?type=database`
HTTP Request Header
`Authorization: Actifio 92929a8b-a413-476f-a624-5b575cff54d3`

where 92929a8b-a413-476f-a624-5b575cff54d3 is the session ID.

Response

`Request success`

actifio

```
{
  "status": 0
}
```

PUT https://{Actifio_API_Server}/actifio/config/auth/chauthservice?type=database
HTTP Request Header
Authorization: Actifio 92929a8b-a413-476f-a624-5b575cff54d3

where 92929a8b-a413-476f-a624-5b575cff54d3 is the session ID.

Response

Request success

```
{
    method : <string, mandatory, 'database' | 'ldap' | 'saml'>
    available_method : [ List of string, outbound only ]
}
```

GET https://{Actifio_API_Server}/actifio/config/auth/chauthservice?type=database
HTTP Request Header
Authorization: Actifio 92929a8b-a413-476f-a624-5b575cff54d3

where 92929a8b-a413-476f-a624-5b575cff54d3 is the session ID.

Response

Request success

```
{
  "sso" : <boolean>,
  "sso_url" : <string, href to SP SSO endpoint, available only if sso=true>
}
```

getauthservice

About getauthservice Command

Description

Use this command to retrieve the name of the authentication service in use. The value will be either 'database' or 'ldap'.

Rights

User with 'System View' right is allowed to see the service in use. Only user with 'System Manage' right can change the authentication service.

getauthservice Request Details

Your `getauthservice` request must pass a valid session ID. For information on how to obtain a session ID, see Authentication or Login on page 1.

Method	URI	Required Parameters
GET	/actifio/api/info/getauthservice	None

getauthservice Example

Request

```
GET https://{Actifio_API_HOST}/actifio/api/info/getauthservice
HTTP Request Header
Authorization: Actifio 92929a8b-a413-476f-a624-5b575cff54d3
```

where 92929a8b-a413-476f-a624-5b575cff54d3 is the session ID.

Response

```
Request success
{
    "result": "database",
    "status": 0
}
```

configresourcewarning

About configresourcewarning Command

Description

Use this command to configure the warning level for a system resource within the appliance.To view the existing configuration, use the `getresourcewarning` command.

Rights

You must have the 'System Manage' right to configure the warning level for a resource.

Parameters

Parameter	Description
name=string	Required. Specifies the name of the resource to set the warning level. The supported resources and the permitted resources are: **vdisk**: You can configure a maximum of 2048 virtual disks for one iogrp. **copy**: You can create a maximum of 256 copies per VDisk. **snap**: snapshot bitmap memory (pre- configured) **remote**: remote copy memory (pre-configured) **mirror**: mirror copy memory (pre-configured)
warnpct=integer	Optional. Specifies the warning percentage for the resource, between 10 and 99. The default warning percentage is 90%.

configresourcewarning Request Details

Your `configresourcewarning` request must pass a valid session ID. For information on how to get a valid session ID, see Authentication or Login on page 1.

Method	URI	Required Parameters
POST	/actifio/api/task/configresourcewarning	name

Note: *See the Parameters section for a list of supported parameters and their description.*

configresourcewarning Examples

Request

```
POST https://{Actifio_API_Server}/actifio/api/task/configresourcewarning?name=vdisk&warnpct=80
HTTP Request Header
Authorization: Actifio 92929a8b-a413-476f-a624-5b575cff54d3
```

where 92929a8b-a413-476f-a624-5b575cff54d3 is the session ID.

Response

```
Request success
{
  "status": 0
}
```

getresourcewarning

About getresourcewarning Command

Description

Use this command to fetch the warning level for the system resource within your appliance. This is a percentage for resource usage and the warning is generated when usage crosses the warning threshold set in configresourcewarning on page 241.

Rights

You must have 'System View' or 'System Manage' right to view the warning threshold of a resource.

Parameters

Parameter	Description
name=string	Required. Specifies the name of the resource to configure the warning level for. You can configure a warning level for the following resources: • **vdisk**: You can create a maximum of 2048 VDisks on a VDP appliance. • **copy**: You can create a maximum of 256 copies per VDisk. • **snap**: Snapshot bitmap memory. This is pre-configured. • **remote**: Remote copy memory. This is pre-configured. • **mirror**: Mirror copy memory. This is pre-configured.

getresourcewarning Request Details

Your `getresourcewarning` request must pass a valid session ID. For information on how to get a valid session ID, see Authentication or Login on page 1.

Method	URI	Required Parameters
GET	/actifio/api/info/getresourcewarning	name

> **Note:** See the Parameters section for a list of supported parameters and their description.

getresourcewarning Example

Request

```
GET https://{Actifio_API_Server}/actifio/api/info/getresourcewarning?name=vdisk
HTTP Request Header
Authorization: Actifio 92929a8b-a413-476f-a624-5b575cff54d3
```

where 92929a8b-a413-476f-a624-5b575cff54d3 is the session ID.

Response

```
Request success
{
```

```
    "result": "90",
    "status": 0
}
```

mkarray

About mkarray Command

Description

Use this command to create a new array object, which represents external storage for external snapshot pools.

Rights

You must have 'Storage Manage' right to create a new array.

Parameters

Parameter	Description
arraytype=string	Required. Specifies type of array. The valid array types are: • IBM_Storwize • PureStorage_Flash array
ipaddress=string	Required. Specifies the UI/Management IP.
name=string	Required. Specifies the name for the array. It has to be unique within the appliance.
properties=string	Required. Specifies properties for the array. Each property is a comma (,) separated name value pair. For a list of available properties for a specific type of array, use `lsarrayoption` command. *Note: When using PureStorage_Flash array, the British Pound Sterling character (£) is not supported in the password.*

mkarray Request Details

Your `mkarray` request must pass a valid session ID. For information on how to get a valid session ID, see Authentication or Login on page 1.

Method	URI	Required Parameters
POST	/actifio/api/task/mkarray	arraytype ipaddress name properties

Note: See the Parameters section for a list of supported parameters and their description.

mkarray Example

Request

```
POST https://{API_HOST}/actifio/api/task/
mkarray?arraytype=IBM_Storwize&ipaddress=1.2.3.4&properties=username%3Dusername,password%3Dpas
sword&name=mystore
HTTP Request Header
Authorization: Actifio 92929a8b-a413-476f-a624-5b575cff54d3
```

where 92929a8b-a413-476f-a624-5b575cff54d3 is the session ID.

Response

```
Request success
{
    "result": 156726,
    "status": 0
}
```

lsarray

About lsarray Command

Description

Use this command to retrieve details of attached arrays. An array is an external storage that is available to the appliance for snapshot management.

Rights

You must have 'Storage View' right to see array details.

Parameters

Parameter	Description
filtervalue=attrib%3D value	Optional. Specifies that you want your report to display any or the entire list of valid filter attributes. The valid filter attributes for `lsarray` are: • arraytype • name • status The filter is formed with an attribute and a value. When you specify more than one filter, they must be combined with '&' character . For string type of filters, the only operator allowed is '='. You can also use wild card character '*'. For example, to list all profiles (SLPs) with a name that begins with 'foo', use 'filtervalue name=foo*'.
argument=string	Optional. Specifies the ID of an object. When you use this parameter, a detailed view of the object is returned and any value specified by the `filtervalue` parameter is ignored. If you do not specify the argument, a concise view of all objects matching the filter criteria is displayed.

lsarray Request Details

Your `lsarray` request must pass a valid session ID. For information on how to get a valid session ID, see Authentication or Login on page 1.

Method	URI	Required Parameters
GET	/actifio/api/info/lsarray	None

Note: *See the Parameters section for a list of supported parameters and their description.*

lsarray Example

Request
```
GET https://{Actifio_API_Server}/actifio/api/info/lsarray
```

```
HTTP Request Header
Authorization: Actifio 92929a8b-a413-476f-a624-5b575cff54d3
```

where 92929a8b-a413-476f-a624-5b575cff54d3 is the session ID.

Response

```
Request success
{
    "result": [],
    "status": 0
}
```

lsarrayoption

About lsarrayoption Command

Description

Use this command to returns a concise list of options for arrays; needed when creating a new array object. Two types of options are available, property and threshold. The property option is needed for setting up an array, while threshold is for setting threshold limits for disk pools on the array.

Rights

You must have 'Storage View' right to retrieve array options.

Parameters

Parameter	Description
arraytype=IBM_Stor wize | PureStorage_Flash array	Optional. Specifies the type of array to retrieve the options.

lsarrayoption Request Details

Your `lsarrayoption,` request must pass a valid session ID. For information on how to get a valid session ID, see Authentication or Login on page 1.

Method	URI	Required Parameters
GET	/actifio/api/info/ lsarrayoption	None

Note: *See the Parameters section for a list of supported parameters and their description.*

lsarrayoption Example

Request

```
GET https://{Actifio_API_Server}/actifio/api/info/lsarrayoption
HTTP Request Header
Authorization: Actifio 92929a8b-a413-476f-a624-5b575cff54d3
```

where 92929a8b-a413-476f-a624-5b575cff54d3 is the session ID.

Response

```
Request success
{
    "result": [
        {
            "valuetype": "string",
            "optiontype": "property",
```

```
            "arraytype": "IBM_Storwize",
            "max": "null",
            "name": "username",
            "updatable": "false",
            "label": "Superuser username",
            "required": "true"
        },
        {
            "valuetype": "string",
            "optiontype": "property",
            "arraytype": "IBM_Storwize",
            "max": "null",
            "name": "password",
            "updatable": "false",
            "label": "Superuser password",
            "required": "true"
        },
        {
            "valuetype": "number",
            "optiontype": "threshold",
            "arraytype": "IBM_Storwize",
            "max": "null",
            "name": "vdisklimit",
            "updatable": "false",
            "label": "Number of vdisks can be used for the pool",
            "required": "false"
        },
        {
            "valuetype": "number",
            "optiontype": "threshold",
            "arraytype": "IBM_Storwize",
            "max": "100",
            "name": "vdiskwarn",
            "updatable": "false",
            "label": "Percentage of vdisk used for warning",
            "required": "false"
        },
        {
            "valuetype": "string",
            "optiontype": "property",
            "arraytype": "PureStorage_Flasharray",
            "max": "null",
            "name": "username",
            "updatable": "false",
            "label": "Username",
            "required": "true"
        },
        {
            "valuetype": "string",
            "optiontype": "property",
            "arraytype": "PureStorage_Flasharray",
            "max": "null",
            "name": "password",
            "updatable": "false",
            "label": "Password",
            "required": "true"
        }
    ],
    "status": 0
}
```

charray

About charray Command

Description

Use this command to modify an array object.

Rights

You must have 'Storage Manage' right to modify an array.

Parameters

Parameter	Description
ipaddress=string	Optional. Specifies the IP address for the array
name=string	Required. Specifies the name for the array. It has to be unique within the appliance.
properties=string	Required. Specifies properties for the array. Each property is a comma (,) separated name value pair. For a list of available properties for a specific type of array, use `lsarrayoption` command. Not all properties can be changed for an array.
argument=string	Required. Specifies the array object to modify, either by ID or by name.

charray Request Details

Your `charray,` request must pass a valid session ID. For information on how to get a valid session ID, see Authentication or Login on page 1

Method	URI	Required Parameters
POST	/actifio/api/task/charray	Name array_id | array_name

Note: See the Parameters section for a list of supported parameters and their description.

charray Example

Request

```
POST https://{Actifio_API_Server}/actifio/api/task/charray?ipaddress=1.2.3.4&name=mystore
HTTP Request Header
Authorization: Actifio 92929a8b-a413-476f-a624-5b575cff54d3
```

where 92929a8b-a413-476f-a624-5b575cff54d3 is the session ID.

actifio

Response

```
Request success
{
    "status": 0
}
```

rmarray

About rmarray Command

Description

Use this command to delete an array.

Rights

You must have 'Storage Manage' right to remove an array.

Parameters

Parameter	Description
argument=string	Required. Specifies the ID or name of the array to be removed.

rmarray Request Details

Your `rmarray,` request must pass a valid session ID. For information on how to get a valid session ID, see Authentication or Login on page 1.

Method	URI	Required Parameters
POST	/actifio/api/task/rmarray	argument

Note: See the Parameters section for a list of supported parameters and their description.

rmarray Example

Request

```
POST https://{Actifio_API_Server}/actifio/api/task/rmarray?name=mystore
HTTP Request Header
Authorization: Actifio 92929a8b-a413-476f-a624-5b575cff54d3
```

where 92929a8b-a413-476f-a624-5b575cff54d3 is the session ID.

Response

```
Request success
{
    "status": 0
}
```

lsappstorage

About lsappstorage Command

Description

Use this command to retrieve details of application storage layout, which indicates disk groups of an application occupies. When application shares same disk groups, they can be, and should be grouped together in a consistency group for protection.

Rights

User must have 'Storage View', or 'Application Manage' right to see application storage details.

Parameters

Parameter	Description
filtervalue=string	Optional. Specifies that you want your report to display any or the entire list of valid filter attributes. The valid filter attributes for `lsarray` are: • appid • appname • hostid The filter is formed with an attribute and a value. When specifying more than one filter, the filters must be combined with the '&' character . For string type of filters, the only operator allowed is '='. You can also use wild card character '*'. For example, to match users with the username that begins with 'foo', use filtervalue username=foo*.

lsappstorage Request Details

Your `lsappstorage` request must pass a valid session ID. For information on how to get a valid session ID, see Authentication or Login on page 1.

Method	URI	Required Parameters
GET	/actifio/api/info/lsappstorage	None

Note: *See the Parameters section for a list of supported parameters and their description.*

lsappstorage Example

Request
```
GET https://{Actifio_API_Server}/actifio/api/info/lsappstorage
HTTP Request Header
Authorization: Actifio 92929a8b-a413-476f-a624-5b575cff54d3
```
where 92929a8b-a413-476f-a624-5b575cff54d3 is the session ID.

lsstorage

About lsstorage Command

Description

Use this command to retrieve details of application storage layout which indicates the disk groups of an application occupies. When application shares same disk groups, they can be, and should be grouped together in a consistency group for protection.

Rights

You must have 'Storage View' or 'Application Manage' right to view the details of job.

Parameters

Parameter	Description
filtervalue=attrib%3D value	Optional. Specifies that you want your report to display any or the entire list of valid filter attributes. The valid filter attributes for lsarray are: • appid • appname • hostid The filter will be formed with an attribute and a value. When you specify more than one filter, they must be combined with '&' character (which needs to be escaped with '\'). For string type of filters, the only operator allowed is '='. One can also use wildcard character '*'. For example, to match disk pools with name begins with 'foo', use '-filtervalue name=foo*'.

lsstorage Request Details

Your `lsstorage` request must pass a valid session ID. For information on how to get a valid session ID, see Authentication or Login on page 1.

Method	URI	Required Parameters
GET	/actifio/api/info/lsstorage	None

Note: *See the Parameters section for a list of supported parameters and their description.*

lsstorage Example

```
GET https://{Actifio_API_Server}/actifio/api/info/lsstorage
```

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Auto Updates Commands

lsversion

About lsversion Command

Description

Use this command to retrieve installed appliance version, including any installed hot-fix.

Rights

There are no specific rights associated with this operation. User with 'administrator' role can retrieve the release note.

lsversion Request Details

Your `lsversion` request must pass a valid session ID. For information on how to get a valid session ID, see Authentication or Login on page 1.

Method	URI	Required Parameters
GET	/actifio/api/info/lsversion	None

lsversion Example

Request
```
GET https://{Actifio_API_Server}/actifio/api/info/lsversion
HTTP Request Header
Authorization: Actifio 92929a8b-a413-476f-a624-5b575cff54d3
```

where 92929a8b-a413-476f-a624-5b575cff54d3 is the session ID.

Response
```
Request success
{
  "result": [
    {
      "installed": "2017-12-14 00:41:29",
      "component": "CDS",
      "version": "8.0.2.189"
    },
{
      "installed": "2018-01-16 00:50:07",
      "component": "connector-linux",
      "version": "hf-CDS8.0.2.1354"
    }
  ],
  "status": 0
}
```

lsupdate

About lsupdate Command

Description

Use this command to retrieve a list of updates available to be installed onto the VDP appliance.

Rights

There are no specific rights associated with this operation. Admin/User with 'administrator' role can retrieve a list of updates available to be installed onto the VDP appliance.

Parameters

lsupdate Request Details

Your `lsupdate` request must pass a valid session ID. For information on how to get a valid session ID, see Authentication or Login on page 1.

Method	URI	Required Parameters
GET	/actifio/api/info/lsupdate	None

Note: *See the Parameters section for a list of supported parameters and their description.*

lsupdate Exampl

Request

```
GET https://{Actifio_API_Server}/actifio/api/info/lsupdate
HTTP Request Header
Authorization: Actifio 92929a8b-a413-476f-a624-5b575cff54d3
```

where 92929a8b-a413-476f-a624-5b575cff54d3 is the session ID.

Response

```
Request success
{
    "result": [
        {
            "update": "patch-SKY7.1.1.740"
        }
    ],
    "status": 0
}
```

uploadupdate

About uploadupdate Command

Description

Use this command to upload a VDP-provided update file. The file must be copied (scp) to `/home/admin/upload` directory before you can run this command.

Rights

Admin/User with 'administrator' role can upload VDP update file.

Parameters

Parameter	Description
argument=string	Required. Specifies the name of the file to be uploaded.

uploadupdate Request Details

Your `uploadupdate` request must pass a valid session ID. For information on how to get a valid session ID, see Authentication or Login on page 1.

Method	URI	Required Parameters
POST	/actifio/api/task/uploadupdate	argument

Note: See the Parameters section for a list of supported parameters and their description.

uploadupdate Example

Request
```
POST https://{Actifio_API_Server}/actifio/api/task/uploadupdate?argument=patch-SKY8.0.0.100
HTTP Request Header
Authorization: Actifio 92929a8b-a413-476f-a624-5b575cff54d3
```

where 92929a8b-a413-476f-a624-5b575cff54d3 is the session ID.

Response
```
Request success
{
    "result": "xJob Completed",
    "status": 0
}
```

installupdate

About installupdate Command

Description

Use this command to install all Actifioprovided update files. Use udsinfo lsupdate to view a list of files to be installed. Use udsinfo getreleasenote to view the release note for each update.

Applicability of this Command

This command can be used on:

Rights

CDSappliance	✓
Sky appliance	✓
Actifio NAS Director	-

There are no specific rights associated with this operation. A user with 'administrator' role can install all Actifio provided update files.

Parameters

Parameter	Description
force	Optional. When set, any preflight errors will be ignored and proceed with installation.

installupdate Request Details

Your `installupdate` request must pass a valid session ID. For information on how to get a valid session ID, see Authentication or Login on page 1.

> **Note:** See the Parameters section for a list of supported parameters and their description.

Method	URI	Required Parameters
POST	/actifio/api/task/uploadupdate	argument

installupdate Example

Request

```
POST https://{Actifio_API_Server}/actifio/api/task/installupdate?force
HTTP Request Header
Authorization: Actifio 92929a8b-a413-476f-a624-5b575cff54d3
```

where 92929a8b-a413-476f-a624-5b575cff54d3 is the session ID.

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Response

```
Request success
{
    "result": "Install of updates completed",
    "status": 0
}
```

configloginbanner

About configloginbanner Command

Description

The configloginbanner command configures login banner for GUI.

Applicability of this Command

This command can be used on:

Rights

Actifio CDS	x
Sky appliance	✓
Actifio NAS Director	x

User must have 'System Manage' right to configure login banner.

Parameters

Parameter	Description
cli=string	Optional. Specifies a text file that contains the login banner, The file has to have been copied (scp) to /home/admin/upload directory previously by a valid user with CLI access.
ui=string	Optional. Specifies an HTML file that contains the login banner, The file has to have been copied (scp) to /home/admin/upload directory previously by a valid user with CLI access.

configloginbanner Request Details

Your `configloginbanner` request must pass a valid session ID. For information on how to get a valid session ID, see Authentication or Login on page 1.

Method	URI	Required Parameters
POST	//api/task/configloginbanner	none

Note: See the Parameters section for a list of supported parameters and their description.

configloginbanner Example

Request

```
POST https://{Actifio_API_HOST}/actifio/api/task/configloginbanner
HTTP Request Header
Authorization:  92929a8b-a413-476f-a624-5b575cff54d3
where 92929a8b-a413-476f-a624-5b575cff54d3 is the session ID.
```

Response

Request success

```
{
    "result": "xJob Completed",
    "status": 0
}
```

Remote Setup Commands

setremotesupport

About setremotesupport Command

Description

Use this command to set administrative support for SecureConnect remote support.

Rights

You must have 'System Manage' right to be able to configure SecureConnect remote support.

Parameters

Parameter	Description
restricted=string	Optional. Enables/disables VDP remote access.
secureconnect=string	Optional. Enables secure connect.

setremotesupport Request Details

Your `setremotesupport` request must pass a valid session ID. For information on how to get a valid session ID, see Authentication or Login on page 1.

Method	URI	Required Parameters
POST	/actifio/api/task/setremotesupport	None

Note: *See the Parameters section for a list of supported parameters and their description.*

setremotesupport Example

Request

```
POST https://{Actifio_API_Server}/actifio/api/task/setremotesupport?secureconnect=off
HTTP Request Header
Authorization: Actifio 92929a8b-a413-476f-a624-5b575cff54d3
```

where 92929a8b-a413-476f-a624-5b575cff54d3 is the session ID.

Response

```
Request success
{
  "status": 0
}
```

actifio

getremotesupport

About getremotesupport Command

Description

Use this command to display remote support.

Rights

You must have 'System View' or 'System Manage' right to view remote support.

Parameters

Parameter	Description
-delim *delimiter*	Optional. By default in a concise view, all columns of data are space-separated. In a detailed view, each item of data has its own row, and if the headers are displayed the data is separated from the header by a space. The `-delim` parameter overrides this behavior. Valid input for the `-delim` parameter is a one-byte character. If you enter `-delim:` on the command line, the colon character (:) separates all items of data in a concise view; for example, the spacing of columns does not occur. In a detailed view, the data is separated from its header by the specified delimiter.
-nohdr	Optional. By default, headings are displayed for each column of data in a concise view, and for each item of data in a detailed view. The `-nohdr` parameter suppresses the display of these headings.

getremotesupport Request Details

Your `getremotesupport` request must pass a valid session ID. For information on how to get a valid session ID, see Authentication or Login on page 1.

Method	URI	Required Parameters
GET	`/actifio/api/info/getremotesupport`	None

getremotesupport Example

Request
```
GET https://{Actifio_API_Server}/actifio/api/info/getremotesupport
HTTP Request Header
Authorization: Actifio 92929a8b-a413-476f-a624-5b575cff54d3
```

where 92929a8b-a413-476f-a624-5b575cff54d3 is the session ID.

Response
```
Request success
{
  "result": [
    {
```

```
      "type": "restricted",
      "enabled": "off"
    },
    {
      "type": "secureconnect",
      "enabled": "off"
    },
    {
      "type": "securitycode",
      "enabled": "A1-null-00000000"
    }
  ],
  "status": 0
}
```

lsinboundiprestrictionstatus

About lsinboundiprestrictionstatus Command

Description

Use this command to retrieve IP restriction status.

Applicability of this Command

This command can be used on:

Actifio CDS	x
Sky appliance	✓
Actifio NAS Director	x

Rights

User must have 'System View' or 'System Manage' right to view IP restriction status.

Parameters

Parameter	Description
-delim=string	Optional. By default, all columns of data are separated by a tab in the concise view. In the detailed view, each column of data is displayed in a separate row and if the headers are displayed, the header is separated from the data by a space. The -delim parameter overrides this behavior. Valid input for the -**delim** parameter is a one-byte character. If you enter -**delim** on the command line, the colon character (:) separates all items of data in a concise view; for example, the spacing of columns does not occur.
-nohdr=string	Optional. By default, headings are displayed for each column of data in a concise style view, and for each item of data in a detailed style view. The -nohdr parameter suppresses the display of these headings. **Note:** If there is no data to be displayed, headings are not displayed.

lsinboundiprestrictionstatus Request Details

Your `lsinboundiprestrictionstatus` request must pass a valid session ID. For information on how to get a valid session ID, see Authentication or Login on page 1.

Method	URI	Required Parameters
GET	//api/info/lsinboundiprestrictionstatus	none

lsinboundiprestrictionstatus Example

Request

```
GET https://{Actifio_API_Server}/actifio/api/info/lsinboundiprestrictionstatus
HTTP Request Header
Authorization:  92929a8b-a413-476f-a624-5b575cff54d3
where 92929a8b-a413-476f-a624-5b575cff54d3 is the session ID.
```

Response

Request success

```
{
    "result": [
        {
            "filtering": "false",
            "type": "actifio"
        },
        {
            "filtering": "false",
            "type": "iscsi"
        },
        {
            "filtering": "false",
            "type": "nfs"
        },
        {
            "filtering": "false",
            "type": "snmp"
        }
    ],
    "status": 0
}
```

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configinboundiprestriction

About configinboundiprestriction Command

Description

Use this command to configure source-based restrictions for network traffic on specific TCP ports.

Applicability of this Command

This command can be used on:

Actifio CDS	x
Sky appliance	✓
Actifio NAS Director	x

Rights

User must have 'System Manage' right to configure IP filtering.

Parameters

Parameter	Description
type =actifio | iscsi | nfs | snmp	Required. Specifies type of port groups to enable or disable. The following table details the port restrictions based on type: **Type TCP/UDP Port** vdp TCP 5103 vdp TCP 5107 snmp UDP 161 snmp UDP 162 iscsi TCP 3205 iscsi TCP 3260 nfs UDP 4045 nfs TCP 4045 nfs UDP 2049 nfs TCP 2049 nfs UDP 111 nfs TCP 111 nfs TCP 756
value=boolean	Required. Specifies whether to enable (true) or disable (false) IP filtering for the port group. When filtering is enabled, inbound traffic is only permitted from IPs or subnets specified in IP filters. See udstask mkiprestriction command for additional information.

configinboundiprestriction Request Details

Your `configinboundiprestriction` request must pass a valid session ID. For information on how to get a valid session ID, see Authentication or Login on page 1.

Method	URI	Required Parameters
POST	`//api/task/configinboundiprestriction`	type value

Note: See the Parameters section for a list of supported parameters and their description.

configinboundiprestriction Example

Request

```
POST https://{Actifio_API_Server}/actifio/api/task/
configinboundiprestriction?type=iscsi&value=true
HTTP Request Header
Authorization:  92929a8b-a413-476f-a624-5b575cff54d3
where 92929a8b-a413-476f-a624-5b575cff54d3 is the session ID.
```

Response

Request success

```
Len = 0, no data
{
    "result": "",
    "status": 0
}
```

Isiprestriction

About Isiprestriction Command

Description

Use this command to retrieve IP restriction filters.

Applicability of this Command

This command can be used on:

Actifio CDS	x
Sky appliance	x
Actifio NAS Director	x

Rights

User must have 'System View' or 'System Manage' right to view IP restriction status.

Parameters

Parameter	Description
delim=string	Optional. By default, all columns of data are separated by a tab in the concise view. In the detailed view, each column of data is displayed in a separate row and if the headers are displayed, the header is separated from the data by a space. The -**delim** parameter overrides this behavior. Valid input for the -**delim** parameter is a one-byte character. If you enter -**delim** on the command line, the colon character (:) separates all items of data in a concise view; for example, the spacing of columns does not occur.
nohdr=string	Optional. By default, headings are displayed for each column of data in a concise view, and for each item of data in a style view. The -**nohdr** parameter suppresses the display of these headings.

Isiprestriction Request Details

Your `lsiprestriction` request must pass a valid session ID. For information on how to get a valid session ID, see Authentication or Login on page 1.

Method	URI	Required Parameters
GET	//api/info/lsiprestriction	none

Note: *See the Parameters section for a list of supported parameters and their description.*

lsiprestriction Example

Request

```
GET https://{Actifio_API_HOST}/actifio/api/info/lsiprestriction
HTTP Request Header
Authorization:  92929a8b-a413-476f-a624-5b575cff54d3
where 92929a8b-a413-476f-a624-5b575cff54d3 is the session ID.
```

Response

Request success

```
{
    "result": [
        {
            "allowedsource": "172.27.59.249",
            "id": "1",
            "type": "actifio"
        }
    ],
    "status": 0
}
```

mkiprestriction

About mkiprestriction Command

Description

Use this command to configure an IP restriction filter. Returns the ID number of the saved restriction filter.

Applicability of this Command

This command can be used on:

Actifio CDS	x
Sky appliance	✓
Actifio NAS Director	x

Rights

User must have 'System Manage' right to configure IP restriction filter.

Parameters

Parameter	Description
type =actifio | iscsi | nfs | snmp	Required. Specifies type of port groups to be configured.
allowedsource=string	Required. Specifies IP address or subnet for the IP restriction. For type *vdp* and *snmp*, only a single IP address is allowed. For *nfs* and *snmp*, a single IP address or subnet is allowed. When subnets are specified in the following format: *aaa.bbb.ccc.ddd/mmm.mmm.mmm.mmm*.

mkiprestriction Request Details

Your `mkiprestriction` request must pass a valid session ID. For information on how to get a valid session ID, see Authentication or Login on page 1.

Method	URI	Required Parameters
POST	//api/task/mkiprestriction	type allowedsource

Note: *See the Parameters section for a list of supported parameters and their description.*

---

mkiprestriction Example

Request

```
POST https://{Actifio_API_HOST}/actifio/api/task/mkiprestriction?type=actifio&allowedsource=IP
address
HTTP Request Header
Authorization:  92929a8b-a413-476f-a624-5b575cff54d3
where 92929a8b-a413-476f-a624-5b575cff54d3 is the session ID.
```

Response

Request success

```
{
    "result": "2",
    "status": 0
}
```

rmiprestriction

About rmiprestriction Command

Description

Use this command to remove an IP restriction filter.

Applicability of this Command

This command can be used on:

Actifio CDS	x
Sky appliance	✓
Actifio NAS Director	x

Rights

User must have 'System Manage' right to remove an IP restriction filter.

Parameters

Parameter	Description
id=integer	Required. Specifies the ID of the filter to be removed.

rmiprestriction Request Details

Your rmiprestriction request must pass a valid session ID. For information on how to get a valid session ID, see Authentication or Login on page 1.

Method	URI	Required Parameters
POST	//api/task/rmiprestriction	argument=id of the IP to be restricted.

Note: *See the Parameters section for a list of supported parameters and their description.*

rmiprestriction Example

Request

```
POST https://{Actifio_API_HOST}/actifio/api/task/rmiprestriction?argument=id
HTTP Request Header
Authorization:  92929a8b-a413-476f-a624-5b575cff54d3
where 92929a8b-a413-476f-a624-5b575cff54d3 is the session ID.
```

Response

Request success

```
{
    "result": "1",
    "status": 0

}
```

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5 License Management Commands

These commands are for a Sky appliance license management.

Managing License

Commands

getlicenseinfo

About getlicenseinfo Command

Description

Use this command to display licensing information. If no option is supplied, a summary of all installed licenses is provided.

Applicability of this Command

This command can be used on:

Rights

CDS appliance	-
Sky appliance	✓
NAS Director	-

You must have 'System View' or 'System Manage' role.

Parameters

Parameter	Description
licensekey=string	Optional. Specifies the license key.
licensefile=string	Optional. Specifies the file that contains license key.
id=integer	Optional. Specifies the ID of the license key.

getlicenseinfo Request Details

Your `getlicenseinfo` request must pass a valid session ID. For information on how to get a valid session ID, see Authentication or Login on page 1.

Method	URI	Required Parameters
GET	//api/info/getlicenseinfo	none

Note: See the Parameters section for a list of supported parameters and their description.

getlicenseinfo Example

Fetching license details using the license Id.

Request

```
GET https://{_API_HOST}//api/info/getlicenseinfo?id=83005
HTTP Request Header
Authorization:  92929a8b-a413-476f-a624-5b575cff54d3
```

where 92929a8b-a413-476f-a624-5b575cff54d3 is the session ID.

Response

```
Request success
{
  "result": "License Detail: Installed. Type: [PRODUCT] Customer: [] Product Version: [Sky]
Issue Date: [2018-02-08 15:03:27.542]] Ins
tall Date: [2018-02-08 15:05:27.459138]] Variables: [MDL:5,dedupPoolSize:5]",
  "status": 0
}
```

lslicense

About lslicense Command

Description

Use this command to retrieve a concise list of all installed license keys, or a detailed view of an installed license key.

Applicability of this Command

This command can be used on:

CDS	-
Sky appliance	✓
NAS Director	-

Rights

You must have 'System View' or 'System Manage' rights to retrieve license key info.

Parameters

Parameter	Description
id=integer	Optional. Specifies the ID of an object.

lslicense Request Details

Your `lslicense` request must have a valid session ID. For information on how to get a valid session ID, see Authentication or Login on page 1.

Method	URI	Required Parameters
GET	//api/info/lslicense	None

Note: See the Parameters section for a list of supported parameters and their description.

lslicense Examples

Fetching a list of all installed license keys.

Request

```
GET https://{_API_HOST}//api/info/lslicense
HTTP Request Header
Authorization:  92929a8b-a413-476f-a624-5b575cff54d3
```

where 92929a8b-a413-476f-a624-5b575cff54d3 is the session ID.

Response
```
Request success
{
    "result": {
        "invaliddate": "",
        "createdate": "2017-08-30 14:30:50.027"
        "id": "83005",
        "licensekey": "G...A"
    },
    "status": 0
}
```

Fetching details of license id 83005.

Request
```
GET https://{API_HOST}//api/info/lslicense?id=83005
HTTP Request Header
Authorization:   92929a8b-a413-476f-a624-5b575cff54d3
```

where 92929a8b-a413-476f-a624-5b575cff54d3 is the session ID.

Response
```
Request success
{
    "result": {
        "invaliddate": "",
        "createdate": "2018-02-08 15:05:27.459",
        "id": "83005",
        "licensekey": "G...A"
    },
    "status": 0
}
```

rmlicense

About rmlicense Command

Description

Use this command to uninstall a license key.

Note: *It is not mandatory to remove an installed license key that is no longer valid. The use of the* **rmlicense** *command is optional.*

Applicability of this Command

This command can be used on:

Rights

CDS	-
Sky appliance	✓
NAS Director	-

You must have "System Manage" right to uninstall a license.

Parameters

Parameter	Description
argument=integer	Required. Specifies the ID of the license key to be removed.

rmlicense Request Details

Your `rmlicense` request must have a valid session ID. For information on how to get a valid session ID, see Authentication or Login on page 1.

Method	URI	Required Parameters
POST	//api/task/rmlicense	licenseid=<license id>

rmlicense Example

Uninstalling a license key.

Request

```
POST https://{_API_HOST}//api/task/rmlicense?licenseid=91005
HTTP Request Header
Authorization:  92929a8b-a413-476f-a624-5b575cff54d3
```

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where 92929a8b-a413-476f-a624-5b575cff54d3 is the session ID.

Response

```
Request success
{
    "status": 0
}
```

6 Application Management Commands

These commands are for application management.

Managing Applications	

Managing Copy Data	Managing Workflows

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Application Commands

mkapplication

About mkapplication Command

Description

Use this command to create a generic application object.

Rights

You must have the 'Application Manage' or 'Host Manage' right to create a generic application.

Parameters

Parameter	Description
appname=string	Required. Specifies the name.
appversion=string	Optional. Specifies the version.
description=string	Optional. Specifies the description.
apptype=string	Optional. Specifies the application type of the application. For generic out-of-band application, the type should be 'LVM Volume'. Otherwise, a 'generic' in-band application is created.This parameter applies to VDP Appliance.
hostid=string	Required. Specifies the host ID where the application runs.
org=string	Optional. Specifies a default organization in which the application should be added after creation. If a default organization is not specified, an organization that the user belongs to is used.
volumes=string	Required. Specifies the names of the VDisks allotted to the application. Multiple VDisk names should be separated with a colon (:).

mkapplication Request Details

Your `mkapplication` request must pass a valid session ID. For information on how to get a valid session ID, see Authentication or Login on page 1.

Method	URI	Required Parameters
POST	//api/task/mkapplication	appliance hostid volumes appname

mkapplication Example

Request

```
POST https://{API_HOST}//api/task/
mkapplication?hostid=84313&appliance=Solar.System&volumes=ACT_PRI_POOL000&appname=BackupApp
HTTP Request Header
Authorization:   92929a8b-a413-476f-a624-5b575cff54d3
```

where 92929a8b-a413-476f-a624-5b575cff54d3 is the session ID.

Response

```
Request success
{
    "result": 156726,
    "status": 0
}
```

lsapplication

About lsapplication Command

Description

Use this command to display a concise list of applications or a detailed view of an application. Use the appdiscovery command to discover applications on non-VMs and use vmdiscovery to discover applications running on the virtual machines. Generic applications (not supported by the Connector) can be created using mkapplication.

Rights

You must have the 'Application Manage' or 'Host Manage' right to create a generic application.

Parameters

Parameter	Description
filtervalue=attribute %3Dvalue	Optional. Specifies that you want your report to display any or the entire list of valid filter attributes. Valid filter attributes for `lsapplication` are: • appname • apptype • appversion • auxinfo • description • friendlytype • hostid • hostname • id • ignore • isclustered • networkip • networkname • originalappid • pathname • protectable [NONE | FULLY | PARTIALLY] • sourcecluster The filter is formed with an attribute and a value. When you specify more than one filter, they must be combined with '&' character . For string type of filters, the only operator allowed is '='. You can also use wild card character '*'. For example, to list applications beginning with 'foo', use filtervalue=name=%3Dfoo. Some filters allow only predefined constants. For example, protectable allows only NONE, FULLY, or PARTIALLY. To list applications that are protected FULLY, use filtervalue=protectable=FULLY.
argument=string	Optional. Specifies the ID of an object. When you use this parameter, a detailed view of the object is returned and any value that is specified by the `filtervalue` parameter is ignored. If you do not specify the argument, a concise view of all objects matching the filter criteria is shown.

lsapplication Request Details

Your `lsapplication` request must pass a valid session ID. For information on how to get a valid session ID, see Authentication or Login on page 1.

Method	URI	Required Parameters
GET	//api/info/lsapplication	None

Note: *See the Parameters section for a list of supported parameters and their description.*

lsapplication Example

List all applications.

Request

```
GET https://{API_HOST}//api/info/lsapplication
HTTP Request Header
Authorization:  92929a8b-a413-476f-a624-5b575cff54d3
```

where 92929a8b-a413-476f-a624-5b575cff54d3 is the session ID.

Response

```
Request success
{
    "result": [
        {
            "appclass": "",
            "appname": "TP-Linux",
            "apptype": "VMBackup",
            "appversion": "",
            "auxinfo": "1xx.xxx.xxx.xxx",
            "description": "",
            "failoverstate": "normal",
            "friendlytype": "VMBackup",
            "hostid": "84361",
            "id": "84363",
            "ignore": "false",
            "isclustered": "false",
            "lastfailover": "",
            "morecredentials": "",
            "networkip": "",
            "networkname": "",
            "originalappid": "0",
            "pathname": "",
            "protectable": "FULLY",
            "sensitivity": "0",
            "sourcecluster": "1415036377",
            "username": "",
            "volumes": ""
        },
        {
            "appclass": "",
            "appname": "/",
            "apptype": "FileSystem",
            "appversion": "",
            "auxinfo": "",
```

```
        "description": "",
        "failoverstate": "normal",
        "friendlytype": "FileSystem",
        "hostid": "84361",
        "id": "100625",
        "ignore": "false",
        "isclustered": "false",
        "lastfailover": "",
        "morecredentials": "",
        "networkip": "",
        "networkname": "",
        "originalappid": "0",
        "pathname": "",
        "protectable": "FULLY",
        "sensitivity": "0",
        "sourcecluster": "1415036377",
        "username": "",
        "volumes": ""
    },
    {
        "appclass": "",
        "appname": "Jita1",
        "apptype": "VMBackup",
        "appversion": "",
        "auxinfo": "1xx.xxx.xxx.xxx",
        "description": "",
        "failoverstate": "normal",
        "friendlytype": "VMBackup",
        "hostid": "120620",
        "id": "120621",
        "ignore": "false",
        "isclustered": "false",
        "lastfailover": "",
        "morecredentials": "",
        "networkip": "",
        "networkname": "",
        "originalappid": "0",
        "pathname": "",
        "protectable": "FULLY",
        "sensitivity": "0",
        "sourcecluster": "1415036377",
        "username": "",
        "volumes": ""
    },
    {
        "appclass": "",
        "appname": "BackupApp",
        "apptype": "Generic",
        "appversion": "",
        "auxinfo": "",
        "description": "",
        "failoverstate": "normal",
        "friendlytype": "Generic",
        "hostid": "84313",
        "id": "156726",
        "ignore": "false",
        "isclustered": "false",
        "lastfailover": "",
        "morecredentials": "",
        "networkip": "",
```

```
            "networkname": "",
            "originalappid": "0",
            "pathname": "",
            "protectable": "FULLY",
            "sensitivity": "0",
            "sourcecluster": "1415036377",
            "username": "",
            "volumes": "ACT_PRI_POOL000"
        }
    ],
    "status": 0
}
```

List applications by filtering on an application's Id.

Request

```
GET https://{API_HOST}//api/info/lsapplication?argument=100626
HTTP Request Header
Authorization:  92929a8b-a413-476f-a624-5b575cff54d3
```

where 92929a8b-a413-476f-a624-5b575cff54d3 is the session ID.

Response

```
Request success
{
    "result": {
        "appname": "/boot",
        "apptype": "FileSystem",
        "depth": "0",
        "failoverstate": "normal",
        "friendlytype": "FileSystem",
        "frommount": "false",
        "hostid": "84361",
        "id": "100626",
        "ignore": "false",
        "isclustered": "false",
        "originalappid": "0",
        "parentappid": "0",
        "protectable": "FULLY",
        "sensitivity": "0",
        "sourcecluster": "1415036377"
    },
    "status": 0
}
```

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chapplication

About chapplication Command

Description

Use this command to change the attributes of an application.

Rights

You must have the 'Application Manage' or 'Host Manage' right to change an application.

Parameters

Parameter	Description
appname=string	Optional. Specifies a new name for the application. This cannot be changed for a discovered application.
appclass=string	Optional. Specifies the application class for the application. An app class dictates the type of option allowed for recovery operations.
applysensitivity =string	Optional. Applies the sensitivity of the application to all existing local backup images.
appversion=string	Optional. Specifies the version of the application.
description=string	Optional. Specifies the description of the application.
friendlytype=string	Optional. Specifies friendly type for the application.
ignore=boolean	Optional. Specifies whether an application should be ignored. A protected application cannot be ignored.

Parameter	Description
volumes=string	Optional. For VDP Appliance, depending on the type of application: • **Generic Applications** – Specifies the VDisk names of the application. Multiple VDisk names should be separated by a colon (:). • **VM Applications** – Specifies VMDK files to be excluded or included during data capture, or simply the boot VMDK. The syntax for VM VMDK is: ``` boot include:<VMDK file list delimited by ,> exclude:<VMDK file list delimited by ,> ``` If the VMDK file contains a comma (','), it must be escaped with "„". For example: "exclude:[datastore_remus] tndvm1/test.vmdk" • **SQL Instances** – Specifies SQL Server databases to be excluded or included during data capture. The syntax for SQL Server database is: o `include:<SQL Server database list delimited by ,>` o `exclude:<SQL Server database list delimited by ,>` If the database contains a comma (',') it needs to be escaped with "„".
argument=string	Required. Specifies the ID of the application to be modified. Use `lsapplication` to retrieve the ID.
networkip=string	Optional. Specifies the network IP of the application.
isclustered=string	Optional. Specifies if the application is part of an appliance.
sensitivity=integer	Optional. Specifies if the application is sensitive (a backup image has restricted access before scrubbing of sensitive data), specify 1 for sensitive application, 0 for non-sensitive.This parameter applies to VDP Appliance.
networkname = string	Optional. Specifies the network name of the application.
org=string	Optional. Specifies a default organization in which the application should be added after creation. Use `lsorg` to locate the ID or name of the organization. **Note:** *To use this option a user must have 'System Manage' right.*
pathname=string	Optional. Specifies the path name of the application.

chapplication Request Details

Your `chapplication` request must pass a valid session ID. For information on how to get a valid session ID, see Authentication or Login on page 1.

Method	URI	Required Parameters
POST	//api/task/chapplication	argument

Note: *See the Parameters section for a list of supported parameters and their description.*

chapplication Example

Request

```
POST https://{API_HOST}/api/task/
chapplication?argument=150726&description=Application%20for%20running%20backups
HTTP Request Header
Authorization:  92929a8b-a413-476f-a624-5b575cff54d3
```

where 92929a8b-a413-476f-a624-5b575cff54d3 is the session ID.

Response

```
Request success
{
    "status": 0
}
```

rmapplication

About rmapplication Command

Description

Use this command to delete an application.

Rights

You must have the 'Application Manage' or 'Host Manage' right to delete an application.

Parameters

Parameter	Description
argument=integer	Required. Specifies the ID of the application to be removed. Use `lsapplication` to retrieve the application ID.

rmapplication Request Details

Your `rmapplication` request must pass a valid session ID. For information on how to get a valid session ID, see Authentication or Login on page 1.

Method	URI	Required Parameters
POST	//api/task/rmapplication	argument

Note: *See the Parameters section for a list of supported parameters and their description.*

rmapplication Example

Request
```
POST https://{API_HOST}//api/task/rmapplication?argument=22375678
HTTP Request Header
Authorization:  92929a8b-a413-476f-a624-5b575cff54d3
```

where 92929a8b-a413-476f-a624-5b575cff54d3 is the session ID.

Response
```
Request success
{
    "status": 0
}
```

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Group Commands

mkgroup

About mkgroup Command

Description

Use this command to create a new group. Applications can be added to or deleted from the group using the mkgroupmember and rmgroupmember commands. All applications of a group should be protected by the same template and profile. Note that when an application is removed from the group, it retains the protection.

To protect all applications in a group, use the mksla command with the group parameter.

Rights

You must have the 'Application Manage' or 'Host Manage' right to create a group.

Parameters

Parameter	Description
name=string	Required. Specifies the name of the group. The name should be unique.
description=string	Optional. Specifies the description for the group.

mkgroup Request Details

Your `mkgroup` request must pass a valid session ID. For information on how to get a valid session ID, see Authentication or Login on page 1.

Method	URI	Required Parameters
POST	//api/task/mkgroup	name

Note: *See the Parameters section for a list of supported parameters and their description.*

---

mkgroup Example

Request

```
POST https://{API_HOST}//api/task/mkgroup?apistart=0&apilimit=100&name=backupapps-
group&description=Manage+Backups&appliance=Solar.System
HTTP Request Header
Authorization:  92929a8b-a413-476f-a624-5b575cff54d3
```

where 92929a8b-a413-476f-a624-5b575cff54d3 is the session ID.

Response

```
Request success
```

```
{
    "result": 156836,
    "status": 0
}
```

lsgroup

About lsgroup Command

Description

Use this command to display a concise list of application groups or a detailed view of an application group. You can protect the members of a group using a single policy template.

Rights

You must have the 'System View' or 'System Manage' right to display a list of groups.

Parameters

Parameter	Description
filtervalue=attrib%3D value	Optional. Specifies that you want your report to display any or the entire list of valid filter attributes. The valid filter attributes for the `lsgroup` command are: • name • description The filter is formed with an attribute and a value. When you specify more than one filter, they must be combined with '&' character. For string type of filters, the only operator allowed is '='. You can also use wild card character '*'. For example, to list all consistency groups with a name that begins with 'foo', use filtervalue=name%3Dfoo
argument=string	Optional. Specifies the name or ID of an object. When you use this parameter, a detailed view of the object is returned and any value specified by the `filtervalue` parameter is ignored. If you do not specify the argument, a concise view of all objects matching the filter criteria is displayed.

lsgroup Request Details

Your `lsgroup` request must pass a valid session ID. For information on how to get a valid session ID, see Authentication or Login on page 1.

Method	URI	Required Parameters
GET	//api/info/lsgroup	None

Note: *See the Parameters section for a list of supported parameters and their description.*

lsgroup Example

List all groups.

Request

```
GET https://{API_HOST}//api/info/lsgroup
```

```
HTTP Request Header
Authorization:   92929a8b-a413-476f-a624-5b575cff54d3
```

where 92929a8b-a413-476f-a624-5b575cff54d3 is the session ID.

Response

```
Request success
{
    "result": [
        {
            "description": "Manage Backups",
            "id": "156836",
            "modifydate": "2017-11-29 23:41:16.500",
            "name": "backupapps-group"
        },
        {
            "description": "Manage Dedups",
            "id": "156864",
            "modifydate": "2017-11-29 23:46:12.862",
            "name": "dedupapps-group"
        }
    ],
    "status": 0
}
```

List groups filtering by object Id.

Request

```
GET https://{API_HOST}//api/info/lsgroup?argument=156836HTTP Request Header
Authorization:   92929a8b-a413-476f-a624-5b575cff54d3
```

where 92929a8b-a413-476f-a624-5b575cff54d3 is the session ID.

Response

```
Request success
{
    "result": [
        {
            "description": "Manage Backups",
            "id": "156836",
            "modifydate": "2017-11-29 23:41:16.500",
            "name": "backupapps-group"
        }
    ],
    "status": 0
}
```

chgroup

About chgroup Command

Description

Use this command to change the attributes of a group. Use the lsgroup command to obtain a list of groups with IDs and names.

Rights

You must have the 'Application Manage' or 'Host Manage' right to modify a group.

Parameters

Parameter	Description
description=string	Optional. Specifies the description.
name=string	Optional. Specifies the name.
argument=string	Required. Specifies the ID or name of the group to be modified.

chgroup Request Details

Your `chgroup` request must pass a valid session ID. For information on how to get a valid session ID, see Authentication or Login **on page 1**.

Method	URI	Required Parameters
POST	//api/task/chgroup	argument

Note: *See the Parameters section for a list of supported parameters and their description.*

chgroup Example

Request

```
POST https://{API_HOST}//api/task/chgroup?argument=mktgroup
HTTP Request Header
Authorization:  92929a8b-a413-476f-a624-5b575cff54d3
```

where 92929a8b-a413-476f-a624-5b575cff54d3 is the session ID.

Response
```
Request success
{
    "status": 0
}
```

mkgroupmember

About mkgroupmember Command

Description

Use this command to add an application to a group.

Rights

You must have the "Application Manage' or 'System Manage' or 'SLA Assign' right to add an application to a group.

Parameters

Parameter	Description
appid=integer	Required. Specifies the ID of an application to add to a group. Use `lsapplication` to retrieve the application ID.
groupid=integer	Required. Specifies the ID of the group to add the application to. Use `lsconsistgrp` command to obtain the ID of the consistency group.

mkgroupmember Request Details

Your `mkgroupmember` request must pass a valid session ID. For information on how to get a valid session ID, see Authentication or Login on page 1.

Method	URI	Required Parameters
POST	//api/task/mkgroupmember	appid groupid

Note: *See the Parameters section for a list of supported parameters and their description.*

mkgroupmember Example

Request

```
POST https://{API_HOST}//api/task/mkgroupmember?appid=33450&groupid=338654
HTTP Request Header
Authorization:  92929a8b-a413-476f-a624-5b575cff54d3
```

where 92929a8b-a413-476f-a624-5b575cff54d3 is the session ID.

Response

```
Request success
{
  "result": 403775,
  "status": 0
}
```

actifio

lsgroupmember

About lsgroupmember Command

Description

Use this command to display a concise list of groups or a detailed view of the grouping of applications.

Rights

You must have the 'System View' or 'System Manage' or 'SLA Assign' right to list group members.

Parameters

Parameter	Description
filtervalue=attrib%3D value	Optional. Specifies that you want your report to display any or the entire list of valid filter attributes. The valid filter attributes for `lsgroupmember` are: • groupid • appid The filter is formed with an attribute and a value. When you specify more than one filter, they must be combined with '&' character .
argument=string	Optional. Specifies the ID of an object. When you use this parameter, a detailed view of the object is returned and any value that is specified by the `filtervalue` parameter is ignored. If you do not specify the argument, a concise view of all objects matching the filter criteria is displayed.

lsgroupmember Request Details

Your `lsgroupmember` request must pass a valid session ID. For information on how to get a valid session ID, see Authentication or Login on page 1.

Method	URI	Required Parameters
GET	//api/info/lsgroupmember	None

Note: *See the Parameters section for a list of supported parameters and their description.*

lsgroupmember Example

Request

```
GET https://{API_HOST}//api/info/lsgroupmember
HTTP Request Header
Authorization:  92929a8b-a413-476f-a624-5b575cff54d3
```

where 92929a8b-a413-476f-a624-5b575cff54d3 is the session ID.

Response

Request success

```
{
  "result": [
    {
      "modifydate": "",
      "appid": "334050",
      "groupid": "333846",
      "id": "385474"
    }
  ],
  "status": 0
}
```

mkconsistgrp

About mkconsistgrp Command

Description

Use this command to create a new consistency group object. A consistency group is more than a logical grouping of applications. A consistency group is used to group applications with data that should be protected together when taking a snapshot. All applications of a consistency group should be located on the same host.

Rights

You must have the 'Application Manage' or 'Host Manage' or 'SLA Assign' right to create a consistency group.

Parameters

Parameter	Description
description=string	Optional. Specifies the description for consistency group.
hostid=string	Required. Specifies the host ID of the consistency group for the VDP appliance.
groupname=string	Required. Specifies the name of the consistency group. The name should be unique.

mkconsistgrp Request Details

Your `mkconsistgrp` request must pass a valid session ID. For information on how to get a valid session ID, see Authentication or Login on page 1.

Method	URI	Required Parameters
POST	//api/task/mkconsistgrp	groupname hostid

Note: *See the Parameters section for a list of supported parameters and their description.*

mkconsistgrp Example

Request

```
POST https://{API_HOST}//api/task/mkconsistgrp?hostid=198180&groupname=mygroup2
HTTP Request Header
Authorization:  92929a8b-a413-476f-a624-5b575cff54d3
```

where 92929a8b-a413-476f-a624-5b575cff54d3 is the session ID.

Response

```
Request success
{
  "result": 333957
  "status": 0
}
```

lsconsistgrp

About lsconsistgrp Command

Description

Use this command to display a concise list of all consistency groups created on the appliance or a detailed view of a consistency group.

Parameters

Parameter	Description
filtervalue=attrib%3Dvalue	Optional. Specifies that you want your report to display any or the entire list of valid filter attributes. The valid filter attributes for the `lsconsistgrp` command are: • groupname • originalappid The filter is formed with an attribute and a value. When user specifies more than one filter, they must be combined with the '&' character. For string type of filters, the only operator allowed is '='. You can also use wild card character '*'. For example, to list all consistency groups with a name that begins with 'foo', use '-filtervalue groupname=foo*'. For number types, allowed operators are: =, >, >=, <, <=. To use <, <=, >, or >=, they need to be escaped with '\' or enclosed in ' or ", as required by shell. For example, -filtervalue originalappid\>=80 -filtervalue "originalappid>=80" -filtervalue 'originalappid>=80'
argument=string	Optional. Specifies the name or ID of an object. When you use this parameter, a detailed view of the object is returned and any value specified by the `filtervalue` parameter is ignored. If you do not specify the argument, a concise view of all objects matching the filter criteria is displayed.

lsconsistgrp Request Details

Your `lsconsistgrp` request must pass a valid session ID. For information on how to get a valid session ID, see Authentication or Login on page 1.

Method	URI	Required Parameters
GET	//api/info/lsconsistgrp	None

Note: *See the Parameters section for a list of supported parameters and their description.*

lsconsistgrp Example

Request

```
GET https://{API_HOST}//api/info/lsconsistgrp
HTTP Request Header
Authorization:  92929a8b-a413-476f-a624-5b575cff54d3
```

where 92929a8b-a413-476f-a624-5b575cff54d3 is the session ID.

Response

```
Request success
{
  "result": [
    {
      "originalappid": "0",
      "protectable": "FULLY",
      "networkip": "",
      "isclustered": "false",
      "apptype": "ConsistGrp",
      "appclass": "",
      "volumes": "",
      "lastfailover": "",
      "hostid": "198180",
      "description": "",
      "appversion": "",
      "groupname": "mygroup2",
      "pathname": "",
      "failoverstate": "0",
      "morecredentials": "",
      "networkname": "",
      "ignore": "false",
      "sourcecluster": "1415056619",
      "id": "333957",
      "sensitivity": "0",
      "auxinfo": "",
      "username": "",
      "friendlytype": "ConsistGrp"
    }
  ],
  "status": 0
}
```

chconsistgrp

About chconsistgrp Command

Description

Use this command to change the attributes of a consistency group. A consistency group is more than a logical grouping of applications. It is used to group applications to create a crash consistent backup image when creating a backup. Use lsconsistgrp command to obtain the ID or name of the consistency group.

Rights

You must have the 'Application Manage' right to change the attributes of a consistency group.

Parameters

Parameter	Description
description=string	Optional. Specifies the description.
groupname=string	Optional. Specifies new name of the consistency group.
argument=string	Required. Specifies the consistency group ID to be modified.

chconsistgrp Request Details

Your `chconsistgrp` request must pass a valid session ID. For information on how to get a valid session ID, see Authentication or Login on page 1.

Method	URI	Required Parameters
POST	//api/task/chconsistgrp	argument

Note: *See the Parameters section for a list of supported parameters and their description.*

chconsistgrp Example

Request

```
POST https://{_API_HOST}//api/task/chconsistgrp?argument=154829
HTTP Request Header
Authorization:  92929a8b-a413-476f-a624-5b575cff54d3
```

where 92929a8b-a413-476f-a624-5b575cff54d3 is the session ID.

Response

```
Request success
{
"status": 0
```

}

mkconsistgrpmember

About mkconsistgrpmember Command

Description

Use this command to add an application to a consistency group.

Rights

You must have the 'Application Manage' right to add an application to a consistency group.

Parameters

Parameter	Description
appid=string	Required. Specifies the ID of the application to be added to a consistency group. Use `lsapplication` to retrieve the application ID.
groupid=string	Required. Specifies the ID of the consistency group to add the application to. Use `lsconsistgrp` command to obtain the ID of the consistency group

mkconsistgrpmember Request Details

Your `mkconsistgrpmember` request must pass a valid session ID. For information on how to get a valid session ID, see Authentication or Login **on page 1**.

Method	URI	Required Parameters
POST	//api/task/mkconsistgrpmember	appid groupid

Note: *See the Parameters section for a list of supported parameters and their description.*

---

mkconsistgrpmember Example

Request

```
POST https://{API_HOST}//api/task/mkconsistgrpmember?appid=333957&groupid=334089
HTTP Request Header
Authorization:   92929a8b-a413-476f-a624-5b575cff54d3
```

where 92929a8b-a413-476f-a624-5b575cff54d3 is the session ID.

Response

```
Request success
{
  "result": 385474,
  "status": 0
}
```

rmconsistgrp

About rmconsistgrp Command

Description

Use this command to delete a consistency group.

Rights

You must have the 'Application Manage' or 'Host Manage' right to delete a consistency group.

Parameters

Parameter	Description
argument=string	Required. Specifies the consistency group ID to be removed. Use `lsconsistgrp` command to obtain the ID or name of the consistency group.

rmconsistgrp Request Details

Your `rmconsistgrp` request must pass a valid session ID. For information on how to get a valid session ID, see Authentication or Login **on page 1**.

Method	URI	Required Parameters
POST	//api/task/rmconsistgrp	argument

Note: *See the Parameters section for a list of supported parameters and their description.*

rmconsistgrp Example

Request
```
POST https://{API_HOST}//api/task/rmconsistgrp?argument=333957
HTTP Request Header
Authorization:  92929a8b-a413-476f-a624-5b575cff54d3
```

where 92929a8b-a413-476f-a624-5b575cff54d3 is the session ID.

Response
```
Request success
{
    "status": 0
}
```

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lsconsistgrpmember

About lsconsistgrpmember Command

Description

Use this command to display a concise list of applications-to-consistency-group mapping or a detailed view of a consistency group.

Rights

You must have the 'System View' right to retrieve consistency group (consistgrp) mappings.

Parameters

Parameter	Description
filtervalue=attrib%3D value	Optional. Specifies that you want your report to display any or the entire list of valid filter attributes. The valid filter attributes for the `lsconsistgrpmember` command are: • groupid • appid The filter is formed with an attribute and a value. When you specify more than one filter, they must be combined with '&' character (which should be escaped with '\').
argument=string	Optional. Specifies the ID of an object. When you use this parameter, a detailed view of the object is returned and any value that is specified by the `filtervalue` parameter is ignored. If you do not specify the argument, a concise view of all objects matching the filter criteria is displayed.

lsconsistgrpmember Request Details

Your `lsconsistgrpmember` request must pass a valid session ID. For information on how to get a valid session ID, see Authentication or Login **on page 1**.

Method	URI	Required Parameters
GET	//api/info/lsconsistgrpmember	None

Note: *See the Parameters section for a list of supported parameters and their description.*

lsconsistgrpmember Example

Request

```
GET https://{API_HOST}//api/info/lsconsistgrpmember?appid=333957&groupid=334089
HTTP Request Header
Authorization:  92929a8b-a413-476f-a624-5b575cff54d3
```

where 92929a8b-a413-476f-a624-5b575cff54d3 is the session ID.

Response

```
Request success
{
  "result": [
    {
      "modifydate": "",
      "appid": "334050",
      "groupid": "371554",
      "id": "407411"
    }
  ],
  "status": 0
}
```

actifio

rmconsistgrpmember

About rmconsistgrpmember Command

Description

Use this command to deletes an application from a consistency group. Use lsconsistgrpmember to locate the ID of a consistency group member.

Rights

You must have the 'Application Manage' or 'Host Manage' or 'SLA Manage' right to delete an application from a consistency group.

Parameters

Parameter	Description
argument=string	Required. Specifies the ID of the application to be deleted from a consistency group.

rmconsistgrpmember Request Details

Your `rmconsistgrpmember` request must pass a valid session ID. For information on how to get a valid session ID, see Authentication or Login **on page 1**.

Method	URI	Required Parameters
POST	//api/task/rmconsistgrpmember	argument

Note: *See the Parameters section for a list of supported parameters and their description.*

rmconsistgrpmember Example

Request

```
POST https://{API_HOST}//api/task/rmconsistgrpmember?argument=333957
HTTP Request Header
Authorization:  92929a8b-a413-476f-a624-5b575cff54d3
```

where 92929a8b-a413-476f-a624-5b575cff54d3 is the session ID.

Response

```
Request success
{
    "status": 0
}
```

rmconsistgrp

About rmconsistgrp Command

Description

Use this command to delete a consistency group.

Rights

You must have the 'Application Manage' or 'Host Manage' right to delete a consistency group.

Parameters

Parameter	Description
argument=string	Required. Specifies the consistency group ID to be removed. Use `lsconsistgrp` command to obtain the ID or name of the consistency group.

rmconsistgrp Request Details

Your `rmconsistgrp` request must pass a valid session ID. For information on how to get a valid session ID, see Authentication or Login **on page 1**.

Method	URI	Required Parameters
POST	`//api/task/rmconsistgrp`	argument

Note: *See the Parameters section for a list of supported parameters and their description.*

rmconsistgrp Example

Request

```
Request success
POST https://{API_HOST}//api/task/rmconsistgrp?argument=156726
HTTP Request Header
Authorization:  92929a8b-a413-476f-a624-5b575cff54d3
```

where 92929a8b-a413-476f-a624-5b575cff54d3 is the session ID.

Response

```
Request success
{
    "status": 0
}
```

rmgroupmember

About rmgroupmember Command

Description

Use this command to delete an application from a group. Use lsgroupmember to list the ID of the Rights

You must have the 'Application Manage' or 'System Manage' or 'SLA Assign' right to delete an application from a group.

Parameters

Parameter	Description
argument=string	Required. Specifies the ID of the group mapping to be removed.

rmgroupmember Request Details

Your `rmgroupmember` request must pass a valid session ID. For information on how to get a valid session ID, see Authentication or Login **on page 1**.

Method	URI	Required Parameters
POST	//api/task/rmgroupmember	argument

Note: *See the Parameters section for a list of supported parameters and their description.*

rmgroupmember Example

Request
```
Request success
POST https://{API_HOST}//api/task/rmgroupmember?argument=156726
HTTP Request Header
Authorization:  92929a8b-a413-476f-a624-5b575cff54d3
```

where 92929a8b-a413-476f-a624-5b575cff54d3 is the session ID.

Response
```
Request success
{
    "status": 0
}
```

rmgroup

About rmgroup Command

Description

Use this command to delete a group.

Rights

You must have the 'Application Manage' or 'Host Manage' or 'System Manage' right to delete a group.

Parameters

Parameter	Description
argument=string	Required. Specifies the ID or name of the group to be deleted. Use `lsgroup` to obtain the ID or name of a group.

rmgroup Request Details

Your `rmgroup` request must pass a valid session ID. For information on how to get a valid session ID, see Authentication or Login .

Method	URI	Required Parameters
POST	//api/task/rmgroup	argument

Note: *See the Parameters section for a list of supported parameters and their description.*

rmgroup Example

Request
```
POST https://{API_HOST}//api/task/rmgroup?argument=333850
HTTP Request Header
Authorization:  92929a8b-a413-476f-a624-5b575cff54d3
```

where 92929a8b-a413-476f-a624-5b575cff54d3 is the session ID.

Response
```
Request success
{
    "status": 0
}
```

Discovery Commands

appdiscovery

About appdiscovery Command

Description

Use this command to discover applications on a host. This applies to non Virtual Machine applications discovery. For Virtual Machines, use vmdiscovery. Use 'udsinfo lshost' command to locate ID or name of the host.

Rights

You must have the 'Host Manage' or 'Application Manage' right to perform application discovery.

Parameters

Parameter	Description
apps=string	Optional. Applications to be added to the appliance. Specify application names to add, comma separated. By default all applications are added.
apptype=string	Optional. Specifies type of applications to be discovered.
host=string	Optional. Specifies the host to perform discovery on, either ID or name of the host is needed. Use `lshost` to locate the ID/SRCID or name of the host.
ipaddress	Optional. Specifies the IP address of a host to perform discovery on.
listonly	Optional. Discover the applications on a given host only, don't add the applications to the appliance.
org=string	Optional. Specifies a default organization in which a new application should be added after discovery. To use this option user needs to have 'System Manage' right. If a default organization is not specified, an organization that the user belongs to is used.
port=integer	Optional. Specifies the port that the Connector is running on, the default value is 56789.
versiononly=boolean	Optional. Specifies if only the version should be discovered for this host. By default versiononly is set to false.

appdiscovery Request Details

Your `appdiscovery` request must pass a valid session ID. For information on how to get a valid session ID, see Authentication or Login **on page 1**.

Method	URI	Required Parameters

POST	//api/task/appdiscovery	host

Note: *See the Parameters section for a list of supported parameters and their description.*

appdiscovery Example

Request

```
POST https://{API_HOST}//api/task/appdiscovery?host=198180
HTTP Request Header
Authorization:  92929a8b-a413-476f-a624-5b575cff54d3
```

where 92929a8b-a413-476f-a624-5b575cff54d3 is the session ID.

Response

```
Request success
{
    "result": [
        {
            "new": "true",
            "appname": "F:\\",
            "missing": "false",
            "exists": "false",
            "id": "334037"
        },
        {
            "new": "true",
            "appname": "E: \\",
            "missing": "false",
            "exists": "false",
            "id": "334038"
        },
        {
            "new": "true",
            "appname": "C:\\",
            "missing": "false",
            "exists": "false",
            "id": "334039"
        },
        {
            "new": "true",
            "appname": "ProdMB04",
            "missing": "false",
            "exists": "false",
            "id": "334040"
        },
        {
            "new": "true",
            "appname": "ProdPF05-Sky",
            "missing": "false",
            "exists": "false",
            "id": "334041"
        },
        {
            "new": "true",
            "appname": "ProdPF04-Sky",
            "missing": "false",
            "exists": "false",
```

```
            "id": "334042"
        },
        {
            "new": "true",
            "appname": "ProdMB05-Sky",
            "missing": "false",
            "exists": "false",
            "id": "334043"
        },
        {
            "new": "true",
            "appname": "ProdMB04-Sky",
            "missing": "false",
            "exists": "false",
            "id": "334044"
        },
        {
            "new": "true",
            "appname": "ProdMB31",
            "missing": "false",
            "exists": "false",
            "id": "334045"
        },
        {
            "new": "true",
            "appname": "ProdPF05",
            "missing": "false",
            "exists": "false",
            "id": "334046"
        },
        {
            "new": "true",
            "appname": "ProdMB05",
            "missing": "false",
            "exists": "false",
            "id": "334047"
        },
        {
            "new": "true",
            "appname": "ProdMB32",
            "missing": "false",
            "exists": "false",
            "id": "334048"
        },
        {
            "new": "true",
            "appname": "ProdPF04",
            "missing": "false",
            "exists": "false",
            "id": "334049"
        },
        {
            "new": "true",
            "appname": "MailboxDatabase1340163881",
            "missing": "false",
            "exists": "false",
            "id": "334050"
        }
    ],
    "status": 0
```

```
}
```

actifio

lsappvols

About lsappvols Command

Description

Use this command to discover LVM volumes from the Actifio Connector on a Linux host. Generic out-of-band applications can then be added based on the selected LVM volumes.The lsappvols command is supported only by the appliances.

Rights

You must have the 'Host Manage' or 'Application Manage' right to perform application discovery.

Parameters

Parameter	Description
host=string	Required. Specifies the Linux host with a Actifio Connector to perform application discovery using either host ID or name. Use `lshost` to locate the host ID or name.

lsappvols Request Details

Your `lsappvols` request must pass a valid session ID. For information on how to get a valid session ID, see Authentication or Login on page 1.

Method	URI	Required Parameters
GET	//api/info/lsappvols	host

Note: *See the Parameters section for a list of supported parameters and their description.*

---

lsappvols Example

Request

```
GET https://{API_HOST}//api/info/lsappvols?host=198180
HTTP Request Header
Authorization:  92929a8b-a413-476f-a624-5b575cff54d3
```

where 92929a8b-a413-476f-a624-5b575cff54d3 is the session ID.

Response

```
Request success
{
    "result": [
        {
            "size": "0",
            "name": "F:\\",
            "lvmuuid": "null"
        },
        {
            "size": "0",
```

```
            "name": "E: \\",
            "lvmuuid": "null"
        },
        {
            "size": "0",
            "name": "C:\\",
            "lvmuuid": "null"
        },
        {
            "size": "0",
            "name": "ProdMB04",
            "lvmuuid": "null"
        },
        {
            "size": "0",
            "name": "ProdPF05-Sky",
            "lvmuuid": "null"
        },
        {
            "size": "0",
            "name": "ProdPF04-Sky",
            "lvmuuid": "null"
        },
        {
            "size": "0",
            "name": "ProdMB05-Sky",
            "lvmuuid": "null"
        },
        {
            "size": "0",
            "name": "ProdMB04-Sky",
            "lvmuuid": "null"
        },
        {
            "size": "0",
            "name": "ProdMB31",
            "lvmuuid": "null"
        },
        {
            "size": "0",
            "name": "ProdPF05",
            "lvmuuid": "null"
        },
        {
            "size": "0",
            "name": "ProdMB05",
            "lvmuuid": "null"
        },
        {
            "size": "0",
            "name": "ProdMB32",
            "lvmuuid": "null"
        },
        {
            "size": "0",
            "name": "MailboxDatabase1340163881",
            "lvmuuid": "null"
        }
    ],
    "status": 0
```

```
}
```

vmdiscovery

About vmdiscovery Command

Description

The vmdiscovery command discovers Virtual Machines managed by a vCenter or an SCVMM server, which then allows the discovered Virtual Machines to be protected by the appliance.

Rights

You must have the 'Host Manage' right to discover virtual machines.

Parameters

Parameter	Description
addall=string	Optional. Specifies that all Virtual Machines discovered in the specified cluster (with `-cluster`) are to be added to the appliance.Valid only for `-discovervms` parameter.
addvms=string	Optional. Virtual Machines to be added to the appliance. Specify the VM name, UUID of the VM to add.
cluster=string	Optional. Specifies cluster name or Hyper-V server that the Virtual Machines should be discovered. Required for `-discovervms` and `-addvms`.
discoverclusters=string	Optional, but required to discover clusters on a vCenter or Hyper-V server on SCVMM.
discovervms=string	Optional, but required to discover virtual machines. Discover Virtual Machines on the specified cluster or Hyper-V server (with `-cluster`).
host=string	Required. Specifies the vCenter host or SCVMM host to perform discovery on, either id or name of the vCenter or SCVMM (of type vCenter) host is required. Use `'udsinfo lshost'` to locate the ID or name of the vCenter or SCVMM host. The vCenter or SCVMM host should have been added to the appliance with `'udstask mkhost'` command.
org=string	Optional. Specifies a default organization in which the new VM should be added after discovery. To use this option user needs to have 'System Manage' right. If a default organization is not specified, an organization that the user belongs to is used.
vms=string	Optional. Virtual machines to be added to an appliance. The list of virtual machines should be separated by a colon (:). Required when using `addvms`.

vmdiscovery Request Details

Your vmdiscovery request must pass a valid session ID. For information on how to get a valid session ID, see Authentication or Login on page 1.

Method	URI	Required Parameters
POST	//api/task/vmdiscovery	host=<id|name of vcenter>

Note: *See the Parameters section for a list of supported parameters and their description.*

vmdiscovery Example

Request
```
POST https://{API_HOST}//api/task/vmdiscovery?discovervms&host=4322&cluster=ENG_CLUSTER
HTTP Request Header
Authorization:  92929a8b-a413-476f-a624-5b575cff54d3
```

where 92929a8b-a413-476f-a624-5b575cff54d3 is the session ID.

Response
```
Request success
{
    "result": [
        {
            "esxhostname": "Box1.qa.com",
            "exists": "false",
            "folder-path": "ENG_Data:/Discovered virtual machine/2008 Server",
            "hostname": "",
            "ipaddress": "",
            "osname": "Microsoft Windows Server 2008 (32-bit)",
            "status": "1",
            "uuid": "5025e9b4-83bc-a092-fe6d-bf6339adce65",
            "vmname": "2008 Server"
        },
        {
            "esxhostname": "Box2.qa..com",
            "exists": "false",
            "folder-path": "ENG_Data:/Discovered virtual machine/20GB_Win7_25_Drives",
            "hostname": "20GB_Windows7",
            "ipaddress": "",
            "osname": "Microsoft Windows 7 (64-bit)",
            "status": "1",
            "uuid": "503d6417-fcbd-44a5-7a16-5a4b8c67b759",
            "vmname": "20GB_Win7_25_Drives"
        },
    ],
    "status": 0
}
```

hmcdiscovery

About hmcdiscovery Command

Description

Use this command to discover VIOs and LPARs on an HMC host.

Applicability of this Command

This command can be used on:

Rights

CDS appliance	ü
Sky appliance	ü
NAS Director	ü

You must have the 'Host Manage' rights to perform HMC discovery.

Parameters

Parameter	Description
host=string	Optional. Specifies the host to perform HMC discovery on. The host has to be an HMC host. This is used when the HMC host already exists in the appliance.
ipaddress=string	Optional. Specifies the IP address of the HMC host, required when the HMC host does not exist in the appliance.
org=string	Optional. Specifies a default organization in which VIO or LPAR hosts should be added after discovery. To use this option user needs 'System Manage' right. If a default organization is not specified, an organization the user belongs to is used.
password=string	Optional. Specifies the password of the HMC host, required when the HMC host does not exist in the appliance.
port=integer	Optional. Specifies the port to be used for discovery, default to 22.
username=string	Optional. Specifies the username of the HMC host, required when the HMC host does not exist in the appliance.

hmcdiscovery Request Details

Your `hmcdiscovery` request must pass a valid session ID. For information on how to get a valid session ID, see Authentication or Login on page 1.

Method	URI	Required Parameters
POST	`//api/task/hmcdiscovery`	None

actifio

hmcdiscovery Example

Request

```
POST https://{API_HOST}//api/task/hmcdiscovery?ipaddress={HMC_IP}&username=name&password=pw
HTTP Request Header
Authorization:  92929a8b-a413-476f-a624-5b575cff54d3
where 92929a8b-a413-476f-a624-5b575cff54d3 is the session ID.
```

Other Commands

failback

About failback Command

Description

Use this to fail back an application that is protected by a Dedup Async or StreamSnap policy, from the remote appliance to the primary appliance. Prior to failing an application back, you should synchronize the application's data on the remote appliance with that of the primary appliance using the syncback command.

Rights

You must have the 'Host Manage' or 'Application Manage' or 'Mirroring Manage' right to fail back an application.

Parameters

Parameter	Description
appliance	Required. Specifies ID of the application, or consistgrp to be fail-back, the application or consistgrp must have already been protected by a dedup-async policy, and is in failed-over state.

failback Request Details

Your `failback` request must pass a valid session ID. For information on how to get a valid session ID, see Authentication or Login **on page 1**.

Method	URI	Required Parameters
POST	//api/task/failback	id

Note: *See the Parameters section for a list of supported parameters and their description.*

failback Example

```
POST https://{API_HOST}//api/task/failback?id=34118
HTTP Request Header
Authorization:  92929a8b-a413-476f-a624-5b575cff54d3
```

where 92929a8b-a413-476f-a624-5b575cff54d3 is the session ID.

Response

```
Request success
{
    "result": "failback job Job_0041610 completed",
    "status": 0
}
```

actifio

failover

About failover Command

Description

Use this command to fail-over a dedup-async protected application. This command is issued on the remote appliance when the application on the primary appliance is failed.

Rights

You must have the 'Host Manage' or 'Application Manage' right to fail over an application.

Parameters

Parameter	Description
accessmode=string	Optional, valid only for export to CIFS type for VDP appliance. Specifies the type of access that is allowed for the specified user (in `user`). Allowed types are: • ro: read-only • rw: read-write • deny: no access allowed • root: has full access to all the files in the share even if ACLs do not.
allvolumes=string	Optional. The flag specifies whether to export all volumes in the backup for VDP appliance. Use `exportobjectid` to specify a specific volume to be exported.
id=string	Required. Specifies the ID/SRCID or consistgrp of the application to fail over. The application or consistgrp should be protected by a dedup-async policy.
datastore=string	Optional for applications on hosts other than virtual machines but required for VMware Virtual Machine applications. Specifies the data store to be used for fail-over.
diskpool=string	Optional for VM applications and required only for non-VM applications. Specifies the disk-pool to be used for fail-over.
exportedname=string	Optional. Specifies the exported name of the backup image, valid only for CIFS for VDP appliance.
exportedpath=string	Optional. Specifies sub-directory within the mount volume to be exported for VDP appliance.
exporthost=string	Optional. Specifies the ID or name of host(s) to which the backup image is to be exported for VDP appliance. If ID is used, the host must already exist in the appliance. Name can contain wild characters. More than one host can be specified, separated by a comma (,).

Parameter	Description
exportobjectid=string	Optional. Specifies the object id of the individual volume within the mounted image to be exported for VDP appliance.
exportobjecttype=string	Optional. Specifies the object type of the individual volume within the mounted image to be exported for VDP appliance.
exportoption=string	Optional. Specifies the export option, a name/value list, separated by equal (=) for VDP appliance. Multiple options are separated by comma (,). An example is, "readonly=true,writedelay=false" The following option is allowed for NFS: • readonly="true | false" • writedelay="true | false" • rootsquash="true | false" • allsquash="true | false" • anonuid="0" | "1" • insecurelocks="true | false" The following option is allowed for CIFS, • allowguest="true | false"
exporttype=string	Optional. Specifies protocol for VDP appliance, *cifs* for CIFS, and *nfs* for NFS. Default to the protocol the backup was created.
group=string	Optional, valid only for export to CIFS type for VDP appliance. Specifies a list of domain groups that are allowed to map the share, separated by a comma (,).
host=string	Required. Specifies the host ID for VDP appliance or host name or the name of the virtual machine to fail-over to. For a regular host, the host has to exist already.
hypervisor=string	Optional (required for Virtual Machine applications for VDP appliance). Specifies the hypervisor on which to failover to. This is the ESX host for VMware, and Microsoft Hyper-V Server for Hyper-V.
label=string	Optional. Specifies label for the fail-over image.
mgmtserver=string	Optional. Required for Virtual Machine applications for VDP appliance. Specifies the management server, ID or name, to be used for test failover. This is the vCenter host for VMware and Microsoft System Center Virtual Machine Manager for Hyper-V.
nowait=string	Optional. The flag specifies not to wait for the completion of the command.
path=string	Optional, valid only for Hyper-V Virtual Machine backup image for VDP appliance. Specifies the path to be used for failover to a new Hyper-V Virtual Machine.

actifio

Parameter	Description
poweroffvm	(Optional) By default, failover of VM image is powered on automatically. Specifying 'poweroffvm' will leave the VM in the powered off state.
rdmmode	(Optional) Specifies Raw Device Mapping (RDM) mode for VM. Valid values are: • dependentvirtual • independentvirtual (default) • physical Specify dependentvirtual if mounted volume(s) are to be included in VMware snapshots **Note:** *dependentvirtual is rarely used.* If there is an SLA assigned to the VM to which these volumes are mounted, they will be captured and will be counted towards MDL usage.
restoreoption=string	Optional. A comma delimited list of restore options where each restore option is a name-value pair. See Appendix F, List of Restore Options for a summary of the supported restore options for this command.
script=string	Optional. Specifies a script during different phases of the operation. Five phases are supported, INIT, PRE, POST, FINAL and ABORT. Each phase, a timeout, name of the script, and argument list can be specified. Name of the script is required, timeout and arguments are optional. Syntax for each phase is: name=<name>:phase={INIT|PRE|POST|FINAL|ABORT}:[timeout=<timeout>]:[args=arg1,arg2]Multiple phases can be specified, separated by semi-colon (;), for example, "name=setup.sh:phase=INIT;name=freeze.sh:phase=PRE"
user=string	Optional, valid only for export to CIFS type for VDP appliance. Specifies a list of domain users that are allowed to map the share, separated by a comma (,). Also allowed are local user (with specified password), use colon (:) to separate user name and password. The local user does not need to exist in Windows Domain or the appliance, but has to be unique.

For an Actifio appliance:

failover Request Details

Your `failover` request must pass a valid session ID. For information on how to get a valid session ID, see Authentication or Login on page 1.

Method	URI	Required Parameters
POST	//api/task/failover	id host

Note: *See the Parameters section for a list of supported parameters and their description.*

failover Example

Request

```
POST https://{REMOTE_APPLIANCE_HOST}//api/task/
failover?appid=17027&diskpool=act_per_pool000&host=2008
server&label=REST_failover_img&allvolumes=true
HTTP Request Header
Authorization:  92929a8b-a413-476f-a624-5b575cff54d3
```

where 92929a8b-a413-476f-a624-5b575cff54d3 is the session ID.

Response

```
Request success
```

```
{
    "result": "failover job Job_0020689 completed",
    "status": 0
}
```

testfailover

About testfailover Command

Description

Use this command to test a Dedup Async protected application for fail-over.

Rights

You must have the 'Host Manage' or 'Application Manage' right to test an application.

Parameters

Parameter	Description
id=string	Required. Specifies the ID for VDP appliance of the application or consistency group to be tested. The application should be protected with a dedup-async policy.
accessmode=string	Optional, valid only for export to CIFS type for VDP appliance. Specifies the type of access that is allowed for the specified user (in user). Allowed types are: • ro: read-only • rw: read-write • deny: no access allowed • root: has full access to all the files in the share even if ACLs do not
allvolumes=string	Optional. The flag specifies whether to export all volumes in the backup for VDP appliance. Use exportobjectidto specify a specific volume to be exported.
datastore=string	Optional. Required for VMware (VDP appliance). Specifies the datastore to be used to test the fail-over.
host=string	Required. Specifies the host source ID, name, or the name of the virtual machine to fail over to. For a regular host, the host should exist already.
hypervisor=string	Optional. required for Virtual Machine applications for VDP appliance. Specifies the hypervisor to be used for the test failover. This is the ESX host for VMware, and Microsoft Hyper-V Server for Hyper-V.
label=string	Optional.Specifies label for the test failover image.
mgmtserver=string	Optional. required for Virtual Machine applications for VDP appliance. Specifies the management server to be used for test fail-over. This is the vCenter host for VMware and Microsoft System Center Virtual Machine Manager for Hyper-V.
nowait=boolean	Optional. Specifies not to wait for the completion of the command.

actifio

Parameter	Description
path=string	Optional. Valid only for Hyper-V Virtual Machine backup image for VDP appliance. Specifies the path to be used for test fail-over to a new Hyper-V Virtual Machine.
rdmmode	Optional. Specifies Raw Device Mapping (RDM) mode for a VM. Valid values are: • dependentvirtual • independentvirtual (default) • physical Specify dependentvirtual if mounted volume(s) are to be included in VMware snapshots **Note:** *dependentvirtual is rarely used.* If there is an SLA assigned to the VM to which these volumes are mounted, they will be captured and will be counted towards MDL usage.
restoreoption=string	Optional. A comma delimited list of restore options where each restore option is a name-value pair. See Appendix F, List of Restore Options for a summary of the supported restore options for this command.
script=string	Optional. Specifies a script during different phases of the operation. Five phases are supported, INIT, PRE, POST, FINAL, and ABORT. Each phase, a timeout, name of the script, and argument list can be specified. Name of the script is required, timeout and args are optional. Syntax for each phase is: name=<name>:phase={INIT|PRE|POST|FINAL|ABORT}:[timeout=<timeout>]:[args=arg 1,arg2]. Multiple phases can be specified, separated by semi-colon (;), for example, "name=setup.sh:phase=INIT;name=freeze.sh:phase=PRE"
exportedname=string	Optional. Specifies the exported name of the backup image, valid only for CIFS for VDP appliance.
exportedpath=string	Optional. Specifies sub-directory within the mount volume to be exported for VDP appliance.
exporthost=string	Optional. Specifies the ID or name of host(s) to which the backup image is to be exported for VDP appliance. If ID is used, the host has to already exist in the appliance. Name can contain wild characters. More than one host can be specified, separated by a comma (,).
exportobjectid=string	Optional. Specifies the objectid of the individual volume within the mounted image to be exported for VDP appliance.
exportobjecttype=string	Optional. Specifies the objecttype of the individual volume within the mounted image to be exported for VDP appliance.
poweroffvm=boolean	Optional. By default, testfailover of VM image is powered on automatically. By specifying true, the VM will be left in the powered off state.

Parameter	Description
exportoption=string	Optional. Specifies the export option for VDP appliance, a name/value list, separated by equal (=). Multiple options are separated by commas (,). An example is: "readonly=true,writedelay=false" The following options are allowed for NFS: • readonly="true | false" • writedelay="true | false" • rootsquash="true | false" • allsquash="true | false" • anonuid="0" | "1" • insecurelocks="true | false" The following option is allowed for CIFS: allowguest="true | false"
exporttype=string	Optional. Specifies protocol for VDP appliance, *cifs* for CIFS, and *nfs* for NFS. Default to the protocol the backup was created.
group=string	Optional, valid only for export to CIFS type for VDP appliance. Specifies a list of domain groups that are allowed to map the share, separated by a comma (,).
user=string	Optional, valid only for export to CIFS type for VDP appliance. Specifies a list of domain users that are allowed to map the share, separated by comma (,). Also allowed are local user (with specified password), use colon (:) to separate username and password. The local user does not need to exist in Windows Domain or the appliance, but it has to be unique.

testfailover Request Details

Your `testfailover` request must pass a valid session ID. For information on how to get a valid session ID, see Authentication or Login on page 1.

Method	URI	Required Parameters
POST	//api/task/testfailover	id host

Note: *See the Parameters section for a list of supported parameters and their description.*

testfailover Example

Request
```
POST https://{REMOTE_APPLIANCE}//api/task/testfailover?id=17027&allvolumes=true&host=2008
server&label=test_failover_image
HTTP Request Header
Authorization:  92929a8b-a413-476f-a624-5b575cff54d3
```

where 92929a8b-a413-476f-a624-5b575cff54d3 is the session ID.

Response
```
Request success
```

```
{
    "result": "testfailover job Job_0020689 completed",
    "status": 0
}
```

rmfailovertest

About rmfailovertest Command

Description

Use this command to delete a test failover image. Use lsbackup command to locate the backup images to be deleted.

Rights

You must have the 'Host Manage' or 'Application Manage' rights to delete a image.

Parameters

Parameter	Description
image=string	Required. Specifies the ID for VDP applianceor name of the backup image to be deleted. Use `lsbackup` to locate the ID/SRCID or name for the image.
script=string	Optional. Specifies a script during different phases of the operation. Five phases are supported, INIT, PRE, POST, FINAL, and ABORT. Each phase, a timeout, name of the script, and argument list can be specified. Name of the script is required, timeout and args are optional. Syntax for each phase is: name=<name>:phase={INIT|PRE|POST|FINAL|ABORT}:[timeout=<timeout>]:[args=arg1,arg2] Multiple phases can be specified, separated by semi-colon (;), for example, "name=setup.sh:phase=INIT;name=freeze.sh:phase=PRE"

rmfailovertest Request Details

Your `rmfailovertest` request must pass a valid session ID. For information on how to get a valid session ID, see Authentication or Login on page 1.

Method	URI	Required Parameters
POST	//api/task/rmfailovertest	image

Note: *See the Parameters section for a list of supported parameters and their description.*

---

rmfailovertest Example

Request

```
POST https://{API_HOST}//api/task/rmfailovertest?image=Image_0024650
HTTP Request Header
Authorization:  92929a8b-a413-476f-a624-5b575cff54d3
```

where 92929a8b-a413-476f-a624-5b575cff54d3 is the session ID.

Response

```
Request success
```

```
{
    "result": "Job_0025468 to rmfailovertest Image_0024650 completed",
    "status": 0
}
```

actifio

syncback

About syncback Command

Description

Use this command to synchronize a failed-over dedup-async or StreamSnap-protected application back to the original appliance.

This command can be issued only on the failed-over VDP appliance. It merges all changes made to the failed over application on the remote appliance back to the original appliance, in preparation for the eventual fail-back. When an application, protected with a Dedup Async or StreamSnap policy, fails over to a remote appliance, the application data is modified on the remote appliance. However, failing the application back to the primary appliance requires synchronization of the application's data between the remote and primary appliances using the sync-back command.

Rights

You need the 'Host Manage' or 'Application Manage' or 'Mirroring Manage' right to sync-back a failed-over application.

Parameters

Parameter	Description
id=string	Required. Specifies the ID for VDP applianceto be synchronized back from the previously failed over application or consistency group. Use `lsapplication` or `lsconsistgrp` for the ID/SRCID.
label=string	Optional. Specifies label for the newly created sync-back image.

syncback Request Details

Your `syncback` request must pass a valid session ID. For information on how to get a valid session ID, see Authentication or Login **on page 1**.

Method	URI	Required Parameters
POST	//api/task/syncback	id

Note: *See the Parameters section for a list of supported parameters and their description.*

syncback Example

Request
```
POST https://{REMOTE_APPLIANCE_HOST}//api/task/syncback?appid=17027&label=syncback_image_1
HTTP Request Header
Authorization:  92929a8b-a413-476f-a624-5b575cff54d3
```

where 92929a8b-a413-476f-a624-5b575cff54d3 is the session ID.

Response

```
Request success
{
    "result": "syncback job Job_0020708 completed",
    "status": 0
}
```

lsappclass

About lsappclass Command

Description

Use this command to list all the available application classes or provide detailed information (provisioning options) for a specific application class. If *appclassname* is provided instead of the other parameters, it will display detailed information about the given Appclass.

Applicability of this Command

This command can be used on:

Rights

CDS appliance	ü
Sky appliance	ü
NAS Director	ü

You must have the 'System Manage' or 'System View' right to view the application class information.

Parameters

Parameter	Description
name=string	Optional. The case sensitive Appclass name (MS-SQL Server, Oracle, EBiz, and so on).

lsappclass Request Details

Your `lsappclass` request must pass a valid session ID. For information on how to get a valid session ID, see Authentication or Login on page 1.

Method	URI	Required Parameters
GET	//api/info/lsappclass	None

Note: *See the Parameters section for a list of supported parameters and their description.*

lsappclass Example

Request
```
GET https://{API_HOST}//api/info/lsappclass
```

```
HTTP Request Header
Authorization: 92929a8b-a413-476f-a624-5b575cff54d3
```

where 92929a8b-a413-476f-a624-5b575cff54d3 is the session ID.

Response

```
Request success
{
  "result": [
    {
      "friendly name": "SQL Server Group",
      "name": "SQLServerGroup",
      "description": "Consistency group including SQL Server Databases and optionally one or
more filesystems applications"
    },
    {
      "friendly name": "SQL Server",
      "name": "SQLServer",
      "description": "SQL Server database"
    },
    {
      "friendly name": "Oracle Group",
      "name": "OracleGroup",
     "description": "Consistency group including one Oracle Database and optionally one or more
filesystem applications"
    },
    {
      "friendly name": "Oracle",
      "name": "Oracle",
      "description": "Oracle Database"
    }
  ],
  "status": 0
}
```

Filtering the Output Using the Appclass Oracle.

Request

```
GET https://{API_HOST}//api/info/lsappclass?name=Oracle
HTTP Request Header
Authorization:  92929a8b-a413-476f-a624-5b575cff54d3
```

where 92929a8b-a413-476f-a624-5b575cff54d3 is the session ID.

Response

```
Request success
{
  "result": [
    {
      "friendly name": "Oracle",
      "name": "Oracle",
      "description": "Oracle Database"
    }
  ],
  "status": 0
}
```

lsinstancemember

About lsinstancemember Command

Description

Use this command to retrieve a concise list of application-to-database instance mappings, or a detailed view of application-to-database instance mappings.

Applicability of this Command

This command can be used on:

Rights

CDS appliance	ü
Sky appliance	ü
NAS Director	ü

There are no specific rights associated with this operation. User with 'administrator' role can retrieve the list of application-to-database instance mappings.

Parameters

Parameter	Description
filtervalue=attrib%3Dvalue	Optional. Specifies that you want your report to display any or the entire list of valid filter attributes. The valid filter attributes for the `lsinstancemember` command are: • instanceid • appid The filter is formed with an attribute and a value. When you specify more than one filter, they must be combined with '&' character (which needs to be escaped with '\').
argument=string	Optional. Specifies the ID of an object. When you use this parameter, a detailed view of the object is returned and any value that is specified by the `filtervalue` parameter is ignored. If you do not specify the argument parameter, a concise view of all objects matching the filter criteria is shown.

lsinstancemember Request Details

Your `lsinstancemember` request must pass a valid session ID. For information on how to get a valid session ID, see Authentication or Login on page 1.

Method	URI	Required Parameters

GET	//api/info/lsinstancemember	None

Note: *See the Parameters section for a list of supported parameters and their description.*

---

lsinstancemember Example

Request
```
GET https://{API_HOST}//api/info/lsinstancemember
HTTP Request Header
Authorization:  92929a8b-a413-476f-a624-5b575cff54d3
```

where 92929a8b-a413-476f-a624-5b575cff54d3 is the session ID.

Response
```
Request success
{
    "result": [
        {
            "appid": "82233",
            "id": "82557",
            "instanceid": "81916"
        },
        {
            "appid": "82234",
            "id": "82558",
            "instanceid": "81916"
        },
        {
            "appid": "82235",
            "id": "82559",
            "instanceid": "81916"
        },
        {
            "appid": "82236",
            "id": "82560",
            "instanceid": "81916"
        },
        {
            "appid": "82237",
            "id": "82561",
            "instanceid": "81916"
        },
        {
            "appid": "82238",
            "id": "82562",
            "instanceid": "81916"
        },
        {
            "appid": "82239",
            "id": "82563",
            "instanceid": "81916"
        },
        {
            "appid": "82240",
            "id": "82564",
            "instanceid": "81916"
        },
```

```
        {
            "appid": "82241",
            "id": "82565",
            "instanceid": "81916"
        },
        {
            "appid": "82242",
            "id": "82566",
            "instanceid": "81916"
        },
        {
            "appid": "82243",
            "id": "82567",
            "instanceid": "81916"
        },
        {
            "appid": "82244",
            "id": "82568",
            "instanceid": "81916"
        },
        {
            "appid": "82245",
            "id": "82569",
            "instanceid": "81916"
        },
        {
            "appid": "82246",
            "id": "82570",
            "instanceid": "81916"
        },
        {
            "appid": "82247",
            "id": "82571",
            "instanceid": "81917"
        },
        {
            "appid": "82248",
            "id": "82572",
            "instanceid": "81917"
        },
        {
            "appid": "82249",
            "id": "82573",
            "instanceid": "81917"
        },
        {
            "appid": "82250",
            "id": "82574",
            "instanceid": "81917"
        }
    ],
    "status": 0
}
```

lsmdlstat

About lsmdlstat Command

Description

Use this command to retrieve statistics of MDL (Managed Data License) usage for each protected application in the appliance. The statistics are collected once a day.

When the appid statistic is 0, it contains the total MDL of all applications that this appliance manages.

Rights

You must have 'System View' or 'System Manage' rights to be able to retrieve MDL data.

Parameters

Parameter	Description

filtervalue=attrib%3D value	Optional. Specifies that you want your report to display any or all of the list of valid filter attributes. The valid filter attributes for `lsmdlstat` are:
	
	• allocated
	• appid
	• appname
	• appreserved
	• appsize
	• capacity
	• devsize
	• hostname
	• manageddata
	• sourcecluster
	• stattime
	
	The filter will be formed with an attribute and a value. Multiple filters must be combined with '&' character (which must be escaped with '\').
	
	For string type of filters, the only operator allowed is '='. You can also use the wildcard character '*'. For example, to match an application with appname beginning with 'foo', use '-filtervalue appname=foo*'.
	
	For number types, allowed operators are: =, >, >=, <, <=. To use <, <=, >, or >=, they need to be escaped with '\' or enclosed in ' or ", as required by shell. For example:
	
	    -filtervalue vdiskcount\>=10
	    -filtervalue "vdiskcount>=10"
	    -filtervalue 'vdiskcount>=10'

argument=string	Optional. Specifies the ID of an object. When you use this parameter, the detailed view of the specific object is returned and any value that is specified by the `filtervalue` parameter is ignored. If you do not specify the argument, the concise view of all objects matching the filter criteria is displayed.

lsmdlstat Request Details

Your `lsmdlstat` request must pass a valid session ID. For information on how to get a valid session ID, see Authentication or Login **on page 1**.

Method	URI	Required Parameters
GET	//api/info/lsmdlstat	None

Note: *See the Parameters section for a list of supported parameters and their description.*

lsmdlstat Example

Request
```
GET https://{API_HOST}//api/info/lsmdlstat
HTTP Request Header
Authorization:  92929a8b-a413-476f-a624-5b575cff54d3
```

where 92929a8b-a413-476f-a624-5b575cff54d3 is the session ID.

Response
```
Request success
{
  "result": [
    {
      "manageddata": "6739197952",
      "hostname": "ctos6.4wp-13",
      "appname": "CTOS6.4WP-13",
      "appid": "164689",
      "stattime": "2017-11-21 03:00:00.112",
      "appsize": "4652531712",
      "sourcecluster": "1415056619",
      "id": "315150",
      "devsize": "124554051584",
      "appreserved": "6739197952",
      "capacity": "1",
      "allocated": "4652531712"
    },
    {
      "manageddata": "6739197952",
      "hostname": "",
      "appname": "",
      "appid": "0",
      "stattime": "2018-02-19 03:00:00.117",
      "appsize": "4652531712",
      "sourcecluster": "1415056619",
      "id": "403151",
      "devsize": "124554051584",
      "appreserved": "6739197952",
      "capacity": "1",
      "allocated": "4652531712"
    }
  ],
  "status": 0
}
```

Virtual Machine Commands

addvm

About addvm Command

Description

Use this command to add a Virtual Machines that are managed by a management server (vCenter for VMware, and SCVMM for Hyper-V), which then allows the added Virtual Machines to be protected by the appliance.

Applicability of this Command

This command can be used on:

Rights

CDS appliance	ü
Sky appliance	ü
NAS Director	ü

You must have 'System Manage' right to add a Virtual Machine.

Parameters

Parameter	Description
addall=boolean	Optional. Specifies that all Virtual Machines discovered are to be added to the appliance.
host=string	Required. Specifies the management server host to perform discovery on, either id or name of host is needed. Use `lshost` to locate the ID or name of the management server host.
org=string	Optional. Specifies a default organization in which the new VM should be added after discovery. To use this option user needs to have 'System Manage' right. If a default organization is not specified, an organization that the user belongs to is used. Use `lsorg` to locate the ID or name of the organization.
vms=string	Optional. Virtual Machines, colon (:) separated, to be added to the appliance.
cloudcredential=string	Optional. This is required field for adding cloud instances. Specifies the cloud credential to perform the discovery on, either ID or name is needed. Use 'udsinfo lscloudcredential' to locate the ID or name of the cloud credential.

Parameter	Description
region=string	Optional. This is applicable for adding cloud instances. Signifies a location, which is completely isolated from each other.

addvm Request Details

Your `addvm` request must pass a valid session ID. For information on how to get a valid session ID, see Authentication or Login on page 1.

Method	URI	Required Parameters
POST	`//api/task/addvm`	`host`

Note: *See the Parameters section for a list of supported parameters and their description.*

addvm Example

Request

```
POST https://{API_HOST}//api/task/addvm?host=bub.sqa..com&vms=2008vm2x86-juice-p:2008vm1x86-
70spsky-p
HTTP Request Header
Authorization:  92929a8b-a413-476f-a624-5b575cff54d3
```

where 92929a8b-a413-476f-a624-5b575cff54d3 is the session ID.

Response

```
{
    "status": 0
}
```

lsvm

About lsvm Command

Description

Use this command to discover Virtual Machines managed by a management server, vCenter for VMware, and SCVMM for Hyper-V which then allows the Virtual Machines to be added to the appliance.

Applicability of this Command

This command can be used on:

Parameters

CDS appliance	ü
Sky appliance	ü
NAS Director	ü

Parameter	Description
host=string	Required. Specifies the management server host to perform discovery on, either id or name of host is needed. Use `lshost` to locate the ID or name of the management server host.

lsvm Request Details

Your `lsvm` request must pass a valid session ID. For information on how to get a valid session ID, see Authentication or Login on page 1.

Method	URI	Required Parameters
GET	`//api/info/lsvm`	`host=<name or id of host>`

Note: *See the Parameters section for a list of supported parameters and their description.*

lsvm Example

Request

```
GET https://{API_HOST}//api/info/lsvm?host={VCENTER_HOSTNAME}
HTTP Request Header
Authorization:  92929a8b-a413-476f-a624-5b575cff54d3
```

where 92929a8b-a413-476f-a624-5b575cff54d3 is the session ID.

actifio

Response

Request success

```
{
    "result": [
        {
            "ipaddress": "172.16.113.54",
            "osname": "CentOS 4/5/6/7 (64-bit)",
            "uniquename": "50140db4-7d79-e4f6-31ce-4c4df2cc1ebf",
            "vmname": "agm80up81"
        },
        {
            "ipaddress": "172.16.113.52",
            "osname": "CentOS 4/5/6/7 (64-bit)",
            "uniquename": "501476bd-4803-5999-2bf2-820e305c3a03",
            "vmname": "agmsky81"
        },
        {
            "ipaddress": "172.16.113.51",
            "osname": "CentOS 4/5/6/7 (64-bit)",
            "uniquename": "5014b645-7dfb-0280-1231-75764311c441",
            "vmname": "agm_vmdk"
        },
        {
            "ipaddress": "172.16.203.230",
            "osname": "CentOS 4/5/6/7 (64-bit)",
            "uniquename": "5014d0f8-8e4f-3c99-b3ab-6c16450ca365",
            "vmname": "ARM-7.0.4.42"
        },
        {
            "ipaddress": "172.16.113.102",
            "osname": "Microsoft Windows 7 (64-bit)",
            "uniquename": "503566ff-9a6f-a5b9-574a-a132668e9165",
            "vmname": "Windows7Client"
        }
    ],
    "status": 0
}
```

Mount Commands

prepmount

About prepmount Command

Description

Use this command to prep-mount a LiveClone image to a host to allow prep operation to be performed.

Rights

You must have 'Host Manage' or 'Application Manage' rights to prep-mount a LiveClone image.

Parameters

Parameter	Description
appaware=boolean	Optional. The flag specifies whether the mount is to create an app-aware application from the prep-mount for VDP Appliances.
host=string	Required. Specifies the ID or name of an existing host to which the LiveClone image is to be prep-mounted.
nfsoption	Optional. Uses comma (,) separated nfs options, when diskpref is NFS. Both server and client options are supported, separated by a semi-colon (;), for example, "server:writedelay=true,subtreecheck=false;client:retrans=2".
image=string	Required. Specifies the LiveClone image to be mounted. Either image ID for or image name is allowed, which can be retrieved from `lsbackup`.
nowait=boolean	Optional. The flag specifies whether to wait for the completion of the command.
rdmmode	(Optional) Specifies Raw Device Mapping (RDM) mode for VM. Valid values are: • dependentvirtual • independentvirtual (default) • physical Specify dependentvirtual if mounted volume(s) are to be included in VMware snapshots **Note:** *dependentvirtual is rarely used.* If there is an SLA assigned to the VM to which these volumes are mounted, they will be captured and will be counted towards MDL usage.
recoverytime=string	Optional. Valid only for database applications for VDP appliance. Specify the point-in-time for recovery, by applying log backups to roll forward to the specified time of the host. The time should be within the range set by `hostbeginpit` and `hostendpit` when displayed using `lsbackup` *xxxx* for that image. The time format should be either: **yyyy-MM-dd HH:mm:ss** or **yyyy-MM-dd HH:mm:ss.SSS**.

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Parameter	Description
restoreoption	Optional. A comma delimited list of restore options where each restore option is a name=value pair.
script=string	Optional. Specifies a script during different phases of the operation. Five phases are supported, INIT, PRE, POST, FINAL, and ABORT. Each phase, a timeout, name of the script, and argument list can be specified. Name of the script is required, timeout and args are optional. Syntax for each phase is: name=<name>:phase={INIT|PRE|POST|FINAL|ABORT}:[timeout=<timeout>]:[args=arg1,arg2] Multiple phases can be specified, separated by semi-colon (;), for example, "name=setup.sh:phase=INIT;name=freeze.sh:phase=PRE"
queue	Optional. The flag provides an option to queue prep-mount job and run the job when we have slots available.

prepmount Request Details

Your `prepmount` request must pass a valid session ID. For information on how to get a valid session ID, see Authentication or Login on page 1.

Method	URI	Required Parameters
POST	//api/task/prepmount	host image

Note: *See the Parameters section for a list of supported parameters and their description.*

prepmount Example

Request

```
POST https://{API_HOST}//api/task/prepmount?image=Image_0006285&host=rh74vm1
HTTP Request Header
Authorization:  92929a8b-a413-476f-a624-5b575cff54d3
```

where 92929a8b-a413-476f-a624-5b575cff54d3 is the session ID.

Response

```
Request success
{
  "result": "Job_0006299 to prepmount Image_0006285 completed",
  "status": 0
}
```

prepunmount

About prepunmount Command

Description

Use this command to prep-unmount and optionally discard a prep-mounted LiveClone image.This command optionally discards the prep-mounted LiveClone image after it is prep-unmounted.

Rights

You must have 'Host Manage' or 'Application Manage' rights to prep-unmount a prep-mounted LiveClone image.

Parameters

Parameter	Description
discard=boolean	Optional. The flag specifies whether to discard the prep-mounted LiveClone image, after it is unmounted.
image=string	Required. Specifies the LiveClone image to be prep-unmounted, either image ID for or image name is allowed, which can be retrieved from `lsbackup`. The LiveClone image has to be already prep-mounted.
nowait=boolean	Optional. The flag specifies whether to wait for the completion of the command.
script=string	Optional. Specifies a script during different phases of the operation. Five phases are supported, INIT, PRE, POST, FINAL, and ABORT. Each phase, a timeout, name of the script, and argument list can be specified. Name of the script is required, timeout and args are optional. Syntax for each phase is: name=<name>:phase={INIT|PRE|POST|FINAL|ABORT}:[timeout=<timeout>]:[args=arg1,arg2] Multiple phases can be specified, separated by semi-colon (;), for example, "name=setup.sh:phase=INIT;name=freeze.sh:phase=PRE"

prepunmount Request Details

Your `prepunmount` request must pass a valid session ID. For information on how to get a valid session ID, see Authentication or Login on page 1.

Method	URI	Required Parameters
POST	//api/task/prepunmount	image

Note: *See the Parameters section for a list of supported parameters and their description.*

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prepunmount Example

Request

```
POST https://{API_HOST}//api/task/prepunmount?image=Image_0006285
HTTP Request Header
Authorization:  92929a8b-a413-476f-a624-5b575cff54d3
```

where 92929a8b-a413-476f-a624-5b575cff54d3 is the session ID.

Response

```
Request success
{
  "result": "Job_0006401 to prepunmount Image_0006285 completed",
  "status": 0
}
```

mountimage

About mountimage Command

Description

Use this command to mount a backup image to a host.

Rights

You must have the 'Host Manage' or 'Application Manage' or 'Mount Manage' rights to mount a backup image.

Parameters

Parameter	Description
accessmode=string	Optional, valid only for export to CIFS type. Specifies the type of access that is allowed for the specified user (in `user`). Allowed types are: • ro: read-only • rw: read-write • deny: no access allowed • root: has full access to all the files in the share even if ACLs do not
allvolumes=boolean	Optional. The flag specifies whether to export all volumes in the backup. Use `exportobjectid` to specify a specific volume to be exported.
appid=string	Optional. Use the latest snapshot backup image of the application, specified by the *appid* for the mount. Use `lsapplication` to retrieve the application ID.
appaware=boolean	Optional. The flag specifies whether the mount is to create an app-aware application from the mount.
container=string	Optional. The flag specifies whether the mount is to perform mount of an application to Kubernetes container.
datastore=string	Optional. Valid only for VMware or Virtual Machine backup image. Specifies the datastore to be used for mounting the image. Use this option if a different datastore should be used for the mount. Use of this option is not typical.
diskpool=string	Optional. Specifies the disk pool to be used for mount.
diskpref=string	Optional. Specifies preference for presenting disk, BLOCK or NFS, default to BLOCK.
exportedname=string	Optional. Specifies the exported name of the backup image Valid only for CIFS.
exportedpath=string	Optional. Specifies sub-directory within the mount volume to be exported.

Parameter	Description
exporthost=string	Optional. Specifies the ID or name of host(s) to which the backup image is to be exported. If ID is used, the host has to already exists in the appliance. Name can contain wild characters. More than one host can be specified, separated by a comma (,).
host=string	Optional,. Required for non-Virtual Machine applications. Specifies the ID or name of an existing host to which the backup image is to be mounted. If a new Virtual Machine is to be created for Virtual Machine backup. Use -vmname to specify the new Virtual Machine name.
exportobjectid=stri ng	Optional. Specifies the object ID of the individual volume within the mounted image to be exported.
exportobjecttype=s tring	Optional. Specifies the object type of the individual volume within the mounted image to be exported.
exportoption=strin g	Optional. Specifies the export option, a name/value list, separated by equal (=). Multiple options are separated by comma (,). An example is: "readonly=true,writedelay=false" The following option is allowed for NFS, • readonly="true | false" • writedelay="true | false" • rootsquash="true | false" • allsquash="true | false" • anonuid="0" | "1" • insecurelocks="true | false" The following option is allowed for CIFS: • readonly="true | false" • allowguest="true | false"
exporttype=string	Optional. Specifies protocol, *cifs* for CIFS, and *nfs* for NFS. Default to the protocol the backup was created.
esxhost	Optional, Required when mounting to a new VM. Specifies the ID or name of the ESX host. When mounting a Virtual Machine backup image to a different (from the Virtual Machine that the backup is taken) Virtual Machine, use this switch to specify a new hypervisor to use. Otherwise, hypervisor associated with the Virtual Machine host is used. This is the ESX host for VMWare, and Microsoft Hyper-V Server for Hyper-V.
group=string	Optional, valid only for export to CIFS type. Specifies a list of domain groups that are allowed to map the share, separated by a comma (,).
exporthost=string	Optional. Specifies the ID or name of host(s) to which the backup image is to be exported for VDP appliance. If ID is used, the host has to already exist in the appliance. Name can contain wild characters. More than one host can be specified separated by a comma (,).

Parameter	Description
image=string	Required. Specifies the image to be mounted, either image ID or image name is allowed, which can be retrieved from 'udsinfo lsbackup'.
label=string	Optional. Specifies label for the mounted image.
instantmount=string	Optional. Specifies whether to instant mount a dedup backup image.
nowait=boolean	Optional. The flag specifies not to wait for the completion of the command.
nfsoption=string	Optional. Comma (,) separated NFS options to use, when diskpref is NFS. Both server and client options are supported, separated by a semi-colon (;). For example, "server:writedelay=true,subtreecheck=false;client:retrans=2".
parts=string	Optional. Specifies list of restorable objects or individual volumes to be mounted. Restorable objects or individual volumes can be retrieved from 'udsinfo lsbackup', and use the entry in restorableobject for the object(s) you want to mount. A restoreable object can be a volume name, VMDK name, or an application name (in the case of an application in a consistency group, or SQL DB in an SQL Instance), which is shown in the details of a backup. For Virtual Machines, a different datastore is allowed for each VMDK; as to non-Virtual Machines, a different pool is allowed. To specify a different pool or datastore, use an sign '@', after the restorableobject name or volume. Special characters must be properly escaped: • double quote ("): needs to be escaped with '\' (shell) • comma (,): needs to be escaped with two commas (,,) • colon (:): needs to be escaped with two colons (::) Example: "my,,vm.vmdk:poolname,your::vm.vmdk".
path=string	Optional, valid only for Hyper-V Virtual Machine backup image, specifies the path to be used for mounting a new Hyper-V Virtual Machine.
queue**=string**	Optional. Specifies whether mount should be queued (otherwise will fail) when resource is not available for mount to proceed.

Parameter	Description
rehydrationmode =Balanced | MaximumPerformance | PerformanceOptimized | StorageOptimized	Optional. Specifies rehydration mode for OnVault backup image when mounting. Available options are: • Balanced: Read objects from the OnVault pool will be cached in the local snapshot pool so subsequent reads of the same blocks will be fulfilled locally. Writes will go to the local snapshot pool. Use this option when local storage is available and high I/O performance is not required. • MaximumPerformance: All blocks will be read to the local snapshot pool to create a full local copy and only then will the image be mounted. Use this option when peak performance from local storage is required for all application I/O, and any read latency from the OnVault pool will be unacceptable, thereby making it undesirable to give the application access to data before a full local copy is established. • PerformanceOptimized: Read blocks will be cached in the local snapshot pool so subsequent reads of the same blocks will be fulfilled locally. In addition, all blocks will be read in the background to the local snapshot pool to create a full local copy. Writes will go to the local snapshot pool. Use this option when both fast access to the data as well as high I/O performance are needed. • StorageOptimized: Read blocks will come from the snapshot pool when possible, otherwise they will come directly from the OnVault pool across the network. Writes will go to the local snapshot pool. Use this option to minimize local storage consumption. Default is to use the value set for system parameter, OnVaultRehydrationDefault.
mgmtserver=string	Optional, valid only for VM backup image. Specifies the management server (name or ID, previously added to the appliance), if the new image is to be mounted to a new management server. This is the vCenter host for VMware and Microsoft System Center Virtual Machine Manager for Hyper-V.
migratevm=string	Optional, valid only for Systemstate and VMWare VM Backup images. This option can be used to migrate all the disks to cloud native storage and make instance to run independent of the appliance.
poweronvm=string	Optional. By default, mount of a new VM image is in the power off state. By specifying '-poweronvm' will power on the VM.

Parameter	Description

rdmmode=string
 	
dependentvirtual |
independentvirtual |
physical | nfs
	Optional. Specifies Raw Device Mapping (RDM) mode for VM. Valid values are:
	
	    • dependentvirtual
	    • independentvirtual (default)
	    • physical
	
	Specify dependentvirtual if mounted volume(s) are to be included in VMware snapshots
	
	Note: *Dependentvirtual is rarely used.*
	
	If there is an SLA assigned to the VM to which these volumes are mounted, they will be captured and will be counted towards MDL usage.

recoverytime=string	Optional. Valid only for database applications. Specify the point-in-time for recovery, by applying log backups to roll forward to the specified time. The time should be within the range set by hostbeginpit and host endpit when displayed using 'udsinfo lsbackup <image>' for that image. The format should be either: "yyyy-MM-dd HH:mm:ss" or "yyyy-MM-dd HH:mm:ss.SSS".

Parameter	Description
restoreoption=string	Optional. A comma delimited list of restore options where each restore option is a name-value pair. See Appendix F, List of Restore Options for a summary of the supported restore options for this command.

To perform an app-aware mount to a new application, additional restore options can be provided through the lsappclass command. Keep in mind that these provisioning options must adhere to the rules of the appclass of the backup. In addition, the app-aware mounted application can also be optionally protected, with a new, or existing SLT and SLP, if so desired. The existence of provisioningoptions indicates that this is an app-aware mount, regardless of the -appaware flag. For example,

restoreoption=provisioningoptions=\<provisioningoptions\>
    \<databasesid\>foodb1\</databasesid\>
    \<orahome\>/u01/app/oracle/product/11.2.0/db_1\</orahome\>
    \<utlfiledirectory\>/home/oracle\</utlfiledirectory\>

    \<username\>devuser\</username\>

\</provisioningoptions\>,reprotect=true

This string needs to be URL encoded as

restoreoption=provisioningoptions%3D%3Cprovisioningoptions%3E%3Cdatabasesid%3Efoodb1%3C%2Fdatabasesid%3E%20%20%20%20%20%3Corahome%3E%2Fu01%2Fapp%2Foracle%2Fproduct%2F11.2.0%2Fdb_1%3C%2Forahome%3E%20%20%20%20%20%20%3Cutlfiledirectory%3E%2Fhome%2Foracle%3C%2FutlfiledirectoryE%3E%3Cusername%3Edevuser%3C%2Fusername%3E%20%20%20%20%20%3C%2Fprovisioningoptions%3E%2Creprotect%3Dtrue

Included below is an example for SQL:

https://{API_HOST}//api/task/mountimage?image=Image_22196358&host=demo-sql-4&restoreoption=mountpointperdisk-dasvol:S:\\=C:\\Test\\jsontest,provisioningoptions=\<provisioning-options\>\<sqlinstance\>DEMO-SQL-4\</sqlinstance\>\<dbname\>jsontest\</dbname\>\<recover\>true\</recover\>\</provisioning-options\>

This string needs to be URL encoded as

https://{API_HOST}//api/task/mountimage?image=Image_22196358&host=demo-sql-4&restoreoption=mountpointperdisk-z |
| **script=string** | Optional. Specifies a script during different phases of the operation. Five phases are supported, INIT, PRE, POST, FINAL, and ABORT. Each phase, a timeout, name of the script, and argument list can be specified. Name of the script is required, timeout and args are optional. Syntax for each phase is:

name=\<name\>:phase={INIT|PRE|POST|FINAL|ABORT}:[timeout=\<timeout\>]:[args=arg1, arg2] Multiple phases can be specified, separated by semi-colon (;), for example, "name=setup.sh:phase=INIT;name=freeze.sh:phase=PRE" |

Parameter	Description
systemprops=string	Optional. A comma delimited list of system properties where each system property is a name/value pair. For available system properties, use 'udsinfo lssystemdetail'.
	To perform system conversion, properties need to be specified with name=value, separated by a comma. Property that is allowed depends on the cloudtype. The existence of systemprops indicates that this is a systemstate conversion, and is allowed only with a VM backup, or a SystemState backup. No partial volumes are allowed in system conversion.
	Property with structure needs special handling, which indicates that it has sub-element. For example NICInfo, is of structure type, and it supports multiple values. It needs to be appended with a number (starting with 0) to indicate which NIC. For a property that supports multiple values, it needs to be enclosed with '[' and ']', and separated with colon (:).
	For more details on systemprops, refer lssystemdetail.
user=string	Optional. Valid only for export to CIFS type. Specifies list of domain users that are allowed to map the share, separated by comma (,). Also allowed are local user (with specified password), use colon (:) to separate username and password. The local user does not need to exist in Windows Domain or the appliance, but it has to be unique.
vmname=string	Optional. Valid only for a virtual machine backup image. Specifies the new Virtual Machine name to be mounted as.
queue=string	Optional. The flag provides an option to queue mount job and run the job when we have slots available.

mountimage Request Details

Your `mountimage` request must pass a valid session ID. For information on how to get a valid session ID, see Authentication or Login on page 1.

Method	URI	Required Parameters
POST	//api/task/mountimage	host

Note: *See the Parameters section for a list of supported parameters and their description.*

mountimage Example

Request

```
POST https://{API_HOST}//api/task/
mountimage?image=Image_0023767&host=rh74vm1&allvolumes=true&label=MyMountedImage
HTTP Request Header
Authorization:  92929a8b-a413-476f-a624-5b575cff54d3
```

where 92929a8b-a413-476f-a624-5b575cff54d3 is the session ID.

Response

```
Request success
```

```
{
    "result": "Job_0024650 to mount Image_0023767 completed",
    "status": 0
}
```

Example of an app-aware mountimage.

Request

```
POST https://{API_HOST}//api/task/
mountimage?host={TARGET_HOST}&image=Image_0061358&label=MyAppAwareImage&recoverytime={RECOVERY
_TIME}&restoreoption=provisioningoptions%3D%3Cprovisioningoptions%3E%3Cdatabasesid%3Eproductio
n_db%3C%2Fdatabasesid%3E%3Cusername%3Edaldba3C%2Fusername%3E%3Cpassword%3E%3C%2Fpassword%3E%3C
orahome3C%2Forahome%3E%3Ctnsadmindir%3E{TNS.ADMIN.DIR}3C%2Ftnsadmindir%3E%3Cnonid%3Efalse3C%2F
nonid%3E%3Cnotnsupdate%3Efalse3C%2Fnotnsupdate%3E%3Crrecovery%3Etrue3C%2Frrecovery%3E%3Cstanda
lone%3Efalse3C%2Fstandalone%3E%3C%2Fprovisioningoptions%3E&restoreoption=mountpointperimage%3D
%2Fhome%2Fmntdir
HTTP Request Header
Authorization:  92929a8b-a413-476f-a624-5b575cff54d3
```

where 92929a8b-a413-476f-a624-5b575cff54d3 is the session ID.

Response

```
Request success
{
    "result": "Job_0024652 to mount Image_0061358 completed",
    "status": 0
}
```

verifyimage

About verifyimage Command

Description

Use this command to verify a dedup backup image.

Rights

You must have the 'Host Manage' or 'Application Manage' or 'Backup Manage' rights to verify a backup image.

Parameters

Parameter	Description
image=string	Required. Specifies the image to be verified, either image ID for VDP appliance or image name is allowed, which can be retrieved using the `lsbackup` command. Only dedup image verification is supported.
nowait=boolean	Optional. The flag specifies not to wait for the completion of the command.

verifyimage Request Details

Your `verifyimage` request must pass a valid session ID. For information on how to get a valid session ID, see Authentication or Login on page 1.

Method	URI	Required Parameters
GET	//api/info/verifyimage	image

Note: *See the Parameters section for a list of supported parameters and their description.*

---

verifyimage Example

Request
```
GET https://{API_HOST}//api/info/verifyimage
HTTP Request Header
Authorization:  92929a8b-a413-476f-a624-5b575cff54d3
```

where 92929a8b-a413-476f-a624-5b575cff54d3 is the session ID.

Response
```
Request success
{
    "result": "Job_0403279 to verifyImage_0178986 completed",
    "status": 0
}
```

cloneimage

About cloneimage Command

Description

Use this command to make a completely independent untracked full clone of a backup image. The cloned image is considered a fully operational application that uses the primary storage in case of a non-virtual machine backup image.

Note: *Unlike mountimage, cloneimage does not leave a record in lsbackup.*

Rights

You must have the 'Host Manage' or the 'Application Manage' or 'Clone Manage' rights to clone a backup image.

Parameters

Parameter	Description
datastore=string	Optional. (Valid only for VMware or Virtual Machine backup images). Specifies the datastore to be used for cloning. Use this option if a different datastore should be used for the clone.
diskpool=string	Optional, valid only for a non-virtual machine backup image. Specifies the diskpool to be used for storing the cloned image.
hypervisor=string	Optional. (Valid only for Virtual Machine backup image for VDP appliance). Specifies the hyper visor on which clone should happen. Use this option if a different hyper-visor should be used for the clone. This is the ESX host for VMware, and Microsoft Hyper-V Server for Hyper-V.
host=string	Optional. For non-VM backup image, host specifies the ID or name of the host to which the backup image should be cloned. Use the `lshost` command to locate the ID or name of the host.
image=string	Required. Specifies the image to be cloned, either the image ID for VDP applianceor image name is allowed, which can be retrieved from **lsbackup**.
label=string	Optional. Specifies label for the cloned image.
nfsoption=string	Optional. Comma (,) separated NFS options to use, when diskpref is NFS.Both server and client options are supported, separated by a semi-colon (;). For example: "server:writedelay=true,subtreecheck=false;client:retrans=2".
nowait=boolean	Optional. The flag specifies not to wait for the completion of the command.

Parameter	Description
parts=string	Optional. Specifies list of logical volumes to be cloned. Logical names of the restorable objects can be retrieved from `lsbackup`, and is one of: • vdisk UID name for generic applications • file system or device name for discovered applications • VMDK path name for Virtual Machines For Virtual Machines, a different datastore is allowed for each VMDK, to specify a different pool or datastore, use a colon ':', after the logical volume name. Special characters needs to be properly escaped: • double quote ("): needs to be escaped with '\' (shell) • comma (,): needs to be escaped with two commas (,,) • colon (:): needs to be escaped with two colons (::) Example: "myvm.vmdk:ds,,name,yourvm.vmdk:ds::name"
path=string	Optional, valid only for Hyper-V Virtual Machine backup image for VDP appliance) Specifies the path to be used for cloning to a new Hyper-V Virtual Machine.
restoreoption=string	Optional. A comma delimited list of restore options where each restore option is a name-value pair. See Appendix F, List of Restore Options for a summary of the supported restore options for this command.
script=string	Optional. Specifies a script during different phases of the operation. Five phases are supported, INIT, PRE, POST, FINAL, and ABORT. Each phase, a timeout, name of the script, and argument list can be specified. Name of the script is required, timeout and args are optional. Syntax for each phase is: name=<name>:phase={INIT|PRE|POST|FINAL|ABORT}:[timeout=<timeout>]:[args=arg1,arg2]Multiple phases can be specified, separated by semi-colon (;), for example, "name=setup.sh:phase=INIT;name=freeze.sh:phase=PRE"
vmname=string	Optional, valid only for a virtual machine backup image. Specifies the new virtual machine name for the clone.
queue=string	Optional. Specifies whether clone should be queued (otherwise will fail) when resource is not available for clone to proceed.
poweronvm=boolean	Optional. By default, clone of VM image is in the power off state. By specifying poweronvm=true will power on the VM.
mgmtserver=string	Optional, valid only for Virtual Machine backup image for VDP appliance. Specifies the management server (name or ID, previously added to the appliance), if the new clone is to be clone to a new management server. This is the vCenter host for VMware and Microsoft System Center Virtual Machine Manager for Hyper-V.
cluster=string	Optional. Specifies the name or ID of the target VDP Appliance to execute this command. All other parameters should use appliance-specific values.

cloneimage Request Details

Your `cloneimage` request must pass a valid session ID. For information on how to get a valid session ID, see Authentication or Login on page 1.

Method	URI	Required Parameters
POST	//api/task/cloneimage	image

Note: *See the Parameters section for a list of supported parameters and their description.*

cloneimage Example

Request

```
POST https://{API_HOST}//api/task/
cloneimage?image=Image_0023767&label=MyClonedImage&vcenter=bubbly.sqa.com&mgmtserver=bubbly.sq
a.com&datastore=datastore1&vmname=my-new-vm
HTTP Request Header
Authorization:  92929a8b-a413-476f-a624-5b575cff54d3
```

where 92929a8b-a413-476f-a624-5b575cff54d3 is the session ID.

Response

```
Request success
{
    "result": "Job_0025318 to clone Image_0023767 completed",
    "status": 0
}
```

replicateimage

About replicateimage Command

Description

Use this command to replicate (make a copy of) a dedup or directdedup backup image to a remote appliance.

When you use this method to replicate an image to the remote appliance or remote onVault pool, the following information about the image is sent along with the image:

- The Application ID of the application on the source appliance.

- The Application Name of the application on the source appliance.

- The Hostname of the host on the source appliance.

- The Source Appliance ID.

- The consistency date of the image (the point in time that the image is based on).

This information is sufficient to locate a particular application image and decide which image is the most appropriate based on the consistency date.

Note: *The name of the policy that originally created this dedup backup image will not be recorded on the remote appliance. This occurs because the replicated image was not created by a policy but by manual replication.*

We recommend that you use the label parameter to add any desired additional metadata such as source policy name.

Applicability of this Command

This command can be used on:

Rights

CDS appliance	ü
Sky appliance	ü
NAS Director	ü

You must have 'Host Manage' or 'Application Manage' or 'Backup Manage' rights to replicate a dedup or directdedup backup image.

Parameters

Parameter	Description
image=string	Required. Specifies the image to be replicated, either image ID or image name is allowed, which can be retrieved from `lsbackup`.

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Parameter	Description
label=string	Optional. Specifies label for the mounted image.
inheritexpiration**=boolean**	Optional. If specified, the expiration of the replicated image will be the same as the expiration of the source image. This flag cannot be set if `retention` is supplied.
neverexpire	Optional. If specified, the expiration of the replicated image will be set to infinite. This flag cannot be set if -retention or -inheritexpiration is supplied.
retention=integer	Optional. Specifies the retention period for the replicated dedup backup image. By default the replicated image will have the same expiration date as the original image.
retentionm_hours | days | weeks | months | years_=hours | days | weeks | months | years	Optional. Specifies the retention measurement type for the policy. Default is set to months.
targetcluster =_cluster_name | cluster_id_	Required. Target appliance to replicate the dedup backup image to.
targetpool	Required. Target vault pool to replicate the backup image to.

replicateimage Request Details

Your `replicateimage` request must pass a valid session ID. For information on how to get a valid session ID, see Authentication or Login on page 1.

Method	URI	Required Parameters
POST	//api/task/replicateimage	image targetcluster

Note: _See the Parameters section for a list of supported parameters and their description._

replicateimage Example

Request
```
POST https://{API_HOST}//api/task/
replicateimage?image=Image_0051453&label=DOC&targetcluster=1415010159
HTTP Request Header
Authorization:  92929a8b-a413-476f-a624-5b575cff54d3
```

where 92929a8b-a413-476f-a624-5b575cff54d3 is the session ID.

Response
```
Request success
{
    "result": "Job_0025318 to replicate Image_0051453 completed",
    "status": 0
```

}

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replicatelog

About replicatelog Command

Description

Use this command to replicate logs for an application, or a consistency group to remote appliance snapshot pool or to one or more OnVault pools. The application must have an SLA that includes database log management, and specifies either log replication to a remote appliance or log replication to OnVault.

Applicability of this Command

This command can be used on:

CDS appliance	ü
VDP appliance	ü
NAS Director	ü

Rights

You must have 'Host Manage,' or 'Application Manage,' or 'Backup Manage' rights to replicate logs.

Parameters

Parameter	Description
id= appid | consistgrp_id	Required. Specifies ID of the application, or consistgrp to repliacet log, the application or consistgrp must have already been protected with a log smart policy.
location=string	Optional. Specifies where to replicate the logs. By default logs are replicated to all the destinations defined in the profile. Supported locations are: • snap – copy logs to the remote appliance snapshot pool • cloud – copy logs to the OnVault pool(s) for the SLA • all – copy logs to all destinations
queue=string	Optional. The flag provides an option to queue the job and run it when we have slots available.

replicatelog Request Details

Your `replicatelog` request must pass a valid session ID. For information on how to get a valid session ID, see Authentication or Login on page 1.

Method	URI	Required Parameters

POST	//api/task/replicatelog	id

Note: *See the Parameters section for a list of supported parameters and their description.*

replicatelog Example

Request

```
POST https://{API_HOST}//api/task/replicatelog?id=209789
HTTP Request Header
Authorization:  92929a8b-a413-476f-a624-5b575cff54d3
```

where 92929a8b-a413-476f-a624-5b575cff54d3 is the session ID.

exportimage

About exportimage Command

Description

Use this command to export a backup image to hosts. The backup image has to be mounted first. Optionally, the mounted image can also be exported for CIFS backup.

Applicability of this Command

This command can be used on:

Rights

CDS appliance	ü
VDP appliance	ü
NAS Director	ü

You must have 'Host Manage' or 'Application Manage' rights to export a backup image.

Parameters

Parameter	Description
accessmode =ro | rw | deny | root	Optional. valid only for export to CIFS type. Specifies the type of access that is allowed for the specified user (in `user`). Allowed types are: • ro: read-only • rw: read-write • deny: no access allowed • root: has full access to all the files in the share even if ACLs do not
allvolumes=boolean	Optional. The flag specifies whether to export all volumes in the backup.Use `objectid` to specify a specific volume to be exported.
exportedname=string	Optional. Specifies the exported name of the backup image, valid only for CIFS.
exportedpath=string	Optional. Specifies sub-directory within the mount volume to be exported.

Parameter	Description
exportoption=string	Optional. Specifies the export option, a name/value list, separated by equal (=). Multiple options are separated by comma (,). An example is: "readonly=true,writedelay=false" The following options are allowed for NFS: • readonly="true | false" • writedelay="true | false" • rootsquash="true | false" • allsquash="true | false" • anonuid="0" | "1" • insecurelocks="true | false" The following option is allowed for CIFS: • allowguest="true | false"
exporttype =cifs | nfs	Optional. Specifies protocol, *cifs* for CIFS, and *nfs* for NFS. Default to the protocol the backup was created.
group=string	Optional. Valid only for export to CIFS type. Specifies the list of domain groups that are allowed to map the share, separated by a comma (,). The group does not need to exist in Windows Domain or the appliance, but it has to be unique.
host=string	Required. Specifies the ID or name of host(s) to which the backup image is to be exported. If ID is used, the host has to already exist in the appliance. Name can contain wild characters. More than one host can be specified, separated by a comma (,).
image=string	Required. Specifies the image to be exported, either image ID or image name is allowed, which can be retrieved from `lsbackup`.
nowait=boolean	Optional. The flag specifies whether to wait for the completion of the command.
objectid=integer	Optional. Specifies the object id of the individual volume within the mounted image to be exported.
user=string	Optional. Valid only for export to CIFS type. Specifies the list of domain users that are allowed to map the share, separated by a comma (,). Also allowed are local user (with specified password), use colon (:) to separate user name and password. The local user does not need to exist in Windows Domain or the appliance, but it has to be unique.
objecttype=string	Optional. Specifies the object type of the individual volume within the mounted image to be exported.

exportimage Request Details

Your `exportimage` request must pass a valid session ID. For information on how to get a valid session ID, see Authentication or Login on page 1.

Method	URI	Required Parameters
POST	//api/task/exportimage	image host

exportimage Example

Request

```
POST https://{API_HOST}//api/task/
replicateimage?exportimage?image=Image_0052605&host=172.16.113.50
HTTP Request Header
Authorization:  92929a8b-a413-476f-a624-5b575cff54d3
```

where 92929a8b-a413-476f-a624-5b575cff54d3 is the session ID.

Response

```
Request success
{
    "result": "Job_0052736 to export Image_0052605 completed",
    "status": 0
}
```

unexportimage

About unexportimage Command

Description

Use this command to un-export an exported backup image.

Applicability of this Command

This command can be used on:

CDS appliance	-
Sky appliance	ü
NAS Director	-

Rights

You must have 'Host Manage' or 'Application Manage' rights to un-export an exported backup image.

Parameters

Parameter	Description
exporttype=cifs | nfs	Optional. Specifies protocol, *cifs* for CIFS, and *nfs* for NFS. Default to the protocol the backup was created.
host=string	Required. Comma-separated list of hosts that the export should be removed from.
image=string	Required. Specifies the image to be un-exported, image ID or image name, which can be retrieved from `lsbackup`. The backup image must be already exported.
nowait=boolean	Optional. The flag specifies whether to wait for the completion of the command.

unexportimage Request Details

Your `unexportimage` request must pass a valid session ID. For information on how to get a valid session ID, see Authentication or Login on page 1.

Method	URI	Required Parameters
POST	//api/task/unexportimage	image host

Note: *See the Parameters section for a list of supported parameters and their description.*

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unexportimage Example

Request

```
POST https://{API_HOST}//api/task/
replicateimage?unexportimage?image=Image_0052605&host=172.16.113.50
HTTP Request Header
Authorization:   92929a8b-a413-476f-a624-5b575cff54d3
```

where 92929a8b-a413-476f-a624-5b575cff54d3 is the session ID.

Response

```
Request success
{
    "result": "Job_0025318 to unexport Image_0052605 completed",
    "status": 0
}
```

lsrestoreoptions

About lsrestoreoptions Command

Description

Use this command to list applicable restore options for a given restore action or provides detailed information for a specific restore option.

This command provides a list of restore options that are applicable for the given combination of application, restore action and target host. If a restore option name is provided instead of the other parameters it will display detailed information about the given restore option.

Applicability of this Command

This command can be used on:

Rights

CDS appliance	-
Sky appliance	ü
NAS Director	-

You must have the "System View" or "System Manage" right to view the restore option information.

Parameters

Parameter	Description
applicationtype=string	Optional. The application type (SQL Server, Oracle, VM, and so on). See List of Restore Options on page 635 for a complete list of available application types.
action=string	Optional. The restore action to be taken: clone, mount, restore, prepmount, failover or failovertest. See List of Restore Options on page 635 for a complete list of available restore options.
targethost=string	Optional. The host ID of the target system. Use the `lshost` command to locate the ID.

lsrestoreoptions Request Details

Your `lsrestoreoptions` request must pass a valid session ID. For information on how to get a valid session ID, see Authentication or Login on page 1.

Method	URI	Required Parameters

GET	//api/info/lsrestoreoptions	none

Note: *See the Parameters section for a list of supported parameters and their description.*

lsrestoreoptions Example

```
GET https://{API_HOST}//api/info/
lsrestoreoptions?applicationtype=SQLServer&action=mount&targethost=20933867
HTTP Request Header
Authorization:  92929a8b-a413-476f-a624-5b575cff54d3
```

where 92929a8b-a413-476f-a624-5b575cff54d3 is the session ID.

Response

```
Request success
```

Response

```
Request success
{
  [
    "restoremacaddr",
    "mountdriveperdisk",
    "mountpointperimage",
    "slpid",
    "sltid",
    "mountpointperdisk",
    "reprotect",
    "mountdriveperimage",
    "mapdiskstoallclusternodes",
    "provisioningoptions"
  ]
}
```

restoreimage

About restoreimage Command

Description

Use this command to restore a backup image. Before the backup image is restored to the original host, the SLA that protects this application is disabled. The expiration of backup images for this application is also disabled.

Rights

You must have the 'Host Manage' or 'Application Manage' rights to restore a backup image.

Parameters

Parameter	Description
datastore=string	Optional. Valid only for VMware virtual machine backup image. Specifies the datastore to be used for restore. Use this option if a different datastore should be used for the restore.
disableschedule=Boolean	Optional. Specifies whether the schedule should be disabled. By default, scheudle is automatically disabled. For SQL Server, schedule can be maintained by specifying 'false'.
image=string	Required. Specifies the image to be restored, either image id or image name is allowed, which can be retrieved from `udsinfo lsbackup`.
label=string	Optional. Specifies label for the mounted image of mount-migrate restore.
nowait=boolean	Optional. Specifies not to wait for the completion of the command.
nfsoption=string	Optional. Comma (,) separated NFS options to use, when diskpref is NFS.Both server and client options are supported, separated by a semi-colon (;). For example: "server:writedelay=true,subtreecheck=false;client:retrans=2".

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Parameter	Description
parts=string	Optional. Specifies list of restorable objects or individual volumes to be cloned. Restorable objects or individual volumes can be retrieved from 'udsinfo lsbackup', and use the entry in restorableobject for the object you tried to restore. Special characters needs to be properly escaped, * double quote ("): double quote needs to be escaped with '\' (shell) * comma (,): needs to be escaped with two commas (,,) * at sign (@): needs to be escaped with two ats (@@) For example, for data stores with special characters, ',', and '@' below, you need to specify -parts with, "myvm,,vmdk,yourvm@@vmdk".
poweroffvm=boolean	Optional. By default, restore of VM image is powered on automatically. By specifying **poweroffvm=true** will leave the VM in the powered off state.
queue=string	Optional. Specifies whether restore should be queued (otherwise will fail) when resource is not available for restore to proceed.
restoreoption=string	Optional. A comma delimited list of restore options where each restore option is a name=value pair. For application types that support "Mount and Migrate", use "restoretype=mount" to invoke the functionality. See Appendix F, List of Restore Options for a summary of the supported restore options for this command.
password=string	Optional. Valid only for database applications. Specify the password to use to apply the logs from log backup.
rdmmode = dependentvirtual | independentvirtual | physical | nfs	Optional. Specifies Raw Device Mapping (RDM) mode for VM, default to independentvirtual. Specify dependentvirtual if mounted volume(s) are to be included in VMware snapshots. Note dependentvirtual is rarely used.
recover=boolean	Optional. Valid only for SQL Server. If this flag is set to true the database will be brought online and transaction log backups cannot be used to roll forward the database.
recoverytime=DateTime	Optional. Valid only for database applications. Specify the point-in-time for recovery, by applying log backups to roll forward to the specified time of the host. For VDP appliance, the time should be within the range set by **hostbeginpit** and **hostendpit** when displayed using `lsbackup` *xxxx* for that image. The time format should be either: **yyyy-MM-dd HH:mm:ss** or **yyyy-MM-dd HH:mm:ss.SSS**.

Parameter	Description
script=string	Optional. Specifies a script during different phases of the operation. Five phases are supported, INIT, PRE, POST, FINAL, and ABORT. Each phase, a timeout, name of the script, and argument list can be specified. Name of the script is required, timeout and args are optional. Syntax for each phase is: name=<name>:phase={INIT|PRE|POST|FINAL|ABORT}:[timeout=<timeout>] :[args=arg1,arg2] Multiple phases can be specified, separated by semi-colon (;), for example, "name=setup.sh:phase=INIT;name=freeze.sh:phase=PRE"
username=string	Optional. Valid only for database applications for VDP appliance. Specify the username to use to apply the logs from log backup.

restoreimage Request Details

Your `restoreimage` request must pass a valid session ID. For information on how to get a valid session ID, see Authentication or Login on page 1.

Method	URI	Required Parameters
POST	//api/task/restoreimage	image

Note: *See the Parameters section for a list of supported parameters and their description.*

restoreimage Example

Request

```
POST https://{LOCAL_APPLIANCE_HOST}//api/task/
restoreimage?image=skytest5.sqa..com_Image_0041610
HTTP Request Header
Authorization:  92929a8b-a413-476f-a624-5b575cff54d3
```

where 92929a8b-a413-476f-a624-5b575cff54d3 is the session ID.

Response

```
Request success
{
    "result": "Job_0042048 to restore skytest5.sqa..com_Image_0041610 completed",
    "status": 0
}
```

lsvolumegroupinfo

About lsvolumegroupinfo Command

Description

Use this command to list all the volume group info for a host.

Applicability of this Command

This command can be used on:

Sky appliance	ü
Actifio NAS Director	x

Rights

You must have the 'Host Manage' or 'Application Manage' or 'Backup Manage' rights to run a preflights check.

Parameters

Parameter	Description
host=string	Required. Specifies ID or name of the host from which the volume group info is retrieved.
delim=string	Optional. By default, all columns of data are separated by a tab in the concise view. In the detailed view, each column of data is displayed in a separate row and if the headers are displayed, the header is separated from the data by a space. The -**delim** parameter overrides this behavior.
	Valid input for the -**delim** parameter is a one-byte character. If you enter -**delim** on the command line, the colon character (:) separates all items of data in a concise view.
	Example: The spacing of columns does not occur.
	In a detailed view, the data is separated from its header by the specified delimiter.
nohdr=string	Optional. By default, headings are displayed for each column of data in a concise style view, and for each item of data in a detailed style view. The -nohdr parameter suppresses the display of these headings.
	Note: *If there is no data to be displayed, headings are not displayed.*

lsvolumegroupinfo Request Details

Your `lsvolumegroupinfo` request must pass a valid session ID. or information see Authentication or Login on page 1.

Method	URI	Required Parameters
GET	//api/info/lsvolumegroupinfo	host=‹name or Id of host›

Note: *See the Parameters section for a list of supported parameters and their description.*

lsvolumegroupinfo Example

Request

```
GET https://{Actifio_API_HOST}/actifio/api/info/lsvolumegroupinfo
HTTP Request Header
Authorization:  92929a8b-a413-476f-a624-5b575cff54d3
where 92929a8b-a413-476f-a624-5b575cff54d3 is the session ID.
```

Response

Request success

```
{
    "result": [
        {
            "extentsize": "4194304",
            "free": "4290772992",
            "total": "6383730688",
            "vgname": "testvg-2"
        },
        {
            "extentsize": "4194304",
            "free": "4290772992",
            "total": "6383730688",
            "vgname": "testvg-1"
        },
        {
            "extentsize": "4194304",
            "free": "148352532480",
            "total": "400010772480",
            "vgname": "sushperf_vg370gb"
        },
        {
            "extentsize": "4194304",
            "free": "530214551552",
            "total": "545251131392",
            "vgname": "susheelvg1"
        },
        {
            "extentsize": "4194304",
            "free": "383246139392",
            "total": "400010772480",
            "vgname": "sush_perf_370gb"
        },
        {
            "extentsize": "8388608",
            "free": "2357198848",
            "total": "10729029632",
            "vgname": "sush_8MBpe"
        },
```

```
        {
            "extentsize": "4194304",
            "free": "1861834768384",
            "total": "2199019061248",
            "vgname": "sush2tb_vg"
        }
    ],
    "status": 0
}
```

createliveclone

About createliveclone Command

Description

Use this command to create a LiveClone. A LiveClone allows subsequent refresh from a new backup image.

Rights

You must have 'Host Manage' or 'Application Manage' to create a LiveClone.

Parameters

Parameter	Description
diskpool=string	Required. Specifies the name or ID of the diskpool to use for the LiveClone. If you do not specify `cluster`, use `lsdiskpool` for the ID. If you do specify `cluster`, then use the SRCID from the command output.
label=string	Required. Specifies label for LiveClone. Label must be unique in each application.
nowait	Optional. The flag specifies whether to wait for the completion of the command.
sourceimage=string	Required. Specifies ID for VDP appliance or name of the image to create the LiveClone from. If you do not specify `cluster`, use `lsbackup` for the SRCID. If you do specify `cluster`, then use the SRCID from the command output.

createliveclone Request Details

Your `createliveclone` request must pass a valid session ID. For information on how to get a valid session ID, see Authentication or Login **on page 1**.

Method	URI	Required Parameters
POST	//api/task/createliveclone	sourceimage diskpool label

Note: *See the Parameters section for a list of supported parameters and their description.*

createliveclone Example

Request

```
POST https://{API_HOST}//api/task/createliveclone?sourceimage=Image_0022100&label=LiveClone-
20180211&diskpool=act_per_pool000
HTTP Request Header
Authorization:  92929a8b-a413-476f-a624-5b575cff54d3
```

where 92929a8b-a413-476f-a624-5b575cff54d3 is the session ID.

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Response

```
Request success
{
    "result": "Job_0024427 to createliveclone Image_0022100 completed",
    "status": 0
}
```

refreshliveclone

About refreshliveclone Command

Description

Use this command to refresh a LiveClone from a new backup image.

Rights

You must have 'Host Manage' or 'Application Manage' rights to refresh a LiveClone.

Parameters

Parameter	Description
label=string	Optional. Required if target image is not specified. Specifies label for the LiveClone to refresh to.
nowait	Optional. The flag specifies whether to wait for the completion of the command.
options=string	Optional. Specifies one or more options for on-demand backup. If more than one option is specified, they should be separated by a colon (:). Supported options are: • **nobitmap** - Do not use a bitmap or extentlist • **noparent** - No ancestor object, create a new independent object • **noseed** - No hydroseeding image
sourceimage=string	Required. Specifies ID or name of the image with which to refresh the LiveClone.
targetimage=string	Optional. Specifies ID or name of the LiveClone to refresh.

refreshliveclone Request Details

Your `refreshliveclone` request must pass a valid session ID. For information on how to get a valid session ID, see Authentication or Login on page 1.

Method	URI	Required Parameters
POST	//api/task/refreshliveclone	sourceimage

Note: *See the Parameters section for a list of supported parameters and their description.*

refreshliveclone Example

Request

```
POST https://{API_HOST}//api/task/refreshliveclone?sourceimage=Image_0022100&label=LiveClone-
20180211
HTTP Request Header
Authorization:   92929a8b-a413-476f-a624-5b575cff54d3
```

where 92929a8b-a413-476f-a624-5b575cff54d3 is the session ID.

Response

```
Request success
{
    "result": "Job_0024559 to refreshliveclone Image_0024427 completed",
    "status": 0
}
```

unmountimage

About unmountimage Command

Description

Use this command to unmount a mounted backup image, and optionally delete the image after it is unmounted.

Rights

You must have the 'Host Manage' or 'Application Manage' or 'Mount Manage' rights to unmount and delete a backup image.

Parameters

Parameter	Description
delete=string	Optional. The flag specifies whether to delete the backup image, after it is unmounted.
force=string	Optional. The flag specifies whether to ignore errors when unmapping disks from the host for VDP appliance.
image=string	Required. Specifies the ID for VDP applianceor name of the image to be unmounted. The image name can be retrieved using `lsbackup`. **Note:** *The backup image has to be already mounted.*
nowait=string	Optional. The flag specifies not to wait for the completion of the command.
script=string	Optional. Specifies a script during different phases of the operation. Five phases are supported, INIT, PRE, POST, FINAL, and ABORT. Each phase, a timeout, name of the script, and argument list can be specified. Name of script is required, timeout and args are optional. Syntax for each phase is: name=<name>:phase={INIT|PRE|POST|FINAL|ABORT}:[timeout=<timeout>]:[args=arg1,arg2] Multiple phases can be specified, separated by semi-colon (:), for example: "name=setup.sh:phase=INIT;name=freeze.sh:phase=PRE"
queue=string	Optional. Specifies whether unmount should be queued (otherwise will fail) when resource is not available for unmount to proceed.

unmountimage Request Details

Your `unmountimage` request must pass a valid session ID. For information on how to get a valid session ID, see Authentication or Login on page 1.

Method	URI	Required Parameters
POST	`//api/task/unmountimage`	`image`

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unmountimage Example

Request

```
POST https://{API_HOST}//api/task/unmountimage?force=true&delete=true&image=23232
HTTP Request Header
Authorization:  92929a8b-a413-476f-a624-5b575cff54d3
```

where 92929a8b-a413-476f-a624-5b575cff54d3 is the session ID.

Response

```
Request success
{
    "result": "Job_0023775 to unmount Image_0023224 completed",
    "status": 0
}
```

unmountactiveimages

About unmountactiveimages Command

Description

Use this command unmount all mounted backup images, this command will not unmount system state images and test failover images.

Rights

You must have the 'Host Manage' or 'Application Manage' or 'Mount Manage' rights to unmount and delete a backup image.

Parameters

Parameter	Description
force=string	Optional. The flag specifies whether to ignore errors when unmapping disks from the host for Sky.
label=string	Optional. Specifies label for the this operation

unmountactiveimages Request Details

Your `unmountactiveimages` request must pass a valid session ID. For information on how to get a valid session ID, see Authentication or Login on page 1.

Method	URI	Required Parameters
POST	`//api/task/unmountactiveimages`	None

Note: *See the Parameters section for a list of supported parameters and their description.*

unmountactiveimages Example

```
POST https://{API_HOST}//api/task/unmountactiveimages?sessionid={SESSIONID}
Request success
{
"status": 0
}
```

expireimage

About expireimage Command

Description

Use this command to expire a backup image, a LiveClone or a syncback image.

Rights

You must have the 'Host Manage' or 'Application Manage' or 'Backup Manage' right to expire a backup image.

Parameters

Parameter	Description
force=string	Optional. The flag specifies whether to ignore errors when unmapping disks from the host for VDP appliance.
image=string	Required. Specifies the SRCID or name of the backup image to be expired. If you do specify `cluster`, then use the SRCID from the command output.
nowait=string	Optional. The flag specifies whether to wait for the completion of this command.
cluster=string	Optional. Specifies the name or ID of the target VDP appliance to execute this command. All other parameters should use appliance-specific values.

expireimage Request Details

Your `expireimage` request must pass a valid session ID. For information on how to get a valid session ID, see Authentication or Login on page 1.

Method	URI	Required Parameters
POST	//api/task/expireimage	image

Note: *See the Parameters section for a list of supported parameters and their description.*

expireimage Example

Request

```
POST https://{API_HOST}//api/task/expireimage?image=22375693
HTTP Request Header
Authorization:  92929a8b-a413-476f-a624-5b575cff54d3
```

where 92929a8b-a413-476f-a624-5b575cff54d3 is the session ID.

Response

```
Request success
```

```
{
    "result": "Job_22375751 to expire Image_22375691 completed",
    "status": 0
}
```

deleteimage

About deleteimage Command

Description

Use this command to delete an unmounted backup image, a LiveClone image, a fail-over image, or a test fail-over image. Use **lsbackup** command to locate the backup images to be deleted. Note that there are three images associated with each fail- over execution. Pick the one with name ending with 'F' to delete fail-over images. Fail-over images can only be deleted when the application is no longer in the fail-over state.

Rights

You must have the 'Host Manage' or the 'Application Manage' or 'Mount Manage" right to delete an unmounted backup image.

Parameters

Parameter	Description
image=string	Required. Specifies the ID for VDP appliance or name of the backup image to be deleted. Use `lsbackup` to obtain the ID or name of the backup image. If you do not specify `cluster`, use `lsbackup` for the SRCID. If you do specify `cluster`, then use the SRCID from the command output.
nowait=string	Optional. The flag specifies not to wait for the completion of this command.

deleteimage Request Details

Your `deleteimage` request must pass a valid session ID. For information on how to get a valid session ID, see Authentication or Login on page 1.

Method	URI	Required Parameters
POST	//api/task/deleteimage	image

Note: *See the Parameters section for a list of supported parameters and their description.*

deleteimage Example

Request
```
POST https://{API_HOST}//api/task/deleteimage?image=Image_0024650
HTTP Request Header
Authorization:  92929a8b-a413-476f-a624-5b575cff54d3
```

where 92929a8b-a413-476f-a624-5b575cff54d3 is the session ID.

Response

```
Request success
{
    "result": "Job_0025468 to delete Image_0024650 completed",
    "status": 0
}
```

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cleanupmirroring

About cleanupmirroring Command

Description

Use this command to delete the objects created on protecting an application or a consistency group with a dedup-async or StreamSnap policy.

Applicability of this Command

This command can be used on:

CDS appliance	ü
Sky appliance	ü
NAS Director	ü

Rights

You must have the 'Host Manage' or 'Application Manage' or 'Mirroring Manage' right to clean up artifacts from running previously enabled dedup-async or StreamSnap policy.

Parameters

Parameter	Description
id=string	Required. Specifies the ID of the application or consistgrp that no longer has a dedup-async or StreamSnap policy running, to cleanup any artifacts from the policy. Use the `lsapplication` or `lsconsistgrp` command for the ID.
all=boolean	Optional. Specifies whether all the images created by protecting the application with a dedup-async or StreamSnap policy should be deleted. If an application remains protected when using this command, use 'false'. Consequently, only failover, failovertest, and sync-back images are deleted. If the application is no longer protected with a dedup-async or StreamSnap policy, use *true*. The default value is *false*.

cleanupmirroring Request Details

Your `cleanupmirroring` request must pass a valid session ID. For information on how to get a valid session ID, see Authentication or Login on page 1.

Method	URI	Required Parameters
POST	//api/task/cleanupmirroring	id

Note: *See the Parameters section for a list of supported parameters and their description.*

---

cleanupmirroring Example

Request

```
POST https://{API_HOST}//api/task/cleanupmirroring?id=4111
HTTP Request Header
Authorization:  92929a8b-a413-476f-a624-5b575cff54d3
```

where 92929a8b-a413-476f-a624-5b575cff54d3 is the session ID.

Response

```
Request success
{
  "status": 0
}
```

rmfailovertest

About rmfailovertest Command

Description

Use this command to delete a test failover image. Use lsbackup command to locate the backup images to be deleted.

Rights

You must have the 'Host Manage' or 'Application Manage' rights to delete a image.

Parameters

Parameter	Description
image=string	Required. Specifies the ID for the appliance or name of the backup image to be deleted. Use `lsbackup` to locate the ID/SRCID or name for the image.
script=string	Optional. Specifies a script during different phases of the operation. Five phases are supported, INIT, PRE, POST, FINAL, and ABORT. Each phase, a timeout, name of the script, and argument list can be specified. Name of the script is required, timeout and args are optional. Syntax for each phase is: name=<name>:phase={INIT|PRE|POST|FINAL|ABORT}:[timeout=<timeout>]:[args=arg1,arg2] Multiple phases can be specified, separated by semi-colon (;), for example, "name=setup.sh:phase=INIT;name=freeze.sh:phase=PRE"

rmtestfailover Request Details

Your `rmtestfailover` request must pass a valid session ID. For information on how to get a valid session ID, see Authentication or Login on page 1.

Method	URI	Required Parameters
POST	//api/task/rmtestfailover	image

Note: *See the Parameters section for a list of supported parameters and their description.*

rmtestfailover Example

Request
```
POST https://{API_HOST}//api/task/rmtestfailover?image=Image_0024650
HTTP Request Header
Authorization:  92929a8b-a413-476f-a624-5b575cff54d3
```

where 92929a8b-a413-476f-a624-5b575cff54d3 is the session ID.

Response
```
Request success
```

```
{
    "result": "Job_0025468 to rmtestfailover Image_0024650 completed",

"status": 0
}
```

Image Management Commands

lsbackup

About lsbackup Command

Description

Use this command to retrieve details of backup images. The concise view of a backup image shows only a subset of the attributes of the image. The detailed view of a backup image provides more details. Following are details about each attribute available with this command.

- **id**: Index of backup object.
- **appid**: Application object ID.
- **restore lock**: Flag value if it is being used for restore.
- **virtual size**: Backup object application size.
- **original backup id**: ID of dependent backup object from which it is generated.
- **policy name**: Name of the policy on which this object is created.
- **mounted host**: ID of host where backup image is mounted.
- **username**: Name of the user who created backup.
- **sourceimage**: Actual image name which is being backed up.
- **apptype**: Type of the application backed up.
- **mappedhost**: ID of the host to which backup image is mapped.
- **modifiedbytes**: No of bytes modified.
- **modifydate**: Date when backup image is last modified.
- **jobclass**: Type of the job that created this backup image.
- **originaljobclass**: Original backup type that this backup image is based on.
- **flags**: Backup data flag like in-band,out of band, SAN, NBD, readyVM, etc.
- **status**: Status of this backup image. Status like succeeded, failed, running, etc.
- **expiration**: Expiration date time when this should expire.
- **sourceuds**: Source appliance ID where this image is generated.
- **expirytries**: No of expire attempts made on this image.
- **hostname**: Host name of backup image where application was running.
- **label**: Friendly name of backup image.
- **consistencydate**: Application consistency time stamp.
- **backupdate**: Start date.
- **backupname**: Image name.
- **targetuds**: Target appliance ID to which image is replicated or remote copied.
- **sltname**: SLA template name used while creating this image.
- **slpname**: Profile name used while creating this image.
- **appname**: Application name.
- **prepdate**: Date when LiveClone image is prepped.
- **transport**: Transport medium used for this image (for example, SAN, NBD, and so on).
- **consistency-mode**: Consistency mode of image (for example, application consistent or crash consistent).
- **uniquehostname**: Unique host name for VDP appliance.
- **advancedoptions**: Policy options that is being used to create the backup for VDP appliance.

- **componenttype**: Primary or log backup of a DB/Exchange application type for VDP appliance.

Rights

You must have the 'Host Manage', and 'Application Manage' right to change the expiration time of a backup image.

Parameters

Parameter	Description
filtervalue=attrib%3Dvalue	Optional. Specifies that you want your report to display any or the entire list of valid filter attributes. The valid filter attributes for the `lsbackup` command are: • appid • appname • apptype • backupdate [usage: 'backupdate since 24 hours' for backups started since last 24 hours, 'backupdate before 7 days' for backups started older than 7 days] • backupname • characteristic [PRIMARY | MOUNT | UNMOUNT | VDISK | CLONE] • consistencydate • expiration • hostid • hostname • jobclass [[snapshot | dedup | dedupasync | clone | liveclone | syncback] • label • mappedhost • mountedhost • policyname • prepdate • slpname • sltname • sourceimage • sourceuds • targetuds • virtualsize The filter is formed with an attribute and a value. When more than one filter is specified, they must be delimited with the '&' symbol (which should be escaped with '\'). For string type filters user can use the wild card character '*'. The only operator allowed for a string type filter is '='. For example, to match backup images with appname begins with 'foo', use '-filtervalue appname=foo*'. Some filters allow only predefined constants. For example, characteristic allows only PRIMARY, MOUNT, UNMOUNT, VDISK, or clone. Therefore, to list a backup image that is mounted, use '-filtervalue characteristic=MOUNT'. For number and date types, the permitted operators are: =, >, >=, <, <=. The operators <, <=, >, or >= should be escaped with '\' or enclosed in " or "", as required by the shell.

Parameter	Description

filtervalue=attrib%3Dvalue
 	
(continued)
	Some examples:
	  -filtervalue virtualsize\>128000000000
	  -filtervalue "virtualsize>128000000000"
	  -filtervalue 'virtualsize>128000000000'
	The backupdate and expiration parameters can also use these operators. For example:
	  -filtervalue 'backupdate>2010-09-28'
	  -filtervalue 'expiration>2010-09-28 6:50:00'

argument=string	Optional. Specifies the ID of an object. When you use this parameter, a detailed view of the object is returned and any value that is specified by the `filtervalue` parameter is ignored. If you do not specify the argument, a concise view of all objects matching the filter criteria is shown.

Actifio appliances

lsbackup Request Details

Your `lsbackup` request must pass a valid session ID. For information on how to get a valid session ID, see Authentication or Login on page 1.

Method	URI	Required Parameters
GET	//api/info/lsbackup	None

Note: *See the Parameters section for a list of supported parameters and their description.*

lsbackup Example

Request
```
GET https://{API_HOST}//api/info/
lsbackup?applicationtype=SQLServer&action=mount&targethost=20933867
HTTP Request Header
Authorization:  92929a8b-a413-476f-a624-5b575cff54d3
```

where 92929a8b-a413-476f-a624-5b575cff54d3 is the session ID.

Response
```
Request success
{
    "result": [
        {
            "flags": "36",
            "sltname": "Tier-4 - Local Protection Only",
            "sourceuds": "1415056619",
            "hostname": "ctos6.4wp-13",
            "backupname": "Image_0178976",
            "modifydate": "2017-04-12 09:36:53.333",
            "appname": "CTOS6.4WP-13",
            "slpname": "LocalProfile",
            "id": "178977",
```

```
            "originalbackupid": "0",
            "sourceimage": "",
            "apptype": "VMBackup",
            "prepdate": "",
            "backupdate": "2017-04-12 09:35:21.000",
            "jobclass": "snapshot",
            "label": "",
            "uniquehostname": "503489ac-64c0-6aef-a662-6d870f462841",
            "componenttype": "0",
            "appid": "164689",
            "policyname": "Daily snap",
            "expiration": "2017-04-14 09:36:24.572",
            "sensitivity": "0",
            "mountedhost": "0",
            "consistencydate": "2017-04-12 09:36:23.000",
            "virtualsize": "124554051584",
            "username": "Scheduler",
            "status": "succeeded"
        },
        {
            "flags": "36",
            "sltname": "Tier-4 - Local Protection Only",
            "sourceuds": "1415056619",
            "hostname": "ctos6.4wp-13",
            "backupname": "Image_0178986",
            "modifydate": "2017-04-12 09:36:53.502",
            "appname": "CTOS6.4WP-13",
            "slpname": "LocalProfile",
            "id": "178987",
            "originalbackupid": "0",
            "sourceimage": "",
            "apptype": "VMBackup",
            "prepdate": "",
            "backupdate": "2017-04-12 09:36:32.000",
            "jobclass": "dedup",
            "label": "",
            "uniquehostname": "503489ac-64c0-6aef-a662-6d870f462841",
            "componenttype": "0",
            "appid": "164689",
            "policyname": "Daily dedup",
            "expiration": "2017-04-26 09:36:37.385",
            "sensitivity": "0",
            "mountedhost": "0",
            "consistencydate": "2017-04-12 09:36:23.000",
            "virtualsize": "124554051584",
            "username": "Scheduler",
            "status": "succeeded"
        }
    ],
    "status": 0
}
```

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backup

About backup Command

Description

Use this command to create an on-demand backup of an application or a consistency group that is running the specified policy immediately. If there is no slot to run the requested job, the request is queued.

Use the following commands to obtain the ID:

- udsinfo lsapplication command to obtain application ID

- udsinfo lsconsistgrp to obtain the consistency group ID

- udsinfo lspolicy to obtain policy ID

Rights

You must have the 'Host Manage' or 'Application Manage' to perform backup operation

Parameters

Parameter	Description
app=string	Required. Specifies the ID of the application or consistency group to back up. Use `lsapplication` or `lsconsistgrp` to obtain the ID.
backuporder	Optional. Only applicable for database log jobs. When specified, the log backup job will process databases in the order specified. If more databases are included in the application than the list provided, all unspecified databases will be processed after those specified. Use of this option does not reduce the scope for the job, it only prioritizes the order of processing. Typically used when it is important for some databases to have log backups performed first, for space management purposes.
backuptype=log | db | dblog	Optional. Specifies the type of backup to perform. It is only valid for Log Protection-enabled database applications. Supported types are: • **log** - backup log data only • **db** - backup db data only • **dblog** - backup both db and log data
label=string	Optional. Specifies the label for the newly created backup image.
options= nobitmap |noparent |noseed	Optional. Specifies one or more options for the on-demand backup. If more than one option is specified, they should be separated by a colon (:). Supported options are: • **nobitmap**: do not use a bitmap or extent list • **noparent**: no ancestor object, create a new independent object • **noseed**: no hydroseeding image

Parameter	Description
policy=string	Required. Specifies the policy ID to be used for backup. The policy should be a part of the service level agreement (SLA) that protects the application.
script=string	Optional. Specifies a script during different phases of the operation. Five phases are supported, INIT, PRE, POST, FINAL, and ABORT. Each phase, a timeout, name of the script, and argument list can be specified. Name of the script is required, timeout and args are optional. Syntax for each phase is: name=<name>:phase={INIT|PRE|POST|FINAL|ABORT}:[timeout=<timeout>]:[args=arg1,arg2] Multiple phases can be specified, separated by semi-colon (;), for example, "name=setup.sh:phase=INIT;name=freeze.sh:phase=PRE"
queue=string	Optional. The flag provides an option to queue backup job and run the job when we have slots available
sourceimage=string	Optional. Specifies the name or id of the source image. If no image is specified, automatically select the latest available image.

backup Request Details

Your `backup` request must pass a valid session ID. For information on how to get a valid session ID, see Authentication or Login on page 1.

Method	URI	Required Parameters
POST	//api/task/backup	app policy

Note: *See the Parameters section for a list of supported parameters and their description.*

backup Example

Request

```
POST https://{API_HOST}//api/task/backup?app=164689&policy=141
HTTP Request Header
Authorization:  92929a8b-a413-476f-a624-5b575cff54d3
```

where 92929a8b-a413-476f-a624-5b575cff54d3 is the session ID.

Response

```
Request success
{
  "result": "Job_0403469",
  "status": 0
}
```

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chbackup

About chbackup Command

Description

Use this command to change a backup image. Use the lsbackup to obtain the ID or name of the backup image.

Rights

You must have the 'Application Manage' or 'Host Manage' right to change the expiration time of a backup image.

Parameters

Parameter	Description
expiration=DateTime	Optional. Specifies expiration time for the backup image. The format must be 'yyyy-mm-dd HH:MM:SS'.
immutability=string	Optional. Specifies immutabilitydate for the backup image. The format must be 'yyyy-mm-dd HH:MM:SS', and can only be extended.
sensitivity = 0|1	Optional. Specifies if the backup image is sensitive (a backup image has restricted access before scrubbing of sensitive data). Specify **1** for a sensitive application or **0** for a non-sensitive application.
label=string	Optional. Specifies a new label for the backup image. For LiveClone, this must be unique.
argument=string	Required. Specifies the backup image object to modify, either by ID or by name.

chbackup Request Details

Your `chbackup` request must pass a valid session ID. For information on how to get a valid session ID, see Authentication or Login

Method	URI	Required Parameters
POST	//api/task/chbackup	argument

Note: *See the Parameters section for a list of supported parameters and their description.*

chbackup Example

Request

```
POST https://{API_HOST}//api/task/chbackup?argument=17897&label=newbackup
```

```
HTTP Request Header
Authorization:  92929a8b-a413-476f-a624-5b575cff54d3
```

where 92929a8b-a413-476f-a624-5b575cff54d3 is the session ID.

Response

```
Request success
```

```
{

 "status": 0
}
```

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lsvaultbackup

About lsvaultbackup Command

Description

Use this command to return a concise list of OnVault backup images of a particular OnVault pool.

Applicability of this Command

This command can be used on:

CDS appliance	-
Sky appliance	ü
NAS Director	-

Rights

You must have the 'System View' or 'System Manage' right to view OnVault backups.

Parameters

Parameter	Description

filtervalue
=attrib%3Dvalue
	Optional. Specifies that you want your report to display any or the entire list of valid filter attributes. Valid filter attributes for the `lsvaultbackup` command are:
	   • clusterid
	   • clustername
	   • appid
	   • appname
	The filter is formed with an attribute and a value. When more than one filter is specified, they must be delimited with the '&' symbol (which should be escaped with '\'). Note that only one of `appid` or `appname` can be specified, as is the case for `clusterid` and `clustername`.
	
	When filter is applied with application name or application ID, details of the backups associated with the application is displayed. Without filtering on application, backups are not included.

vaultpool=string	Required. Specifies the name or ID of the OnVault pool.

lsvaultbackup Request Details

Your `lsvaultbackup` request must pass a valid session ID. For information on how to get a valid session ID, see Authentication or Login on page 1.

Method	URI	Required Parameters

GET	//api/info/lsvaultbackup	vaultpool

Note: *See the Parameters section for a list of supported parameters and their description.*

---

lsvaultbackup Example

Request

```
GET https://{API_HOST}//api/info/lsvaultbackup?vaultpool=AWS
HTTP Request Header
Authorization:  92929a8b-a413-476f-a624-5b575cff54d3
```

where 92929a8b-a413-476f-a624-5b575cff54d3 is the session ID.

Response

```
Request success
{
  "result": [
    {
      "hostname": "rh74vm1",
      "appname": "_boot",
      "clustername": "skytest5_sqa__com",
      "appid": "36781",
      "clusterid": "1415009633"
    },
    {
      "hostname": "Sanity1",
      "appname": "R__",
      "clustername": "Sky-7_1_3-source",
      "appid": "13191",
      "clusterid": "1415020666"
    },
    {
      "hostname": "Sanity1",
      "appname": "SQL_const_2",
      "clustername": "Sky-7_1_3-source",
      "appid": "13304",
      "clusterid": "1415020666"
    },
    {
      "hostname": "Sanity2",
      "appname": "SQL_Consistancy",
      "clustername": "Sky-7_1_3-source",
      "appid": "4968",
      "clusterid": "1415020666"
    },
    {
      "hostname": "Sanity1",
      "appname": "M__",
      "clustername": "sky711upg",
      "appid": "4596",
      "clusterid": "1415021867"
    },
    {
      "hostname": "Windows",
      "appname": "immutability_1",
      "clustername": "sky7_1_4-immut2",
      "appid": "37897",
```

actifio

```
      "clusterid": "1415035525"
    },
    {
      "hostname": "Windows",
      "appname": "E__",
      "clustername": "sky7_1_4-immut2",
      "appid": "4361",
      "clusterid": "1415035525"
    },
    {
      "hostname": "Windows",
      "appname": "Immut_4",
      "clustername": "sky7_1_4-immut2",
      "appid": "46402",
      "clusterid": "1415035525"
    },
    {
      "hostname": "vm_backup1",
      "appname": "VM_backup1",
      "clustername": "sky7_1_4-immut2",
      "appid": "4501",
      "clusterid": "1415035525"
    },
    {
      "hostname": "Linux",
      "appname": "_xfs",
      "clustername": "Sky7_0_8",
      "appid": "5254",
      "clusterid": "1415050691"
    },
    {
      "hostname": "vm_backup1",
      "appname": "VM_backup1",
      "clustername": "matrix",
      "appid": "14018",
      "clusterid": "590021132322"
    },
    {
      "hostname": "IOV_upgrade_catalog",
      "appname": "SQL_con_upgrade",
      "clustername": "matrix",
      "appid": "4888",
      "clusterid": "590021132322"
    }
  ],
  "status": 0
}
```

Dedup Drive Seeding Commands

The initial replication of a larger size dedup image to a remote system over a network can take hours or days depending on the amount of data and available bandwidth. Regardless of which transport mechanism you use, transferring large amount of data across the network can take hours. Actifio Copy Data Management supports an easy 'seed-load' technology, which allows the initial backup done on-site through an external USB drive. This drive is physically shipped to the remote storage location and copy the data it to the appropriate folder. This method saves lot time and bandwidth. Once the initial replication in place, the incremental changes are made over the network or Internet.

Use the following commands to perform the seeding operations:

Command	Description
lsdevice	Displays a list of physical USB devices to perform seed-in or seed-out operations.

lsdevice

About lsdevice Command

Description

Use this command to display a concise list of physical USB devices, or a detailed view of a USB device, to be used for seedin or seedout.

The appliance supports only the use of USB2 devices that are at least 16 GB in size to perform seedout. Also when inserting a USB device for seed out, make sure no USB1 devices are attached to the appliance node at that time.

Applicability of this Command

This command can be used on:

Actifio CDS	x
Sky appliance	ü
Actifio NAS Director	x

Note:

Parameters

Parameter	Description
appliance=string	Required. Specifies the name or ID of the target Sky appliance to execute this command. Use the **lscluster** command to retrieve the appliance name or ID to help you identify the correct appliance to include in the **appliance** argument.
all	Optional. List all devices, in addition to those USB devices for seeding.
argument=string	Optional. Specifies the name of the device to get detailed information.

lsdevice Request Details

Your `lsdevice` request must pass a valid session ID. For information on how to get a valid session ID, see Authentication or Login on page 1

Method	URI	Required Parameters
POST	/actifio/api/task/lsdevice	appliance

lsdevice Example

Fetching device details.

Request

```
GET https://{API_HOST}/actifio/api/info/lsdevice
HTTP Request Header
Authorization: Actifio 92929a8b-a413-476f-a624-5b575cff54d3
```

where 92929a8b-a413-476f-a624-5b575cff54d3 is the session ID.

Response

```
Request success
{
    "result": [
        {
            "device": "sdb",
            "initialized": "no",
            "location": "001:005",
            "name": "",
            "volume": ""
        }
    ],
    "status": 0
}
```

initializedevice

About initializedevice Command

Description

Use this command to initialize a USB device for seeding.

Note: *The appliance supports only the use of USB2 devices that are at least 16 GB in size to perform the seedout procedure. When inserting a USB device for seedout, make sure no USB1 devices are attached to the appliance at that time.*

Applicability of this Command

This command can be used on:

Actifio CDS	x
Actifio Sky appliance	ü
Actifio NAS Director	x

Rights

You must have the 'System Manage' right to be able to initialize a device.

Parameters

Parameter	Description
force	Optional. Required if the device is previously initialized for seeding.
name	Required. Specifies the name of the device to be initialized with.
password	Optional. Specifies the password of the device to be initialized with.
appliance	Required. Specifies the name or ID of the target Sky appliance to execute this command. Use the **lscluster** command to retrieve the appliance name or ID to help you identify the correct appliance to include in the **appliance** argument.
volume	Optional. Specifies the volume number of the device to be initialized with. Default is 0, if not specified default value is used.
device_name	Optional. Specifies the name of the device to initialize.

Workflow Commands

mkworkflow

About mkworkflow Command

Description

Use this command to create a new workflow, which can be used to automate, for example, a Test and Development process by leveraging various appliance data protection features.

Rights

User must have 'WorkFlow Manage' right to be able to create any workflow.

Parameters

Parameter	Description
name=string	Required. Specifies the name of the workflow.
appid=string	Required. Specifies the ID or name of the application for which you are creating the workflow. Use `lsapplication` to retrieve the application ID or name.
day=string	[**Deprecated**] Use **when** instead. Required. Specifies the day of the frequency, 0-based. For weekly frequency, 0 indicates Sunday, and 1 is Monday, etc. For monthly frequency, 0 is first day of the month, 1 is second day of the month and so on.
type=liveclone|directmount	Optional. Specifies the workflow type: liveclone or directmount (default). • liveclone: Creates a LiveClone, which allows you to use a script to perform an operation on the image before presenting it to the host. LiveClone workflows are commonly used for data masking: a database that contains sensitive data is mounted to a data masking server, where the sensitive data is scrubbed. Then the scrubbed database is mounted to the host. • directmount: Mounts a selected snapshot image to a selected host exactly as it was snapped.
source=snap|streamsnap|onvault |policyid	Optional. Specifies the source image for the workflow. Valid values are: • snap (default): use any image from snapshot policy. • policyid - use images from the specified policy. Supported image types are snap, streamsnap and DAR.
frequency=hourly| daily | weekly | monthly	Required. Specifies the frequency of the schedule.
time=string	Required. Specifies the time of the schedule.

actifio

Parameter	Description
members=appid|appname[,appid|appname][,…]	Optional, but required for application groups. Specifies list of restorable objects, identified by application name or ID. Multiple application name or IDs must be separated by commas.
when=integer	Optional. Specifies a 0-based number whose interpretation depends on the frequency. • For monthly frequency, 0 is first day of the month, and 1 is 2nd day of the month, and so on. • For weekly frequency, 0 indicates Sunday, 1 indicates Monday, and so on. • For daily frequency, represents the day intervals. For example, if you specify "2", it indicates intervals of 2 days • For hourly frequency, indicates hourly intervals. For example, if you specify the value "3", it means intervals of 3 hours.
scheduletype=ondemand|scheduled	Required. Specifies whether the workflow will run on schedule or on demand. Scheduled workflows can also run on demand.

mkworkflow Request Details

Your `mkworkflow` request must pass a valid session ID. For information on how to get a valid session ID, see Authentication or Login on page 1.

Method	URI	Required Parameters
POST	//api/task/mkworkflow	name appid frequency time when

Note: *See the Parameters section for a list of supported parameters and their description.*

---

mkworkflow Example

Creating a workflow named wf_weekly.

Request
```
https://{API_HOST}//api/task/
mkworkflow?name=wf_weekly&appid=84363&frequency=weekly&time=8:00&day=1
HTTP Request Header
Authorization:  92929a8b-a413-476f-a624-5b575cff54d3
```

where 92929a8b-a413-476f-a624-5b575cff54d3 is the session ID.

Response
```
Request success
{
    "result": "201963",
    "status": 0
}
```

lsworkflow

About lsworkflow Command

Description

Use this command to retrieve details of a list of workflows, or a detailed view of a workflow. A workflow is a group of appliance commands, which can be scheduled to automate a business process, for example, a Test and Development process by leveraging various appliance data protection features like liveclone, prep-mount and mount operations.

Rights

User must have 'WorkFlow Manage' or 'WorkFlow View' right to be able to view workflows.

Parameters

Parameter	Description
filtervalue=attrib%3D value	Optional. Specifies that you want your report to display any or all of the list of valid filter attributes.The valid filter attributes for `lsworkflow` are: • appid • scheduletype [On-Demand|Hourly|Daily|Weekly|Monthly] For string type of filters, the only operator allowed is '='. You can also use wildcard character '*'.
argument=string	Optional. Specifies the name or ID of an object. When you use this parameter, the detailed view of the specific object is returned and any value that is specified by the **filtervalue** parameter is ignored. If you do not specify the argument , the concise view of all objects matching the filter criteria is displayed.

lsworkflow Request Details

Your `lsworkflow` request must pass a valid session ID. For information on how to get a valid session ID, see Authentication or Login **on page 1**.

Method	URI	Required Parameters
GET	//api/info/lsworkflow	None

Note: *See the Parameters section for a list of supported parameters and their description.*

lsworkflow Example

Listing all available workflows.

Request
```
https://{API_HOST}//api/info/lsworkflow
HTTP Request Header
```

```
Authorization:  92929a8b-a413-476f-a624-5b575cff54d3
```

where 92929a8b-a413-476f-a624-5b575cff54d3 is the session ID.

Response

```
Request success
{
    "result": [
        {
            "appaware": "false",
            "clearsensitiveflag": "false",
            "host": "",
            "id": "201963",
            "label": "mountimage1",
            "prepmount": "false",
            "reprotect": "false",
            "type": "mount",
            "workflowid": "201962",
            "workflowname": "worfflow2"
        },
        {
            "appaware": "false",
            "clearsensitiveflag": "false",
            "host": "84313",
            "id": "202933",
            "label": "WF3_Mount",
            "prepmount": "false",
            "reprotect": "false",
            "type": "mount",
            "workflowid": "202932",
            "workflowname": "WF3"
        },
        {
            "appaware": "false",
            "clearsensitiveflag": "false",
            "host": "84313,84317",
            "id": "282015",
            "label": "",
            "prepmount": "false",
            "reprotect": "false",
            "type": "mount",
            "workflowid": "282014",
            "workflowname": "morning-wf"
        }
    ],
    "status": 0
}
```

chworkflow

About chworkflow Command

Description

Use this command to modify the attributes of an existing workflow. Use lsworkflow to obtain the ID. Use "-disable" to de-schedule and reschedule a workflow. When changing a data flow schedule, all schedule parameters, day, time and frequency, should be specified.

Rights

User must have 'WorkFlow Manage' right to be able to change any workflow.

Parameters

Parameter	Description
day=string	**[Deprecated]** Use **when** instead, Optional. Specifies the day of the frequency, 0-based. For weekly frequency, 0 indicates Sunday, and 1 is Monday, etc. For monthly, 1 is first day of the month, and so on.
type=liveclone|directmount	Optional. Specifies whether the workflow type: liveclone or directmount (default). • liveclone: Creates a LiveClone, which allows you to use a script to perform an operation on the image before presenting it to the host. LiveClone workflows are commonly used for data masking: a database that contains sensitive data is mounted to a data masking server, where the sensitive data is scrubbed. Then the scrubbed database is mounted to the host. • directmount: Mounts a selected snapshot image to a selected host exactly as it was snapped.
source=snap|policyid	Specifies the source image or the policy ID of the source image. If nothing is specified here, the latest snap image is used by default. Valid values are: • snap (default): use any image from snapshot policy. • policyid - use images from the specified policy. Supported image types are snap, streamsnap and DAR.
members=appid|appname[, appid|appname][,...]	Optional. Specifies the applications to be included when the source is a group.
disable=boolean	Optional. Disables the workflow from being scheduled.
frequency=hourly| daily | weekly | monthly	Required. Specifies the frequency of the schedule.
name	Optional. Specifies new name for the workflow.

Parameter	Description
time=string	Optional. Specifies the time of the schedule.
when=integer	Optional. Specifies a 0-based number whose interpretation depends on the frequency. • For monthly frequency, 0 is first day of the month, and 1 is 2nd day of the month, and so on. • For weekly frequency, 0 indicates Sunday, 1 indicates Monday, and so on. • For daily frequency, represents the day intervals. For example, if you specify "2", it indicates intervals of 2 days • For hourly frequency, indicates hourly intervals. For example, if you specify the value "3", it means intervals of 3 hours.
argument=string	Required. Identifies the workflow object to modify by ID. Use **lsworkflow** to obtain the ID.

chworkflow Request Details

Your `chworkflow` request must pass a valid session ID. For information on how to get a valid session ID, see Authentication or Login **on page 1**.

Method	URI	Required Parameters
POST	//api/task/chworkflow	argument

Note: *See the Parameters section for a list of supported parameters and their description.*

chworkflow Examples

Disabling a workflow using the disable parameter.

Request

```
POST https://{API_HOST}//api/task/chworkflow?argument=212027&disable=true
HTTP Request Header
Authorization:  92929a8b-a413-476f-a624-5b575cff54d3
```

where 92929a8b-a413-476f-a624-5b575cff54d3 is the session ID.

Response

```
Request success
{
    "result": "212027",
    "status": 0
}
```

Updating a workflow to make it run on a weekly schedule instead of the daily schedul

Request

```
POST https://{API_HOST}//api/task/
chworkflow?argument=282015&frequency=weekly&when=1&time=7:00&scheduletype=scheduled
HTTP Request Header
```

```
Authorization:  92929a8b-a413-476f-a624-5b575cff54d3
```

where 92929a8b-a413-476f-a624-5b575cff54d3 is the session ID.

Response

```
Request success
{
    "result": "282015",
    "status": 0
}
```

chflowtask

About chflowtask Command

Description

Use this command to update or set attributes for a workflow. Use lsflowtask to obtain the flowtask ID.

You will typically use mkworkflow to create a workflow and then use chflowtask to update each step in the workflow (based on the type flag during workflow creation). The chflowtask command will help you configure the actual settings to use for the step for scheduled workflows. Using the runworkflow command, you can override a subset of these items as necessary.

Rights

User must have 'Workflow Run' or 'WorkFlow Manage' right to be able to change any flowtask.

Parameters

Parameter	Description
name=string	Required. Specifies the workflow object to modify by ID. Use lsworkflow to obtain the ID.
type=liveclone|directmount	Optional. Specifies type of the flowtask you are modifying. Use liveclone to specify pre-processing parameters. Otherwise use mount (default).

The following parameters are applicable when the **type** is **liveclone**.

appaware	Optional. Set this parameter to true to perform an application aware mount. This can only be specified for Oracle and SQL applications.
label	Optional, but required if no value was set previously. The label applied to the images.
diskpool	Optional, but required if no value was set previously. Specifies the diskpool name or ID used for the operation.
prepmount	Optional. Specifies whether to prep-mount a LiveClone image to a host.
clearsensitiveflag	Optional. Specifies whether to mark data as non-sensitive. Not allowed if prepmount is specified.
host	Required if prepmount is specified. Specifies the ID or name of a single host to which the backup image is to be prep-mounted.

Parameter	Description
rdmmode	(Optional) Specifies Raw Device Mapping (RDM) mode for VM. Valid values are: • dependentvirtual • independentvirtual (default) • physical Specify dependentvirtual if mounted volume(s) are to be included in VMware snapshots **Note:** *dependentvirtual is rarely used.* If there is an SLA assigned to the VM to which these volumes are mounted, they will be captured and will be counted towards MDL usage.
maptoallESX=true|false	Optional. Valid when the target host is a VMware VM. If there are multiple hosts, at least one must be VMware VM.
maptoallclusternodes= true|false	Optional. Valid only for cluster applications. Map backup image to all the nodes in the cluster.
mountlocation	Optional. Specifies a mountpoint for the volume on host. For example, /mnt/home

script	Optional. Specifies a script during different phases of the operation. Five phases are supported, INIT, PRE, POST, FINAL, and ABORT. For each phase, a timeout, name of the script, and argument list can be specified. Name of the script is required, timeout and args are optional.
	
	Syntax for each phase is:
	
	    name=<name>:phase={INIT|PRE|POST|FINAL|ABORT}:[timeout=<timeout>]:[args=arg1,arg2]
	
	Multiple phases can be specified, separated by semi-colon (;), for example:
	
	    name=setup.sh:phase=INIT;name=freeze.sh:phase=PRE

members=appid|appname[,appid|appname][...]	Optional. Specifies the applications to be included when the source is a group.

Parameter	Description
provisioningoptions	Optional. Required if appaware is specified.
	A comma delimited list of restore options where each option is a name=value pair. Use `lsrestoreoptions` to obtain a list of applicable restore options.
	To perform app-aware mount to a new application, additional options can be provided through an XML content, which needs to adhere to the rules of the appclass of the application. In addition, the app-aware mounted new application can also be optionally protected, with a new, or existing SLT and SLP, if so desired. The existence of the provisioningoptions indicates that this is an app-aware mount, regardless of -appaware flag.
	For example,
	``` -provisioningoptions "<databasesid>foodb1</databasesid> <orahome>/u01/app/oracle/product/11.2.0/db_1</orahome> <utlfiledirectory>/home/oracle</utlfiledirectory> <username>oracle</username>". ```
	Use `lsappclass` to obtain a list of available appclass, and provisioning options for each appclass.

The following parameters are applicable when the **type** is **mount**.

label	Optional. The label applied to the images.
diskpool	Optional. Specifies the diskpool name or ID used for the operation.
host	Optional. Specified comma-separated list of host IDs where the image is to be mounted.
	Only one host can be specified if appaware is true.
rdmmode	(Optional) Specifies Raw Device Mapping (RDM) mode for VM. Valid values are:
	• dependentvirtual
	• independentvirtual (default)
	• physical
	Specify dependentvirtual if mounted volume(s) are to be included in VMware snapshots
	Note: *dependentvirtual is rarely used.*
	If there is an SLA assigned to the VM to which these volumes are mounted, they will be captured and will be counted towards MDL usage.
maptoallESX=true|false	Optional. Valid when the target host is a VMware VM. If there are multiple hosts, at least one must be VMware VM.
maptoallclusternodes= true|false	Optional. Valid only for cluster applications. Map backup image to all the nodes in the cluster.
mountlocation	Optional. Specifies a mountpoint for the volume on host. For example, /mnt/home.

Parameter	Description
appaware	Optional. Set this parameter to true to perform an application aware mount. This can only be specified for Oracle and SQL Server applications.

script	Optional. Specifies a script during different phases of the operation. Five phases are supported, INIT, PRE, POST, FINAL, and ABORT. For each phase, a timeout, name of the script, and argument list can be specified. Name of the script is required, timeout and args are optional.
	
	Syntax for each phase is:
	
	    name=<name>:phase={INIT|PRE|POST|FINAL|ABORT}:[timeout=<timeout>]:[args=arg1,arg2]
	
	Multiple phases can be specified, separated by semi-colon (;), for example:
	
	    name=setup.sh:phase=INIT;name=freeze.sh:phase=PRE
| **provisioningoptions** | Optional. Required if appaware is specified.<br><br>A comma delimited list of restore options where each option is a name=value pair. Use `lsrestoreoptions` to obtain a list of applicable restore options.<br><br>To perform app-aware mount to a new application, additional options can be provided through an XML content, which needs to adhere to the rules of the appclass of the application. In addition, the app-aware mounted new application can also be optionally protected, with a new, or existing SLT and SLP, if so desired. The existence of the provisioningoptions indicates that this is an app-aware mount, regardless of `-appaware` flag.<br><br>For example,<br><br>```
provisioningoptions "<databasesid>foodb1</databasesid>
    <orahome>/u01/app/oracle/product/11.2.0/db_1</orahome>
    <utlfiledirectory>/home/oracle</utlfiledirectory>
    <username>oracle</username>".
```<br><br>Use `lsappclass` to obtain a list of available appclass, and provisioning options for each appclass. |
immediateunmount	Optional. Use it to unmount the image from target server, delete the snapshot of the selected image after the mount operation and the script execution have been successfully completed. Cannot be specified if `-reprotect` is specified.
reprotect	Optional. Specifies a new application to protect. Cannot be specified if `-immediateunmount` is specified.
reprotectslt	Required if reprotect is true. Specifies the template for the new application to protect.
reprotectslp	Required if reprotect is true. Specifies the profile for the new application to protect.

chflowtask Request Details

Your `chflowtask` request must pass a valid session ID. For information on how to get a valid session ID, see Authentication or Login on page 1.

Method	URI	Required Parameters
POST	//api/task/chflowtask	argument

Note: *See the Parameters section for a list of supported parameters and their description.*

chflowtask Example

Modify an existing workflow by adding some additional information/steps to the workflow.

Request

```
PUT https://{API_HOST}//api/task/
chflowtask?argument=282015&type=mount&host=172.27.26.11,172.27.26.12&mountlocation=/home/jita
HTTP Request Header
Authorization:  92929a8b-a413-476f-a624-5b575cff54d3
```

where 92929a8b-a413-476f-a624-5b575cff54d3 is the session ID.

Response

```
Request success
{
    "result": "282015",
    "status": 0
}
```

lsflowtask

About lsflowtask Command

Description

Use this command to retrieve details of a list of flowtasks, or a detailed view of a flowtask. A flowtask is a step/task in a workflow.

Rights

User must have 'Workflow View' right to be able to view any flowtask.

Parameters

Parameter	Description
type=liveclone|mount	Optional. Specifies type of the flowtask. Use liveclone to specify pre-processing parameters. Otherwise use mount (default).
argument=string	Optional. Specifies the name or ID of a flowtask object. When you use this parameter, the detailed view of the specific object is returned and any value that is specified by the `filtervalue` parameter is ignored. If you do not specify the argument , the concise view of all objects matching the filter criteria is displayed.

lsflowtask Request Details

Your `lsflowtask` request must pass a valid session ID. For information on how to get a valid session ID, see Authentication or Login **on page 1**.

Method	URI	Required Parameters
GET	`//api/info/lsflowtask`	None

Note: *See the Parameters section for a list of supported parameters and their description.*

lsflowtask Example

Request

```
GET https://{API_HOST}//api/info/lsflowtask
HTTP Request Header
Authorization:  92929a8b-a413-476f-a624-5b575cff54d3
```

where 92929a8b-a413-476f-a624-5b575cff54d3 is the session ID.

Response

```
Request success
{
    "result": [
```

actifio

```json
        {
            "appaware": "false",
            "clearsensitiveflag": "false",
            "host": "",
            "id": "201963",
            "label": "mountimage1",
            "prepmount": "false",
            "reprotect": "false",
            "type": "mount",
            "workflowid": "201962",
            "workflowname": "worfflow2"
        },
        {
            "appaware": "false",
            "clearsensitiveflag": "false",
            "host": "84313",
            "id": "202933",
            "label": "WF3_Mount",
            "prepmount": "false",
            "reprotect": "false",
            "type": "mount",
            "workflowid": "202932",
            "workflowname": "WF3"
        },
        {
            "appaware": "false",
            "clearsensitiveflag": "false",
            "host": "84313,84317",
            "id": "282015",
            "label": "",
            "prepmount": "false",
            "reprotect": "false",
            "type": "mount",
            "workflowid": "282014",
            "workflowname": "morning-wf"
        }
    ],
    "status": 0
}
```

runworkflow

About runworkflow Command

Description

Use this command to trigger an on-demand execution of the workflow.

Rights

User must have 'WorkFlow Run' or 'WorkFlow Manage' right to be able to run a workflow.

Parameters

Parameter	Description
argument=string	Required. Specifies the ID workflow object to be executed. Use `lsworkflow` to display detailed workflow information.
norefreshliveclone =string	Optional. When set, the LiveClone workflow will skip the LiveClone refresh operation.
nocreateliveclone =string	Optional. When set, the LiveClone workflow will skip the LiveClone mount operation.
sourceimage= imageid |imagename	Optional. Specifies the name of the id of the source image. If no image is specified, automatically selected the newest image available.
wait=boolean	Optional. Specifies whether to wait for the completion of the command.
ondemand	(Optional) Specifies whether to run the workflow as on demand or scheduled. By default, the workflow is run as scheduled.

The following parameters are applicable only for mount operation (for LiveClone and Direct Mount workflows).

Parameter	Description
host=string	Optional. Specifies a comma-separated list of hosts on which to mount. Use the `lshost` command to retrieve a list of all hosts and their IDs. **Note:** *Only one host is supported for appaware mounts.*
maptoallESX=true|false	Optional. Valid when the target host is a VMware VM. If there are multiple hosts, at least one must be VMware VM.
maptoallclusternodes= true|false	Optional. Valid when target host is cluster node or cluster host.
appaware=true|false	Optional. Set this parameter to true to perform an application aware mount. When set to true, you must either provide all required provisioning options, or specify `-refreshexisting`.

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Parameter	Description
The following parameters are applicable only for appaware mount.	
recoverytime	[Applicable only for appaware mount] Valid only for database applications. Specify the point-in-time for recovery, by applying log backups to roll forward to the specified time of the host. The time should be within the range set by hostbeginpit and hostendpit when displayed using 'udsinfo lsbackup <image>' for that image. The format should be either: "yyyy-MM-dd HH:mm:ss" or "yyyy-MM-dd HH:mm:ss.SSS".
refreshexisting	[Applicable only for appaware mount] Specify the appname or appid to be refreshed. Cannot be specified if -provisioningoptions is also specified. **Note:** *It is mandatory to specify appid when there is more than one app with the same name in the Appliance.*
provisioningoptions	[Applicable only for application aware mount] (Optional) A comma delimited list of restore options where each option is a name=value pair. For a list of available options, use `lsrestoreoptions`. To perform app-aware mount to a new application, additional options can be provided through an XML content, which needs to adhere to the rules of the appclass of the application. In addition, the app-aware mounted new application can also be protected, with a new or existing SLT and SLP. To find available appclass and provisioning options for each appclass use `lsappclass`.

runworkflow Request Details

Your `runworkflow` request must pass a valid session ID. For information on how to get a valid session ID, see Authentication or Login on page 1.

Method	URI	Required Parameters
POST	//api/task/runworkflow	argument

Note: *See the Parameters section for a list of supported parameters and their description.*

runworkflow Example

```
POST https://{_API_HOST}//api/task/runworkflow?argument=212027
HTTP Request Header
Authorization:  92929a8b-a413-476f-a624-5b575cff54d3
```

where 92929a8b-a413-476f-a624-5b575cff54d3 is the session ID.

Response

```
{
    "result": "xJob Completed",
```

```
    "status": 0
}
```

rmworkflow

About rmworkflow Command

Description

Use this command to remove an existing workflow object. Use udsinfo lsworkflow to obtain the ID. If the specified workflow is running, it will continue until it is completed

Rights

User must have 'WorkFlow Manage' right to be able to remove a workflow.

Parameters

Parameter	Description
argument=string	Required. Specifies the ID of the workflow object to be removed. Use `lsworkflow` to obtain the ID.
force	Optional. Specifies whether to ignore errors when deleting the workflow.

rmworkflow Request Details

Your `rmworkflow` request must pass a valid session ID. For information on how to get a valid session ID, see Authentication or Login on page 1.

Method	URI	Required Parameters
POST	//api/task/rmworkflow	argument

rmworkflow Example

Request

```
POST https://{_API_HOST}//api/task/rmworkflow?argument=212030
HTTP Request Header
Authorization:  92929a8b-a413-476f-a624-5b575cff54d3
```

where 92929a8b-a413-476f-a624-5b575cff54d3 is the session ID.

Response

```
{
"result": "xJob Completed",
"status": 0
}
```

Other Command

mksideband

About mksideband Command

Description

Use this command to mark an mdisk to be used for a sideband group.

Note: *The **mksideband** command is supported by appliances only.*

Applicability of this Command

This command can be used on:

CDS appliance	ü
Sky appliance	x
NAS Director	ü

Rights

You must have 'System Manage' right to invoke this operation.

Parameters

Parameter	Description
mdisk=string	Required. Specifies the name of the mDisk.

mksideband Request Details

Your `mksideband` request must pass a valid session ID. For information on how to get a valid session ID, see Authentication or Login .

Method	URI	Required Parameters
POST	//api/task/mksideband	mdisk

Note: *See the Parameters section for a list of supported parameters and their description.*

---

mksideband Example

Request

```
POST https://{API_HOST}//api/task/mksideband?mdisk=mdisk1
HTTP Request Header
Authorization:  92929a8b-a413-476f-a624-5b575cff54d3
```

where 92929a8b-a413-476f-a624-5b575cff54d3 is the session ID.

7 Policy and Schedule Commands

Use these commands for managing policies and schedules in your Service Level Agreements (SLAs).

SLT Commands

mkslt

About mkslt Command

Description

Use this command to create a new policy template.

Rights

You must have the 'SLA Manage' right to create a policy template.

Parameters

Parameter	Description
description=string	Optional. Specifies description of the SLA template.
name=string	Required. Specifies name of the SLA template; the name has to be unique within the appliance.
org=string	Optional. Specifies a default organization to which the template is to be added after creation. Use the `udsinfo` lsorg command to locate the ID or name of the organization. **Note:** *To use this option user needs to have 'System Manage' right.*
override=boolean	Optional. Specifies whether policy option can be overridden. The default is true.
id=string	Optional. Use `udsinfo` lsslt to retrieve the SLA ID.
cluster=string	Optional. Specifies the name or ID of the target VDP Appliance to execute this command where the template should be pushed to.

mkslt Request Details

Your `mkslt` request must pass a valid session ID. For information on how to get a valid session ID, see Authentication or Login on page 1.

Method	URI	Required Parameters
POST	//api/task/mkslt	name=<sla template name>

Note: *See the Parameters section for a list of supported parameters and their description.*

mkslt Example

Creating a new template with a specific name.

Request

```
POST https://{API_HOST}//api/task/mkslt?name=Daily%20Task%20Template
HTTP Request Header
Authorization:  92929a8b-a413-476f-a624-5b575cff54d3
```

where 92929a8b-a413-476f-a624-5b575cff54d3 is the session ID.

Response

```
Request success
{
    "result": 153121,
    "status": 0
}
```

Creating a new template with a specific name and description and associate with an org.

Request

```
POST https://{API_HOST}//api/task/
mkslt?name=Daily%20Task%20Template%202&description=A%20new%20template%20we%20will%20use&org=or
g5
HTTP Request Header
Authorization:  92929a8b-a413-476f-a624-5b575cff54d3
```

where 92929a8b-a413-476f-a624-5b575cff54d3 is the session ID.

Response

```
Request success
{
    "result": 153184,
    "status": 0
}
```

lsslt

About lsslt Command

Description

Use this command to retrieve the details of SLTs. A template (SLT) is made up of one or more policies that describe the data protection schedules.

Rights

You must have the 'SLA Manage', 'SLA View' or 'SLA Assign' right to view a list of SLTs.

Parameters

Parameter	Description
appliance=string	Optional. Specifies the name or ID of the target VDP Appliance to retrieve all objects in a list view. Use the `udsinfo` lscluster command to retrieve the appliance name or ID to help you identify the correct appliance to include in the `-appliance` argument.
filtervalue =attribute%3Dvalue	Optional. Specifies that you want your report to display any or all of the list of valid filter attributes. The valid filter attribute for the **lsslt**`udsinfo` lsslt command is: name For string type of filters, the only operator allowed is '='. You can also use wild-card character '*'. For example, to match template (SLT) with name begins with 'foo', use `'-filtervalue name=foo*'`filtervalue=name%3Dfoo*.
argument=string	Optional. Specifies the name or ID of an object. When you use this parameter, a detailed view of the object is returned and any value specified by the `-filtervalue` parameter is ignored. If you do not specify the ID or name, a concise view of all objects matching the filters is displayed.

lsslt Request Details

Your `lsslt` request must pass a valid session ID. For information on how to get a valid session ID, see Authentication or Login on page 1.

Method	URI	Required Parameters
GET	//api/info/lsslt	None

Note: *See the Parameters section for a list of supported parameters and their description.*

lsslt Examples

Fetching list of all templates.

actifio

Request

```
GET https://{API_HOST}//api/info/lsslt
HTTP Request Header
Authorization:  92929a8b-a413-476f-a624-5b575cff54d3
```

where 92929a8b-a413-476f-a624-5b575cff54d3 is the session ID.

Response

```
Request success
{
    "result": [
        {
            "description": "Tier-4 - Local Protection Only",
            "id": "104",
            "name": "Tier-4 - Local Protection Only",
            "override": "true"
        },
        {
            "description": "Tier-0 App SLA - 4 HOUR RPO",
            "id": "106",
            "name": "Tier-0 - 4 HOUR RPO",
            "override": "true"
        },
        {
            "description": "Tier-1 App SLA - 12 HOUR RPO",
            "id": "107",
            "name": "Tier-1 - 12 HOUR RPO",
            "override": "true"
        },
        {
            "description": "Tier-2 App SLA - 24 HOUR RPO",
            "id": "108",
            "name": "Tier-2 - 24 HOUR RPO",
            "override": "true"
        },
        {
            "description": "Tier-3 - Application Data Vault",
            "id": "109",
            "name": "Tier-3 - Application Data Vault",
            "override": "true"
        },
        {
            "description": "new description",
            "id": "84331",
            "name": "TP-Template",
            "override": "true"
        },
        {
            "description": "",
            "id": "153121",
            "name": "Daily Task Template",
            "override": "true"
        }
    ],
    "status": 0
}
```

Fetching Template for a specific Object Id using the argument parameter.

Request

```
GET https://{API_HOST}//api/info/lsslt?argument=108
HTTP Request Header
Authorization:  92929a8b-a413-476f-a624-5b575cff54d3
```

where 92929a8b-a413-476f-a624-5b575cff54d3 is the session ID.

Response

```
Request success
{
    "result": {
        "description": "Tier-2 App SLA - 24 HOUR RPO",
        "id": "108",
        "name": "Tier-2 - 24 HOUR RPO",
        "override": "true"
    },
    "status": 0
}
```

Fetching template with a specific name using filtervalue parameter.

Request

```
GET https://{API_HOST}//api/info/lsslt?filtervalue=name%3DTier-4+-+Local+Protection+Only
HTTP Request Header
Authorization:  92929a8b-a413-476f-a624-5b575cff54d3
```
where 92929a8b-a413-476f-a624-5b575cff54d3 is the session ID.

Response

```
Request success
{
    "result": [
        {
            "description": "Tier-4 - Local Protection Only",
            "id": "104",
            "name": "Tier-4 - Local Protection Only",
            "override": "true"
        }
    ],
    "status": 0
}
```

cloneslt

About cloneslt Commands

Description

Use the cloneslt command to clone an slt.Use 'udsinfo lsslt' to retrieve the ID of the slt.

Rights

User must have 'SLA Assign' right to clone a slt.

Parameters

Parameter	Description
sltid=integer	Required. Specifies the ID of the slt to be cloned.
sltname=string	Required. Specifies the name of the slt to be cloned.

cloneslt Request Details

Your cloneslt request must pass a valid session ID. For information on how to get a valid session ID, see Authentication or Login on page 1.

Method	URI	Required Parameters
POST	//api/task/cloneslt	sltid sltname

Note: *See the Parameters section for a list of supported parameters and their description.*

---

cloneslt Example

Request

```
POST https://{Actifio_API_HOST}/actifio/api/task/cloneslt?argument=1199943
HTTP Request Header
Authorization:  92929a8b-a413-476f-a624-5b575cff54d3
where 92929a8b-a413-476f-a624-5b575cff54d3 is the session ID.
```

Response

Request success

```
{
    "result": "1",
    "status": 0
}
```

chslt

About chslt Command

Description

Use this command to change the attributes of a template (SLT). Use the `udsinfo` lsslt command to obtain the ID or name of the template (SLT).

Rights

You must have the 'SLA Manage' right to change a template.

Parameters

Parameter	Description
description=string	Optional. Specifies a description for the template.
name=string	Optional. Specifies a name for the template.
override=boolean	Optional. Specifies whether policy option can be overridden.
promote	Optional. Promotes a replicated appliance template .
argument=string	Required. Specifies the ID or name of the template to be modified.

chslt Request Details

Your `chslt` request must pass a valid session ID. For information on how to get a valid session ID, see Authentication or Login on page 1.

Method	URI	Required Parameters
POST	//api/task/chslt	argument=<sla id|sla name>

Note: See the Parameters section for a list of supported parameters and their description.

chslt Examples

Update an existing template with a new description.

Request

```
POST https://{_API_HOST}//api/task/chslt?argument=153121&description=New Description
HTTP Request Header
Authorization:  92929a8b-a413-476f-a624-5b575cff54d3
```

where 92929a8b-a413-476f-a624-5b575cff54d3 is the session ID.

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Response

```
Request success
{
    "status": 0

}
```

Update an existing template to change the override property of the template.

Request

```
POST https://{_API_HOST}//api/task/chslt?argument=153121&override=false
HTTP Request Header
Authorization:  92929a8b-a413-476f-a624-5b575cff54d3
```
where 92929a8b-a413-476f-a624-5b575cff54d3 is the session ID.

Response

```
Request success
{
    "status": 0
}
```

rmslt

About rmslt Command

Description

Use this command to delete a template.

Rights

You must have the 'SLA Manage' right to delete a template.

Parameters

Parameter	Description
argument=string	Required. Specifies the ID or name of the template to be deleted. Use `udsinfo` lsslt to retrieve the SLT information.

rmslt Request Details

Your `rmslt` request must pass a valid session ID. For information on how to get a valid session ID, see Authentication or Login on page 1.

Method	URI	Required Parameters
POST	//api/task/rmslt	argument=<sla id>

Note: *See the Parameters section for a list of supported parameters and their description.*

rmslt Example

Delete an existing template.

Request

```
POST https://{_API_HOST}//api/task/rmslt?argument=153121
HTTP Request Header
Authorization:  92929a8b-a413-476f-a624-5b575cff54d3
```

where 92929a8b-a413-476f-a624-5b575cff54d3 is the session ID.

Response

```
Request success
{
    "status": 0
}
```

SLA Commands

mksla

About mksla Command

Description

Use this command to create new SLA objects. An SLA protects an application by combining a template (SLT) and a profile (SLP) to an application, a consistency group, or all applications/consistency groups in a group.

An SLA ID is returned when the command successfully completed, in protecting an application or a consistency group. To protect multiple applications in a group, use `-group` to specify the name or ID of the group. The group ID is returned when the command succeeds, as there are multiple SLAs created.

Rights

You must have the 'SLA Assign' right to create an SLA.

Parameters

Parameter	Description
appid=integer	Required when protecting an application or consistency group. Specifies the application ID or the consistency group ID for the new SLA. Use `udsinfo` lsapplication or `udsinfo` lsconsistgrp to retrieve the application or consistency group ID.
description=string	Optional. Specifies the description for the new SLA.
group=string	Optional, required when protecting applications in the group. Specifies the ID or name of a group. Use `udsinfo` lsgroup to retrieve the group ID.
optionname=string	Optional. Specifies policy option name for the SLA. For policy option that can not be changed, it should be specified when SLA is created. See Appendix E, List of Policy Options for a complete list of supported policy options.
optionvalue=string	Optional. Specifies policy option value for the SLA.
scheduleoff=boolean	Optional. Specifies if the schedule should be turned off to start with when creating a new SLA for VDP appliance.
sourceuds=integer	Optional. Optional source cluster ID, to apply to remote replicate policy to a remote application for VDP appliance.
slp=integer	Required. Specifies the profile (SLP) ID or name for the new SLA. Use `udsinfo` lsslp to retrieve the SLA ID.
slt=integer	Required. Specifies the template (SLT) ID or name for the new SLA. Use `udsinfo` lsslt to retrieve the SLA ID.

mksla Request Details

Your `mksla` request must pass a valid session ID. For information on how to get a valid session ID, see Authentication or Login on page 1.

Method	URI	Required Parameters
POST	//api/task/mksla	appid=<appid|consistgrpid slp=<slp id|slp name> slt=<sltid or sltname>

Note: *See the Parameters section for a list of supported parameters and their description.*

mksla Example

Creating a new SLA with minimum required information.

Request

```
POST https://{API_HOST}//api/task/mksla?appid=122844&slt=84331&slp=51
HTTP Request Header
Authorization:  92929a8b-a413-476f-a624-5b575cff54d3
```

where 92929a8b-a413-476f-a624-5b575cff54d3 is the session ID.

Response

```
Request success
{
    "result": "153829",
    "status": 0
}
```
A new SLA is created with ID 153829.

lssla

About lssla Command

Description

Use this command to retrieve a concise list of SLAs or a detailed view of an SLA. An SLA describes a template and a profile used to protect an application.

Rights

You must have the 'SLA Manage', 'SLA View', or 'SLA Assign' right to view SLAs. '

Parameters

Parameter	Description
appliance=string	Optional. Specifies the name or ID of the target VDP Appliance to retrieve all objects in a list view. Use the `udsinfo` lscluster command to retrieve the appliance name or ID to help you identify the correct appliance to include in the `appliance` argument.
delim *delimiter*	Optional. By default in a concise view, all columns of data are space-separated. In a detailed view, each item of data has its own row, and if the headers are displayed the data is separated from the header by a space. The `-delim` parameter overrides this behavior. Valid input for the `-delim` parameter is a one-byte character. If you enter `-delim:` on the command line, the colon character (:) separates all items of data in a concise view; for example, the spacing of columns does not occur. In a detailed view, the data is separated from its header by the specified delimiter.
filtervalue =attribute%3Dvalue	Optional. Specifies that you want your report to display any or the entire list of valid filter attributes. The valid filter attributes for the `udsinfo lssla` command are: • appid • dedupasyncoff [true | false] • expirationoff [true | false] • scheduleoff [true | false] • slpid • sltid The filter is formed with an attribute and a value. When you specify more than one filter, they must be combined with '&' character (%26 in hexadecimal)(which should be escaped with '\').
nohdr	Optional. By default, headings are displayed for each column of data in the concise view, and for each item of data in the detailed view. The `-nohdr` parameter suppresses the display of headings. If there is no data to display, headings are not displayed.

Parameter	Description
argument=string	Optional. Specifies the ID of an object. When you use this parameter, a detailed view of the object is returned and any value that is specified by the `filtervalue` parameter is ignored. If you do not specify the ID or name, a concise view of all objects matching the filters is displayed.

lssla Request Details

Your `lssla` request must pass a valid session ID. For information on how to get a valid session ID, see Authentication or Login on page 1.

Method	URI	Required Parameters
GET	//api/info/lssla	None

Note: See the Parameters section for a list of supported parameters and their description.

lssla Examples

Fetching list of all SLAs.

Request

```
GET https://{API_HOST}//api/info/lssla
HTTP Request Header
Authorization:   92929a8b-a413-476f-a624-5b575cff54d3
```

where 92929a8b-a413-476f-a624-5b575cff54d3 is the session ID.

Response

```
Request success
{
    "result": [
        {
            "appid": "84363",
            "createdate": "",
            "dedupasyncoff": "false",
            "description": "newsla",
            "expirationoff": "true",
            "id": "84377",
            "modifydate": "2017-09-07 01:49:30.957",
            "scheduleoff": "false",
            "slpid": "51",
            "sltid": "84331"
        },
        {
            "appid": "100625",
            "createdate": "",
            "dedupasyncoff": "false",
            "description": "new sla",
            "expirationoff": "false",
            "id": "119240",
            "modifydate": "2017-09-11 11:48:06.569",
            "scheduleoff": "false",
            "slpid": "51",
```

```
                "sltid": "84331"
            },
            {
                "appid": "100626",
                "createdate": "",
                "dedupasyncoff": "false",
                "description": "new sla",
                "expirationoff": "false",
                "id": "119692",
                "modifydate": "2017-09-11 14:14:45.899",
                "scheduleoff": "false",
                "slpid": "51",
                "sltid": "84331"
            }
        ],
        "status": 0
}
```

Fetching information by a specific SLA by ID.

Request

```
GET https://{API_HOST}//api/info/lssla?argument=153829
HTTP Request Header
Authorization:  92929a8b-a413-476f-a624-5b575cff54d3
```

where 92929a8b-a413-476f-a624-5b575cff54d3 is the session ID.

Response

```
Request success
{
    "result": {
        "DisableDar": "false",
        "DisableLocalDedup": "false",
        "DisableRemoteDedup": "false",
        "DisableSnapshot": "false",
        "DisableStreamSnap": "false",
        "ProcessLatestDedup": "false",
        "ProcessLatestSnap": "false",
        "appid": "122844",
        "dedupasyncoff": "false",
        "description": "This SLA is latest",
        "expirationoff": "false",
        "flags": "0",
        "id": "153829",
        "modifydate": "2017-11-26 09:41:06.151",
        "scheduleoff": "true",
        "slpid": "51",
        "sltid": "84331"
    },
    "status": 0
}
```

Fetching information about SLAs where the image expiration property is disabled.

Request

```
GET https://{API_HOST}//api/info/lssla?filtervalue=expirationoff=true
HTTP Request Header
Authorization:  92929a8b-a413-476f-a624-5b575cff54d3
```

where 92929a8b-a413-476f-a624-5b575cff54d3 is the session ID.

Response

```
Request success
{
    "result": [
        {
            "appid": "84363",
            "createdate": "",
            "dedupasyncoff": "false",
            "description": "newsla",
            "expirationoff": "true",
            "id": "84377",
            "modifydate": "2017-09-29 14:33:11.235",
            "scheduleoff": "true",
            "slpid": "51",
            "sltid": "84331"
        }
    ],
    "status": 0
}
```

chsla

About chsla Command

Description

Use this command to change the attributes of an SLA.

Rights

You must have the 'SLA Assign' right to change the attributes of an SLA.

Parameters

Parameter	Description
complianceerrorthreshold=string	Optional. The error threshold to use for SLA compliance settings for VDP appliances. Valid values are whole numbers (greater than 0) followed by units (m for minutes, h for hours, d for days) and the strings 'default' and 'no analysis' (quotes required). • 'default' specifies that the error threshold is calculated based on the characteristics of the policy. • 'no analysis' specifies that there will be no alerting for these SLA compliance settings. *Note:* *The compliance error threshold must be higher than the warning threshold.*
compliancewarnthreshold=string	Optional. The warning threshold to use for SLA compliance settings for VDP appliance. Valid values are whole numbers (greater than 0) followed by units (m for minutes, h for hours, d for days) and the string 'no warning' (quotes required). 'no warn' means that there will be no early warning before the warning threshold is reached. *Note:* *The compliance warning threshold must be lower that the error threshold.*
dedupasyncoff boolean	Optional. Specifies whether asynchronous deduplication of this SLA should be turned off.
description=string	Optional. Specifies the new description for the SLA.
expirationoff=boolean	Optional. Specifies whether the expiration of this SLA should be turned off.
policyid=integer	Optional. When creating an SLA compliance override for VDP appliance using either the `complianceerrorthreshold` or `compliancewarnthreshold` parameter, the policy ID specifies the policy whose compliance settings you wish to override. Only one policy can be overridden in a single `chsla` command.
scheduleoff=boolean	Optional. Specifies whether scheduling of the SLA should be turned off.

Parameter	Description
slpid=integer	Optional. Specifies the ID of the profile (SLP). Use `udsinfo` lsslp to display a list of profiles (SLPs).
sltid=integer	Optional. Specifies the ID of the SLA template. Use `udsinfo` lsslt to display a list of policy templates (SLTs).
argument=integer	Required. Specifies ID of the SLA to be changed. Use `udsinfo` lssla to retrieve the SLA ID.
flag=string	Optional. Configures the **flag**-`flag` setting and associated value to disable/enable specific SLA operations on a single application, such as disabling image preservation of snapshots or dedup images on an application basis. You can also disable individual jobs for an application (snapshot, local dedup, remote dedup, StreamSnap, OnVault, or DAR jobs).This parameter is for VDP Appliances. *Note: For background on image preservation, including modifying settings, see* Configuring Image Preservation *on page 583.* Image preservation `flag` settings on a per-application basis: Settings include: `OnVaultLatestSnap:<true | false>` `ProcessLatestSnap:<true | false>` — Instructs the appliance if it should change its default behavior and resume processing the most recent snapshot images and discard all of the preserved images for the application. By default, the system-wide `PreserveSnapsOfPriority` parameter in the `setparameter` command is set to all applications (low, medium, and high priority), which means that the `ProcessLatestSnap` flag is automatically disabled (set to `ProcessLatestSnap:false`). You can specify `ProcessLatestSnap:true` to disable catch-up mode for a specific application. `ProcessLatestDedup:<true | false>` —Instructs the appliance if it should change its default behavior and resume processing the most recent dedup images and discard all of the preserved images for the application. By default, the system-wide `PreserveLdedupsOfPriority` parameter in the `setparameter` is set to all applications (low, medium, and high priority), which means that the `ProcessLatestDedup` flag is automatically disabled (set to `ProcessLatestSnap:false`). You can specify `ProcessLatestDedup:true` to disable catch-up mode for a specific application. *Note: Once you set the flag `ProcessLatestSnap` or `ProcessLatestDedup` to true, the –flag option will remain set to true until the system is in process. The parameters will be reset back to the default state (false), once the process is completed.*

Parameter	Description
flag=string(Continued)	Disable jobs `flag` settings: • `DisableSnapshot:<true	false>` — Disables or enables snapshot jobs performed on an application basis. Default is false (snapshot jobs enabled). • `DisableLocalDedup:<true	false>` — Disables or enables local dedup jobs performed on an application basis. Default is false (local dedup jobs enabled). • `DisableRemoteDedup:<true	false>` — Disables or enables remote dedup jobs performed on an application basis. Default is false (remote dedup jobs enabled). • `DisableStreamSnap:<true	false>` — Disables or enables StreamSnap jobs performed on an application basis. Default is false (StreamSnap jobs enabled). • `DisableOnVault:<true	false>` — Disables or enables OnVault jobs performed on an application basis. Default is false (OnVault jobs enabled). • `DisableDar:<true	false>` — Disables or enables Dedup-Async Replication (DAR) jobs performed on an application basis. Default is false (DAR jobs enabled).

chsla Request Details

Your `chsla` request must pass a valid session ID. For information on how to get a valid session ID, see Authentication or Login on page 1.

Method	URI	Required Parameters
POST	`//api/task/chsla`	`argument=<sla id>`

Note: *See the Parameters section for a list of supported parameters and their description.*

chsla Example

Updating an existing SLA to change description and turn initial schedule off.

Request

```
POST https://{API_HOST}//api/task/
chsla?argument=153829&scheduleoff=true&description=Initial+schedule+stays+off
HTTP Request Header
Authorization:  92929a8b-a413-476f-a624-5b575cff54d3
```

where 92929a8b-a413-476f-a624-5b575cff54d3 is the session ID.**Response**

```
Request success
{
    "status": 0
}
```

rmsla

About rmsla Command

Description

Use this command to remove application protection by removing the SLA that protects the application(s), group, or consistency groups.

Rights

You must have the 'SLA Assign' right to delete the protection applied to applications.

Parameters

Parameter	Description
argument=string	Required. Specifies the ID of the SLA to be removed or the ID or name of the group to be unprotected. Use `udsinfo` lssla to retrieve SLA information. Use `udsinfo` lsgroup to retrieve group information.

rmsla Request Details

Your `rmsla` request must pass a valid session ID. For information on how to get a valid session ID, see Authentication or Login on page 1.

Method	URI	Required Parameters
POST	//api/task/rmsla	argument=<slaid|groupid>

Note: *See the Parameters section for a list of supported parameters and their description.*

---

rmsla Example

Deleting an existing SLA.

Request

```
POST https://{API_HOST}//api/task/rmsla?argument=153829
HTTP Request Header
Authorization:  92929a8b-a413-476f-a624-5b575cff54d3
```

where 92929a8b-a413-476f-a624-5b575cff54d3 is the session ID.

Response

```
Request success
{
    "result": "",
    "status": 0
}
```

actifio

Verify that the SLA has been deleted.

```
GET https://{API_HOST}//api/info/lssla?argument=153829
HTTP Request Header
Authorization:  92929a8b-a413-476f-a624-5b575cff54d3
```

where 92929a8b-a413-476f-a624-5b575cff54d3 is the session ID.

Response

```
Sky/CDS error:10016 object not found: 153829
```

Policy Commands

mkpolicy

About mkpolicy Command

Description

Use this command to create a new policy.

Both the selection and the exclusion of a schedule are similar.

Four different types of selection or exclusion are supported:

- Months (months): jan | feb | mar | apr | may | jun | jul | aug | sep | oct | nov | dec

- Weeks (weeks): 1, 2, .. last

- Days of Month (daysofmonth): 1, 2, ... last

- Days Of Week (daysofweek): sun | mon | tue | wed | thu | fri | sat

For verification policies, only weekly and monthly schedules are allowed, and the start time is used to start the verification.

Rights

You must have the 'SLA Manage' right to create a policy.

Parameters

Parameter	Description
complianceerrorthreshold= string	Optional. The error threshold to use for SLA compliance settings for VDP appliance. Valid values are whole numbers (greater than 0) followed by units (m for minutes, h for hours, d for days) and the strings 'default' and 'no analysis' (quotes required). • 'default' specifies that the error threshold is calculated based on the characteristics of the policy. • 'no analysis' specifies that there will be no alerting for these SLA compliance settings. *Note: The compliance error threshold must be higher than the warning threshold.*
compliancewarnthreshold= string	Optional. The error threshold to use for SLA compliance settings for VDP appliance. Valid values are whole numbers (greater than 0) followed by units (m for minutes, h for hours, d for days) and the string 'no warning' (quotes required). 'no warn' means that there will be no early warning before the error threshold is reached. *Note: The compliance warning threshold must be lower than the error threshold.*

actifio

Parameter	Description
continuous=boolean	Optional. Defines a continuous image capture schedule for VDP appliance (for example, perform a capture job every 8 hours, starting the first job at 1 am). If value is set to `true`, the first job will be run at start time (default 00:00) and subsequent jobs will run based on last successful job start time and RPO value. Default is `false`. *Note: When this flag is set, specifying the `-endtime`, `-exclusion`, `-repeatinterval`, or `-scheduletype` options will result in an error.*
description=string	Optional. Specifies the description of the policy.
endtime=string	Optional. Specifies the end time for the policy. End time of the day that this policy applies. The format is in 24-hour format, "hh:mm", For example, "17:00". This parameter cannot be used if `-continuous` is set to `true` for VDP appliance.
exclusion=string	Optional. Specifies the exclusion (calendar) for the policy.
exclusioninterval=integer	Required when the `exclusion` parameter is specified. Specifies the exclusion interval for the policy. An exclusion interval of 2 for weekly, means every two weeks.
exclusiontype=string	Required when the `exclusion` parameter is specified. Specifies the exclusion type for the policy.
name=string	Required. Specifies the name of the policy. Name should be unique within the same template.
op=snap | cloud | dedup | directdedup | replicate | remotereplicate	Specifies the operation type of the policy. The `op` argument is required when you do not specify the `-policytype` parameter. *Note: A direct-dedup policy conflicts with the snap, dedup, sync, async, dedup_async and stream_snap policy types.* In the `op` argument, the `replicate` option is for remote dedup and the `remotereplicate` option is for multi-hop. *You cannot add a remotereplicate policy to a template that has any other policies.* *If you are defining a remote-to-mirror policy, do not specify a value for `op`.*
predecessor=integer	Optional. Specifies the predecessor policy ID for CDS/Sky. For example, a *stream_snap* policy requires a snap policy as a predecessor to work properly. In this case, you would specify the snap policy ID. *Note: Required for policies where **policytype=streamsnap-policytype** stream_snap is specified.*
priority=*low| medium| high*	Optional. Specifies a new priority for the policy. Applies only to the dedup, replicate, and dedup_async policies. Default is `medium` if not specified.

Parameter	Description
remoteretention= custom | last | snap	`remoteretention` parameter configures StreamSnap remote retention for VDP appliance. It is required when policytype *stream_snap* is specified. Valid options include: • `custom` – Retain the remote snapshot image for a specific period of time (minutes, hours, days, weeks, months, or years). You define the time period to retain the image using the `retention` and `retentionm` parameters. • `last` – Retain only the latest remote StreamSnap image. This is the default setting. • `snap` – Use the same retention as the local (base) snapshot policy associated with this StreamSnap policy.
policytype= sync | async | dedup_async | stream_snap | normal | verification	Defines the type of Production to Mirror policy or a dedup verification policy. `-policytype` specifies which type of replication will be used or if this is to be a verify policy. If not specified, or if the default of normal is used, then a value for **-**op parameter must be provided. **-**`policytype` is required when you do not specify the **-**`op` parameter. The default value for -`policytype` is `normal`, which includes the *snap*, *dedup*, and *replicate* policies.
retention=integer	Specifies the retention period for the policy. It is required when you specify a *snap*, *directdedup*, *dedup*, *replicate*, or *cloud* policy. It is also required for a *stream_snap* policy if **-**`remoteretention` is set to `custom` for CDS/Sky.
retentionm= minutes | hours | days | weeks | months | years	Specifies the retention measurement type for the policy. It is required when `retention` is specified.
rpo=integer	Optional. Specifies the sets the frequency of jobs for the policy.
rpom=minutes | hours	Specifies the measurement type for the policy. It is required when `rpo` is specified.
scheduletype = daily | weekly | monthly | yearly	Required when the **-**`selection` parameter is specified. Specifies the schedule type for the policy.
selection=string	Optional. Specifies the selection (calendar) for the policy. -`selection` is relevant for the *snap*, *directdedup*, *dedup*, *replicate*, and *cloud* policies.
repeatinterval=integer	Only valid when **-** CDS/Sky is specified. Specifies the repeat interval for the policy. A repeat interval of 2 in a week means repeating policy execution once in every two weeks.
slt =string	Required. Specifies the template id or name (VDP appliance) for the policy.
starttime=string	Required for the *snap*, *directdedup*, *dedup*, *dedup_async*, *replicate*, and *cloud* policies. Specifies the start time for the policy. Starting time of the day that this policy applies. The format is "hh:mm", For example, "09:00".

Parameter	Description
truncatelog=boolean	Optional. Specifies that the logs should be truncated. The default value is false. This is applied to applications that support log truncation.
verifychoice=newest | oldest | random	Optional. Specifies the choice of an image to verify. This is (only for verification policies).
appliance=string	Optional. Specifies the name or ID of the target VDP Appliance to execute this command. All other parameters should use appliance-specific values. Use the `udsinfo` lscluster command to retrieve the appliance name or ID to help you identify the correct appliance to include in the `appliance` argument.

mkpolicy Request Details

Your `mkpolicy` request must pass a valid session ID. For information on how to get a valid session ID, see Authentication or Login on page 1.

Method	URI	Required Parameters
POST	//api/task/mkpolicy	name= slt=<id> policytype op

Note: See the Parameters section for a list of supported parameters and their description.

mkpolicy Examples

Creating a new policy with the set of required parameters.

Request

```
POST https://{API_HOST}//api/task/
mkpolicy?slt=153184&name=DailyBackupPolicy&policytype=normal&op=snap
HTTP Request Header
Authorization:  92929a8b-a413-476f-a624-5b575cff54d3
```

where 92929a8b-a413-476f-a624-5b575cff54d3 is the session ID.

Response

```
Request success
{
    "result": "153288",
    "status": 0
}
```

Creating a new policy with different optional arguments.

Request

```
POST https://{API_HOST}//api/task/
mkpolicy?slt=153184&name=Jupiter+Snap+Policy&policytype=normal&op=snap&starttime=8:00&endtime=
18:00&rpo=10&rpom=minutes&description=This+policy+will+apply+every+weekday&selection=daysofwee
k:mon,tue,wed,thu,fri&scheduletype=weekly&exclusion=daysofweek:sat,sun&exclusiontype=weekly
HTTP Request Header
```

```
Authorization:   92929a8b-a413-476f-a624-5b575cff54d3
```

where 92929a8b-a413-476f-a624-5b575cff54d3 is the session ID.

Response

```
Request success
{
    "result": "153326",
    "status": 0
}
```

lspolicy

About lspolicy Command

Description

Use this command to display a concise list of policies or the detailed view of a policy. A template (SLT) is made up of one or more policies.

Rights

You must have the 'SLA Manage', 'SLA View' or 'SLA Assign' right to view a list of policies.

Parameters

Parameter	Description
appliance=string	Optional. Specifies the name or ID of the target VDP Appliance to retrieve all objects in a list view. Use the `udsinfo` lscluster command to retrieve the appliance name or ID to help you identify the correct appliance to include in the `appliance` argument.
delim *delimiter*	Optional. By default in a concise view, all columns of data are space-separated. In a detailed view, each item of data has its own row, and if the headers are displayed the data is separated from the header by a space. The `-delim` parameter overrides this behavior. Valid input for the `-delim` parameter is a one-byte character. If you enter `-delim:` on the command line, the colon character (:) separates all items of data in a concise view; for example, the spacing of columns does not occur. In a detailed view, the data is separated from its header by the specified delimiter.

Parameter	Description
filtervalue =attribute%3Dvalue	Optional. Specifies that you want your report to display any or the entire list of valid filter attributes. The valid filter attributes for the `udsinfo` lspolicy command are: • endtime [hh: mm] • exclusiontype [daily | weekly | monthly | yearly] • exclusioninterval • name • op [snap | cloud | dedup | backup | replicate | rehydrate | mirror] • policytype [sync | async | async_dedup | stream_snap] • repeatinterval • retention • retentionm [minutes | hours | days | weeks | months | years] • rpo • rpom [minutes | hours | days | weeks | months | years] • scheduletype [daily | weekly | monthly | yearly] • sltid • starttime [hh: mm] The filter is formed with an attribute and a value. When you specify more than one filter, they must be combined with '&' character (which should be escaped with '\'). For string type of filters, the only operator allowed is '='. You can also use wild card character '*'. For example, to list policies with name begins with 'foo', use filtervalue=name%3Dfoo*'-filtervalue name=foo*'. Some filters allow only predefined constants. For example, exclusiontype allows only daily, weekly, monthly, or yearly. To match policies with exclusiontype of weekly, use filtervalue=exclusiontype%3Dweekly'-filtervalue exclusiontype=weekly'. For number and date types, allowed operators are: =, >, >=, <, <=. For RESTful API, the hexadecimal equivalent of these characters need to be used.To use <, <=, >, or >=, they should be escaped with '\' or enclosed in "or "", as required by the shell. For example, -filtervalue rpo\>10 -filtervalue "rpo>10" -filtervalue 'rpo>10' The starttime and endtime parameters can also use these operators. For example: -filtervalue=starttime%3E%2209:00%22filtervalue starttime\>"09:00". To get a list of all policies for a template (SLT), use filtertype=sltid%3DID'`udsinfo lspolicy -filtertype sltid=ID`'.
argument=string	Optional. Specifies the name or ID of an object. When you use this parameter, a detailed view of the object is returned and any value specified by the `filtervalue` parameter is ignored. If you do not specify the argument*object_id* parameter, a concise view of all objects matching the filter criteria is displayed.

lspolicy Request Details

Your `lspolicy` request must pass a valid session ID. For information on how to get a valid session ID, see Authentication or Login on page 1.

Method	URI	Required Parameters
GET	//api/info/lspolicy	None

Note: See the Parameters section for a list of supported parameters and their description.

lspolicy Examples

Fetching list of all policies.

Request

```
GET https://{API_HOST}//api/info/lspolicy?apistart=0&apilimit=100
HTTP Request Header
Authorization:  92929a8b-a413-476f-a624-5b575cff54d3
```

where 92929a8b-a413-476f-a624-5b575cff54d3 is the session ID.

Response

```
Request success
{
    "result": [
        {
            "description": "DedupAsync - 4 hours",
            "encrypt": "",
            "endtime": "",
            "exclusion": "",
            "exclusioninterval": "1",
            "exclusiontype": "none",
            "id": "161",
            "name": "DedupAsync",
            "policytype": "dedup_async",
            "priority": "medium",
            "repeatinterval": "1",
            "retention": "",
            "retentionm": "",
            "rpo": "4",
            "rpom": "hours",
            "scheduletype": "",
            "selection": "",
            "sltid": "106",
            "starttime": ""
        },
{
            "description": "Dedup daily",
            "encrypt": "",
            "endtime": "23:59",
            "exclusion": "",
            "exclusioninterval": "1",
            "exclusiontype": "none",
            "id": "163",
            "name": "Daily dedup",
            "op": "dedup",
            "policytype": "normal",
            "priority": "medium",
            "repeatinterval": "1",
            "retention": "14",
            "retentionm": "days",
            "rpo": "24",
            "rpom": "hours",
            "scheduletype": "daily",
            "selection": "",
            "sltid": "106",
            "starttime": "00:00"
        },
        {
            "description": "Dedup monthly",
```

```
            "encrypt": "",
            "endtime": "23:59",
            "exclusion": "",
            "exclusioninterval": "1",
            "exclusiontype": "none",
            "id": "175",
            "name": "Monthly dedup",
            "op": "dedup",
            "policytype": "normal",
            "priority": "medium",
            "repeatinterval": "1",
            "retention": "3",
            "retentionm": "months",
            "rpo": "24",
            "rpom": "hours",
            "scheduletype": "monthly",
            "selection": "daysofmonth:2",
            "sltid": "107",
            "starttime": "00:00"
        },
        {
            "description": "Remote dedup daily",
            "encrypt": "",
            "endtime": "23:59",
            "exclusion": "",
            "exclusioninterval": "1",
            "exclusiontype": "none",
            "id": "176",
            "name": "Daily remote dedup",
            "op": "replicate",
            "policytype": "normal",
            "priority": "medium",
            "repeatinterval": "1",
            "retention": "14",
            "retentionm": "days",
            "rpo": "24",
            "rpom": "hours",
            "scheduletype": "daily",
            "selection": "",
            "sltid": "107",
            "starttime": "00:00"
        }
    ],
    "status": 0
}
```

Filtering out the result by fetching results for a single ID.

Request

```
GET https://{API_HOST}//api/info/lspolicy?filtervalue=id%3D161
HTTP Request Header
Authorization:  92929a8b-a413-476f-a624-5b575cff54d3
```

where 92929a8b-a413-476f-a624-5b575cff54d3 is the session ID.

Response

```
Request success
{
    "result": [
        {
```

```
            "description": "DedupAsync - 4 hours",
            "encrypt": "",
            "endtime": "",
            "exclusion": "",
            "exclusioninterval": "1",
            "exclusiontype": "none",
            "id": "161",
            "name": "DedupAsync",
            "policytype": "dedup_async",
            "priority": "medium",
            "repeatinterval": "1",
            "retention": "",
            "retentionm": "",
            "rpo": "4",
            "rpom": "hours",
            "scheduletype": "",
            "selection": "",
            "sltid": "106",
            "starttime": ""
        }
    ],
    "status": 0
}
```

Filtering out the result by fetching results for an option with a specific name.

Request

```
GET https://{API_HOST}//api/info/lspolicy?filtervalue=name%3DDedupAsync
HTTP Request Header
Authorization:  92929a8b-a413-476f-a624-5b575cff54d3
```

where 92929a8b-a413-476f-a624-5b575cff54d3 is the session ID.

Response

```
Request success
{
    "result": [
        {
            "description": "DedupAsync - 4 hours",
            "encrypt": "",
            "endtime": "",
            "exclusion": "",
            "exclusioninterval": "1",
            "exclusiontype": "none",
            "id": "161",
            "name": "DedupAsync",
            "policytype": "dedup_async",
            "priority": "medium",
            "repeatinterval": "1",
            "retention": "",
            "retentionm": "",
            "rpo": "4",
            "rpom": "hours",
            "scheduletype": "",
            "selection": "",
            "sltid": "106",
            "starttime": ""
        },
        {
            "description": "DedupAsync - 12 hours",
```

```
        "encrypt": "",
        "endtime": "",
        "exclusion": "",
        "exclusioninterval": "1",
        "exclusiontype": "none",
        "id": "171",
        "name": "DedupAsync",
        "policytype": "dedup_async",
        "priority": "medium",
        "repeatinterval": "1",
        "retention": "",
        "retentionm": "",
        "rpo": "12",
        "rpom": "hours",
        "scheduletype": "",
        "selection": "",
        "sltid": "107",
        "starttime": ""
    },
    {

        "description": "DedupAsync - 24 hours",
        "encrypt": "",
        "endtime": "",
        "exclusion": "",
        "exclusioninterval": "1",
        "exclusiontype": "none",
        "id": "181",
        "name": "DedupAsync",
        "policytype": "dedup_async",
        "priority": "medium",
        "repeatinterval": "1",
        "retention": "",
        "retentionm": "",
        "rpo": "24",
        "rpom": "hours",
        "scheduletype": "",
        "selection": "",
        "sltid": "108",
        "starttime": ""
    }
    ],
    "status": 0
}
```

Filtering out the result by fetching results for a single ID using the argument option.

Request

```
GET https://{API_HOST}//api/info/lspolicy?argument=161
HTTP Request Header
Authorization:  92929a8b-a413-476f-a624-5b575cff54d3
```

where 92929a8b-a413-476f-a624-5b575cff54d3 is the session ID.

Response

```
Request success
{
    "result": {
        "description": "DedupAsync - 4 hours",
        "exclusioninterval": "1",
        "exclusiontype": "none",
```

```
        "id": "161",
        "name": "DedupAsync",
        "policytype": "dedup_async",
        "predecessor": "0",
        "priority": "medium",
        "repeatinterval": "1",
        "rpo": "4",
        "rpom": "hours",
        "sltid": "106"
    },
    "status": 0
}
```

chpolicy

About chpolicy Command

Description

Use this command to change the attributes of a policy. Use `udsinfo` lspolicy command to obtain the ID of the policy. For both selection and exclusion, they are similar to a multiple selection of a calendar.

Four different types of selection or exclusion are supported:

- Months (months): jan | feb | mar | apr | may | jun | jul | aug | sep | oct | nov | dec
- Weeks (weeks):
- Days of month (daysofmonth):
- Days of week (daysofweek): sun | mon | tue | wed | thu | fri | sat

For verification type policies, only weekly and monthly schedules are allowed, and the start time is used to specify the time to start the verification.

Rights

You must have the 'SLA Manage' right to change the attributes of a policy.

Parameters

The following table describes the attributes of a policy.

Parameter	Description
complianceerrorthreshold=string	Optional. The error threshold to use for SLA compliance settings for VDP appliance. Valid values are whole numbers (greater than 0) followed by units (m for minutes, h for hours, d for days) and the strings 'default' and 'no analysis' (quotes required). • 'default' specifies that the error threshold is calculated based on the characteristics of the policy. • 'no analysis' specifies that there will be no alerting for these SLA compliance settings. **Note:** *The compliance error threshold must be higher than the warning threshold.*
compliancewarnthreshold=string	Optional. The warning threshold to use for SLA compliance settings for VDP appliance. Valid values are whole numbers (greater than 0) followed by units (m for minutes, h for hours, d for days) and the string 'no warning' (quotes required). 'no warn' means that there will be no early warning before the warning threshold is reached. **Note:** *The compliance warning threshold must be lower that the error threshold.*

Parameter	Description
continuous=boolean	Optional. Defines a continuous image capture schedule for VDP appliance (for example, perform a capture job every 8 hours, starting the first job at 1 am). If value is set to `true`, first job will be run at start time (default 00:00) and subsequent jobs will run based on last successful job start time and RPO value. Default is `false`. *Note:* *When this flag is set, specifying the endtime, exclusion, repeatinterval, or scheduletype options will result in an error.*
description=string	Optional. Specifies the description for the policy.
endtime=string	Optional. Specifies the end time for the policy. The format is "hh:mm", For example, "17:00". This cannot be used if **-**`continuous` is set to `true`.
encrypt=boolean	Optional. Specifies the encryption for the policy
exclusion=string	Optional. Specifies the exclusion (calendar) for the policy.
exclusioninterval=integer	Required when the **-**`exclusion` parameter is specified. Specifies the exclusion interval for the policy. An exclusion interval of 2 for weekly, means every two weeks.
exclusiontype=daily |weekly|monthly|yearly	Required when the **-**`exclusion` parameter is specified. Specifies the exclusion type for the policy.
name=strings	Optional. Specifies the name for the policy. Name should be unique within the same template.
repeatinterval=integer	Optional. Specifies the repeat interval for the policy. A repeat interval of 2 for weekly, means every two weeks.
priority=low| medium| high	Optional. Specifies a new priority for the policy. `-priority` only applies to dedup, replicate, and dedup_async policies. Default is medium if not specified.
remoteretention=custom | last | snap	`-remoteretention` parameter configures StreamSnap remote retention for VDP appliance. It is required when **-**`policytype` *stream_snap* is specified. Valid options include: • `custom` - Retain the remote snapshot image for a specific period of time (minutes, hours, days, weeks, months, or years). You define the time period to retain the image using the **-**`retention` and `-retentionm` parameters. • `last` - Retain only the latest remote StreamSnap image. This is the default setting. • `snap` - Use the same retention as the local (base) snapshot policy associated with this StreamSnap policy.
retention=integer	Specifies the retention period for the policy. **-**`retention` is required when you specify a *snap*, *directdedup*, *dedup*, *replicate*, or *cloud* policy. It is also required for a *stream_snap* policy if **-**`remoteretention` is set to `custom` for CDS/Sky.

Parameter	Description
retentionm=minutes | hours | days | weeks | months | years	Specifies the retention measurement type for the policy. `-retentionm` is required when `-retention` is specified.
rpo=integer	Optional. Specifies the sets the frequency of jobs for the policy.
rpom=minutes | hours	Specifies the measurement type for the policy. `rpom` is required when `rpo` is specified.
scheduletype=daily | weekly | monthly | yearly	Required when the `selection` parameter is specified. Specifies the schedule type for the policy.
selection=string	Optional. Specifies the selection (calendar) for the policy. `selection` is relevant for the *snap*, *directdedup*, *dedup*, *replicate*, and *cloud* policies.
starttime=string	Required for the *snap*, *directdedup*, *dedup*, *dedup_async*, *replicate*, and *cloud* policies. Specifies the start time for the policy. Starting time of the day that this policy applies. The format is hh:mm"hh:mm", For example, "09:00".
verifychoice=newest | oldest | random	Optional. Specifies selection choices of images to verify (only for verification policies).
argument=integer	Required. Specifies the ID of the policy to be changed. Use `udsinfo` lspolicy to retrieve the ID.

chpolicy Request Details

Your `chpolicy` request must pass a valid session ID. For information on how to get a valid session ID, see Authentication or Login on page 1.

Method	URI	Required Parameters
POST	//api/task/chpolicy	argument=<policyid>

Note: *See the Parameters section for a list of supported parameters and their description.*

chpolicy Examples

Updating an existing policy by changing the name and schedule of the policy.

Request

```
POST https://{API_HOST}//api/task/
chpolicy?argument=153326&name=Yearly+Snap+Policy&scheduletype=yearly&selection=months:jan,feb,
mar,apr,may,jun,jul,aug,sep,oct,nov,dec&description=This+policy+will+run+every+month
HTTP Request Header
Authorization:  92929a8b-a413-476f-a624-5b575cff54d3
```

where 92929a8b-a413-476f-a624-5b575cff54d3 is the session ID.

Response

```
Request success
{
    "status": 0
}
```

This updated the policy with ID of 153326. Next, verify that the policy has been updated.

Request

```
GET https://{API_HOST}//api/info/lspolicy?argument=153326
HTTP Request Header
Authorization:  92929a8b-a413-476f-a624-5b575cff54d3
```

where 92929a8b-a413-476f-a624-5b575cff54d3 is the session ID.

Response

```
Request success
{
    "result": {
        "description": "This policy will run every month",
        "endtime": "18:00",
        "exclusion": "daysofweek:sat,sun",
        "exclusioninterval": "1",
        "exclusiontype": "weekly",
        "id": "153326",
        "name": "Yearly Snap Policy",
        "op": "snap",
        "policytype": "normal",
        "predecessor": "0",
        "priority": "medium",
        "repeatinterval": "1",
        "rpo": "10",
        "rpom": "minutes",
        "scheduletype": "yearly",
        "selection": "months:jan,feb,mar,apr,may,jun,jul,aug,sep,oct,nov,dec;daysofmonth:1",
        "sltid": "153184",
        "starttime": "08:00"
    },
    "status": 0
}
```

lssettableoption

About lssettableoption Command

Description

Use this command to display a concise list of policy options that can be set. See Appendix E, List of Policy Options for a complete list of supported policy options.

Rights

You must have the 'SLA Assign' or 'SLA Manage', or 'SLA View' right to list settable policy options.

Parameters

Parameter	Description
appliance=string	Required. Specifies the name or ID of the target VDP Appliance to execute this command. All other parameters should use appliance-specific values. Use the `udsinfo` lscluster command to retrieve the appliance name or ID to help you identify the correct appliance to include in the `-appliance` argument.
appid=integer	Optional. Specifies the application ID or consistency group ID that the options can be set. Use `udsinfo` lsapplication or `udsinfo` lsconsistgrp to retrieve the ID.
delim	Optional. By default in a concise view, all columns of data are space-separated. In a detailed view, each item of data has its own row, and if the headers are displayed the data is separated from the header by a space. The `-delim` parameter overrides this behavior. Valid input for the `-delim` parameter is a one-byte character. If you enter `-delim:` on the command line, the colon character (:) separates all items of data in a concise view; for example, the spacing of columns does not occur. In a detailed view, the data is separated from its header by the specified delimiter.
-**nohdr**	Optional. By default, headings are displayed for each column of data in a concise style view, and for each item of data in a detailed style view. The `-nohdr` parameter suppresses the display of these headings. If there is no data to be displayed, headings are not displayed.
policyid=integer	Optional. Specifies the policy ID that the options can be set. Use `udsinfo` lspolicy to retrieve the policy ID.
argument=string	Optional. For VDP appliances, it specifies the name of the option to retrieve the specific details, including the valid values.
slt=string	Optional. Specifies the SLT ID or name that the options can be set. For protected application that has an SLA, use the SLT ID or SLT name that protects the application to show the settable options. Use `udsinfo` lsslt to retrieve SLA information.

Lssettableoption Request Details

Your `lssettableoption` request must pass a valid session ID. For information on how to get a valid session ID, see Authentication or Login on page 1.

Method	URI	Required Parameters
GET	//api/info/lssettableoption	None

Note: *See the Parameters section for a list of supported parameters and their description.*

Lssettableoption Examples

Fetching information about a specific named policy option.

Request

```
GET https://{_API_HOST}//api/info/lssettableoption?argument=appconsistency
HTTP Request Header
Authorization:  92929a8b-a413-476f-a624-5b575cff54d3
```

where 92929a8b-a413-476f-a624-5b575cff54d3 is the session ID.

Response

```
Request success
{
    "result": {
        "apptype": "VMBackup,Microsoft Hyper-V VSS Writer",
        "constant": "false",
        "default": "no",
        "desc": "Take application consistent snapshot for backup",
        "multi": "false",
        "name": "appconsistency",
        "select": "true",
        "type": "string",
        "value": [
            "no",
            "yes",
            "last"
        ]
    },
    "status": 0
}
```

Get information about a set of policy options that are applicable to a particular policy.

Request

```
GET https://{API_HOST}//api/info/lssettableoption?policyid=161
HTTP Request Header
Authorization:  92929a8b-a413-476f-a624-5b575cff54d3
```

where 92929a8b-a413-476f-a624-5b575cff54d3 is the session ID.

Response

```
Request success
```

```
{
    "result": [
        {
            "apptype": "VMBackup,Microsoft Hyper-V VSS Writer",
            "constant": "false",
            "default": "no",
            "desc": "Take application consistent snapshot for backup",
            "multi": "false",
            "name": "appconsistency",
            "required": "false",
            "select": "true",
            "type": "string"
        },
        {
            "apptype": "FileSystem,SqlServerWriter,Microsoft Exchange Writer,SharePoint Services
Writer,Microsoft Hyper-V VSS Writer,Oracle,CIFS,NFS,ConsistGrp,nas",
            "constant": "false",
            "default": "yes",
            "desc": "Out of band staging disk unmap",
            "multi": "false",
            "name": "nounmap",
            "required": "false",
            "select": "true",
            "type": "string"
        },
        {
            "apptype": "Microsoft Hyper-V VSS Writer",
            "constant": "false",
            "default": "no",
            "desc": "Only the boot volume of VM is backed up",
            "multi": "false",
            "name": "bootvolumesnapshot",
            "required": "false",
            "select": "true",
            "type": "string"
        },
        {
            "apptype": "SqlServerWriter,Microsoft Exchange Writer,SharePoint Services
Writer,VMBackup,Microsoft Hyper-V VSS Writer,Oracle,ConsistGrp",
            "constant": "false",
            "default": "no",
            "desc": "Truncate log after backup for MSSQL/Exchange; Purge log after backup for
Oracle",
            "multi": "false",
            "name": "truncatelog",
            "required": "false",
            "select": "true",
            "type": "string"
        },
        {
            "apptype": "ConsistGrp",
            "constant": "false",
            "default": "no",
            "desc": "Ignore offline applications during backup",
            "multi": "false",
            "name": "skipofflineappsincongrp",
            "required": "false",
            "select": "true",
            "type": "string"
        },
```

actifio

```
        {
            "apptype": "FileSystem,SqlServerWriter,Microsoft Exchange Writer,SharePoint Services
Writer,CIFS,NFS,ConsistGrp",
            "constant": "false",
            "default": "no",
            "desc": "Map staging disk to all ESX hosts in a cluster",
            "multi": "false",
            "name": "maptoallesxincluster",
            "required": "false",
            "select": "true",
            "type": "string"
        },
        {
            "apptype": "FileSystem,SqlServerWriter,Microsoft Exchange Writer,SharePoint Services
Writer,Oracle,ConsistGrp",
            "constant": "false",
            "default": "false",
            "desc": "Backup Inband application using out-of-band mode",
            "multi": "false",
            "name": "forceoobbackup",
            "required": "false",
            "select": "false",
            "type": "boolean"
        },
        {
            "apptype": "VMBackup",
            "constant": "false",
            "default": "fail",
            "desc": "Job behavior when target VM needs snapshot disk consolidation",
            "multi": "false",
            "name": "consolidatevmdisks",
            "required": "false",
            "select": "true",
            "type": "string"
        },
        {
            "apptype": "FileSystem,CIFS,NFS,ConsistGrp",
            "constant": "false",
            "default": "false",
            "desc": "The job will fail if a start path does not exist",
            "multi": "false",
            "name": "failonmissingstartpath",
            "required": "false",
            "select": "false",
            "type": "boolean"
        }
    ],
    "status": 0
}
```

mkpolicyoption

About mkpolicyoption Command

Description

Use this command to create an option that changes the default behavior when performing backup operations. Use `udsinfo lssettableoption` to retrieve a list of options that are allowed. See Appendix E, List of Policy Options for a complete list of supported policy options.

At least one of SLA ID, SLP ID, or SLT ID parameters must be a valid ID.

After protecting an application or a file system, you can configure certain advanced protection settings with the **mkpolicyoption** command. See Appendix A, Advanced Protection Settings with mkpolicyoption Command.

Rights

You must have the 'SLA Assign' or 'SLA Manage' right to create the options for a policy.

Parameters

Parameter	Description
appid=integer	Optional. Specifies the application or consistency group ID for VDP appliance. A non-zero value specifies that this option applies to this application or consistency group. Use `udsinfo` lsapplication or `udsinfo` lsconsistgrp to retrieve the application or consistency group ID.
name=string	Required. Specifies name of the policy option. See Appendix E, List of Policy Options for a complete list of supported policy options.
policyid=integer	Optional. Specifies the ID of the policy. A non-zero value specifies that this option applies to this specific policy. Use `udsinfo` lspolicy to retrieve the policy ID.
slaid=integer	Optional. Specifies an SLA ID. A non-zero value specifies that this option applies to this specific SLA. Use `udsinfo` lssla to retrieve the SLA ID.
sltid=integer	Optional. Specifies an SLT ID. A non-zero value specifies that this option applies to this specific SLT. Use `udsinfo` lsslt to retrieve the SLT ID.
value=string	Required. Specifies the value of the policy option identified by the `-name` parameter. Multiple values need to be separated by comma. For example, ','. (comma character), ',', needs to be escaped with two commas,%27%2C%27„".

mkpolicyoption Request Details

Your `mkpolicyoption` request must pass a valid session ID. For information on how to get a valid session ID, see Authentication or Login on page 1.

Method	URI	Required Parameters

POST	//api/task/mkpolicyoption	name=<policy option> value=<value of the policy option>

Note: *See the Parameters section for a list of supported parameters and their description.*

---

mkpolicyoption Example

Creating a new policy option for specific policy.

Request

```
POST https://{API_HOST}//api/task/mkpolicyoption?policyid=189&name=appconsistency&value=no
HTTP Request Header
Authorization:  92929a8b-a413-476f-a624-5b575cff54d3
```

where 92929a8b-a413-476f-a624-5b575cff54d3 is the session ID.

Response

```
Request success
{
    "result": 153544,
    "status": 0
}
```

A new policy option is created with an ID of 153544.

lspolicyoption

About lspolicyoption Command

Description

Use this command to retrieve a concise list of configured policy options or the detailed view of a policy option. See Appendix E, List of Policy Options for a complete list of supported policy options.

Rights

You must have the 'SLA Manage', 'SLA View', or 'SLA Assign' right to view a list of policies.

Parameters

Parameter	Description
appliance=integer	Optional. Specifies the name or ID of the target VDP Appliance to retrieve all objects in a list view. Use the `udsinfo lscluster` command to retrieve the appliance name or ID to help you identify the correct appliance to include in the `appliance` argument.
filtervalue =attribute%3Dvalue	Valid input for the **-delim** parameter is a one- byte character. To display the data, recommended delimiter to use is comma (',') for list view, and equal ('=') for detail view. Optional. Specifies that you want your report to display any or the entire list of valid filter attributes. The valid filter attributes for the `udsinfo lspolicyoption` command are: • name • appid • policyid • slaid • sltid • value The filter is formed with an attribute and a value. When you specify more than one filter, they must be combined with '&' character(which should be escaped with '\').
argument=integer	Optional. Specifies the ID of a policy. When you use this parameter, a detailed view of the object is returned and any value that is specified by the `filtervalue` parameter is ignored. If you do not specify the parameter, a concise view of all objects matching the filter criteria is displayed.

lspolicyoption Request Details

Your `lspolicyoption` request must pass a valid session ID. For information on how to get a valid session ID, see Authentication or Login on page 1.

Method	URI	Required Parameters
GET	//api/task/lspolicyoption	None

lspolicyoption Example

Fetching list of all policy options.

Request

```
GET https://{API_HOST}//api/info/lspolicyoption
HTTP Request Header
Authorization:  92929a8b-a413-476f-a624-5b575cff54d3
```

where 92929a8b-a413-476f-a624-5b575cff54d3 is the session ID.

Response

```
Request success
{
    "result": [
        {
            "appid": "0",
            "id": "153513",
            "modifydate": "2017-11-26 01:07:22.039",
            "name": "truncatelog",
            "policyid": "0",
            "slaid": "0",
            "sltid": "107",
            "value": "yes"
        },
        {
            "appid": "0",
            "id": "153544",
            "modifydate": "2017-11-26 01:13:29.272",
            "name": "appconsistency",
            "policyid": "189",
            "slaid": "0",
            "sltid": "108",
            "value": "no"
        }
    ],
    "status": 0
}
```

chpolicyoption

About chpolicyoption Command

Description

Use this command to change a policy option.

Rights

You must have the 'SLA Assign' or 'SLA Manage' right to change the options of a policy.

Parameters

Parameter	Description
appid=string	Optional. See Appendix E, List of Policy Options for a complete list of supported policy options.
policyid=string	Optional. A non-zero value specifies that this option applies to this specific policy. Use `udsinfo` lspolicy to retrieve the policy ID.
slaid=string	Optional. A non-zero value specifies that this option applies to this specific SLA. Use `udsinfo` lssla to retrieve the SLA ID.
sltid=string	Optional. A non-zero value specifies that this option applies to this specific SLT. Use `udsinfo` lsslt to retrieve the SLT ID.
argument=string	Required. Specifies the ID of the policy option to be changed. If multiple values are allowed, they need to be separated by a colon, ':'. Use `udsinfo` lspolicyoption command to obtain the ID of the policy option.
value=string	Optional. Specifies value of the option. If multiple values are allowed, they need to be separated by a comma. Comma character, ',', needs to be escaped with two commas, ",,". See List of Policy Options on page 613 for a complete list of policy options.

chpolicyoption Request Details

Your `chpolicyoption` request must pass a valid session ID. For information on how to get a valid session ID, see Authentication or Login on page 1.

Method	URI	Required Parameters
POST	//api/task/chpolicyoption	argument=<policy option Id/Ids>

Note: See the Parameters section for a list of supported parameters and their description.

---

chpolicyoption Example

Request

```
POST https://{API_HOST}//api/task/chpolicyoption?argument=153544&value=yes
HTTP Request Header
Authorization:  92929a8b-a413-476f-a624-5b575cff54d3
```

where 92929a8b-a413-476f-a624-5b575cff54d3 is the session ID.

Response

```
Request success
{
    "result": "153544",
    "status": 0
}
```

rmpolicyoption

About rmpolicyoption Command

Description

Use this command to delete an option associated with a policy.

Rights

You must have the 'SLA Assign' or 'SLA Manage' right to remove the options of a policy.

Parameters

Parameter	Description
argument=integer	Required. Specifies the ID of the policy option to be removed. Use `udsinfo` lspolicy to retrieve the policy ID.

rmpolicyoption Request Details

Your `rmpolicyoption` request must pass a valid session ID. For information on how to get a valid session ID, see Authentication or Login on page 1.

Method	URI	Required Parameters
POST	//api/task/rmpolicyoption	argument=<policy option ID>

Note: See the Parameters section for a list of supported parameters and their description.

rmpolicyoption Example

Removing a specific policy option identified by its ID.

Request

```
POST https://{_API_HOST}//api/task/rmpolicyoption?argument=153544
HTTP Request Header
Authorization:  92929a8b-a413-476f-a624-5b575cff54d3
```

where 92929a8b-a413-476f-a624-5b575cff54d3 is the session ID.

Response

```
Request success
{
    "status": 0
}
```
Verifying that the policy option has been deleted.

Request

```
GET https://{_API_HOST}//api/info/lspolicyoption?argument=153544
HTTP Request Header
```

actifio

```
Authorization:  92929a8b-a413-476f-a624-5b575cff54d3
```

where 92929a8b-a413-476f-a624-5b575cff54d3 is the session ID.

Response

```
Sky/CDS error:10016 object not found: 15344
```

rmpolicy

About rmpolicy Command

Description

Use this command to delete a policy.

Rights

You must have the 'SLA Manage' right to delete a policy.

Parameters

Parameter	Description
argument=integer	Required. Specifies the ID of the policy to be removed. Use `udsinfo` lspolicy to retrieve the policy ID.

rmpolicy Request Details

Your `rmpolicy` request must pass a valid session ID. For information on how to get a valid session ID, see Authentication or Login on page 1.

Method	URI	Required Parameters
POST	//api/task/rmpolicy	argument=<policy ID>

Note: *See the Parameters section for a list of supported parameters and their description.*

rmpolicy Example

Deleting a specific policy.

Request

```
POST https://{API_HOST}//api/task/rmpolicy?argument=153326
HTTP Request Header
Authorization:  92929a8b-a413-476f-a624-5b575cff54d3
```

where 92929a8b-a413-476f-a624-5b575cff54d3 is the session ID.

Response

```
Request success
{
    "status": 0
}
```

This deletes the policy with ID of 153326. Next, verify that the policy has been deleted.

actifio

Request

```
GET https://{API_HOST}//api/info/lspolicy?argument=153326
Authorization:   92929a8b-a413-476f-a624-5b575cff54d3
```

where 92929a8b-a413-476f-a624-5b575cff54d3 is the session ID.

Response

```
Request success
Sky/CDS error:10016 object does not exist: 15332
```

lsinterface

About lsinterface Command

Description

Use this command to display all ethernet ports and some information about each one, including hardware state and supported IP types. Interfaces are listed whether configured with an IP address or not.

> **Note:** This command does not display non-ethernet devices, such as but not limited to, the loopback.

Rights

You must have the 'System View' or 'System Manage' right to run this command.

lsinterface Request Details

Your `lsinterface` request must pass a valid session ID. For information see Authentication or Login on page 1.

Method	URI	Required Parameters
GET	//api/info/lsinterface	None

> **Note:** See the Parameters section for a list of supported parameters and their description.

lsinterface Example

Request

```
GET https://{API_HOST}//api/info/lsinterface?
HTTP Request Header
Authorization:  92929a8b-a413-476f-a624-5b575cff54d3
```

where 92929a8b-a413-476f-a624-5b575cff54d3 is the session ID.

Response

```
Request success
{
  "result": [
    {
      "node": "Gangac",
      "supportnode": "yes",
      "supportcluster": "yes",
      "macaddress": "34:40:b5:d7:c8:08",
      "interface": "eth0",
      "supportiscsi": "yes",
      "speed": "1000Mb/s",
      "linkstate": "UP",
      "mtu": "1500"
    },
    {
```

```json
      "node": "Gangac",
      "supportnode": "yes",
      "supportcluster": "yes",
      "macaddress": "34:40:b5:d7:c8:0a",
      "interface": "eth1",
      "supportiscsi": "yes",
      "speed": "Unknown!",
      "linkstate": "DOWN",
      "mtu": "1500"
    },
    {
      "node": "Gangac",
      "supportnode": "yes",
      "supportcluster": "no",
      "macaddress": "00:90:fa:42:94:d2",
      "interface": "eth2",
      "supportiscsi": "yes",
      "speed": "Unknown!",
      "linkstate": "DOWN",
      "mtu": "1500"
    },
    {
      "node": "Gangac",
      "supportnode": "yes",
      "supportcluster": "no",
      "macaddress": "00:90:fa:42:94:d0",
      "interface": "eth3",
      "supportiscsi": "yes",
      "speed": "Unknown!",
      "linkstate": "DOWN",
      "mtu": "1500"
    }
  ],
  "status": 0
}
```

lsconfiguredinterface

About lsconfiguredinterface Command

Description

Use this command to retrieve all configured IPv4 addresses, including node, iscsi, and cluster.

Rights

You must have the 'System View' or 'System Manage' right to display outbound policies.

lsconfiguredinterface Request Details

Your `lsconfiguredinterface` request must pass a valid session ID. For information see Authentication or Login on page 1.

Method	URI	Required Parameters
GET	`//api/info/ lsconfiguredinterface`	None

lsconfiguredinterface Example

Request

```
GET https://{API_HOST}//api/info/lsconfiguredinterface
HTTP Request Header
Authorization:  92929a8b-a413-476f-a624-5b575cff54d3
```

where 92929a8b-a413-476f-a624-5b575cff54d3 is the session ID.

Response

```
Request success
{
  "result": [
    {
      "nodename": "Gangac",
      "ipaddress": "1xx.xxx.xxx.xxx",
      "netmask": "2xx.xxx.xxx.xxx",
      "interface": "eth0",
      "type": "node",
      "gateway": "1xx.xxx.xxx.xxx"
    },
    {
      "nodename": "Gangac",
      "ipaddress": "1xx.xxx.xxx.xxx",
      "netmask": "2xx.xxx.xxx.xxx",
      "interface": "eth0",
      "type": "iscsi",
      "gateway": "1xx.xxx.xxx.xxx"
    },
    {
      "nodename": "cluster",
      "ipaddress": "1xx.xxx.xxx.xxx",
```

actifio

```json
        "netmask": "2xx.xxx.xxx.xxx",
        "interface": "eth0",
        "type": "cluster",
        "gateway": "1xx.xxx.xxx.xxx"
      }
    ],
    "status": 0
}
```

lsnetworkcapability

About lsnetworkcapability Command

Description

Use this command to display all network capabilities that the appliance supports.

Applicability of this Command

This command can be used on:

CDS	✓
Sky appliance	✓
NAS Director	-

Rights

You must have the 'System Manage', or 'System View' rights to display outbound policies.

lsnetworkcapability Request Details

Your `lsnetworkcapability` request must pass a valid session ID. For information on how to get a valid session ID, see Authentication or Login on page 1.

Method	URI	Required Parameters
GET	//api/info/lsnetworkcapability	None

Note: See the Parameters section for a list of supported parameters and their description.

lsnetworkcapability Example

Request

```
GET https://{_API_HOST}//api/info/lsnetworkcapability
HTTP Request Header
Authorization:  92929a8b-a413-476f-a624-5b575cff54d3
```

where 92929a8b-a413-476f-a624-5b575cff54d3 is the session ID.

Response

```
Request success
{
    "result": [
        {
            "name": "isInCloud",
            "value": "yes"
        }
```

```
    ],
    "status": 0
}
```

configoutboundpolicy

About configoutboundpolicy Command

Description

Use this command to add/delete/update an outbound policy. This is used to direct traffic to originate from a specified port. All outbound traffic being directed by an outbound policy will originate from the 'node' IP on the specified interface. It can also be used to specify the system-wide outgoing default interface. Must specify one of -add, -delete, or -default.

Rights

You must have the 'System Manage' right to add/delete an outbound policy.

Parameters

Parameter	Description
add=boolean	Optional. To add an outbound policy. Requires -target and -from to also be specified. If specified target already exists, that policy will be updated.
default=string	Optional. To set the system-wide outgoing default policy. Requires -from to also be specified.
delete=boolean	Optional. To delete an outgoing policy. Requires -target to also be specified
target=string	Required. Specifies an IP, with or without a prefix or netmask. For example, 1.2.3.4, 1.2.3.4/32 (equivalent).
from=string	Required (except when -delete specified). Specifies the port to use in the form of an "ethN" specifier. The specified port must have a node IP assigned.
gateway=string	Optional. Specifies the gateway this traffic should go through. For multiple gateways, separate them with comma (,), for example 192.168.2.3,192.168.3.4. If modifying an existing outbound policy with -add, gateway does not need to be specified (previous value will be retained).
netmask=integer	Optional. Specifies the subnet mask to be used in conjunction with the specified target. Ignored if target specifies bit size.
prio=integer	Optional. Specifies the priority of the outbound policy. Allowed values are 1- 91. Default is 76. Outbound policies are evaluated in order by priority, allowing overlapping target ranges while providing granular control. If modifying an existing outbound policy with -add, priority must be specified or it will reset to the default of 76.

configoutboundpolicy Request Details

Your configoutboundpolicy request must pass a valid session ID. or information see Authentication or Login on page 1.

actifio

Method	URI	Required Parameters
POST	//api/task/ configoutboundpolicy	target from add | delete | default

---

Note: *See the Parameters section for a list of supported parameters and their description.*

---

configoutboundpolicy Example

Request

```
POST https://{API_HOST}//api/task/
configoutboundpolicy?add=true&from=eth0&target=1xx.xxx.xxx.xxx
HTTP Request Header
Authorization:  92929a8b-a413-476f-a624-5b575cff54d3
```

where 92929a8b-a413-476f-a624-5b575cff54d3 is the session ID.

Response

```
Request success
{
    "status": 0
}
```

lsoutboundpolicy

About lsoutboundpolicy Command

Description

Use this command to retrieve all outbound policies that have been configured on the system, including default outbound policies, if configured. It will have targetnetwork of '0.0.0.0/0' and will specify the default interface.

lsoutboundpolicy Request Details

Your `lsoutboundpolicy` request must pass a valid session ID. For information see Authentication or Login on page 1.

Method	URI	Required Parameters
GET	`//api/info/ lsoutboundpolicy`	None

Note: See the Parameters section for a list of supported parameters and their description.

lsoutboundpolicy Example

Request
```
GET https://{API_HOST}//api/info/lsoutboundpolicy
HTTP Request Header
Authorization:  92929a8b-a413-476f-a624-5b575cff54d3
```

where 92929a8b-a413-476f-a624-5b575cff54d3 is the session ID.

Response
```
Request success
{
  "result": [
    {
      "targetnetwork": "172.16.126.118/62",
      "interface": "eth0",
      "prio": "76"
    }
  ],
  "status": 0
}
```

actifio

configntp

About configntp Command

Description

Use this command to configure NTP settings.

Rights

You must have the 'System Manage' right to configure NTP settings.

Parameters

Parameter	Description
server=string	Required. Specifies server names or IPs. Separated with comma (,) if more than one is needed. Only one supported on CDS, additional servers will be ignored.

configntp Request Details

Your `configntp` request must pass a valid session ID. For information see Authentication or Login on page 1.

Method	URI	Required Parameters
POST	//api/task/configntp	server

Note: See the Parameters section for a list of supported parameters and their description.

configntp Example

Request

```
POST https://{API_HOST}//api/task/configntp?server=0.centos.pool.ntp.org
HTTP Request Header
Authorization:  92929a8b-a413-476f-a624-5b575cff54d3
```

where 92929a8b-a413-476f-a624-5b575cff54d3 is the session ID.

Response

```
Request success
{
    "status": 0
}
```

lsntp

About lsntp Command

Description

Use this command to retrieve a concise list of NTP settings.

Rights

You must have the 'System Manage' or 'System View' right to view NTP settings.

lsntp Request Details

Your `lsntp` request must pass a valid session ID. For information see Authentication or Login on page 1.

Method	URI	Required Parameters
GET	//api/info/lsntp	None

lsntp Example

Request

```
GET https://{API_HOST}//api/info/lsntp
HTTP Request Header
Authorization:  92929a8b-a413-476f-a624-5b575cff54d3
```

where 92929a8b-a413-476f-a624-5b575cff54d3 is the session ID.

Response

```
Request success
{
  "result": [
    {
      "server": "time..com"
    }
  ],
  "status": 0
}
```

actifio

testconnection

About testconnection Command

Description

Use this command to test network connectivity via TCP or ICMP to a specified target.

Type 'ping' runs a ping and returns the output as a plain text stream. Sends 4 pings.

Type 'tcptest' attempts a TCP connection to the given target IP and port and returns success or failure status.

Rights

You must have the 'System Manage' right to test network connection.

Parameters

Parameter	Description
type=string	Optional. Specifies type of test, ping or tcptest, default to ping.
targetip=string	Required. Specifies the target IP address.
targetport=integer	Optional (required for tcptest). Specifies the target port, as to be between 1 and 65534, inclusive
sourceip=string	Optional. Specifies the originating IP address. If specified, must be an IP assigned to an interface on the appliance. If not specified, outbound policies are used to select the source.

testconnection Request Details

Your `testconnection` request must pass a valid session ID. For information see Authentication or Login on page 1.

Note: *See the Parameters section for a list of supported parameters and their description.*

---

testconnection Example

Request

```
POST https://{API_HOST}//api/task/testconnection?&targetip=1xx.xxx.xxx.xxx
HTTP Request Header
Authorization:  92929a8b-a413-476f-a624-5b575cff54d3
```

where 92929a8b-a413-476f-a624-5b575cff54d3 is the session ID.

Response

```
Request success
{
```

  "result": "PING 172.27.0.204 (172.27.0.204) 56(84) bytes of data.\n64 bytes from
172.27.0.204: icmp_seq=1 ttl=63 time=0.167 ms\n64 bytes fr
om 172.27.0.204: icmp_seq=2 ttl=63 time=0.149 ms\n64 bytes from 172.27.0.204: icmp_seq=3 ttl=63
time=0.166 ms\n64 bytes from 172.27.0.204: ic
mp_seq=4 ttl=63 time=0.186 ms\n\n--- 172.27.0.204 ping statistics ---\n4 packets transmitted, 4
received, 0% packet loss, time 3000ms\nrtt mi
n/avg/max/mdev = 0.149/0.167/0.186/0.013 ms",
  "status": 0
}

showroute

About showroute Command

Description

Use this command to get the route to a particular IP address.

Rights

You must have the 'System Manage' right to get the route.

Parameters

Parameter	Description
sourceip=string	Optional. Specifies the originating IP address. Must be one of the IP addresses defined on the appliance.
targetip=string	Required. Specifies the target IP address.

showroute Request Details

Your showroute request must pass a valid session ID. For information see Authentication or Login on page 1.

Method	URI	Required Parameters
GET	//api/info/showroute	targetip

Note: *See the Parameters section for a list of supported parameters and their description.*

showroute Example

Request

```
GET https://{API_HOST}//api/info/showroute?targetip=1xx.xxx.xxx.xxx
HTTP Request Header
Authorization:  92929a8b-a413-476f-a624-5b575cff54d3
```

where 92929a8b-a413-476f-a624-5b575cff54d3 is the session ID.

Response

```
Request success
{
  "result": "1xx.xxx.xxx.xxx via 1xx.xxx.xxx.xxx dev eth0  src 1xx.xxx.xxx.xxx \n    cache  mtu
1500 hoplimit 64",
  "status": 0
}
```

showrouting

About showrouting Command

Description

Use this command to display all the currently installed routing tables and policy rules and advanced network troubleshooting. This command displays the combined output of ip rule show, and ip route show on all known tables, plus headers and whitespace that were added to identify each section.

Note: *Use this command only when instructed to by Customer Support.*

Rights

You must have the 'System View' or 'System Manage' right to display routing information.

showrouting Request Details

Your `showrouting` request must pass a valid session ID. For information see Authentication or Login on page 1.

Method	URI	Required Parameters
GET	//api/info/showrouting	None

showrouting Example

Request
```
GET https://{API_HOST}//api/info/showrouting
HTTP Request Header
Authorization:  92929a8b-a413-476f-a624-5b575cff54d3
```

where 92929a8b-a413-476f-a624-5b575cff54d3 is the session ID.

Response
```
Request success
{
  "result": "\nRULES:\n0:\tfrom all lookup local \n101:\tfrom 1xx.xxx.xxx.xxx lookup eth0_n
\n101:\tfrom all to 1xx.xxx.xxx.xxx lookup eth0_n \
n180:\tfrom all to 1xx.xxx.xxx.xxx lookup eth0_n \n197:\tfrom all to 1xx.xxx.0.0/16 lookup
eth0_n \n32766:\tfrom all lookup main \n32767:\tfrom
 all lookup default \n\nTABLE main:\n1xx.xxx.0.0/16 dev eth0  scope link  metric 1002
\n1xx.xxx.0.0/16 dev eth0  proto kernel  scope link  src
1xx.xxx.xxx.xxx \ndefault via 1xx.xxx.1.1 dev eth0 \n\nTABLE eth0_n:\n1xx.xxx.0.0/16 dev eth0
proto static  scope link  src 1xx.xxx.xxx.xxx\nd
efault via 1xx.xxx.1.1 dev eth0  proto static  src 1xx.xxx.xxx.xxx \n",
  "status": 0
}
```

actifio

showtracepath

About showtracepath Command

Description

Use this command to trace the path to a given IP, and return the output as a plain text stream.

Note: *This command can take 90 or more seconds to run.*

Rights

You must have the 'System View' or 'System Manage' right to display tracepath information.

Parameters

Parameter	Description
port=integer	Optional. Specifies the target port, has to be between 1 and 65534, inclusive.
targetip=string	Required. Specifies the target IP address.

showtracepath Request Details

Your `showtracepath` request must pass a valid session ID. For information see Authentication or Login on page 1.

Method	URI	Required Parameters
GET	//api/info/showtracepath	targetip

Note: *See the Parameters section for a list of supported parameters and their description.*

---

showtracepath Example

Request
```
GET https://{API_HOST}//api/info/showtracepath?targetip=1xx.xxx.xxx.xxx
HTTP Request Header
Authorization:  92929a8b-a413-476f-a624-5b575cff54d3
```

where 92929a8b-a413-476f-a624-5b575cff54d3 is the session ID.

Response
```
Request success
{
  "result": "traceroute to 1xx.xxx.xxx.xxx (1xx.xxx.xxx.xxx), 30 hops max, 60 byte packets\n 1
sqagw-ndmn9k02.sqa..com (1xx.xxx.xxx.xxx)  0.432
ms  0.470 ms  0.542 ms\n 2  * * *\n 3  * * *\n 4  * * *\n 5  * * *\n 6  * * *\n 7  * * *\n 8  *
* *\n 9  * * *\n10  * * *\n11  * * *\n12  * *
```

```
 *\n13  * * *\n14  * * *\n15  * * *\n16  * * *\n17  * * *\n18  * * *\n19  * * *\n20  * * *\n21
* * *\n22  * * *\n23  * * *\n24  * * *\n25  *
 * *\n26  * * *\n27  * * *\n28  * * *\n29  * * *\n30  * * *",
  "status": 0
}
```

Bandwidth Commands

mkbandwidthschedule

About mkbandwidthschedule Command

Description

Use this command to create a new bandwidth schedule object. Which in effect sets the bandwidth limit for the specified appliance, at the designated scheduled time, which will limit the amount of network traffic to that appliance used by dedup.

Rights

You must have the 'System Manage' right to create a bandwidth schedule.

Parameters

Parameter	Description
appliance=string	Required. Specifies the name or ID of the target VDP Appliance to execute this command. All other parameters should use appliance specific values. Use the `udsinfo lscluster` command to retrieve the appliance name or ID to help you identify the correct appliance to include in the `-appliance` argument.
bandwidth=integer	Optional. Specifies the maximum bandwidth allowed by dedup for the specified cluster (as indicated by the ID of the cluster object), in Mb. Default to 0; if not specified, bandwidth is unlimited.
clusterid=string	Required. Specifies the ID of the appliance for outgoing bandwidth to be enforced. Use `udsinfo lscluster` to retrieve the appliance ID.
replicationtype= DEDUP | SNAP	Optional. Specifies the type of the replication that the bandwidth schedule is assigned to for CDS/Sky. Valid values are DEDUP (default) and SNAP.
scheduleday=string	Optional. Specifies the day of the schedule to run. For 'monthly' schedule: valid values are 1-31, or 'last' (last day of month). For 'weekly' schedule: valid values are 'mon', 'tue', 'wed', 'thu', 'fri', 'sat', 'sun', 'weekday', or 'weekend'. This is not allowed for 'daily' or 'hourly' schedule.
scheduletype= monthly | weekly | daily | hourly	Optional. Specifies the type of schedule.
scheduletime=string	Optional. Specifies the time of the schedule to run. The format is 'hh:mm', for 'monthly', 'weekly', or 'daily' schedules. For 'hourly' schedule, the format is 0-59.

mkbandwidthschedule Request Details

Your mkbandwidthschedule request must pass a valid session ID. For information see Authentication or Login on page 1.

Method	URI	Required Parameters
POST	//api/task/ mkbandwidthschedule	clusterid

Note: See the Parameters section for a list of supported parameters and their description.

mkbandwidthschedule Example

Request

```
POST https://{API_HOST}//api/task/
mkbandwidthschedule?bandwidth=10&clusterid={CLUSTERID}&replicationtype=DEDUP&scheduleday=thu&s
cheduletype=weekly&scheduletime=01:00
HTTP Request Header
Authorization:  92929a8b-a413-476f-a624-5b575cff54d3
```

where 92929a8b-a413-476f-a624-5b575cff54d3 is the session ID.

Response

```
Request success
{
  "result": "15359"
"status": 0
}
```

lsbandwidthschedule

About lsbandwidthschedule Command

Description

Use this command to retrieve details of bandwidth schedules. A bandwidth schedule schedules changing of outgoing bandwidth value for the specified cluster, which is the maximum bandwidth (in Mb/s) allowed to that cluster for VDP appliance.

There are two types of replications that the bandwidth schedule can be assigned to for VDP appliances: DEDUP and SNAP.

Rights

You must have the 'System View' or 'System Manage' rights to retrieve details of bandwidth schedules.

Parameters

Parameter	Description
appliance=string	Optional. Specifies the name or ID of the target VDP Appliance to retrieve all objects in a list view. Use the `udsinfo` lscluster command to retrieve the appliance name or ID to help you identify the correct appliance to include in the `-appliance` argument.
filtervalue =attribute%3Dvalue	Optional. Specifies that you want your report to display any or all of the list of valid filter attributes. The valid filter attributes for the `udsinfo lsbandwidthschedule` command are: `*clusterid` The filter will be formed with an attribute and a value. When user specifies more than one filter, they must be combined with '&' character (escaped with '\'). For string type of filters, the only operator allowed is '='. You can also use wild-card character '*'. For example, to match profile (SLP) with name begins with 'foo', use '`-filtervalue name=foo*`'filtervalue=name%3Dfoo.
argument=string	Optional. Specifies the ID of the bandwidth schedule. When you use this parameter, the detailed view of the specific object is returned and any value that is specified by the `-filtervalue` parameter is ignored. If you do not specify the objectid*object_id*, the concise view of all objects matching the filter criteria is displayed.

lsbandwidthschedule Request Details

Your `lsbandwidthschedule` request must pass a valid session ID. For information see Authentication or Login on page 1.

Method	URI	Required Parameters
GET	//api/info/ lsbandwidthschedule	None

lsbandwidthschedule Example

Request

```
GET https://{API_HOST}//api/info/lsbandwidthschedule?argument=15359
HTTP Request Header
Authorization:  92929a8b-a413-476f-a624-5b575cff54d3
```

where 92929a8b-a413-476f-a624-5b575cff54d3 is the session ID.

Response

```
Request success
{
"result":[
        {
            "bandwidth": "10",
            "clusterid": "13474",
            "id": "13536",
            "replicationtype": "DEDUP",
            "scheduleday": "thu",
            "scheduletime": "01:00",
            "scheduletype": "weekly"
        },
        {
            "bandwidth": "10",
            "clusterid": "13474",
            "id": "13539",
            "replicationtype": "SNAP",
            "scheduleday": "fri",
            "scheduletime": "02:00",
            "scheduletype": "weekly"
        }
    ],
"status":0
}
```

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chbandwidthschedule

About chbandwidthschedule Command

Description

Use this command to change bandwidth value for a bandwidth schedule.

Rights

You must have the 'System Manage' right to change a bandwidth schedule.

Parameters

Parameter	Description
bandwidth =integer	Required. Specifies the bandwidth used by dedup for the appliance (in Megabytes).
argument=string	Required. Specifies ID of the bandwidth schedule to be modified.

chbandwidthschedule Request Details

Your `chbandwidthschedule` request must pass a valid session ID. For information see Authentication or Login on page 1.

Method	URI	Required Parameters
POST	//api/task/ chbandwidthschedule	argument=<bandwidth schedule ID>

Note: *See the Parameters section for a list of supported parameters and their description.*

chbandwidthschedule Example

Change the day and time of day for the bandwidth schedule.

Request

```
POST https://{API_HOST}//api/task/
chbandwidthschedule?argument=15359&&scheduleday=fri&scheduletime=05:00
HTTP Request Header
Authorization:  92929a8b-a413-476f-a624-5b575cff54d3
```

where 92929a8b-a413-476f-a624-5b575cff54d3 is the session ID.

Response

```
Request success
{
  "status": 0
}
```

rmbandwidthschedule

About rmbandwidthschedule Command

Description

Use this command to delete a bandwidth schedule.

Rights

You must have the 'System Manage' right to delete a bandwidth schedule.

Parameters

Parameter	Description
argument=string	Required. Specifies the ID of the bandwidth schedule to be removed. Use `udsinfo` lsbandwidthschedule to retrieve a bandwidth schedules.

rmbandwidthschedule Request Details

Your `rmbandwidthschedule` request must pass a valid session ID. For information see Authentication or Login on page 1.

Method	URI	Required Parameters
POST	//api/task/ rmbandwidthschedule	argument=<bandwidth schedule ID>

Note: *See the Parameters section for a list of supported parameters and their description.*

---

rmbandwidthschedule Example

Request

```
POST https://{API_HOST}//api/task/rmbandwidthschedule?argument=15359
HTTP Request Header
Authorization:  92929a8b-a413-476f-a624-5b575cff54d3
```

where 92929a8b-a413-476f-a624-5b575cff54d3 is the session ID.

Response

```
Request success
{
  "status": 0
}
```

Other Commands

export

About export Command

Description

Use this command to export all templates into a file. This file can be used to import templates using the **udstask** import command.

Rights

You must have the 'System View,' 'System Manage,' or 'SLA View' right to export templates.

Parameters

Parameter	Description
filename=string	Required. Specifies the file name to export the templates to. The file path can be relative or absolute. Filename should always be under a subdirectory of the user's home directory, which is a subdirectory under /home.
appliance=string	Required. Specifies the name or ID of the target VDP Appliance to execute this command. Use the `udsinfo` lscluster command to retrieve the appliance name or ID to help you identify the correct appliance to include in the `appliance` argument.

export Request Details

Your `export` request must pass a valid session ID. For information see Authentication or Login on page 1.

Method	URI	Required Parameters
GET	//api/info/export	filename

Note: *See the Parameters section for a list of supported parameters and their description.*

export Example

Request

```
GET https://{API_HOST}//api/info/export?filename=/home/templates.xml
HTTP Request Header
Authorization:  92929a8b-a413-476f-a624-5b575cff54d3
```

where 92929a8b-a413-476f-a624-5b575cff54d3 is the session ID.

Response

```
Request success
```

```
{
  "status": 0
}
```

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import

The **import** command imports templates from a file.

About import Command

Description

Use this command to import policy templates. The file should be exported using `udsinfo` export command.

Rights

You must have the 'Application Manage' or 'Host Manage' or 'SLA Manage' right to import templates.

Parameters

Parameter	Description
duplication=add|ignore|replace	Optional. Indicates the course of action when the name of an imported template matches that of an existing template of the appliance. The option 'ignore' ignores the new templates, 'add' adds the templates with a new name, and 'replace' replaces the existing templates with the new templates. The default value is 'add'.
filename=string	Required. Specifies the name of the file to be imported. The file should be under /home or a subdirectory of /home.
appliance=string	Required. Specifies the name or ID of the target VDP appliance to execute this command. Use the `udsinfo` lscluster command to retrieve the appliance name or ID to help you identify the correct appliance to include in the `-appliance` argument.

import Request Details

Your `import` request must pass a valid session ID. For information see Authentication or Login on page 1.

Method	URI	Required Parameters
POST	//api/task/import	filename

Note: *See the Parameters section for a list of supported parameters and their description.*

import Example

Request

```
POST https://{API_HOST}//api/task/import?filename=/home/templates.xml
HTTP Request Header
Authorization:  92929a8b-a413-476f-a624-5b575cff54d3
```

where 92929a8b-a413-476f-a624-5b575cff54d3 is the session ID.

Response

```
Request success
{
   "status": 0
}
```

8 Job Event and Notification Commands

These commands are for the tools used in monitoring job events and notifications.

Managing Job Event and Notifications

SNMP Commands

mksnmpconfig

About mksnmpconfig Command

Description

Use this command to create a new SNMP server configuration.

Note: *appliance supports SNMP v2 traps only.*

Rights

You must have the 'System Manage' right to configure an SNMP server.

Parameters

Parameter	Description
error=boolean	Optional. Enables or disables receiving 'error' traps.
info=boolean	Optional. Enables or disables receiving 'info' traps.
ipaddress=string	Required. Specifies the IP address of the SNMP server.
name=string	Required. Specifies the name of the SNMP server.
port=integer	Optional. Specifies the port of the SNMP server. The default value is 162.
warning=boolean	Optional. Enables or disables receiving 'warning' traps.

mksnmpconfig Request Details

Your `mksnmpconfig` request must pass a valid session ID. For information on how to get a valid session ID, see Authentication or Login on page 1.

Method	URI	Required Parameters
POST	//api/task/mksnmpconfig	ipaddress=<IP address of SNMP server> name=<name of the SNMP config>

Note: *See the Parameters section for a list of supported parameters and their description.*

---

mksnmpconfig Example

Request

```
POST https://{_API_HOST}//api/task/mksnmpconfig?name=Default-
SNMP&ipaddress={SNMP_HOST}&error=on&warning=off&info=off
HTTP Request Header
Authorization:  92929a8b-a413-476f-a624-5b575cff54d3
```

where 92929a8b-a413-476f-a624-5b575cff54d3 is the session ID.

Response

```
Request success
{
    "result": "Default-SNMP",
    "status": 0
}
```

configsnmpagent

About configsnmpagent Command

Description

Use this command to enable the SNMP agent in the appliance and to set the community string for SNMPv2 authentication by the SNMP agent and the management system. The appliance extends SNMPv2 support to the SNMP GET request process through the activation of an SNMP agent in the appliance to register all corresponding MIB classes to support the PULL/GET mechanism. The management system (the client) "pulls" data from the SNMP agent in the appliance. The SNMP agent service in the appliance is started as part of the PSRV service on port UDP-161 for SNMP messages.

The SNMP agent runs on the appliance as part of the PSRV service, and the SNMP agent serves all requests sent by any SNMP client or management system to monitor and manage appliance configurations, system statistics and performance, and so on. The SNMP agent integrates monitoring and management extensions into the appliance, and uses SNMPv2 GET requests to allow data to be pulled on-demand. You can integrate the SNMP GET operations with your existing management system.

> **Note:** *We recommend that you check if your management system is SNMP enabled. If the SNMP service does not exist, be sure to install SNMP. The VDP appliance does not support SNMP SET operations.*

An SNMP GET request reads the value of SNMP objects and performs network monitoring through a set of predefined Object Identifiers (OIDs). OIDs uniquely identify managed objects in the MIB hierarchy. By using the MIBs, SNMP pulls specific objects to monitor and appliance configurations, system statistics and performance, and so on.

You can use the `setparameter` command to limit the number of records sent by the SNMP agent in the appliance to the management system (the client). When you set the `snmptablesize` parameter, the SNMP agent retrieves only the specified number of records and send those records to the respective SNMP clients. The range is 100 to 5000 records (default of 500). .

The **configsnmpagent** command enables the SNMP agent in VDP appliances and specifies a community string for SNMPv2 authentication by the SNMP agent and the management system.

Applicability of this Command

This command can be used on:

CDS appliance	✓
Sky appliance	✓
NAS Director	✓

Rights

You must have the 'System Manage' right to activate the SNMP agent on the appliance to perform SNMP GET requests.

Parameters

Parameter	Description
communitystring = string	Optional. Sets the SNMPV2 community string for performing SNMP GET requests by the appliance. Enter an authentication pass phrase for connecting to the SNMP agent as the *key*.
enable=boolean	Optional. This value enables or disables the SNMP agent residing in the appliance. Value are: • `true`—Enables the SNMP agent in the appliance • `false`—Disables the SNMP agent in the appliance

configsnmpagent Request Details

Your `configsnmpagent` request must pass a valid session ID. For information on how to get a valid session ID, see Authentication or Login on page 1.

Method	URI	Required Parameters
POST	//api/task/configsnmpagent	None

Note: See the Parameters section for a list of supported parameters and their description.

configsnmpagent Examples

Configuring an SNMP Agent with a community string and enable the agent.

Request

```
POST https://{_API_HOST}//api/task/configsnmpagent?communitystring=Team&enable=true
HTTP Request Header
Authorization:  92929a8b-a413-476f-a624-5b575cff54d3
```

where 92929a8b-a413-476f-a624-5b575cff54d3 is the session ID.

Response

```
Request success
{
    "result": "SNMP V2 communitystring is succesfully updated.CDS SnmpAgent is enabled and
successfully started.",
    "status": 0
}
```

Disabling the SNMP Agent on the appliance.

Request

```
POST https://{_API_HOST}//api/task/configsnmpagent?enable=false
HTTP Request Header
Authorization:  92929a8b-a413-476f-a624-5b575cff54d3
```

where 92929a8b-a413-476f-a624-5b575cff54d3 is the session ID.

Request

Request success
```
{
    "result": "CDS SnmpAgent is disabled and successfully stopped.",
    "status": 0
}
```

actifio

lssnmpconfig

About lssnmpconfig Command

Description

Use this command to display the concise view of the SNMP server configuration.

Note: *The VDP appliance supports SNMP v2 traps only.*

Rights

You must have the 'System View' or 'System Manage' to view the configuration of an SNMP server.

lssnmpconfig Request Details

Your `lssnmpconfig` request must pass a valid session ID. For information on how to get a valid session ID, see Authentication or Login on page 1.

Method	URI	Required Parameters
GET	//api/info/lssnmpconfig	None

lssnmpconfig Example

Fetching the SNMP config information from the appliance.

Request

```
GET https://{_API_HOST}//api/info/lssnmpconfig
HTTP Request Header
Authorization:  92929a8b-a413-476f-a624-5b575cff54d3
```

where 92929a8b-a413-476f-a624-5b575cff54d3 is the session ID.

Response

```
Request success
{
          "error": "off",
          "info": "off",
          "ipaddress": "172.00.00.111",
          "port": "162",
          "servername": "tst_snmp_server",
          "warning": "off"
}
```

chsnmpconfig

About chsnmpconfig Command

Description

Use this command to change the attributes of an SNMP trap receiver configuration that receives the SNMP traps sent by the appliance.

Note: *The VDP appliance supports SNMP v2 traps only.*

Rights

You must have the 'System Manage' right to modify the configuration of an SNMP server.

Parameters

Parameter	Description
ipaddress=string	Optional. Specifies new IP address for the SNMP server.
port=integer	Optional. Specifies the remote port number for the SNMP server. It defaults to 162. This should be a value from 1 through 65535.
info=boolean	Optional. Specifies whether the server receives the 'information' notifications.
warning=boolean	Optional. Specifies whether the server receives the 'warning' notifications. When set to 'on', warning notifications are sent to the SNMP server. When set to 'off', warning notifications are not sent to the SNMP server.
error=boolean	Optional. Specifies whether the server receives the 'error' notifications. When set to 'on', error notifications are sent to the SNMP server. When set to 'off', error notifications are not sent to the SNMP server.
argument=string	Required. Specifies the SNMP configuration to be modified.

chsnmpconfig Request Details

Your `chsnmpconfig` request must pass a valid session ID. For information on how to get a valid session ID, see Authentication or Login on page 1.

Method	URI	Required Parameters
POST	//api/task/chsnmpconfig	argument

Note: *See the Parameters section for a list of supported parameters and their description.*

---

chsnmpconfig Example

Update an SNMP configuration by turning on traps for warning and info messages.

Request

```
POST https://{_API_HOST}//api/task/chsnmpconfig?argument=Default-SNMP&warning=on&info=on
HTTP Request Header
Authorization:  92929a8b-a413-476f-a624-5b575cff54d3
```

where 92929a8b-a413-476f-a624-5b575cff54d3 is the session ID.

Response

```
Request success
{
    "result": "Default-SNMP",
    "status": 0
}
```

lssnmpevent

About lssnmpevent Command

Description

Use this command to display a concise list of SNMP events or a detailed view of an SNMP event.

Rights

You must have the 'System View' or 'System Manage' to view the SNMP events.

Parameters

Parameter	Description
filtervalue=attribute %s3Dvalue	Optional. Specifies that you want your report to display any or the entire list of valid filter attributes. The valid filter attributes for the `lssnmpevent` command are: • clustername • eventdate • errorcode • eventid • messagetext • notificationtype [error | warning | info] • objecttype [adhd | omd | psrv | udp] The filter is formed with an attribute and a value. When you specify more than one filter, they must be combined with '&' character. For string type of filters, the only operator allowed is '='. You can also use wild card character '*'. Some filters allow only predefined constants. For example, notificationtype allows only error, warning, or info. For number and date types, allowed operators are: =, >, >=, <, <=.
argument=integer	Optional. Specifies the ID of an object. When you use this parameter, a detailed view of the object is returned and any value that is specified by the `filtervalue` parameter is ignored. If you do not specify the *argument* parameter, a concise view of all objects matching the filter criteria is displayed.

lssnmpevent Request Details

Your `lssnmpevent` request must pass a valid session ID. For information on how to get a valid session ID, see Authentication or Login on page 1.

Method	URI	Required Parameters

GET	//api/info/lssnmpevent	None

Note: *See the Parameters section for a list of supported parameters and their description.*

Lssnmpevent Examples

Fetching all SNMP events from the appliance.

Request

```
GET https://{_API_HOST}//api/info/lssnmpevent
HTTP Request Header
Authorization:  92929a8b-a413-476f-a624-5b575cff54d3
```

where 92929a8b-a413-476f-a624-5b575cff54d3 is the session ID.

Response

```
Request success
{
    "result": [
        {
            "clustername": "localhost.localdom",
            "component": "CDS",
            "errorcode": "",
            "errormessage": "SLA violation(s) found for application TP-Linux on host tp-linux
and template TP-Template\\n\\npolicy          Production to Snap 1\\npolicy type
normal\\nstattime        2017-11-23 00:15:00.104\\nviolation time   2017-11-22
23:59:00.0\\nviolation type   scheduler off\\njobs expected   3\\njob tolerance    0\\njobs
succeeded  0\\njobs failed    0\\nerror code     0\\nsource UDS     1415036377\\njob id
0\\njob class      snapshot\\nmessage        At 2017-11-22 00:00:02-0500 scheduling for the
application was disabled or snapshot scheduling was disabled for all applications.\\n",
            "eventdate": "2017-11-23 00:15:00.116",
            "eventid": "10043",
            "eventstatus": "",
            "id": "151912",
            "notificationtype": "warning",
            "objectid": "1",
            "objecttype": "psrv",
            "requiresclearing": "false",
            "sequenceid": "0",
            "sourceeventdate": ""
        },
        {
            "clustername": "localhost.localdom",
            "component": "CDS",
            "errorcode": "",
            "errormessage": "SLA violation(s) found for application /boot on host tp-linux and
template TP-Template\\n\\npolicy          Production to Snap 1\\npolicy type
normal\\nstattime        2017-11-23 00:15:00.097\\nviolation time   2017-11-22
23:59:00.0\\nviolation type   scheduler off\\njobs expected   3\\njob tolerance    0\\njobs
succeeded  0\\njobs failed    0\\nerror code     0\\nsource UDS     1415036377\\njob id
0\\njob class      snapshot\\nmessage        At 2017-11-22 00:00:02-0500 scheduling for the
application was disabled or snapshot scheduling was disabled for all applications.\\n",
            "eventdate": "2017-11-23 00:15:00.128",
            "eventid": "10043",
            "eventstatus": "",
            "id": "151913",
            "notificationtype": "warning",
```

```
                "objectid": "1",
                "objecttype": "psrv",
                "requiresclearing": "false",
                "sequenceid": "0",
                "sourceeventdate": ""
        },
        {
                "clustername": "localhost.localdom",
                "component": "CDS",
                "errorcode": "",
                "errormessage": "SLA violation(s) found for application /boot on host tp-linux and
template TP-Template\\n\\npolicy           Production to Snap 1\\npolicy type
normal\\nstattime        2017-11-24 00:15:00.095\\nviolation time   2017-11-23
23:59:00.0\\nviolation type   scheduler off\\njobs expected    3\\njob tolerance    0\\njobs
succeeded  0\\njobs failed      0\\nerror code       0\\nsource UDS      1415036377\\njob id
0\\njob class        snapshot\\nmessage          At 2017-11-23 00:00:04-0500 scheduling for the
application was disabled or snapshot scheduling was disabled for all applications.\\n",
                "eventdate": "2017-11-24 00:15:00.110",
                "eventid": "10043",
                "eventstatus": "",
                "id": "152316",
                "notificationtype": "warning",
                "objectid": "1",
                "objecttype": "psrv",
                "requiresclearing": "false",
                "sequenceid": "0",
                "sourceeventdate": ""
        },
],
    "status": 0
}
```

Fetching SNMP events with the specific Id.

Request

```
GET https://{_API_HOST}//api/info/lssnmpevent?argument=153448
HTTP Request Header
Authorization:   92929a8b-a413-476f-a624-5b575cff54d3
```

where 92929a8b-a413-476f-a624-5b575cff54d3 is the session ID.

Response

```
Request success
{
    "result": {
        "clustername": "localhost.localdom",
        "component": "CDS",
        "errormessage": "SLA violation(s) found for application TP-Linux on host tp-linux and
template TP-Template",
        "eventdate": "2017-11-26 00:15:00.107",
        "eventid": "10043",
        "id": "153448",
        "notificationtype": "warning",
        "objectid": "1",
        "objecttype": "psrv",
        "requiresclearing": "false",
        "sequenceid": "0"
    },
    "status": 0
}
```

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Fetching SNMP events filtered using the filtervalue argument. (Fetch all events that occurred after Nov 24, 2017.)

Request

```
GET https://{_API_HOST}//api/info/lssnmpevent?filtervalue=eventdate>2017-11-24
HTTP Request Header
Authorization:  92929a8b-a413-476f-a624-5b575cff54d3
```

where 92929a8b-a413-476f-a624-5b575cff54d3 is the session ID.

Response

```
Request success
{
    "result": [
        {
            "clustername": "localhost.localdom",
            "component": "CDS",
            "errorcode": "",
            "errormessage": "SLA violation(s) found for application /boot on host tp-linux and
template TP-Template\\n\\npolicy          Production to Snap 1\\npolicy type
normal\\nstattime        2017-11-25 00:15:00.106\\nviolation time   2017-11-24
23:59:00.0\\nviolation type   scheduler off\\njobs expected    3\\njob tolerance    0\\njobs
succeeded   0\\njobs failed     0\\nerror code      0\\nsource UDS      1415036377\\njob id
0\\njob class        snapshot\\nmessage          At 2017-11-24 00:00:03-0500 scheduling for the
application was disabled or snapshot scheduling was disabled for all applications.\\n",
            "eventdate": "2017-11-25 00:15:00.123",
            "eventid": "10043",
            "eventstatus": "",
            "id": "152720",
            "notificationtype": "warning",
            "objectid": "1",
            "objecttype": "psrv",
            "requiresclearing": "false",
            "sequenceid": "0",
            "sourceeventdate": ""
        },
        {
            "clustername": "localhost.localdom",
            "component": "CDS",
            "errorcode": "",
            "errormessage": "SLA violation(s) found for application TP-Linux on host tp-linux
and template TP-Template\\n\\npolicy          Production to Snap 1\\npolicy type
normal\\nstattime        2017-11-26 00:15:00.097\\nviolation time   2017-11-25
23:59:00.0\\nviolation type   scheduler off\\njobs expected    3\\njob tolerance    0\\njobs
succeeded   0\\njobs failed     0\\nerror code      0\\nsource UDS      1415036377\\njob id
0\\njob class        snapshot\\nmessage          At 2017-11-25 00:00:03-0500 scheduling for the
application was disabled or snapshot scheduling was disabled for all applications.\\n",
            "eventdate": "2017-11-26 00:15:00.107",
            "eventid": "10043",
            "eventstatus": "",
            "id": "153448",
            "notificationtype": "warning",
            "objectid": "1",
            "objecttype": "psrv",
            "requiresclearing": "false",
            "sequenceid": "0",
            "sourceeventdate": ""
        }
    ],
    "status": 0
```

}

rmsnmpconfig

About rmsnmpconfig Command

Description

Use this command to delete an SNMP server configuration.

Rights

You must have the 'System Manage' right to delete the configuration.

Parameters

Parameter	Description
argument= string	Required. Specifies the name of the SNMP server to be deleted.

rmsnmpconfig Request Details

Your `rmsnmpconfig` request must pass a valid session ID. For information on how to get a valid session ID, see Authentication or Login on page 1.

Method	URI	Required Parameters
POST	//api/task/rmsnmpconfig	argument

Note: *See the Parameters section for a list of supported parameters and their description.*

rmsnmpconfig Example

Deleting an SNMP config identified by name.

Request

```
POST https://{_API_HOST}//api/task/rmsnmpconfig?argument=Default-SNMP
HTTP Request Header
Authorization:  92929a8b-a413-476f-a624-5b575cff54d3
```

where 92929a8b-a413-476f-a624-5b575cff54d3 is the session ID.

Response

```
Request success
{
    "status": 0
}
```

Monitored Device Commands

mkmonitoreddevice

About mkmonitoreddevice Command

Description

Use this command to add a new device to monitor for connectivity. At regular intervals, the appliance pings the IP address to make sure that the device is still connected. A trap is sent if the ping fails.

Rights

You must have the 'System Manage' rights to add a new device to monitor for connectivity.

Parameters

Parameter	Description
ipaddress=integer	Required. Specifies the IP address for the host. The monitoring process does not rely on DNS lookups so names are not allowed.
name=string	Required. Specifies a name to identify the device. The name must be unique within the device type.
password=string	Optional. The password to use to connect to the device if required for the given device type for Sky appliance.
readonlyr=boolean	Optional. Choices are true or false. True specifies that the device hardware is not shipped by Actifio; False specifies that the device hardware is provided by Actifio.
type=string	Required. Specifies the type of device to monitor. Either a switch or a storage device.
username=string	Optional. The username to use to connect to the Sky appliance if required for the given device type.

mkmonitoreddevice Request Details

Your `mkmonitoreddevice` request must pass a valid session ID. For information on how to get a valid session ID, see Authentication or Login on page 1.

Method	URI	Required Parameters
POST	//api/task/mkmonitoreddevice	name ipaddress type

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mkmonitoreddevice Example

Creating a new monitored device, that is recorded as readonly.

Request

```
POST https://{_API_HOST}//api/task/
mkmonitoreddevice?name=UnderWatch&ipaddress={MONITOR_IP_ADDRESS}&type=switch&readonly=true
HTTP Request Header
Authorization:  92929a8b-a413-476f-a624-5b575cff54d3
```

where 92929a8b-a413-476f-a624-5b575cff54d3 is the session ID.

Response

```
Request success
{
    "result": "154350",
    "status": 0
}
```

lsmonitoreddevice

About lsmonitoreddevice Command

Description

Use this command to return a concise list of monitored devices, or a detailed view of a monitored device.

Rights

You must have 'System View' or 'System Manage' rights to view devices.

Parameters

Parameter	Description
type=string	Optional. Specifies the type of device to monitor. The type of device is either a switch or a storage device. If the type is omitted, both switches and storage devices are listed. If the ID of the device is specified, this value is ignored.
argument=integer	Optional. Specifies the ID of the device to get detailed information.

lsmonitoreddevice Request Details

Your `lsmonitoreddevice` request must pass a valid session ID. For information on how to get a valid session ID, see Authentication or Login on page 1.

Method	URI	Required Parameters
GET	//api/info/lsmonitoreddevice	None

Note: *See the Parameters section for a list of supported parameters and their description.*

lsmonitoreddevice Example

Fetching list of monitored devices.

Request

```
GET https://{_API_HOST}//api/info/lsmonitoreddevice
HTTP Request Header
Authorization:  92929a8b-a413-476f-a624-5b575cff54d3
```

where 92929a8b-a413-476f-a624-5b575cff54d3 is the session ID.

Response

```
Request success
{
    "result": [
        {
            "address": "172.27.26.100",
```

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```
            "id": "154350",
            "name": "UnderWatch",
            "type": "switch"
        }
    ],
    "status": 0
}
```

chmonitoreddevice

About chmonitoreddevice Command

Description

Use this command to change the configured IP address or name of a monitored device. Once the IP address is configured, you cannot edit the device's type. An error is returned if the IP address is not valid or a device with the given id does not exist.

Rights

You must have the 'System Manage' right to edit the IP address of a monitored device.

Parameters

Parameter	Description
ipaddress=string	Optional. Specifies the new IP address to use for the given device. The monitoring process does not rely on DNS lookups so names are not allowed.
name=string	Optional. Specifies a name to identify the device. If id is not specified this value is required.
username=string	Optional. The name of the user who is to connect to the given device type for CDS/Sky.
password=string	Optional. The authentication password to connect to the given device type for CDS/Sky.
readonly=boolean	Optional. Choices are True or False for CDSSky. True specifies that the device hardware is not shipped by Actifio; False specifies that the device hardware is provided by Actifio.
argument=integer	Required. Specifies the ID for an appliance Use Ismonitoreddevice to get the ID.

chmonitoreddevice Request Details

Your `chmonitoreddevice` request must pass a valid session ID. For information on how to get a valid session ID, see Authentication or Login on page 1.

Method	URI	Required Parameters
POST	//api/task/chmonitoreddevice	argument=\<id of the monitored device\>

Note: *See the Parameters section for a list of supported parameters and their description.*

chmonitoreddevice Examples

Update a monitored device by adding a username.

Request

```
POST https://{_API_HOST}//api/task/chmonitoreddevice?argument=154350&username=adminuser
HTTP Request Header
Authorization:  92929a8b-a413-476f-a624-5b575cff54d3
```

where 92929a8b-a413-476f-a624-5b575cff54d3 is the session ID.

Response

```
Request success
{
    "status": 0
}
```

rmmonitoreddevice

About rmmonitoreddevice Command

Description

Use this command to stop monitoring connectivity to the device. An error is returned if a device with the given ID does not exist.

Rights

You must have the 'System Manage' rights to delete a monitored device.

Parameters

Parameter	Description
argument=integer	Required. Specifies the ID to identify the device.

rmmonitoreddevice Request Details

Your `rmmonitoreddevice` request must pass a valid session ID. For information on how to get a valid session ID, see Authentication or Login on page 1.

Method	URI	Required Parameters
POST	//api/task/rmmonitoreddevice	argument

Note: *See the Parameters section for a list of supported parameters and their description.*

rmmonitoreddevice Example

Stop monitoring device with id 154350.

Request

```
POST https://{_API_HOST}//api/task/rmmonitoreddevice?argument=154350
HTTP Request Header
Authorization:  92929a8b-a413-476f-a624-5b575cff54d3
```

where 92929a8b-a413-476f-a624-5b575cff54d3 is the session ID.

Response

```
Request success
{
    "status": 0
}
```

Email Server Commands

configemailserver

About configemailserver Command

Description

Use this command to configure the email server to allow the appliance to send emails.

Rights

You must have the 'System Manage' right to configure the email server.

Parameters

Parameter	Description
emailserver=string	Optional. Specifies the host name or IP address of the email server.This option is required when the email server is specified for the first time.
emailuser=string	Optional. Specifies the username to authenticate to the email server.This option is required when the email server is specified for the first time.
messagelimit=string	Optional. Specifies the email size allowed by the email server. The email size should suffixed with KB or MB. The default email size is 10MB. *Note: Space between the number and units is not allowed, only KB and MB are supported.*
nopassword=boolean	Optional. Specifies that no authentication is required to send an email. Using this option deletes the password if it is configured already. You cannot use this option along with the `password` option.
password=string	Optional. Specifies the password of the email user.
port=integer	Optional. Specifies the email server port. The default value is 25 for an SMTP server and 465 for an SMTPS server.

ssl=boolean	Optional. Indicates whether the email should be sent using the SSL protocol.
	For the `ssl` parameter value, note the following conditions:
	   • *true* must be added if the email server is smtp.gmail.com.
	   • *false* must be added if the email server is svn..com.

test=boolean	Optional. When set to true, sends out a test email.
emailfrom=string	Optional. Specifies the email address to use as the FROM address.

configemailserver Request Details

Your `configemailserver` request must pass a valid session ID. For information on how to get a valid session ID, see Authentication or Login on page 1.

Method	URI	Required Parameters
POST	//api/task/configemailserver	None

Note: See the Parameters section for a list of supported parameters and their description.

configemailserver Example

Configuring new email server.

Request

```
POST https://{_API_HOST}//api/task/
configemailserver?emailserver={EMAIL_HOST}&emailuser=admin@datainc.com&messagelimit=15MB
HTTP Request Header
Authorization:  92929a8b-a413-476f-a624-5b575cff54d3
```

where 92929a8b-a413-476f-a624-5b575cff54d3 is the session ID.

Response

```
Request success
{
    "status": 0
}
```

getemailserverconfig

About getemailserverconfig Command

Description

Use this command to retrieve the email server configuration.

Rights

You must have the 'System View' or 'System Manage' right to view the email server configuration.

getemailserverconfig Request Details

Your `getemailserverconfig` request must pass a valid session ID. For information on how to get a valid session ID, see Authentication or Login on page 1.

Method	URI	Required Parameters
GET	//api/info/getemailserverconfig	None

getemailserverconfig Example

Fetching information about the configured email server.

Request

```
GET https://{_API_HOST}//api/info/getemailserverconfig
HTTP Request Header
Authorization:  92929a8b-a413-476f-a624-5b575cff54d3
```

where 92929a8b-a413-476f-a624-5b575cff54d3 is the session ID.

Response

```
Request success
{
    "result": {
        "emailserver": "{EMAIL_HOST}",
        "emailuser": "admin@abcde.com",
        "messagelimit": "15MB",
        "ssl": "false"
    },
    "status": 0
}
```

configserviceemail

About configserviceemail

Description

Use this command to configure service email to be sent.

Applicability of this Command

This command can be used on:

CDS appliance	✓
Sky appliance	✓
NAS Director	✓

Rights

You must have the 'System Manage' right to be able to configure email server.

Parameters

Parameter	Description
customername=string	Optional.Specifies customer name.
disable=boolean	Optional. Specifies whether to enable or disable the service email.
recipient=string	Optional. Specifies the recipient(s) for the service email. If there are more than one recipients, use comma (,) to separate them. This will replace any existing recipient(s) previously configured.

configserviceemail Request Details

Your `configserviceemail` request must pass a valid session ID. For information on how to get a valid session ID, see Authentication or Login on page 1.

Method	URI	Required Parameters
POST	//api/task/configserviceemail	None

Note: See the Parameters section for a list of supported parameters and their description.

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configserviceemail Examples

Configuring a service email.

Request

```
POST https://{_API_HOST}//api/task/configserviceemail?recipient=engineering@customer.com
HTTP Request Header
Authorization:  92929a8b-a413-476f-a624-5b575cff54d3
```

where 92929a8b-a413-476f-a624-5b575cff54d3 is the session ID.

Response

```
Request success
{
    "status": 0
}
```

Configuring a service email for another customer with customer name.

Request

```
POST https://{_API_HOST}//api/task/
configserviceemail?customername=Data,%20Inc.&recipient=emailgroup@datainc.com
HTTP Request Header
Authorization:  92929a8b-a413-476f-a624-5b575cff54d3
```

where 92929a8b-a413-476f-a624-5b575cff54d3 is the session ID.

Response

```
Request success
{
    "status": 0
}
```

getserviceemailconfig

About getserviceemailconfig Command

Description

Use this command to retrieve the email sever configuration.

Rights

You must have 'System View' or 'System Manage' right to view the configuration.

getserviceemailconfig Request Details

Your `getserviceemailconfig` request must pass a valid session ID. For information on how to get a valid session ID, see Authentication or Login on page 1.

Method	URI	Required Parameters
GET	//api/info/getserviceemailconfig	None

Note: See the Parameters section for a list of supported parameters and their description.

getserviceemailconfig Example

Fetching information about the service email config without any arguments.

Request

```
GET https://{_API_HOST}//api/info/getserviceemailconfig
HTTP Request Header
Authorization:  92929a8b-a413-476f-a624-5b575cff54d3
```

where 92929a8b-a413-476f-a624-5b575cff54d3 is the session ID.

Response

```
Request success
{
    "result": {
        "customername": "Data, Inc.",
        "disable": "false",
        "recipient": "emailgroup@datainc.com"
    },
    "status": 0
}
```

configeventemail

About configeventemail Command

Description

Use this command to forward SNMP events using email.

Prior to using this command, an email server should be configured using the **configemailserver** command.

Rights

You must have the 'System Manage' right to configure event forwarding to an email server.

Parameters

Parameter	Description
addemail=string	Optional. Specifies an email address to be added to receive a notification from the SNMP server.
deleteemail=string	Optional. Specifies the email address that should no longer receive a notification from the SNMP server.
eventtype=string	Optional. Specifies the types of event (warning, error, or both) to begin event forwarding to the email address specified.
interval=integer	Optional. Specifies the minimum interval (minutes) before email is forwarded, when a qualifying event (trap) occurs. This is to avoid flooding the email server. Default to 30 (minutes). To send event immediately, set this value to 0.

configeventemail Request Details

Your `configeventemail` request must pass a valid session ID. For information on how to get a valid session ID, see Authentication or Login on page 1.

Method	URI	Required Parameters
POST	//api/task/configeventemail	None

Note: *See the Parameters section for a list of supported parameters and their description.*

configeventemail Example

Configure a new email event.

Request

```
POST https://{_API_HOST}//api/task/
configeventemail?addemail=customersupport@datainc.com&eventype=error
```

```
HTTP Request Header
Authorization:  92929a8b-a413-476f-a624-5b575cff54d3
```

where 92929a8b-a413-476f-a624-5b575cff54d3 is the session ID.

Response

```
Request success
{
    "status": 0
}
```

geteventemailconfig

About geteventemailconfig Command

Description

Use this command to display configuration for event (trap) forwarding to email.

Rights

You must have the 'System Manage' or 'System View' right to view the email server.

geteventemailconfig Request Details

Your `geteventemailconfig` request must pass a valid session ID. For information on how to get a valid session ID, see Authentication or Login on page 1.

Method	URI	Required Parameters
GET	//api/info/geteventemailconfig	None

Note: *See the Parameters section for a list of supported parameters and their description.*

geteventemailconfig Example

Fetching information about the configured email server.

Request

```
GET https://{_API_HOST}//api/info/geteventemailconfig
HTTP Request Header
Authorization:   92929a8b-a413-476f-a624-5b575cff54d3
```

where 92929a8b-a413-476f-a624-5b575cff54d3 is the session ID.

Response

```
Request success
{
    "result": {
        "email": "customersupport@datainc.com",
        "eventtype": "error",
        "interval": "30"
    },
    "status": 0
}
```

emaillogs

About emaillogs Command

Description

Use this command to send various types of VDP appliance log files for further diagnosis.

To send the logs, the email server should be configured using the `configemailserver` command.

Rights

You must have the 'System Manage' right to email the appliance logs.

Parameters

Parameter	Description
logtype=adhd | database| flasher | install | omd | patch | psrv | udppm	Optional. Specifies the types of logs to be sent in email. Multiple types can be sent by separating each type with a colon, ':'. Specify 'all' if all logs should be sent. The following types can be sent by separating each type with a colon (':'). Specify 'all' to email all types of logs: adhd, database, flasher, install, omd, patch, psrv and udppm
filelimit=integer	Optional. Specifies the maximum number of log files to be sent for each log. '0' indicates all of the log files.

emaillogs Request Details

Your `emaillogs` request must pass a valid session ID. For information on how to get a valid session ID, see Authentication or Login on page 1.

Method	URI	Required Parameters
POST	//api/task/emaillogs	None

Note: *See the Parameters section for a list of supported parameters and their description.*

emaillogs Example

Sending a set of log files via email.

Request

```
POST https://{_API_HOST}//api/task/emaillogs?logtype=adhd:database
HTTP Request Header
Authorization:  92929a8b-a413-476f-a624-5b575cff54d3
```

where 92929a8b-a413-476f-a624-5b575cff54d3 is the session ID.

Response

```
Request success
{
  "status": 0
}
```

Sending a limited set of log files via email.

Request

```
POST https://{_API_HOST}//api/task/emaillogs?logtype=adhd:database&filelimit=10
HTTP Request Header
Authorization:   92929a8b-a413-476f-a624-5b575cff54d3
```
where 92929a8b-a413-476f-a624-5b575cff54d3 is the session ID.

Response

```
Request success
{
  "status": 0
}
```

rmeventemail

About rmeventemail Command

Description

Use this command to delete the event (trap) forwarding to email configuration.

Rights

You must have the 'System Manage' right to delete the event (trap) forwarding to email configuration.

rmeventemail Request Details

Your `rmeventemail` request must pass a valid session ID. For information on how to get a valid session ID, see Authentication or Login on page 1.

Method	URI	Required Parameters
POST	//api/task/rmeventemail	None

rmeventemail Example

Deleting the event (trap).

Request

```
POST https://{_API_HOST}//api/task/rmeventemail
HTTP Request Header
Authorization:  92929a8b-a413-476f-a624-5b575cff54d3
```

where 92929a8b-a413-476f-a624-5b575cff54d3 is the session ID.

Response

```
Request success
{
    "status": 0
}
```

rmemailserverconfig

About rmemailserverconfig Command

Description

Use this command to delete the email server configuration. This command takes no arguments.

Rights

You must have the 'System Manage' right to delete the email server configuration.

rmemailserverconfig Request Details

Your `rmemailserverconfig` request must pass a valid session ID. For information on how to get a valid session ID, see Authentication or Login on page 1.

Method	URI	Required Parameters
POST	//api/task/rmemailserverconfig	None

rmemailserverconfig Example

Delete email server configuration.

Request

```
POST https://{_API_HOST}//api/task/rmemailserverconfig
HTTP Request Header
Authorization:  92929a8b-a413-476f-a624-5b575cff54d3
```

where 92929a8b-a413-476f-a624-5b575cff54d3 is the session ID.

Response

```
Request success
{
    "status": 0
}
```

configcallhome

About configcallhome Command

Description

Use this command to configures Call Home functionality, with HTTP or email.

Rights

You must have the 'System Manage' right to be able to configure email server.

configcallhome Request Details

Your `configcallhome` request must pass a valid session ID. For information on how to get a valid session ID, see Authentication or Login on page 1.

Method	URI	Required Parameters
POST	//api/task/configcallhome	None

configcallhome Example

Request

```
POST https://{_API_HOST}//api/task/configcallhomeconfig?customername=Engineering&mode=https
HTTP Request Header
Authorization:  92929a8b-a413-476f-a624-5b575cff54d3
```

where 92929a8b-a413-476f-a624-5b575cff54d3 is the session ID.

Response

```
Request success
{
    "status": 0
}
```

getconfigcallhome

About getconfigcallhome Command

Description

Use this command to get call home functionality, with HTTP or email.

Rights

You must have the 'System Manage' right to get Call Home functionality.

getcallhomeconfig Request Details

Your `getcallhomeconfig` request must pass a valid session ID. For information on how to get a valid session ID, see Authentication or Login on page 1.

Method	URI	Required Parameters
GET	//api/task/getcallhomeconfig	None

getcallhomeconfig Example

Response

```
GET https://{_API_HOST}//api/info/getcallhomeconfig
HTTP Request Header
Authorization:  92929a8b-a413-476f-a624-5b575cff54d3
```

where 92929a8b-a413-476f-a624-5b575cff54d3 is the session ID.

Response

```
Request success
{
    "result": {
        "mode": "https",
        "httpsendbaseurl": "https://callhome..net/generate-presigned-url",
        "customername": "-Engineering"
    },
    "status": 0
}
```

9 VDP Connector

These commands are forActifio Connector specific to finding the available connectors and upgrading connectors.

Managing the Connector

Commands

lsavailableconnector

About lsavailableconnector Command

Description

Use this command to return a concise list of available connectors, or a detailed view of an available connector.

Applicability of this Command

This command can be used on:

CDS appliance	✓
Sky appliance	✓
NAS Director	✓

Rights

You must have "System View" or 'System Manage' rights to view available connectors.

actifio

Parameters

Parameter	Description
filtervalue=attribute%3Dvalue	Optional. Specifies that you want your report to display any or all of the list of valid filter attributes. The valid filter attributes for the `lsavailableconnector` command are: • name • componentversion • componentname • displayname • installtime [installtime%20since%2024%20hours for installtime started since last 24 hours, installtime%20before%207%20days for installtime started older than 7 days] • latest • ostype • size The filter will be formed with an attribute and a value. When user specifies more than one filter, they must be combined with '&' character (%26 in hexadecimal). For string type of filters, the only operator allowed is '='. You can also use wildcard character '*'. For example, to match disk pools with name begins with 'foo', use filtervalue=name%3Dfoo*. For number and date types, allowed operators are: =, >, >=, <, <=. For RESTful API, the hexadecimal equivalent of these characters need to be used. For example, 　　　filtervalue=size%3E28000000000 Date parameters installtime can also use these operators, for example, 　　　filtervalue=installtime%3E2010-09-28 　　　filtervalue=expiration%3E2010-09-28%206:50:00 Multiple filtervalues are allowed, with an '&' (%26 in hexadecimal), 　　　filtervalue=installtime%3E2012-09-28%26size%3E128000000000
argument=string	Optional. Specifies the ID of an object. When you use this parameter, the detailed view of the specific object is returned and any value that is specified by the `filtervalue` parameter is ignored. If you do not specify the parameter, the concise view of all objects matching the filter criteria is displayed.

lsavailableconnector Request Details

Your `lsavailableconnector` request must pass a valid session ID. For information on how to get a valid session ID, see Authentication or Login on page 1.

Method	URI	Required Parameter
GET	//api/info/lsavailableconnector	None

Note: *See the Parameters section for a list of supported parameters and their description.*

---

lsavailableconnector Examples

Fetching a list of all available connectors.

Request

```
GET https://{_API_HOST}//api/info/lsavailableconnector
HTTP Request Header
Authorization:  92929a8b-a413-476f-a624-5b575cff54d3
```

where 92929a8b-a413-476f-a624-5b575cff54d3 is the session ID.

Response

```
Request success
{
    "result": [
        {
            "componentname": "",
            "componentversion": "",
            "displayname": "7.1.1.686",
            "id": "187505",
            "installtime": "2017-05-05 14:16:10.000",
            "latest": "true",
            "name": "connector-AIX-7.1.1.686.bff",
            "ostype": "aix",
            "size": "191861760"
        },
        {
            "componentname": "",
            "componentversion": "",
            "displayname": "7.1.1.686",
            "id": "187506",
            "installtime": "2017-05-05 14:15:58.000",
            "latest": "true",
            "name": "connector-Win32-7.1.1.686.exe",
            "ostype": "win32",
            "size": "32664872"
        },
        {
            "componentname": "",
            "componentversion": "",
            "displayname": "7.1.1.686",
            "id": "187507",
            "installtime": "2017-05-05 14:16:00.000",
            "latest": "true",
            "name": "connector-Linux-7.1.1.686.rpm",
            "ostype": "linux",
            "size": "79947398"
        },
        {
            "componentname": "",
            "componentversion": "",
            "displayname": "7.1.1.686",
            "id": "187508",
            "installtime": "2017-05-05 14:16:02.000",
            "latest": "true",
            "name": "connector-Solaris_SPARC-7.1.1.686.pkg",
            "ostype": "solaris_sparc",
            "size": "97480704"
        },
        {
            "componentname": "",
            "componentversion": "",
            "displayname": "7.1.1.686",
            "id": "187517",
```

```
            "installtime": "2017-05-05 14:16:05.000",
            "latest": "true",
            "name": "connector-HPUX-7.1.1.686.depot",
            "ostype": "hpux",
            "size": "215132160"
        },
        {
            "componentname": "",
            "componentversion": "",
            "displayname": "7.1.1.686",
            "id": "187518",
            "installtime": "2017-05-05 14:15:59.000",
            "latest": "true",
            "name": "connector-Solaris_x86-7.1.1.686.pkg",
            "ostype": "solaris_x86",
            "size": "95630848"
        },
        {
            "componentname": "",
            "componentversion": "",
            "displayname": "7.1.1.686",
            "id": "187519",
            "installtime": "2017-05-05 14:16:02.000",
            "latest": "true",
            "name": "connector-Linux_x86-7.1.1.686.rpm",
            "ostype": "linux_x86",
            "size": "43362202"
        }
    ],
    "status": 0
}
```

Fetching details of available Linux connector.

Request

```
GET https://{_API_HOST}//api/info/lsavailableconnector?filtervalue=ostype%3Dlinux_x86
HTTP Request Header
Authorization:   92929a8b-a413-476f-a624-5b575cff54d3
```

where 92929a8b-a413-476f-a624-5b575cff54d3 is the session ID.

Response

```
Request success
{
    "result": [
        {
            "componentname": "",
            "componentversion": "",
            "displayname": "7.1.1.686",
            "id": "187519",
            "installtime": "2017-05-05 14:16:02.000",
            "latest": "true",
            "name": "connector-Linux_x86-7.1.1.686.rpm",
            "ostype": "linux_x86",
            "size": "43362202"
        }
    ],
    "status": 0
}
```

upgradehostconnector

About upgradehostconnector Command

Description

Use this command to upgrade the host with a specific version of the Actifio Connector the latest available connector from the appliance.

Applicability of this Command

This command can be used on:

CDS appliance	✓
Sky appliance	✓
NAS Director	✓

Rights

You must be Admin or have 'Administrator' role to upgrade a connector on a host.

Parameters

Parameter	Description
hosts=string	Required. Specifies a colon (:) separated list of ID or name of the hosts for upgrade. Use `udsinfo lshost` to retrieve the ID or name.
force=boolean	Optional. When set, it will cancel any running jobs on the host so it can be upgraded.
version=string	Optional. Specifies the upgrade version of the Actifio Connector.

upgradehostconnector Request Details

Your `upgradehostconnector` request must pass a valid session ID. For information on how to get a valid session ID, see Authentication or Login on page 1.

Method	URI	Required Parameter
POST	//api/task/upgradehostconnector	hosts=<hostid|hostname>

Note: *See the Parameters section for a list of supported parameters and their description.*

---

upgradehostconnector Example

Upgrade the connector on a single host identified by its ID.

Request

```
POST https://{API_HOST}//api/task/upgradehostconnector?hosts=83040
HTTP Request Header
Authorization:  92929a8b-a413-476f-a624-5b575cff54d3
```

where 92929a8b-a413-476f-a624-5b575cff54d3 is the session ID.

Response

```
Request success
{
    "status": 0
}
```

Upgrade a connector using the force option.

Request

```
POST https://{_API_HOST}//api/task/upgradehostconnector?hosts=83040&force=true
```

```
HTTP Request Header
Authorization:  92929a8b-a413-476f-a624-5b575cff54d3
```

where 92929a8b-a413-476f-a624-5b575cff54d3 is the session ID.

Response

```
Request success
{
    "status": 0
}
```

abortupgradehostconnector

About abortupgradehostconnector Command

Description

Use this command to abort an ongoing Actifio Connector upgrade.

Applicability of this Command

This command can be used on:

CDS appliance	✓
Sky appliance	✓
NAS Director	✓

Rights

You must be Admin or have 'Administrator' role to abort the connector upgrade on a host.

abortupgradehostconnector Details

Your `abortupgradehostconnector` request must pass a valid session ID. For information on how to get a valid session ID, see Authentication or Login on page 1.

Method	URI	Required Parameter
POST	//api/task/abortupgradehostconnector	none

abortupgradehostconnector Example

Request

```
POST https://{_API_HOST}//api/task/abortupgradehostconnector
HTTP Request Header
Authorization:  92929a8b-a413-476f-a624-5b575cff54d3
```

where 92929a8b-a413-476f-a624-5b575cff54d3 is the session ID.

Response

```
Request success
{
    "status": 0
}
```

rmavailableconnector

About rmavailableconnector Command

Description

Use this command to delete an available connector from the appliance.

Applicability of this Command

This command can be used on:

CDS appliance	✓
Sky appliance	✓
NAS Director	✓

Rights

You must be Admin or have 'Administrator' role to delete a connector.

Parameters

Parameter	Description
argument=string	Required. Specifies the ID or name of the Actifio Connector to be removed. Use lsavailableconnector for retrieving connector information.

rmavailableconnector Request Details

Your `rmavailableconnector` request must pass a valid session ID. For information on how to get a valid session ID, see Authentication or Login on page 1.

Method	URI	Required Parameters
POST	//api/task/rmavailableconnector	argument=<objectid|objectname>

> **Note:** See the Parameters section for a list of supported parameters and their description.

rmavailableconnector Example

Removing an available connector.

Request

```
POST https://{_API_HOST}//api/task/rmavailableconnector?argument=48136
```

```
HTTP Request Header
Authorization:  92929a8b-a413-476f-a624-5b575cff54d3
```

where 92929a8b-a413-476f-a624-5b575cff54d3 is the session ID.

Response

```
Request success
{
    "status": 0
}
```

fetchconnectorlogs

About fetchconnectorlogs Command

Description

Use this command to fetch log files from the host managed by the appliance. This command downloads connector logs, syslog, diagnostic and core files from the host into the appliance log directory (`/dumps/tmp`). Apart from Connector logs, for a Window host, the `fetchconnectorlogs` command will also fetch event logs and dump files. For a Linux host, this command downloads syslog and core files.

The fetchconnectorlogs command fetches diagnostic details from UNIX hosts by default. If it times out due to some blocking commands that are hung, use the option type=nonblocking to fetch diagnostic command output of nonblocking commands only.

You can also use this command to help facilitate troubleshooting issues when working with a support representative by directly downloading logs from your appliance to your computer.

Applicability of this Command

This command can be used on:

CDS appliance	✓
Sky appliance	✓
NAS Director	✓

Rights

You must have 'Administrator' role to run this command.

Parameters

Parameter	Description
all=boolean	Optional. Specifying this flag will fetch all log types based on the limit specified.
host=string	Required. Specifies the host from which the logs are to be retrieved. Either the ID or name of the host is needed. Use `udsinfo lshost` to locate the ID or name of the host.
limit=integer	Optional. Specifies the number of log files to be downloaded from the host. Default value is set to '1'.
type=‹syslog	core	nonblocking›	Optional. Specifies the additional file types to be downloaded apart from connector logs. Specifying more than one type should be delimited with ':'.

Parameter	Description
startedate=string	Optional. By default, the appliance downloads logs from the last three (3) days (starting with the current date).
	To specify a particular date range from which you want to download logs for Sky appliance, use `startdate` to specify the start date of the time window to download the log files. The date format must be in 'yyyy-mm-dd'. If `startdate` is not specified, then the start date will automatically be set to the date that is three (3) days from the current date.
enddate=string	Optional. Specifies the end date of the time window to download the log files. The date format must be in 'yyyy-mm-dd'. If `startdate` is specified but not an `enddate`, then the end date is automatically set to the current date.

fetchconnectorlogs Request Details

Your `fetchconnectorlogs` request must pass a valid session ID. For information on how to get a valid session ID, see Authentication or Login on page 1.

Method	URI	Required Parameters
POST	//api/task/fetchconnectorlogs	host=<hostname|hostid>

Note: *See the Parameters section for a list of supported parameters and their description.*

---

fetchconnectorlogs Example

Fetch connector logs from a specific host.

Request

```
POST https://{_API_HOST}//api/task/fetchconnectorlogs?host=4834763
HTTP Request Header
Authorization:  92929a8b-a413-476f-a624-5b575cff54d3
```

where 92929a8b-a413-476f-a624-5b575cff54d3 is the session ID.

Response

```
Request success
{
    "result": "log files downloaded are:\\n/dumps/tmp/Nike_Bug_Pfile/UDSAgent-
20171228110741.log\\n/dumps/tmp/Nike_Bug_Pfile/UDSAgent-20171226021534.log\\n/dumps/tmp/
Nike_Bug_Pfile/Setup Log 2017-10-24 #001.txt\\n/dumps/tmp/Nike_Bug_Pfile/TANDB_rman.log.5\\n/
dumps/tmp/Nike_Bug_Pfile/Setup Log 2017-10-17 #002.txt\\n/dumps/tmp/Nike_Bug_Pfile/
upgrade.log\\n/dumps/tmp/Nike_Bug_Pfile/HFDB_rman.log\\n/dumps/tmp/Nike_Bug_Pfile/Setup Log
2017-10-23 #001.txt\\n/dumps/tmp/Nike_Bug_Pfile/Setup Log 2017-10-17 #001.txt\\n/dumps/tmp/
Nike_Bug_Pfile/Setup Log 2017-12-01 #001.txt\\n/dumps/tmp/Nike_Bug_Pfile/UDSAgent.log\\n/
dumps/tmp/Nike_Bug_Pfile/TANDB_rman.log.1\\n/dumps/tmp/Nike_Bug_Pfile/ORCL_rman.log\\n/dumps/
tmp/Nike_Bug_Pfile/diag.log\\n/dumps/tmp/Nike_Bug_Pfile/Setup Log 2017-11-14 #001.txt\\n/
dumps/tmp/Nike_Bug_Pfile/TANDB_rman.log\\n/dumps/tmp/Nike_Bug_Pfile/TANDB_rman.log.2\\n/dumps/
tmp/Nike_Bug_Pfile/BUGDB_rman.log\\n",
    "status": 0
```

}

A Advanced Protection Settings with mkpolicyoption Command

This appendix describes the certain advanced protection settings by using the `udstask mkpolicyoption` command:

Note: *See* List of Policy Options *for a complete list of supported policy options that can be used with the* **mkpolicyoption** *command.*

Advanced Settings for Out-of-Band File Systems

To configure the advanced protection settings for out-of-band file systems, use the `udstask mkpolicyoption` command as follows:

1. Provide the start paths (case-sensitive). This specifies the point in the file system where backup starts. If this path is not specified, backup starts at the root directory of the file system to be backed up.

   Example:

   ```
   $ udstask mkpolicyoption -slaid 3198 –sltid 86086 –name startpaths -value "c:\Program Files"
   ```

2. Provide the prune paths (case-sensitive). This specifies a point in the file system where directory traversal will stop. When protecting a Linux application, a value of `/usr/local/lib` will ensure that nothing below /usr/local/lib is copied, but all other directories and files in /usr/local are copied. If this field is left blank, the directory traversal descends into every subdirectory of the file system being backed-up.

   Example:

   ```
   $ udstask mkpolicyoption -slaid 3198 –sltid 86086 –name prunepaths -value "g:\d1\d2"
   ```

3. Provide the file extension to be excluded from backup using the `excludepatterns` option. The appliance offers the ability to exclude certain file types from the backup. Using this option, only the most crucial data is backed-up leaving aside the non-critical files.

   Example:

   ```
   $ udstask mkpolicyoption -slaid 3198 –sltid 86086 –name excludepatterns -value "*.sys"
   ```

   Guidelines for Exclude Patterns:

   o Using this option, only files are excluded, directories are not excluded.

   o A pattern can include wild-card characters, For example, an asterisk (*) or a question mark (?). To exclude all the files that contain .sys as extension, enter *.sys in EXCLUDEPATTERNS field.

   o In a Windows environment, files named pagefile.sys and hiberfil.sys that appear in the root directory of a drive are automatically ignored.

4. Choose the `nounmap` option if required. When this option is set, temporary staging disks mapped to the host and used during data movement remain mapped to the host. LUNs are mapped during the first job and all the subsequent jobs reuse the mapped LUN. By default, the `nounmap` option is set to 'true'. You can configure this setting only through the CLI. This does not have any effect for Windows based out-of band applications. Use the following command to set this policy option.

   ```
   $ udstask mkpolicyoption -sltid <SLTID> -name nounmap -value yes
   ```

5. If the protected application is within the appliance setup, then provide the appliance service IP Address.

   ```
   $ udstask mkpolicyoption -sltid <SLTID> -name serviceip -value <IP Address>
   ```

Advanced Settings for Oracle Databases

To configure the advanced protection settings for an Oracle database, use the `udstask mkpolicyoption` command.

1. Enter the number of RMAN channels. The number of channels should be configured based on # of cores available on the server, taking into account of other database backups configured to run in parallel. If the `numberofchannels` parameter is not defined, then the default number of channels will be one.

   Example:

   ```
   $ udstask mkpolicyoption -sltid 31986 -slaid 32135 -name numberofchannels -value 4
   ```

2. Enter the staging disk size. By default, the Actifio Connector calculates the max size of the database as configured. The `STAGINGDISKSIZE` option allows you to allocate a staging disk to hold backup and to allow future growth of the database.

   Example: Adding more table space, data files while the backup still maintains incremental behavior. This staging disk is thin provisioned. Another use case of this is staging disk size, after you have restored the whole database from a backup and when you open the database with reset log, you need to take a level '0' backup again. This is not done automatically by the Actifio Connector. To force a new level '0', you need to change the staging disk size and then save. The next backup will perform a new level '0'. The unit is in GB.

   Example:

   ```
   $ udstask mkpolicyoption -sltid 31986 -slaid 32135 -name stagingdisksize -value 5
   ```

3. Enter the RMAN log path in the `RMAN LOG LOCATION` field. This is the custom location (full path along with RMAN filename) where RMAN writes the logs while taking the backup. By default, the log file is located at /act/log/rman.log. If you want to change the default path, the option value must be in the form of `/act/log/test/custom_rman.log`.

   Example:

   ```
   $ udstask mkpolicyoption -sltid 31986 -slaid 32135 -name rmanloglocation -value "/act/
   log/rmantest.log"
   ```

4. Validate each backup before restoring it. RMAN provides restore validation for the backups. When this option is provided (true), the Actifio Connector invokes RMAN restore validate command for each backup.

   Example:

   ```
    $ udstask mkpolicyoption -sltid 31986 -slaid 32135 -name restorevalidate -value true
   ```

5. Enter the Oracle catalog database name if one is used. This field is used only when you are using a catalog database for an RMAN repository. By default, a control file is used.

   Example:

   ```
   $ udstask mkpolicyoption -sltid 31986 -slaid 32135 -name catalogdb -
   value oraprod
   ```

6. Enter the Oracle catalog database user name. This field is used only when you are using a catalog database for RMAN repository. By default, a control file is used.

   Example:

   ```
   $ udstask mkpolicyoption -sltid 31986 -slaid 32135 -name cataloguser -
   value catalog1
   ```

7. Enter the Oracle catalog database login password. This field is used only when you are using a catalog database for an RMAN repository. By default, a control file is used.

   Example:

   ```
   $ udstask mkpolicyoption -sltid 31986 -slaid 32135 -name
   catalogpassword -value ******
   ```

8. To set whether or not skip backup of off line and inaccessible table space.

Example: not skip inaccessible table space:

```
$ udstask mkpolicyoption -sltid 31986 -slaid 32135 -name notskip -value
inaccessible
```

Example: not skip offline table space:

```
$ udstask mkpolicyoption -sltid 31986 -slaid 32135 -name notskip -value
offline
```

9. Oracle Service Name: Provides the ability to specify a new service name in tnsnames.ora file to be used by backup. If not specified then by default will use the Oracle sid name as the service name. Either new service name or default sid name must have an entry in tnsnames.ora file for to connect:

   Example:

```
$ udstask udstask mkpolicyoption -sltid 31986 -slaid 32135 -name
servicename -value <name of the service>
```

10. Specify the fail-over node choice in a Oracle RAC environment only.

    Example:

```
$ udstask udstask mkpolicyoption -sltid 31986 -slaid 32135 -name
clusternodes -value <Failover node IP:servicename:role>
```

11. Choose the "nounmap" option if required. When this option is set, temporary staging disks mapped to the host and used during data movement remain mapped to the host. LUNs are mapped during the first job and all the subsequent jobs reuse the mapped LUN. By default, "nounmap" is set to 'true'. You can configure this setting only through the CLI. This does not have any effect for Windows-based out-of band applications. Use the following command to set this policy option.

    Example:

    ```
    $ udstask mkpolicyoption -sltid 31986 -slaid 32135 -name nounmap -value
    yes
    ```

12. Enter the Connector option information.

    Example:

    ```
    $ udstask mkpolicyoption -sltid 31986 -slaid 32135 -name
    connectoroptions -value <Connector name>
    ```

Advanced Settings for VM in an ESX Datastore

The appliance provides an option to perform enhanced asynchronous replication to 'VM in ESX datastore'. 'VM in ESX datastore' is an advanced asynchronous replication mechanism in which the data is directly replicated onto the datastore volumes that are configured for the remote virtual machine. This process allows you to use an existing or a new virtual machine as the replication target. When the source VM geometry is changed due to addition, deletion and resize of the VMDK volumes, then the remote VM configuration is automatically changed.

All enhanced asynchronous replication features such as forward replication, failover, syncback, failback and further rounds of replication POST failback are supported. When using the 'VM in ESX datastore' option to protect a VM, the data transfer happens on the network.

The 'VM in ESX datastore' introduces the following policy options:

```
$ udstask mkpolicyoption -sltid <sltid> -name readyvm -value yes
$ udstask mkpolicyoption -sltid <sltid> -name remotevcenter -value <vcenter hostname>
$ udstask mkpolicyoption -sltid <sltid> -name remoteesx -value <target ESX hostname>
$ udstask mkpolicyoption -sltid <sltid> -name remotedatastores -value <comma-separated list of datastores>
```

Follow these guidelines when using the 'VM in ESX datastore' option:

- When unprotecting a VM in ESX datastore, wait for dar-delete to clean up all the images, you must delete the remote VM manually from vCenter after unprotecting the application.

- Do not Power ON the remote VM manually. During the failover, the remote VM is automatically powered on and failback automatically does a power OFF. In order to validate the data integrity of the VM in the ESX datastore at the remote site without failover, you may need to perform a clone from the vCenter.

- When using the 'VM in ESX datastore' option, a remote VM named DR-<sourcevm> is created at the remote site.

- During the initial replication and the first replication after failback, the appliance performs a full ingest from the source VM to the remote VM. This can take several minutes to complete.

- Do not change the remote VM configuration after a failover; this leads to sync-back failures.

Overriding Script Timeout Settings for the Connector

To override the default script timeout values for the Connector, use the **udstask mkpolicyoption** command with these switches:

`Scriptinittimeout`	This policy option specifies the timeout value (in seconds) for the init script completion. The init script is invoked with an init parameter when the backup is about to start.
	Example: `udstask mkpolicyoption -slaid 3198 –sltid 86086 –name scriptinittimeout –value 200`
`Scriptfreezetimeout`	This policy option specifies the timeout value (in seconds) for freeze script completion. The freeze script is invoked with a freeze parameter when the backup operation is just about to freeze the application.
	Example: `udstask mkpolicyoption -slaid 3198 –sltid 86086 –name Scriptfreezetimeout –value 100`
`Scriptunfreezetimeout`	This policy option specifies the timeout value (in seconds) for thaw script completion. The thaw script is invoked with a thaw parameter when the backup operation is just finished unreeling the application.
	Example: `udstask mkpolicyoption -slaid 3198 –sltid 86086 –name Scriptunfreezetimeout –value 110`
`Scriptfinishtimeout`	This policy option specifies the timeout value (in seconds) for finish script completion. The fini script is invoked with a fini parameter when the backup operation is about to complete.
	Example: `udstask mkpolicyoption -slaid 3198 –sltid 86086 –name Scriptfinishtimeout –value 300`

B Managing Jobs and Job Slots

This appendix describes the list of jobs executed when creating the policies:

- On-demand Jobs on page 578
- Queuing of On-Demand Backup Jobs on page 581
- Relaunching Jobs on page 581

Applying policies to applications results in the creation of jobs. These jobs are executed as per the schedules configured when creating policies. The appliance reserves pools of slots for running the following types of jobs:

- Scheduled snapshot jobs
- Scheduled local dedup jobs
- Scheduled remote dedup jobs
- Scheduled dedup-async jobs
- Scheduled StreamSnap jobs
- Scheduled OnVault jobs
- Scheduled log replication jobs
- Scheduled expiration of jobs

On-demand Jobs

There may be times when you require on-demand job start functionality, such as for upcoming maintenance windows, software upgrades, and so on, and you want to ensure that you have a successful copy of the data created before you start your scheduled maintenance task. The on-demand jobs category includes all types of restore, clone, and mount jobs and jobs created when policies are applied on-demand. The appliance reserves a pool of slots for all the six categories of jobs. Also, there is an unreserved pool of slots. You can modify the number of slots allotted for each category as well as the unreserved pool of slots using the `setparameter` command.

Before starting a job, the appliance checks whether a slot corresponding to the job's category is available to run the job. When a reserved slot is not available because all the slots of that category are running jobs, the appliance checks whether an unreserved slot is available. If an unreserved slot is available, the job is started. However, you can reserve the maximum number of slots that the jobs of a particular category can use from the unreserved pool. This measure limits the number of slots that jobs from a category can make use of from the unreserved pool.

> **Note:** All restore operations such as mount, clone, failover, test failover, prep-mount, and restore do not depend on the availability of job slots, but they will consume an "On-demand Slot".

The table below indicates the default, minimum, and maximum number of slots allotted to each category of jobs and the unreserved pool:

Parameter	Description	Default no. of slots allotted	Min. no. of slots	Max. no. of slots
maxsnapslots	Maximum number of scheduled snapshots.	6	0	1000
maxstreamsnapslot	Maximum number of scheduled stream snaps.	6	0	1000
maxldedupslots	Maximum number of scheduled local dedups.	8	0	1000
maxrdedupslots	Maximum number of scheduled remote dedups.	3	0	1000
maxdarslots	Maximum number of scheduled dedup async.	3	0	1000
maxdataaccessslots	Maximum number of mount, clone and restore jobs.	12	0	1000
maxvaultslots	Maximum number of scheduled vault jobs.	4*	0	1000
maxconcurrentvaultsubjobs	Maximum number of concurrent vault subjobs ingesting into the vault. Subjobs are flow-controlled such that at least one subjob per vault job is always allowed without throttling.	12*	4	1000

Parameter	Description	Default no. of slots allotted	Min. no. of slots	Max. no. of slots
maxlogreplicateslots	Maximum number of scheduled stream snaps.	6	0	1000
maxexpirationslots	Maximum number of scheduled expirations.	10	0	1000
maxondemandslots	Maximum number of all types of on demand jobs.	6	0	1000
unreservedslots	Number of additional slots available for any job type.	12	0	100

Note: *The default for `maxconcurrentvaultsubjobs` is 12 and the default for `maxvaultslots` is 4. In this case, there can be at any time a total of 4 top-level OnVault jobs running. To prevent starving OnVault jobs, a minimum of 1 slot each has been reserved for every OnVault job. Note that the first job cannot use all 12 slots; it can only use up to 9 slots, and will reserve 3 of the remaining slots for new OnVault jobs to ensure that all OnVault jobs can make progress.*

The default, minimum, and maximum number of slots from the unreserved pool that can be allotted to each job category are:

Parameter	Description	Default no. of slots allotted	Min. no. of slots	Max. no. of slots
reservedsnapslots	Number of slots reserved for scheduled snapshots.	3	0	1000
reservedstreamsnapslots	Number of slots reserved for scheduled stream snapshots.	2	0	1000
reservedldedupslots	Number of slots reserved for scheduled local dedups.	3	0	1000
reservedrdedupslots	Number of slots reserved for scheduled remote dedups.	3	0	1000
reserveddarslots	Number of slots reserved for scheduled dedup async.	3	0	1000
reserveddataaccessslots	Number of slots reserved for mount, clone and restore jobs	6	0	1000
reservedvaultslots	Number of slots reserved for scheduled vault jobs.	4	0	1000
reservedlogreplicateslots	Number of slots reserved for scheduled stream snapshots.	2	0	1000

Parameter	Description	Default no. of slots allotted	Min. no. of slots	Max. no. of slots
reservedexpirationslots	Number of slots reserved for scheduled expirations.	3	0	1000
reservedondemandslots	Number of slots reserved for all types of on demand jobs	3	0	1000

The maximum slots allowed for running a snapshot job is 1000 (indicated by $maxsnapslots$). In addition, a maximum of 1000 slots of the unreserved pool can be used by snapshot jobs (indicated by $reservedsnapslots$).

You can set the value of the $reservedsnapslots$ parameter as shown below:

```
$ udstask setparameter -param reservedsnapslots -value 10 -appliance Appliance_C1
```
With the default configuration of 3 dedup-async slots and 12 unreserved slots, up to 15 dedup-async jobs can be started. Until these 15 jobs complete, no more than 3 jobs of any other type can be started. If, in this configuration, **maxdarslots** is set to 5, no more than 5 dedup-async jobs can be started. While these 5 jobs run, 10 unreserved slots are still available for other jobs.

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Queuing of On-Demand Backup Jobs

The Actifio appliance supports queuing of on-demand jobs to provide you with the flexibility to create your backup images without concern for the number of on-demand job slots available to start the job. The queued on-demand job remains in the queued state until an on-demand job slot is available. When an on-demand slot opens, the job will progress to the running state. This occurs in the order that the job was submitted. However, if a particular on-demand job fails due to some reason and could not be completed, the Actifio appliance will attempt to run the next job in the queue. On-demand jobs use different job slots than scheduled jobs, so scheduled jobs may run before queued jobs.

While an on-demand job is in a queued state you can cancel the job or cancel protection for the application. The on-demand job will then appear in the job history table as a canceled job. The start time of the job and the end time of the job will be the time that the cancel request or the cancellation of application protection was acknowledged.

For example, if you attempt to initiate an on-demand backup and there are no available slots, the Actifio appliance will automatically the on-demand backup job:

```
$ udstask backup -app 18414 -policy 201304
ACTERR-043023 No available slots to run job
```

Using the appliance Desktop, you can view the queued jobs from **Monitor > Jobs**.

Relaunching Jobs

All scheduled jobs are automatically re-launched when they fail. The number of retries depends on the configuration value that is set in the appliance. Use the `udsinfo getparameter` command to know the default parameters. The default parameters are as follows:

- `retriesonfailure`: This parameter indicates the number of times the job must be retried in the event of a failed job. Example: `retriesonfailure` 3, this indicates the job retires 3 times after original attempt.

- `retrydelay`: This parameter indicates the number of seconds that the job should wait to retry after the original attempt. Example: `retrydelay` 240, this indicates, the first job retry happens after 240 seconds.

- `retrydecay`: This parameter indicates the % of delay to attempt further retries.

C Configuring Image Preservation

This appendix describes the Image Preservation function and its configuration:

- Image Preservation Overview on page 584

- Modifying Image Preservation Settings On a System-wide Application Level on page 585

- Disabling Image Preservation Mode On A Per Application Basis on page 587

Use Image Preservation to preserve snapshot and local dedup images beyond their expiration dates to ensure that those images are properly processed.

Image Preservation Overview

Your appliance may encounter resource challenges that result in snapshot or local dedup jobs failing to execute in a timely manner. To enhance the success rate in which the appliance is able to complete snapshot and local dedup jobs, the appliance operates in an Image Preservation mode. Image Preservation enhances the scheduling features of the SLA policy manager to be able to ride through periods of high change rates, reduced dedup or replication throughput, and other transient or abnormal situations. Image Preservation delays snapshot and local dedup expirations in order to catch up with the transient system resource constraints. Images due for expiration will be held until they have been processed by the appliance as long as there is capacity to do so by the appliance.

Image Preservation operates on two types of images:

- **Preserve Snapshots**: When enabled, all dedupable snapshot images will be preserved until the local dedup system can process them. Older snapshot images will be processed first until images are caught up by the appliance. If VDisk counts or performance pool capacity thresholds are reached, then image expiration may occur prior to processing to ensure system stability.

- **Preserve Dedup Images**: When enabled, all local dedup images that are eligible for remote deduplication will be preserved until the remote deduplication system can process them. Older local dedup images will be processed first until images are caught up by the appliance. If capacity in the local dedup pool has reached the warning level, then image expiration may occur prior to processing to ensure system stability.

When the appliance attempts to preserve snapshot images or local dedup images, the appliance will run snapshot and local dedup jobs (images beyond their expiration date) continuously within the allowed window in an attempt to catchup on all image processing. In this case, the appliance will process the oldest unprocessed snapshot or local dedup images ahead of the latest images. Once a backlogged image is processed, the image is expired per the SLA schedule.

Preserved images will automatically be expired when pool space or VDisk count reaches the warning threshold levels. When the appliance reaches a warning threshold level, images will be expired based on application priority and age. Images for applications with lower priority will be expired ahead of applications with higher priority. Within a priority level, older images will be expired ahead of newer images. However, the last snapshot (or local dedup) image of any application will not be expired this way. Rather than expiring the most recent snapshot (or local dedup) of any application, an older snapshot of a different application or a snapshot (or local dedup) of a higher priority application will be expired.

If you find that you need to limit the scope of image preservation to exclude lower priority applications, you can:

- Change preserved snapshot settings through the `PreserveSnapsOfPriority` parameter in the `setparameter` command (see Modifying Preserve Snapshots Settings on page 585).

- Change preserved local dedup settings through the `PreserveLdedupsOfPriority` parameter in the `setparameter` command (see Modifying Preserve Local Dedup Mode on page 586).

In addition, if over a period of time you find that the appliance is unable to "catch-up" with backlogged local or remote dedup jobs, you can disable the ability to preserve snapshot and/or preserve local dedup images as follows:

- For all applications:

  o You can disable the Preserve Snapshot setting through the `PreserveSnapsOfPriority` parameter in the `setparameter` command (see Modifying Preserve Snapshots Settings on page 585).

  o You can disable the Preserve Local Dedup setting through the `PreserveLdedupsOfPriority` parameter in the `setparameter` command (see Modifying Preserve Local Dedup Mode on page 586).

- For a specific application, you can disable Image Preservation for a specific application using the
  `flags ProcessLatestSnap` and `ProcessLatestDedup` options of the `chsla` command. When you enable a flag (set it to `true`), the appliance processes the most recent snapshot or dedup image for an application and allows the older images to expire.

Modifying Image Preservation Settings On a System-wide Application Level

You can modify Image Preservation priority settings for preserved snapshots jobs and/or local dedup jobs through the system-level `setparameter` command. Modifying the preserved snapshot and/or local dedup settings may be necessary when you need to:

- Change the global application priority of Preserve Snapshots or Preserve Dedup Images settings to limit the scope exclude applications of a certain priority setting. You can instruct the appliance to preserve images for only Medium and High Priority applications or to preserve images for only High Priority applications.

- Disable the Image Preservation function if the appliance is unable to "catch-up" with backlogged snapshot or local dedup images.

Note: *If necessary, you can disable Image Preservation for a specific application using the `flags` `ProcessLatestSnap` and `ProcessLatestDedup` options of the `chsla` command. When you enable a flag (set it to **true**), the appliance processes the most recent snapshot or dedup image for an application and allows the older images to expire. See* Disabling Image Preservation Mode On A Per Application Basis *on page 587 for details.*

This section includes the following procedures:

Modifying Preserve Snapshots Settings

A dedupable snapshot is a snapshot image that would normally be deduped by the appliance based on the frequency, retention, start time, end time specified in the policy template for an application. At times, the appliance may start to lag behind in the snapshot to dedup jobs due to resource constraints. When this lag occurs, the setting of the `PreserveSnapsOfPriority` parameter in the `setparameter` command defines to the appliance how to preserve snapshot images that are due for expiration but not yet successfully deduped.

If necessary, you can change the application priority of the `PreserveSnapsOfPriority` parameter from low (the default setting) to high or medium. If you find that the appliance is unable to "catch-up" with backlogged local jobs, you can disable the function by setting the `PreserveSnapsOfPriority` parameter to `none`.

Options for the `PreserveSnapsOfPriority` parameter include:

- `low`: All applications (low, medium, and high priority) will have their snapshot images preserved. This is the default setting.

- `medium`: High and medium priority applications will have their snapshot images preserved.

- `high`: High priority applications will have their snapshot images preserved.

- `none`: No local snapshot images will be preserved even if the local dedup job has not run on those images. When the snapshot image reaches its expiration time, barring other dependencies, it will be expired.

The following example illustrates modifying the `PreserveSnapsOfPriority` parameter to preserve only high priority applications:

```
PUT https://{_API_Server}//api/task/setparameter?param=PreserveSnapsOfPriority&value=high
Authorization:  92929a8b-a413-476f-a624-5b575cff54d3
```

```
where 92929a8b-a413-476f-a624-5b575cff54d3 is the session ID.
```

The following example illustrates disabling the Preserve Snapshot function:

```
PUT https://{_API_Server}//api/task/setparameter?param=PreserveSnapsOfPriority&value=none
Authorization:  92929a8b-a413-476f-a624-5b575cff54d3
where 92929a8b-a413-476f-a624-5b575cff54d3 is the session ID.
```

Modifying Preserve Local Dedup Mode

Similar to dedupable snapshots, there are local dedup images that are candidates for remote deduplication based on the remote dedup policy template. At times, the appliance may start to lag behind in the local to remote deduplication jobs due to resource constraints. When this lag occurs, the setting of the **PreserveLdedupsOfPriority** parameter in the **setparameter** command defines to the appliance how to preserve local dedup images that are due for expiration but not yet successfully processed.

If necessary, you can change the application priority of Preserve Dedup Images from low (the default setting) to high or medium. If you find that the appliance is unable to "catch-up" with backlogged remote dedup jobs, you can disable the function by setting the **PreserveLdedupsOfPriority** parameter to **none**.

Options for the **PreserveLdedupsOfPriority** parameter include:

- **low**: All applications (low, medium, and high priority) will have their local dedup images preserved. This is the default setting.
- **medium**: High and medium priority applications will have their local dedup images preserved.
- **high**: High priority applications will have their local dedup images preserved.
- **none**: No local dedup images will be preserved. When the local dedup image reaches its expiration time, barring other dependencies, it will be expired.

The following example illustrates modifying the **PreserveLdedupsOfPriority** parameter to preserve only high priority applications:

```
PUT https://{_API_Server}//api/task/setparameter?param=PreserveLdedupsOfPriority&value=high
Authorization:  92929a8b-a413-476f-a624-5b575cff54d3
where 92929a8b-a413-476f-a624-5b575cff54d3 is the session ID.
```

The following example illustrates disabling the Preserve Local Dedup function:

```
PUT https://{_API_Server}//api/task/setparameter?param=PreserveLdedupsOfPriority&value=none
Authorization:  92929a8b-a413-476f-a624-5b575cff54d3
where 92929a8b-a413-476f-a624-5b575cff54d3 is the session ID.
```

The following commands set the **PreserveLdedupsOfPriority** parameter to medium so that no low priority application will have its images preserved:

```
PUT https://{_API_Server}//api/task/setparameter?param=PreserveLdedupsOfPriority&value=medium
Authorization:  92929a8b-a413-476f-a624-5b575cff54d3
where 92929a8b-a413-476f-a624-5b575cff54d3 is the session ID.
PUT https://{_API_Server}//api/task/setparameter?param=PreserverSnapsOfPriority&value=medium
Authorization:  92929a8b-a413-476f-a624-5b575cff54d3
where 92929a8b-a413-476f-a624-5b575cff54d3 is the session ID.
```

Disabling Image Preservation Mode On A Per Application Basis

If necessary, you can disable the preservation of specific applications as part of image preservation if the appliance is unable to "catch-up" with backlogged snapshot or dedup jobs for that application. When disabled, the appliance resumes processing the most recent snapshot or dedup image and discards all of the preserved images for the application.

Use the **–flags ProcessLatestSnap:true** and **ProcessLatestDedup:true** options of the **chsla** command to modify the attributes of an SLA to disable image preservation of snapshots or dedup images on an application basis for current in-process snapshot or dedup jobs.

Included below is the syntax for the **chsla** command.

The **flags** keyword of the **chsla** command modifies the image preservation behavior for an application as described below.

> **Note:** For details on the other parameters used in **chsla**, see the **chsla** command discussion in this document.

Parameter	Description
flags=boolean	Optional. Configures the **flag** setting to disable/enable the catch-up of snapshot or local dedup jobs for a specific application. > **Note:** Use **lssla** to retrieve the SLA ID of the SLA to be modified. Settings include: • **ProcessLatestSnap:**‹**true | false**›: Instructs the appliance if it should change its default behavior and resume processing the most recent snapshot images and discard all of the preserved images for the application. By default, the system-wide **PreserveSnapsOfPriority** parameter in the **setparameter** command is set to all applications (low, medium, and high priority), which means that the **ProcessLatestSnap** flag is automatically disabled (set to **ProcessLatestSnap:false**). You can specify **ProcessLatestSnap:true** to disable catch-up mode for a specific application. • **ProcessLatestDedup:**‹**true | false**›: Instructs the appliance if it should change its default behavior and resume processing the most recent dedup images and discard all of the preserved images for the application. By default, the system-wide **PreserveLdedupsOfPriority** parameter in the **setparameter** is set to all applications (low, medium, and high priority), which means that the **ProcessLatestDedup** flag is automatically disabled (set to **ProcessLatestSnap:false**). You can specify **ProcessLatestDedup:true** to disable catch-up mode for a specific application. > **Note:** Once you set the flags **ProcessLatestSnap** or **ProcessLatestDedup** to true, the flags option will remain set to true until the system is in process. The parameters will be reset back to the default state (false), once the process is completed.

The following example illustrates resuming processing the most recent dedup images and discarding the preserved images for SLA ID 205677:

The following example illustrates resuming processing the most recent snapshot images and discarding the preserved images for SLA ID 205677:

This example illustrates re-enabling image preservation for local dedup jobs for SLA ID 205677 to address backlogged local dedup jobs.

Alerts and Warnings

Use the **lssnmpevent** command to monitor the various SNMP events that may appear when the appliance preserves snapshot and/or local dedup images. This section outlines the various alerts and warnings related to image preservation.

Warning Level Alert—First Time the Snapshot Expiration Window is Reached

A Warning level alert is generated (and posted to the event log) the first time the snapshot expiration window is reached for an application and the image is held by the appliance. A similar Warning level Alert also occurs for remote deduplication of local dedup images.

This Warning level alert is generated for the first snapshot for each application that has its expiration deferred. When the count of deferred expirations for an application goes to zero, the Warning alert trigger is reset. The next time there is a dedupable snapshot image that is held by the appliance an alert will be posted again. An example of this particular Warning alert message is shown below:

```
The snapshot image Image_0998496 for application mgm-win-1 hostname mgm-win-1 (appid 5577) was
not expired even though expiration was due, since it has not been deduplicated. This is the
first image that has not been expired in this manner for this application.
```

Warning Level Alert—Snapshot Image Expired Because Threshold Limit Exceeded

When an application has preserved snapshots, and a dedupable snapshot is expired because the appliance has exceeded the threshold limits (such as VDisk count or pool capacity), a Warning level alert indicating this condition is posted. This warning will be logged only for the first snapshot expired due to this situation. The same requirement applies to local dedup images with regard to remote dedup replication.

Included below is a summary of the Warning thresholds for VDisk and storage pools as specified through the
`chdiskpool`, `configresourcewarning`, `mkdiskpool`, and `getresourcewarning` commands:

- The default Warning threshold for VDisks usage is 90%. The VDisk limit for the CDS appliance is 2048, and for the Sky appliance, the VDisk limit varies with the installed capacity license (1000, 3000, or 5000 VDisks).
- The default Warning level is 80% for the snapshot and primary pools and 75% for the deduplication pool. You set Safe Mode to an appropriate level of usage; the default value is 90% for the snapshot and primary pools.

Daily Warning Level Event—Deferred Expirations for Snapshots

A daily warning level event is generated when there are deferred expirations for snapshots. This daily warning includes a count of images for which expiration was deferred because these images are all candidates for deduplication. An example of such a daily warning level event is shown below:

```
The number of images not expired awaiting further processing is 2 images (2 snapshots, 0 dedups)
from 1 unique applications. 2 snapshots and 0 dedups were added in the last period of 24 hours.
```

Daily Warning Level Event—Deferred Expirations Because Threshold Limit Exceeded

A daily warning level event is posted when a number of images that had deferred expirations were expired because the appliance has exceeded the threshold limits (such as VDisk count or pool capacity). The message includes a count of images expired in this fashion. An example of such an event is shown below:

```
The number of images awaiting further processing that had to be discarded is 5 images (3
snapshots, 2 dedups) from 3 unique applications in the last period of 24 hours.
```

Warning Level Alert—All Preserved Images Have Been Processed

When the number of preserved images drops to zero, the following alert will be generated similar to the example shown below:

```
All images that had been held from expiration for further processing now have been process or
expired.
```

Weekly Error Level Event—Images Deduplicated or Remotely Replicated After 7 Days

When there are images that have not been deduplicated or remotely replicated for a period of 7 days, a weekly error level event of severity Error is raised. When the 7th day is reached an alert will be generated similar to the example shown below to inform you that the appliance has been in Preserve Mode for 7 days.

```
Still in preserved image mode after 7 days. The number of images not expired awaiting further
processing is 486 images (486 snapshots, 0 dedups) from 1 unique applications. 0 snapshots and
0 dedups were added in the last 2555 seconds (0 hours 42 minutes).
```

D List of Parameters Used With getparameter and setparameter

This appendix describes the list of system parameters associated with the following commands:

- getparameter on page 183
- setparameter on page 181

You specify these parameters using the `param` keyword in these commands.

Parameter	Description	Default	Value Range
appminshrinksizefornewstagingdisk	String value for the minimum application shrink size threshold for creating new staging disks (defaults to 32GB).	34359738368	---------
auditage	Number of days an audit is kept.	90	1-365
auditchanges	Audit of old and new values for privileged commands.	true	true or false
authentication.method	Determines which authentication method to use for UI login (database or LDAP authentication).	database	database or ldap
autoconfigsanports	If set to 1, support auto configuration is enabled.	1	0 and 1
backupjobsperhost	The maximum number of snap, direct-dedup and dedup-async jobs to run at a time on a single host.	1	1 to 1000
bdd.ip.test.timeout	The time (in seconds) for the BDD server to wait before restoring the network configuration.	30	0 to 300
changeratedb	Change rate for DB application for Guardrails calculations.	6	0 to 100
changeratenondb	Change rate for non-database application .	3	0 to 100

Parameter	Description	Default	Value Range
checkpoolspace	Check pool space for rehydration.	0	0 or 1
ChildLimit	Specifies the default database descendant level limit (children and the grandchildren) for all types of child database applications. The application-specific level limit (OracleChildLimit or SQLServerChildLimit), if specified, overrides the limit for that specific database application.	5	Maximum value varies by environment and infrastructure
copywarninglimit	Modifies the default limit of 14 snapshot copies that will generate a warning if this limit is reached or exceeded based on SLA policy settings. The supported value range is from 2 to 1000.	14	2 to 1000
createmultiplestagingdisks	Create multiple staging disks for out of band applications: • **0**—Create a single staging disk for each application from now. • **1**—Create multiple staging disks where applicable, based on threshold parameters and connector capabilities.	1	0 to 1
critical.events.exclude	The error level events to exclude from critical events.	10011,10013, 10023,10025, 10039	Critical event ID
critical.events.include	The warning level events to include as critical events.	9052, 999999999	Event IDs
dailystateexpirationindays	Number of days the daily statistics are to be kept in the database.	60	30 to 360
daronrampslots	The number of slots reserved for dedup-async of new applications.	0	0 to 100
datastoreutilizationpollfreqinmins	The frequency at which datastore space utilization is checked during VM data-movement operation.	15	1 to 7200
DBAuthentication	Instructs the host to use DB Authentication for Oracle applications.	false	true and false

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Parameter	Description	Default	Value Range
deduprehydratedimageexpirationinhours	Controls the expiration duration for a rehydrated dedup image. The expiration duration is set in hours with a default of 24 hours.	24	0 to 100000
default.ssh.connect.timeout	Default connection timeout for SSH connections for the CDS appliance.	60	0 to 3000
default.v3700.ssh.connect.timeout	Default connection timeout for SSH connections for the v3700.	60	0 to 3000
default.ssh.connect.timeout	Default connection timeout for SSH connections for the Actifio appliance.	60	0 to 3000
default.v3700.ssh.session.timeout	Default session timeout for SSH connections for the v3700.	60	0 to 3000
delegatingpoolstatecachesize	Delegating service poolstate cache size.	30	10 to 200
delegatingpoolstatecachetimeout	Delegating service poolstate cache timeout (in minutes).	5	1 to 20

Parameter	Description	Default	Value Range
disable.TLSv1.0	**Note:** *The `disable.TLSv1.0` parameter has been deprecated. Instead, we recommend that you use the `webserver.TLS.protocols` parameter if it is necessary to define the allowed TLS versions. Please refer to the discussion of the `webserver.TLS.protocols` parameter later in this table for inclusive protocol control information.* An advanced setting that disables Transport Layer Security (TLS) version 1.0 for backwards incompatibility with older operating systems, browsers, and Adobe Air clients. This feature should not be enabled without a complete understanding of the cryptographic capability of all management clients. • `true` disables the TLSv1.0 protocol on the tomcat server in the appliance. This setting automatically restarts the tomcat server on the appliance. • `false` re-enables the TLSv1.0 protocol on the tomcat server in the appliance. This setting automatically restarts the tomcat server on the appliance.	false	true and false
disableguardrails	Turns off the "guardrails" function which is used to warn the user about possible impact on system resources when creating an SLA policy in SLA Architect and when assigning that SLA policy in Application Manager. Valid entries are 'true' and 'false'. By default, this value is 'false' (the guardrails function is enabled).	false	true and false
disablenbdvmbackups	Fail VM backups if SAN mode data movement cannot be performed.	0	0 and 1
DiscoveryAvoidEsxUuid	Do not use ESX UUID for resolution of ESX host during VM discovery.	false	true and false

Parameter	Description	Default	Value Range
dontexpirededupsduringgc	If 1, do not expire dedup objects if GC job is less than 30% complete.	1	0 and 1
dosnapshotonreplicationfailure	Continue with snapshot processing even if StreamSnap replication fails.	1	0 and 1
enable.password.complexity	Enforces the specification of complex local user or admin password that is to be used when a user logs into an appliance. A complex password can be composed of any combination of upper and lower case letters, numbers, and the following special characters: "!", "@", "#", "$", "%", "^", "&", "*", "(", ")" • `true` enforces the requirement to specify a complex local user or admin password. • `false` disables the requirement to specify a complex local user or admin password.	false	true and false
enablecompressedreplication	If 1, implements compression for StreamSnap replication to the second appliance. Compression is required to increase efficiency of the StreamSnap replication to the second appliance when transferring data over the network. If compression is not a requirement for StreamSnap replication to the second appliance (for example, when replicating images and videos), specify 0. These settings may be overridden by the compressions settings in the StreamSnap policy option. **Note:** *Enabling compression may not always provide the best results. Compression uses additional CPU cycles at the cost of saving network bandwidth. If the available network bandwidth is better than the system resources such as CPUs, it is advised to disable compression.*	1	0 and 1

Parameter	Description	Default	Value Range
enablededupasync	If 1, scheduling of dedup-async jobs is enabled.	1	0 and 1
enableesxmount	Enable mounting of generic backup to an ESX host.	false	true and false
enableexpiration	If 1, scheduled expirations is enabled. Set to 0 to disable scheduled expirations.	1	0 and 1
EnableGenericLVM	Enable the generic Logical Volume Management (LVM) functionality.	false	true and false
enableindexing	Set to 'true' to enable global indexing and search.	false	true and false
enablelocaldedups	If 1, scheduling of local dedup and direct-to-dedup jobs is enabled. Set to 0 to disable scheduling.	1	0 and 1
EnableMountToVirtualSqlCluster	Enable mount to virtual SQL cluster.	false	true and false
enablenasserversnapexpiration	Set to 0 to disable setting the expiration of NAS server snapshots. This system parameter allows the appliance to expire snapshots off the NAS server itself.	1	0 and 1
enableremotededups	If 1, scheduling of remote dedup jobs is enabled. Set to 0 to disable scheduling.	1	0 and 1
enablereplicationscripts	If 1, enable invoking user-defined scripts post replication.	1	0 and 1
enablescheduler	If 1, the global scheduler is enabled. Set to 0 to disable scheduling.	1	0 and 1
enablesnapshots	If 1, scheduling of snapshot jobs is enabled. Set to 0 to disable scheduling.	1	0 and 1
enablestreamingreplication	If 1, enables parallel replication with snapshot processing for VMware replication jobs. Set to 0 to disable parallel replication (only disable this function under direct guidance of Support).	1	0 and 1

Parameter	Description	Default	Value Range
enablestreamsnap	If 1, enables the scheduling of StreamSnap jobs. Set to 0 to disable scheduling (only disable this function under direct guidance of Support).	1	0 and 1
enablevaults	If 1, enables the scheduling of OnVault jobs. Set to 0 to disable scheduling (only disable this function under direct guidance of Support).	1	0 and 1
ExpirerEventLogFrequency	The frequency of the event log expire in seconds.	86400	3600 to 86400
expirerinterval	The frequency of the expiration loop in seconds.	5	1 to 120
expirerjobspercycle	The maximum number of jobs to start in a expiration loop.	10	1 to 20
expirerloadcount	Minimum number of images the expire should consider for each pass.	2500	100 to 10000
expirerreloadinterval	The frequency of reloading the expiration in seconds.	900	20 to 3600
expirerrefailure	Retry for expiration on a failure in seconds.	3600	900 to 86400
expirerretrydependent	Retry for expiration deferred because of a unexpired dependent backup in seconds.	900	60 to 3600
expirerretrylocked	Retry for expiration deferred because of a lock in seconds.	60	30 to 900
firewall.icmp.redirect.drop.threshold	Our firewall drops ICMP redirect packets. This parameter defines a threshold. If today's drop count is beyond the threshold, an event is generated to warn about the potential network issue.	5000	1 to 1000000
firstbackupwholevmdk	If 1, change block tracking is ignored for first VM backup.	1	0 and 1
GC_ZTR_PARALLEL_ACTIVE_WORKERS	The number of active (high-priority transaction) workers on zero-token resolution, must be a power of 2.	-1	1, 2, 4, 8, and 16

Parameter	Description	Default	Value Range
GC_ZTR_PARALLEL_HI_PRIO	The transaction priority to associate with high priority for zero-token resolution.	10	1 to 10
GC_ZTR_PARALLEL_MAX_WORKERS	Total number of workers on zero-token resolution (both active and inactive), must be a power of 2.	-1	1, 2, 4, 8, and 16
gcminthreshold	Minimum usage threshold (percentage) for dedup pool before gc schedule is enabled.	65	1 to 100
gcsafethreshold	The safe mode threshold (percentage) for dedup pool	85	1 to 100
genericappfailonconnecterror	Fail the backup job for a generic application if the Connector cannot be reached.	0	0 or 1
hostheartbeattimeoutinmins	Host heartbeat timeout in minutes.	60	0 to 43,200
hourlystatexpirationindays	Number of days the hourly stats has to be kept in DB	14	0 to 360
http.concurrentsession.allow	Allow concurrent HTTP sessions for the same user.	true	true, false
https.request.timeout	Request timeout for https connections in milliseconds. The default value is 7 minutes, min 0, and max 30 minutes.	420000	0 to 1800000
https.socket.timeout	Socket timeout for https connections in milliseconds. default 7 minutes min 0, max 30 minutes.	420000	0 to 1800000
ignore.schedule.off.violation	When set to 1, specifies to ignore SLA violations when the scheduler is off.	0	0 and 1
ignoredtraps	Identifies traps to be ignored (colon ':', separated). You can customize the traps to ignore by event ID or by event ID associated with a specific component. • *eventid* (for example, `ignoredtraps -value 43918`) • *componentname-eventid* (for example, `ignoredtraps -value CDS-43918`)	0	*eventid* or *component name-eventid*

Parameter	Description	Default	Value Range
ldap.referral.support	This is to specify whether to support LDAP referral.	false	true, false
ldap.user.autocreate	Automatically create LDAP users if they don't exist.	false	true, false
ldeduponrampslots	The number of slots reserved for local dedups and direct-to-dedup of new applications.	0	0 to 100
licensedcapacity	Configured licensed capacity, in TB.	0	0 to 10240
limitdedupexpirations	The maximum number of scheduled dedup expirations.	2	0 to 25
liveclonerefreshcreatereference	When set to 1, create a reference object during a LiveClone refresh to revert back to in the case of a refresh failure.	0	0 and 1
maptoallesxincluster	Map staging disk to all ESX hosts in a cluster.	1	0 or 1
maxconcurrentvaultsubjobs	Maximum number of concurrent OnVault subjobs ingested into the OnVault. Subjobs are flow-controlled such that at least one subjob per OnVault job is always allowed without throttling. Use this parameter when you need to limit the maximum number of OnVault subjobs. *Note: The default for* `maxconcurrentvaultsubjobs` *is 12 and the default for* `maxvaultslots` *is 4. In this case, there can be at any time a total of 4 top-level OnVault jobs running. To prevent starving OnVault jobs, a minimum of 1 slot each has been reserved for every OnVault job. Note that the first job cannot use all 12 slots; it can only use up to 9 slots, and will reserve 3 of the remaining slots for new OnVault jobs to ensure that all OnVault jobs can make progress.*	12	4 to 1000

Parameter	Description	Default	Value Range
maxconnectorupgradetimeout	Maximum connector upgrade Task timeout in minutes (default to `10` minutes).	10	5 to 60
maxdarslots	The maximum number of slots for enhanced asynchronous deduplication.	3	0 to 1000
maxdataaccessslots	The maximum number of data access slots for mount, clone and restore jobs.	12	0 to 1000
maxesxscans	The maximum number of ESX host parallel scans per job while mapping to an ESX cluster.	10	1 to 50
maxexpirationslots	The maximum number of expiration slots.	10	0 to 1000
maxldapresults	The maximum number of objects processed from an LDAP query.	50000	----------
maxldedupslots	The maximum number of local dedup slots allowed.	8	0 to 1000
maxlogreplicateslots	The maximum number of log replication slots allowed.	6	0 to 1000
maxondemandslots	The maximum number of slots for all types of on demand jobs.	6	0 to 1000
maxoutofbandappsize	String value for maximum supported out-of-band application size, specified in bytes. This is a configuration parameter that is used to tune the maximum out-of-band application supported size (in bytes).	140737488355 328	----------
MaxPsrvThreads	The maximum number of `psrv` threads allowed.	800	400 to 1200
maxrdedupslots	The maximum number of remote dedup slots allowed.	6	0 to 1000
maxskyjoins	The maximum number of appliance pairings allowed for an Sky appliance.	50	----------
maxsnapslots	The maximum number of snapshots slots.	6	0 to 1000

Parameter	Description	Default	Value Range
maxstreamsnapslot	The maximum number of scheduled StreamSnap slots.	6	0 to 1000
maxvaultslots	The maximum number of scheduled OnVault jobs. Use this parameter when you need to control the maximum slots for OnVault jobs.	4	0 to 1000
maxvmtaskretrycount	The maximum VM task retry count.	10	1 to 100
maxvmtasktimeout	Maximum VM task timeout, in seconds.	600	60
minlaststagingdisksize	String value for minimum size of last staging disk for an application with multiple staging disks.	274877906944	----------
missed.cluster.ping.threshold	Threshold value for the number of missed cluster pings before raising a trap. -1 indicates never to alert.	-1	----------
nasserversnapexpirationindays	Expiration for NAS server snapshots, specified in days. This system parameter allows the appliance to expire snapshots off the NAS server, based on the specified number of days.	3	0 to 365
netapp.enable	Set to 1 to enable NetApp as a NAS server type.	0	0 and 1
networkinterfacecheck	Specifies the network interface (Ethernet port) to monitor and sends the SNMP trap if it is down. Multiple interfaces are allowed; use a comma to separate them.	none	none, eth0, and eth1
onejobperhostoverride	Override the one-job-per-host limit on an HPUX or AIX host.	none	none, aix-only, hpux-only, and aix-and-hpux
operatingwindowintonextday	When set to 1, operating windows extend into the next day even if they were excluded.	0	0 and 1

Parameter	Description	Default	Value Range
OracleChildLimit	Changes the app-aware mount Oracle database descendant level limit (children and grandchildren). By default (when set to 0), the `ChildLimit` parameter specifies the default database descendant level limit for all types of child database applications. The `OracleChildLimit` parameter allows you to override this default child level limit for Oracle databases. **Note:** *Only change this under guidance of Support.*	0	Maximum value varies by environment and infrastructure
password.minlength	Specifies a minimum password length for the local user or admin when they log into an appliance.	6	6 to 1024
prefernbdssl	When set to 1, specifies to use NBD mode VM backups over SSL instead using plain (plaintext) NBD mode VM backups. The use of NBDSSL results in the data being encrypted in flight while performing the data transfer from the VMDK files into the appliance.	0	0 and 1
preflight.default.timeout	Default timeout for the appliance preflight check (in minutes). You can run a preflight check for available update file on the appliance to check if the system is in a good state to apply the update.	5 minutes	5 to 30 minutes
preservelastimage	If 1, do not expire the last image of each type for any protected application.	1	0 and 1

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Parameter	Description	Default	Value Range
PreserveLdedupsOfPriority	Defines how to preserve local dedup images that are due for expiration but not yet successfully processed By default, all local dedup images are preserved until the remote deduplication system can catch up with the preserved local dedup images, or until the capacity in the local dedup pool has reached the warning level. *Note:* *For background on image preservation, including modifying settings, see* Configuring Image Preservation *on page 583.*	low	none, high, medium, and low
PreserveSnapsOfPriority	Defines how to preserve snapshot images that are due for expiration but not yet successfully deduped. By default, all applications (low, medium, and high priority) will have their snapshot images preserved until the local dedup system can catch up with the preserved snapshot images, or until VDisk counts or performance pool capacity thresholds are reached. *Note:* *For background on image preservation, including modifying settings, see* Configuring Image Preservation *on page 583.*	low	none, high, medium, and low
rdeduponrampslots	The number of slots reserved for remote dedups of new applications.	0	0 to 100
readyvmtargetlowsplash	Set to 1 to avoid writing zero blocks on target VMDK using low splash comparison by reading target VMDK.	1	0 or 1
remotepsrvrequesttimeout	Timeout for remote `psrv` requests.	5	5 to 30
removeduplicateevents	Attempt to removed duplicate events from event emails.	false	true and false

Parameter	Description	Default	Value Range
reserveddarslots	The number of slots reserved for enhanced asynchronous deduplication.	3	0 to 25
reserveddataaccessslots	The number of slots reserved for mount, clone and restore jobs.	6	0 to 1000
reservedexpirationslots	The number of slots reserved for scheduled expirations.	10	0 to 25
reservedldedupslots	The number of slots reserved for scheduled remote local deduplication jobs.	4	0 to 25
reservedlogreplicateslots	The number of slots reserved for log replication.	2	0 to 25
reservedondemandslots	The number of slots reserved for all types of on-demand jobs.	3	1 to 1000
reservedrdedupslots	The number of slots reserved for scheduled remote dedup jobs.	6	0 to 25
reservedsnapslots	The number of slots reserved for scheduled snapshots.	2	0 to 25
reservedstreamsnapslots	The number of slots reserved for scheduled StreamSnap slots.	2	0 to 25
reservedvaultslots	The number of slots reserved for scheduled OnVault jobs. Use this parameter when you need to limit the reserved slots for OnVault jobs.	4	0 to 25
retriesonfailure	The maximum number of times a failed scheduled job is retried. This parameter specifies the number of times the job must be retried in the event of a failed job. For example, `retriesonfailure 3` specifies that the job retries three times after original attempt.	3	0 to 20
retrydecay	The delay for each subsequent retry in percent. This parameter specifies the % of delay to attempt further retries.	400	100 to 10000

Parameter	Description	Default	Value Range
retrydelay	The delay before the first retry of a failed job in seconds. This parameter specifies the number of seconds that the job should wait to retry after the original attempt. For example, `retrydelay 240` specifies that the first job retry happens after 240 seconds.	240	30 to 3600
rfcsnappooloverallocationpercent	When doing an inband restore via RFC we check that the snap pool(s) will not be overfilled via RFC. Pad the calculated space required by this percent to assure other concurrently running jobs will not exhaust the pool(s).	20	0 to 1000
schedule.watchdog.interval	Time interval in hours for Quartz hourly schedule watchdog. Set to 0 to disable.	3	1 to 24 (0 to disable)
schedulerinterval	The frequency of the scheduler in seconds.	10	1 to 120
schedulerjobspercycle	The maximum number of jobs to start in a scheduler loop.	4	1 to 20
schedulerldedupperiodpercentage	The percentage of Dedup policy RPO as the minimum separation of source snapshot images.	90	0 to 100
scheduleroptimizations	If 1, use optimizations to speed up scheduling.	1	0 and 1
schedulerrdedupperiodpercentage	The percentage of remote dedup policy RPO as the minimum separation of source local dedup images.	90	0 to 100
scriptexectimeout	Timeout waiting for pre and post scripts called using the Connector.	60	1 to 120
scriptinittimeout	This policy option specifies the timeout value for the init script completion.	300	1 to 600
secureconnect.local	Local IP address for secureconnect to bind to.	---------	---------
secureconnect.port	Port to use for SecureConnect.	1194	1 to 65536
secureconnect.proto	Protocol to use for SecureConnect.	udp	udp and tcp

Parameter	Description	Default	Value Range
secureconnect.proxy_port	Port for SecureConnect proxy.	0	0 to 65536
secureconnect.proxy_server	Proxy server for SecureConnect	---------	---------
secureconnect.server	Server for SecureConnect.	secureconnect2..com	---------
session-timeout-minutes	UI session timeout in minutes.	60	0 to 60
sla.tolerance	The maximum number of times that the scheduler can fail to meet the SLA criteria before considering a failure as SLA violation.By default, this setting is 0, indicating a failure to meet the SLA criteria will be considered an SLA violation.	0	0 and 1
slaAnalysis.analysisType	Specifies which SLA analysis method the appliance is to use: • `basic` – Analyze the SLA based on counting the number of jobs (default behavior). • `advanced` – Analyze the SLA based on time-based threshold values.	basic	basic and advanced
slaAnalysis.enable	The setting to enable/disable SLA analysis. By default, this value is 'true'.	true	true and false
slaAnalysis.notificationtype	The notification type for SLA violation traps.	warning	warning, error, info
snapshotonrampslots	The number of slots reserved for snapshots of new applications.	0	0 to 100
snmp.community.string	The community string for sending SNMP traps.	---------	---------
snmptablesize	Limits the number of records sent by the SNMP agent in the appliance to the management system (the client). Whenever this parameter is set, the SNMP agent will retrieve only the specified number of records and send those records to the respective SNMP clients.	500	100 to 5000

Parameter	Description	Default	Value Range
SQLServerChildLimit	Changes the app-aware mount SQL server database descendant level limit (children and grandchildren). By default (when set to 0), the `ChildLimit` parameter specifies the default database descendant level limit for all types of child database applications. The `SQLServerChildLimit` parameter allows you to override this default child level limit for SQLServer databases. **Note:** *Only change the `SQLServerChildLimit` system-level parameter under guidance of Support.*	0	Maximum value varies by environment and infrastructure
stagingdiskgranularity	A string value indicating the size of each staging disk when multiple staging disks are used for an application.	---------	1099511627776
streamsnapdconnectiontimeout	Connection timeout in seconds for the `streamsnapd` daemon.	60	1 to 1200
streamsnapdheartbeattimeout	Time interval between heartbeat messages for the `streamsnapd` daemon.	60	1 to 1800
streamsnapdinternaltimeout	Internal connect/disconnect timeout for the `streamsnapd` daemon.	10	1 to 1800
streamsnapdmaxmemorysize	Maximum memory usage (in GB) for the `streamsnapd` daemon.	4	1 to 1024
streamsnapdmaxreservedconnections	Maximum number of simultaneous reserved SSL connections for a `streamsnapd` daemon reconnect.	10	5 to 256
streamsnapdmaxrunningjobs	Maximum number of jobs initiated and received by the `streamsnapd` daemon (both the source and target appliance).	90	1 to 1024

Parameter	Description	Default	Value Range
streamsnapdmaxserverconnections	Maximum number of simultaneous non-SSL connections for all internal communication by the `streamsnapd` daemon. The `streamsnapd` daemon listens on an internal port (7445).	150	5 to 1024
streamsnapdmaxsslconnections	Maximum number of simultaneous SSL connections for all inward and outward communication by the `streamsnapd` daemon. The `streamsnapd` daemon listens on an external SSL port (5107).	160	1 to 256
streamsnapdmaxtunnelconnections	Maximum number of simultaneous SSL tunnel connections for the `streamsnapd` daemon.	50	5 to 256
streamsnapdmaxwindowsize	Maximum number of outstanding packets in the `streamsnapd` pipe for each session.	64	8 to 1024
streamsnapdmillispertick	Number of milliseconds per tick for updating `streamsnapd` statistics.	1000	100 to 10000
streamsnapdnetalerttime	Network off detection timeout for the streamsnapd daemon.	900	1 to 10000
streamsnapdnetworkretries	Maximum number of network retries for the `streamsnapd` daemon.	5	1 to 1000
streamsnapdprogressupdateinterval	`streamsnapd` job progress update interval in seconds.	5	1 to 600
streamsnapdreconnectdelay	Minimum delay in milliseconds for reconnect in the `streamsnapd` daemon	100	1 to 10000
streamsnaponrampslots	Number of slots reserved for StreamSnap replication of new applications.	0	0 to 100
sweepthreshold	Determines how aggressive the sweep process will be in reclaiming space from expired backups.	50	1 to 100
systemcontact	A string value that sets the sysContact Object Identifiers (OID) value as part of the SNMP system information for an appliance.	---------	---------

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Parameter	Description	Default	Value Range
systemlocation	A string value that sets the sysLocation OID value as part of the SNMP system information for the appliance.	---------	---------
template.agm.lock	When a template is managed by AGM, it is locked, so you cannot change the template on the appliance. This is a backdoor to allow you to modify it, but will cause discrepancy. So it affects the objects on the appliance, not AGM. Set to false to allow local modification for AGM managed templates and associated objects.	true	true or false
truepathdefaultdriveletter	Assign a drive letter to mounted volumes even if user did not specify a drive letter.	1	0 and 1
unreservedslots	The number of additional slots available for any job type.	9	0 to 100
usegcjob	missed `gc`/`sweep` jobs to be rerun.	false	true and false
usegcjobqueue	Queue missed `gc`/`sweep` jobs to be rerun.	false	true and false
v3700.pwd	The admin password for v3700 storage devices.	Contact your rep for the admin password.	---------
vaultrehydratedimageexpirationinhours	Default expiration for the rehydrated OnVault image in hours (default to 24).	24	0 to 100000
vdisklimit	The maximum number of VDisks that can be used for the pool supported by a Sky appliance.	0	0 to 10000
vixdisklibdebuglevel	The debug level for the vixdisklib.	4	0 to 7

Parameter	Description	Default	Value Range
vmconsolidatedisks	Configure job behavior when target VM needs snapshot consolidation. If the VM requires consolidation: `fail` - Fail the job: backup/DAR/direct-dedup jobs fail. `yes` - Perform consolidation at the beginning of the job: Backup/direct-dedup/DAR jobs try to perform consolidation at the beginning of the job. If consolidation fails, the job fails with an error message. `no` - Run the job without performing consolidation: All jobs run normally even if consolidation is pending.	fail	fail, yes, no
vmdatastorefullcriticalthreshold	Critical threshold (percentage) for virtual machine's datastore space usage, above which the virtual machine backup job is aborted and a critical event is logged.	95	80 to 100
vmdatastorefullwarnthreshold	Warning threshold (percentage) for virtual machine's datastore space usage, above which a critical event is logged.	80	50 to 100
vmexistingsnapshotwarrning	Set to 1 to log a warning for existing snapshots for the VM being backed up.	0	0 and 1
vmfilesthreshold	Threshold for number of files inside a VM home directory, above which a warning event is logged.	32	5 to 100
vmlowsplashwithcbt	Uses the following parameters: • `never` - No low splash when CBT exists • `threshold` - Low splash when CBT crosses vmlowsplashwithcbtthreshold percentage • `full` - Always use low splash on full vmdk when CBT exists	never	never, threshold, and full
vmlowsplashwithcbtthreshold	Percentage of bytes in CBT when low splash is used. Applicable when `vmlowsplashwithcbt = threshold`.	50	0 to 100

Parameter	Description	Default	Value Range
vmnocbtdocompare	Set to 1 to avoid overwriting blocks with same data from VMware snapshot to staging disk, when no changed extent list exists.	1	0 and 1

vmorgenericbackupmountpvidchange	Mount of VM/Generic backup to host without connector:
	
	    0 – Do not change LVM PV IDs.
	
	    1 – Change LVM PV IDs if VMware believes the OS is Linux.
	
	    2 – Always change the LVM PV IDs.
		1	0 to 2

vmtaskcompletiontimeout	VM Task completion timeout (in minutes).The VM Task completion timeout (default of 60 minutes) is used as timeout for task completion. All tasks except clone and recreatedisks honor this setting. This system parameter would be ineffective for clone task and recreatedisks tasks.	60	1 to 43200

Parameter	Description	Default	Value Range
webserver.TLS.protocols	This enables you to explicitly define all allowed TLS protocol versions in the format of a comma-separated TLS version list. The default setting is to support all three TLS versions. Changing this setting automatically restarts the Tomcat server on the appliance. ***Note:*** *A client machine using Microsoft Windows will require a Microsoft Internet Explorer configuration change for supported TLS protocol versions. Open Internet Explorer to the **Internet Options –›Advanced** tab and verify the corresponding TLS protocol versions. Make the necessary TLS version changes.* The TLS versions allowed by the Tomcat web server are determined by the following rules: • If `disable.TLSv1.0` is set to `false`, TLS versions are the same as defined in `webserver.TLS.protocols`. • If `disable.TLSv1.0` is set to `true`, TLS versions are those defined in `webserver.TLS.protocols` but excluding the TLSv1 protocol. When configuring either the `webserver.TLS.protocols` or `disable.TLSv1.0` system parameter by the `setparameter` command, the TLS versions will be calculated. If the TLS versions are different than the Tomcat configuration, the Tomcat configuration will be modified and the Tomcat server will be restarted for the new settings to take effect.	TLSv1, TLSv1.1, TLSv1.2	TLSv1, TLSv1.1, TLSv1.2
zpoolcompression	Enables the Zpool compression property.	on	on or off

E List of Policy Options

This appendix is a complete list of policy options associated with the following commands:

- **chpolicyoption** (chpolicyoption on page 484)
- **lspolicyoption** (lspolicyoption on page 482)
- **mkpolicyoption** (mkpolicyoption on page 480)
- **rmpolicyoption** (rmpolicyoption on page 486)
- **lssettableoption** (lssettableoption on page 476)

Policy Option	Description	Value	Policy Type	AppType
appconsistency	Takes an application consistent snapshot for a backup.	**yes** - Takes application-consistent backup; notifies the application to prepare for a backup. This option loses no data. It pauses application data I/O, completes in-flight transactions, and flushes memory to disk. On recovery, data is easily accessible. **no** - Takes crash consistent backup. Crash-consistent backup is a fast backup of application data in storage as if power were lost at that moment. It does not pause application data I/O. All data on disk are saved, and data in memory is lost. Incomplete transactions may be saved. **last** - Takes application consistent backups, but takes a crash consistent backup if an application consistent backup fails for any reason. Setting **appconsistency** to **last** is only honored for scheduled jobs. For example, when **appconsistency=last** for scheduled jobs: • Job_1234567 will be appconsistent. • Job_1234567a (1st retry) will be appconsistent. • Job_1234567b (2st retry) will be appconsistent. • Job_12345677c (last retry) will be crash consistent. These values are on a per job basis; any internal retries inside Job_1234567 will use same value for appconsistency.	snap, directdedup, dedup_async	VMBackup, Microsoft Hyper-V, VSS Writer

Policy Option	Description	Value	Policy Type	AppType
archivebackuptime	Instructs the appliance to backup the archivelog if it has not been backed up the specified number of times.	1 to 5	————	Oracle, ConsistGrp
archivetnsservice	Specifies the TNS service name for archivelog backup.	String	————	Oracle
asmraclist	IP addresses of the member nodes of a RAC database for ASM backup.	String	————	Oracle
ausize	Configures the ASM Diskgroup AU size, in MB	1, 2, 4, 8, 16, 32, or 64 MB	————	Oracle, ConsistGrp
autodiscoverrac	Specifies to auto discover all members of a RAC database for ASM backup	false (default) or true	————	Oracle
bootvolumesnapshot	Specifies to back up only the boot volume of the VM. *Note: When protecting VMs, if the application binaries are spread over multiple VMware VMDKs or the boot volume is not the first drive on the bus, then the entire boot volume may not be captured.*	**no** - Backup all the volumes of the VM (default). **yes** - Backup only boot volume of the VM.	snap, directdedup, dedup_async	VMBackup, Microsoft Hyper-V VSS Writer
catalogdb	Specifies the Oracle catalog database SID name. This is for the user environment where RMAN CATALOG DATABASE is set up for RMAN backup.	String	————	Oracle, ConsistGrp
catalogpassword	Specifies the Oracle catalog database user login password.	String	————	Oracle, ConsistGrp
cataloguser	Specifies the Oracle catalog database user name for RMAN backup.	String	————	Oracle, ConsistGrp

Policy Option	Description	Value	Policy Type	AppType
changerate	Daily change rate for the database, used to estimate staging disk size. The value must be between 0 and 100 percent.	0 to 100 percent (default is 10 percent)	snap	Oracle, SqlInstance, SqlServerWriter ConsistGrp

clusternodes	Enter the IP addresses of appliance nodes for fail-over choice in this format:
	`1:172.16.16.21:svc_`
	`orarac2_act:F`
	`[failover`
	`rank]:[failover`
	`node`
	`ip]:[servicename on`
	`failover`
	`node]:[role of`
	`member node]`
	The role of member node by default should be **F** (failover). It can also be **M** (maintenance). When an appliance member role is specified as **M**, the Actifio Connector appliance uses it as the primary backup node instead of using the original protected node. (Oracle, Exchange).
		Specify the failover node choice in a Oracle RAC environment in this way:
		`Failover choice:Node`
		`IP:Servicename:Role`
		Failover Choice - The order of node in which user wants to try the failover.
		Node IP - IP address of the node where you want the backup to run.
		Servicename - The name of the service created and specified in the tnsnames.ora for Actifio Connector RMAN backup. This can be a new dedicated service created for Actifio Connector backup or the SID name (instance name) of the database on that node.
		Role - Role can be either F (failover node) or M (maintenance node)
			————	Oracle, Microsoft Exchange Writer, ConsistGrp

compressdblog	Flag to enable log backup compression. If selected, the database server performs the compression during the log backup.	true (default) or false	snap	SqlInstance, SqlServerWriter, Oracle, ConsistGrp
compressedreplication	Use compression for StreamSnap replication	**yes** - Use compression for StreamSnap replication (default) **no** - Do not use compression	stream_snap	Supports on all application types.
connectoroptions	Leave **connectoroptions** blank unless you are working with Support.	String	————	Not Applicable

Policy Option	Description	Value	Policy Type	AppType
consolidatevmdisks	Specifies the appropriate job behavior when target VM needs snapshot disk consolidation.	**Fail the job if VM needs consolidation** - Backup/DAR/direct-dedup jobs fail (default). **Run the job without performing consolidation** - All jobs run normally even if consolidation is pending. **Perform consolidation at the beginning of the job** - Backup/direct-dedup/DAR jobs try to perform consolidation at the beginning of the job. If consolidation fails, the job fails with an error message.	————	VMBackup
crosscheckarchivelog	Performs a crosscheck of the archivelog before performing a backup.	false (default) or true	————	Oracle, ConsistGrp
crosscheckbackupofarchivelog	Performs a crosscheck of the backup of archivelog before performing an archivelog backup.	false (default) or true		Oracle, ConsistGrp
datasetsize	NAS dataset size (in GB). enter a staging disk size of 1.2 times the size of the protected dataset. An initial size for the staging disk that will be used to back up this application. The Actifio Connector appliance will allocate an initial disk (or multiple disks if larger than the system max staging vDisk setting) to equal this size. If the space in this disk is insufficient to backup the NAS Dataset, the staging disk will be expanded to accommodate the backup.	1 to 256000 (default = 1024)	————	NAS

Policy Option	Description	Value	Policy Type	AppType
dbbackupfreq	Performs a database backup every specified number of hours for log protection.	2 to 24 (hours)	dedup_async	SqlServerWriter, SqlInstance, SQLServerAvailability Group, DB2Instance, DB2, SAPHANA, SYBASEInstance, SYBASE, MYSQLInstance, MYSQL, MARIADBInstane, MARIADB, SYBASEIQ, MAXDB, ConsistGrp
dumpschedule	Performs a database dump every specified weekday.	String The string must be seven characters - either an 'F' or an 'I'. Each position within the string represents a weekday, starting with Sunday. 'F' = a full db dump 'I' = an incremental db dump For example, FFFIII.	————	SAP HANA
donotshowrecoveryrange	Indicates that log backup should not have recovery range.	true (default) or false	————	Oracle, ConsistGrp
donotuncatalog	To keep RMAN backup cataloged after each backup. By default Actifio Connector appliance backup will be un-cataloged at the end of the backup and will be cataloged at the start of backup.	false (default) or true	————	Oracle, ConsistGrp
enableindexing	Flag to control indexing	false (default) or true	————	NAS
encryptedreplication	Use encryption for StreamSnap replication	**yes** - Use encryption for StreamSnap replication (default) **no** - Do not encrypt	stream_snap	Supports all application types.

Policy Option	Description	Value	Policy Type	AppType
excludepatterns	Enter the file name pattern to be excluded from backup. The appliance offers the ability to exclude certain file types from the backup. Using this policy option, only the most crucial data is backed-up leaving a side the non-critical files. Guidelines for exclude patterns: Using **excludepatterns**, only files are excluded, directories are not excluded. A pattern can include wild-card characters, for example, an asterisk (*) or a question mark (?). To exclude all the files that contains .sys as extension, enter *.sys. On Windows, files named pagefile.sys and hiberfil.sys that appear in the root directory of a drive are automatically ignored.	String	————	FileSystem, CIFS, NFS, NAS
failonmissingstartpath	The SmartCopy job will fail if a start path does not exist.	false (default) or true	snap, directdedup, dedup_async	FileSystem, CIFS, NFS, ConsistGrp
filesperset	Specifies the number of archive logs in a backups during archive log backup.	1 to 64 (default = 64) Default depends on the number of channels provisioned during the backup and archive logs present in the database.	————	Oracle
forceasm	If 'Yes' is selected and the source database is stored in filesystem format, the database copy stored on VDP will be in ASM format. This option requires ASM to be installed on the Oracle server.	false (default) or true	————	Oracle, ConsistGrp
forcelevel0	Start a new level0 RMAN backup when the database is protected out-of-band.	false (default) or true	————	Oracle, ConsistGrp

Policy Option	Description	Value	Policy Type	AppType
forceoobbackup	Forces the out-of-band backup when database datafiles are in-band.	false (default) or true	snap, directdedup, dedup_async	FileSystem, SqlInstance, SqlServerWriter, Microsoft Exchange Writer, SharePoint Services Writer, Oracle, ConsistGrp
fsfreezetimeout	Timeout of a file system freeze in seconds for in-band backup jobs.	3 to 300 seconds (default = 30)	————	FileSystem, ConsistGrp
genericlvmscriptname	Freeze and thaw script name for Linux CBT filter driver	String	————	LVM Volume
immutabilitydays	Specifies the enforced retention period during which can an image cannot be expired. An image created by a policy using this option will have an retention period calculated during image creation. It is always equal to or less than the retention period defined for the policy. Images with enforced retention cannot be expired before they reach the immutability date. You can create immutabilitydays policy option using the **mkpolicyoption** command. You can update an existing immutabilitydays policy using the **chpolicyoption** or remove an existing immutabilitydays policy option. You cannot shorten an existing retention period, only extend it.	0 to 36525 days	snap, directdedup, dedup, remotededup, stream_snap (for remote snapshot images), onvault, **Note:** *Not supported on Dedup-Async Replication (DAR) policies*	Supports all application types.

Policy Option	Description	Value	Policy Type	AppType
includepatterns	Enter the file name pattern to be included in the backup. The Actifio Connector appliance offers the ability to include certain file types in the backup. Using this policy option, only the most crucial data is backed-up leaving a side the non-critical files. Guidelines for include patterns: Using **includepatterns**, only files are included, directories are not included. A pattern can include wild-card characters, for example, an asterisk (*) or a question mark (?). To include all the files that contains .sys as extension, enter *.sys. On Windows, files named pagefile.sys and hiberfil.sys that appear in the root directory of a drive are automatically ignored.	String	————	FileSystem, CIFS, NFS, NAS
logalterloc	Customized application log location.	String	————	SqlServerWriter, SqlInstance, SQLServerAvaila bility Group, DB2Instance, DB2, SAPHANA, SYBASEInstance, SYBASE, MYSQLInstance, MYSQL, MARIADBInstane, MARIADB, SYBASEIQ, MAXDB, ConsistGrp

Policy Option	Description	Value	Policy Type	AppType
logbackupfreq	This Log Protection option defines the frequency for database transaction log backup. Frequency is set in minutes and must not exceed the database backup interval. This value must not exceed the database backup interval.	15 to 1440	snap	SqlServerWriter, SqlInstance, SQLServerAvaila bility Group, DB2Instance, DB2, SAPHANA, SYBASEInstance, SYBASE, MYSQLInstance, MYSQL, MARIADBInstane, MARIADB, SYBASEIQ, MAXDB, ConsistGrp
logbackupretention	Retain database log backup for the specified period. Retention period must be between 1 and 90 days.	1 to 90 days (the default is 2 days)	snap	SqlServerWriter, SqlInstance, SQLServerAvaila bility Group, DB2Instance, DB2, SAPHANA, SYBASEInstance, SYBASE, MYSQLInstance, MYSQL, MARIADBInstane, MARIADB, SYBASEIQ, MAXDB, ConsistGrp
logbackupunit	Log backup interval unit.	**minute** - Log backup in number of minutes **hour** - Log backup in number of hours	snap, dedup_async	SqlServerWriter, SqlInstance, SQLServerAvaila bility Group, DB2Instance, DB2, SAPHANA, SYBASEInstance, SYBASE, MYSQLInstance, MYSQL, MARIADBInstane, MARIADB, SYBASEIQ, MAXDB, ConsistGrp
logpurgeretention	Log retention in hours before log purging.	1 to 720 (hours)	————	Oracle, ConsistGrp
logpurgeretentionnum	Number of successful backups before log purging.	1 to 30	————	Oracle, ConsistGrp
logpurgeretentunit	Retention period unit for log purging.	**day** - Log retention in days. **hour** - Log retention in hours.	snap, dedup_async	Oracle, ConsistGrp

Policy Option	Description	Value	Policy Type	AppType
logreplication	Replicate Oracle or Microsoft® SQL Server database transaction logs to a remote Actifio Connector appliance. You can use the logs at the remote site for any database image within the retention range of the replicated logs. For a log replication job to run, there must be a replication policy (StreamSnap, Dedup-Async, or Remote Dedup) included in the template along with a resource profile that specifies a remote Actifio Connector appliance. **Note:** *Log replication does not occur until an Oracle or SQL Server database has been protected and the image replicated to the remote Actifio Connector appliance.*	true (default) or false	snap	SqlServerWriter, SqlInstance, SQLServerAvailability Group, DB2Instance, DB2, SAPHANA, SYBASEInstance, SYBASE, MYSQLInstance, MYSQL, MARIADBInstane, MARIADB, SYBASEIQ, MAXDB, ConsistGrp
logretention	Retention percentage of log backup with regard to database backup.	0 to 100%	snap, dedup_async	SqlServerWriter, SqlInstance, SQLServerAvailability Group, DB2Instance, DB2, SAPHANA, SYBASEInstance, SYBASE, MYSQLInstance, MYSQL, MARIADBInstane, MARIADB, SYBASEIQ, MAXDB, ConsistGrp

Policy Option	Description	Value	Policy Type	AppType
logsizebuffer	Buffer space for log backups. The value must be between 1 and 10 days.	1 to 10 days (the default is 2 days)	snap	SqlServerWriter, SqlInstance, SQLServerAvailability Group, DB2Instance, DB2, SAPHANA, SYBASEInstance, SYBASE, MYSQLInstance, MYSQL, MARIADBInstane, MARIADB, SYBASEIQ, MAXDB, ConsistGrp
logresizepercent	Grow the log staging disk by a specified percentage if needed. The value must be between 5 and 100 percent.	5 to 100 percent (the default is 50 percent)	snap	SqlServerWriter, SqlInstance, SQLServerAvailability Group, DB2Instance, DB2, SAPHANA, SYBASEInstance, SYBASE, MYSQLInstance, MYSQL, MARIADBInstane, MARIADB, SYBASEIQ, MAXDB, ConsistGrp
logsmart	Flag indicating that Log Protection is enabled.	false (default) or true	snap	SqlServerWriter, SqlInstance, SQLServerAvailability Group, DB2Instance, DB2, SAPHANA, SYBASEInstance, SYBASE, MYSQLInstance, MYSQL, MARIADBInstane, MARIADB, SYBASEIQ, MAXDB, ConsistGrp
logstagingdisksize	Enter a log staging disk size (in GB) to override the space automatically defined for database log backups.	1 to 4000	————	Oracle, SqlInstance, SQLServerAvailabilityGroup SqlServerWriter, ConsistGrp

Policy Option	Description	Value	Policy Type	AppType
maptoallesxincluster	If your ESX servers are in a cluster, you can select this to ensure that the VMs are protected in case of failover during backup.	**no** - Do not map staging disk to all ESX hosts (default). **yes** - Map staging disk to all ESX hosts.	snap, directdedup, dedup_async	FileSystem, SqlInstance, SqlServerWriter, Microsoft Exchange Writer, SharePoint Services Writer, CIFS, NFS, ConsistGrp
maxcorrupt	Maximum block corruption allowed during an RMAN backup.	0 (default) to 1000	————	Oracle, ConsistGrp
minlaststagingdisksize	If an application requires multiple staging disks, enter the minimum size to be allocated for the staging disk used for the last part of that application	1 to 128000	————	Oracle, FileSystem, NFS, ConsistGrp
namedlistener	Oracle named listener. For more then one listener running on the database server specify the listener name.	String	————	Oracle, ConsistGrp
notskip	By default, an Oracle backup skips offline tablespace and inaccessible (not physically existed) datafiles.	**skip -** Skip offline and inaccessible tablespace/datafiles (default). **inaccessible** - Do not skip inaccessible tablespace/datafiles. **offline** - Do not skip offline tablespace/datafiles.	————	Oracle, ConsistGrp
nounmap	Specifies if you want to keep staging disks mapped to the host and used during data movement for backup to remain mapped to the host.	**yes** - Keep staging disks mapped between jobs (default). **no** - Unmap staging disks after each job.	snap, directdedup, dedup_async	FileSystem, SqlServerWriter, Microsoft Exchange Writer, SharePoint Services Writer, Microsoft Hyper-V VSS Writer, Oracle, CIFS, NFS, NAS, ConsistGrp

Policy Option	Description	Value	Policy Type	AppType
numberofchannels	Configures RMAN channels based on specifics of the host computing power. Number of channels should be configured based on the # of cores available on the server, taking into account other database backups configured to run in parallel.	1 to 255	————	Oracle, ConsistGrp
oraclechildbackup	Indicates this is a Oracle child backup	true (default) or false	————	Oracle, ConsistGrp
password	Specifies the authentication password as part of the user credentials.	String	————	Oracle, CIFS, SqlInstance, SqlServerWriter VMBackup, NAS, Microsoft Hyper-V VSS Writer, ConsistGrp
primarynodeservicename	Specifies the servicename configured on the Data Guard node that connects to the primary Actifio Connector node. This is required only when you are protecting data from Oracle Data Guard.	String	————	Oracle
proxyhostid	Proxy host used during NAS backup.	String	————	NAS

Policy Option	Description	Value	Policy Type	AppType
prunepaths	Specifies a point where the directory traversal will stop. When protecting a Windows application, a value of \\SERVERNAME\SHARENEAME\abc will ensure that nothing below\\SERVERNAME\SHARENEAME\abc is copied, but all other directories and files in \\<SERVERNAME\SHARENEAME are copied. If **prunepath** is left blank, the directory traversal descends into every subdirectory of the start paths being backed-up.	String	————	FileSystem, CIFS, NFS, NAS
readyvm	VM in ESX datastore dedup async replication.	**no** - VM in Performance pool snapshot (default) **yes** - VM in ESX datastore	————	VMBackup
remotedatastores	Remote datastores details for VM in ESX datastore dedup async replication.	String	————	VMBackup
remoteesx	Remote ESX server details for VM in ESX datastore dedup async replication.	String	————	VMBackup
remotemetadatastore	Remote metadata store details for VM in ESX datastore dedup async replication	String	————	VMBackup
remotevcenter	Remote vCenter details for VM in ESX datastore dedup async replication.	String	————	VMBackup
restorevalidate	Provides restore validate for the Oracle backup. When this option is set to true the Actifio Connector will invoke RMAN restore validate for each backup. This validation will add time to the backup.	true or false (default)	————	Oracle, ConsistGrp

Policy Option	Description	Value	Policy Type	AppType
rmanloglocation	RMAN log path name. Enter the RMAN log path in the RMAN Log Location field. This is the custom location (full path along with RMAN filename) where RMAN writes the logs while taking the backup. **For Linux** - the default log location is: /act/log/<sid>_rman.log. If you change the path, the value must be in the form /act/log/test/ custom_rman.log **For Windows** - the default log location is: c:\act_tmp\log\<sid>_r man.log. If you change the path, be sure there are no spaces in the path.	String	————	Oracle, ConsistGrp
root	Root path of the NAS dataset. Browse through the directories of selected NAS Share to select a Root Path. Directories and files outside of this path will not be traversed for this dataset. You can leave this field blank to use the top level of the NAS share as the starting point.	String	————	NAS
schedulerldedupperiodp ercentage	Percentage of Dedup policy RPO as the minimum separation of source snapshot images.	0 to 100	————	Supports all application types.
schedulerrdedupperiodp ercentage	Percentage of remote dedup policy RPO as the minimum separation of source local dedup images.	0 to 100	————	Supports all application types.
scriptfinishtimeout	Sets the script finish timeout setting (in seconds) for Actifio Connector.	1 to 86400	————	Supports all application types.
scriptfreezetimeout	Sets the script freeze timeout setting (in seconds) for Actifio Connector.	1 to 86400	————	Supports all application types.

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Policy Option	Description	Value	Policy Type	AppType
scriptinittimeout	Sets the script initialization timeout setting (in seconds) for Actifio Connector.	1 to 86400	————	Supports all application types.
scriptpostreplicationtimeout	Sets the user-defined script post replication timeout (in seconds).	1 to 86400	————	Supports all application types.
scriptunfreezetimeout	Sets the script unfreeze timeout setting (in seconds) for Actifio Connector.	1 to 86400	————	Supports all application types.
serviceip	Enter a service access point IP address to back up from an SQL availability cluster. Specify the IP address of the cluster node you want the database to be backed up from. This option is not required if you want the database to be backed up from the active node and it is not required for a failover cluster.	String	————	FileSystem, SqlInstance, SqlServerWriter SharePoint Services Writer, ConsistGrp
servicename	Specifies the Oracle database service name. This is optional for a standalone instance but required for a RAC setup. (Oracle only).	String	————	Oracle, ConsistGrp
shareid	ID address of the NAS share corresponding to the NAS application. Select one of the shares from the NAS server.	String	————	NAS
sharetype	Select either CIFS or NFS for the NAS dataset. If CIFS is selected, enter the username and password of the user that will mount the NAS share on the BDD and perform the backup.	NFS (default) or CIFS	————	NAS
skipofflineappsincongrp	Specifies how to handle offline applications in a consistency group.	**no** - Fail backup when offline applications are found (default). **yes** - Skip offline applications during backup.	snap, directdedup, dedup_async	ConsistGrp

Policy Option	Description	Value	Policy Type	AppType
sqlbackuppath	Defines a location for a temporary SQL backup. If the Actifio Connector takes a full, native backup of the SQL Server database, the backup will be saved in this directory. Ensure that there is enough free space n the volume hosting this directory to hold a full database backup.	String	————	SqlServerWriter, VMBackup, Microsoft Hyper-V VSS Writer, ConsistGrp
stagingdiskgranularity	If an application requires multiple staging disks, you can keep a small portion of an application from using a large staging disk. Enter the largest size of staging disks to be used.	1 to 128000	————	Oracle, FileSystem, NFS, ConsistGrp
stagingdiskmountpoint	Enter a staging disk mount point if you need the staging disk mounted to a particular location (Oracle, local filesystems, CIFS, NFS, SharePoint, SQL Server, Exchange)	String	————	Oracle,FileSystem, CIFS, NFS, SharePoint Services Writer, SqlServerWriter, Microsoft Exchange Writer, ConsistGrp
stagingdiskoverheadallocationpercentage	Staging vDisk desired size overhead allocation percentage. Used if the initial staging disk is too small to accommodate the data or if the amount of data increases beyond the staging disk capacity.	0 to 1000	————	Supports all application types.

Policy Option	Description	Value	Policy Type	AppType
stagingdisksize	Staging vDisk size for image copy backup (in GB). Enter a staging disk size of 1.2 times the size of the protected application. By default, the Actifio Connector uses the size of the protected application as the size of the staging disk. This setting allows the administrator to override this value if necessary, for example to allow for growth.	1 to 256000	————	Oracle,FileSystem, CIFS, NFS, SharePoint Services Writer, SqlInstance, SqlServerWriter Microsoft Exchange Writer, Microsoft Hyper-V VSS Writer, ConsistGrp
stagingdisksizeincr	Enter a staging disk size of 1.2 times the size of the protected dataset. An initial size for the staging disk that will be used to back up this application. The appliance will allocate an initial disk (or multiple disks if larger than the system max staging vDisk setting) to equal this size. If the space in this disk is insufficient to backup the NAS Dataset, the staging disk will be expanded to accommodate the backup.	String	————	NAS
startpaths	Provides the start path names. **startpath** specifies the directory where backup starts. If **startpath** is left blank, backup starts at the root directory of the dataset to be backed-up. For example, a value of \\SERVERNAME\SHARENEAME\abc will back up the abc directory.	String	————	FileSystem, CIFS, NFS, NAS
streamingreplication	Stream snapshot data to the target appliance in parallel to data movement to the staging disks	**yes** - Stream snapshot data to the target VDP appliance (default) **no** - Do not stream snapshot data to the target VDP appliance	stream_snap	VMBackup

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Policy Option	Description	Value	Policy Type	AppType
tnsadmindir	Specifies the TNS_ADMIN network path.	String	————	Oracle, ConsistGrp
truncatelog	Specifies whether to truncate the logs after every backup for Microsoft SQL Server or Exchange, or to purge logs after every backup for Oracle. When this is selected, application-related logs are truncated until the recent or current backup. The client cannot roll forward/back with logs because SQL opens the database in multi-user mode.	**no** - Do not truncate/purge log after backup (default) **yes** - Truncate/purge log after backup	snap, directdedup, dedup_async	SqlInstance, SqlServerWriter Microsoft Exchange Writer, SharePoint Services Writer, VMBackup, Microsoft Hyper-V VSS Writer, ConsistGrp
useasm	If false the database will use filesystem.	true (default) or false	————	Oracle
usegpfs	Select to enable GPFS staging disk for performing a GPFS file system backup.	false (default) and true	————	FileSystem, ConsistGrp, Oracle
username	Specifies the authentication user name as part of the user credentials.	String	————	Oracle, CIFS, SqlInstance, SqlServerWriter VMBackup, NAS, Microsoft Hyper-V VSS Writer, ConsistGrp
userrole	Database user account for VDP RMAN backup. By default, **userrole** will use **sysdba**. For 12c sysbackup role please select the role using **sysbackup**.	**sysdba** - Role sysdba (default) **sysbackup** - Role sysbackup, applicable to 12c	————	Oracle, ConsistGrp
usezpool	Use Zpool on the proxy host.	false (default) or true	————	NAS
vgsnapreservespace	Amount of space to reserve in the Volume Group as a percentage of Logical Volume size to hold snapshot data.	1 to 100. Default of 20.	————	LVM Volume

Policy Option	Description	Value	Policy Type	AppType
wallet	To backup any Oracle configuration files with Oracle OOB backup such as wallet for encryption support. This will need a full path name. If the folder name is specified then all files under that folder will be backed up. If a file name is specified then only the specified file will be backed up.	String	————	Oracle, ConsistGrp
zfscompression	Use ZFS compression on the proxy host.	**off** - Disable ZFS compression (default) **on** - Enable ZFS compression **lzjb** - lzjb compression algorithm **gzip** - gzip compression algorithm **zle** - zle compression algorithm **lz4** - lz4 compression algorithm	————	NAS
zfsdedup	Use in-line dedup on the proxy host. Enable in-line dedup for datasets where there are large numbers of duplicated blocks among the files and directories being protected, so the savings in storage make up for the extra processing required to deduplicate.	**off** - Disable in-line dedup (default) **on** - Enable in-line dedup	————	NAS

F List of Restore Options

This appendix is a complete list of restore options that you can specify when using the following commands:

You specify these options using the `-restoreoption` keyword in these commands.

Restore Option	Description	Value	Restore Operation	App Type
asmracnodelist	Colon separated list of ASM RAC node IP addresses.	String	scrubmount, mount, clone, failover, failovertest	Oracle, ConsistGrp
compressstreamsnap	Use compression for StreamSnap replication.	true or false	syncback	—————
encryptstreamsnap	Use encryption for StreamSnap replication. *Note: Only disable the encryptstreamsnap restore option under strict guidance of Support.*	true or false	syncback	—————

Restore Option	Description	Value	Restore Operation	App Type
mapdiskstoallclusternodes	Maps disks to all Actifio appliance nodes. Only maps disks to all cluster nodes in a Microsoft cluster. The command does not map to ESX hosts when mounting to a VMware VM. To mount to a VMware VM, use `mapdiskstoallesxhosts`.	true or false (default)	scrubmount, mount, restore, clone, failover, failovertest	—————
mapdiskstoallesxhosts	Map disks to all ESX hosts	true or false (default)	mount, restore, clone, failover, failovertest, scrubmount	—————
maponly	Map only, do not mount	true or false	mount, clone	LVM Volume
mountdriveperimage	Specify drive letter for the first mount volume; consecutive free drive letters are assigned for other volumes	String	scrubmount, mount, clone, failover, failovertest	—————

mountdriveperdisk	Specifies the drive letter for a specific volume. The `mountdriveperdisk` option requires the following format:
	
	`option-<unique volume id>=value`
	
	To properly specify the `mountdriveperdisk` restore option:
	
	1. Use the `udsinfo lsbackup` command to locate the volume uuid. Every volume in the backup image has a unique volume identifier.
	
	2. Specify `mountdriveperdisk` in the format:
	
	`restoreoptionname-volumeuniqueid=restoreoptionvalue`
	
	For example:
	
	$ udstask mountimage -image Image_0007344 -host oel65 -restoreoption mountdriveperdisk-dasvol:172.16.201.216:/myNFS=/mnt/test123
		String	scrubmount, mount, clone, failover, failovertest	—————

Restore Option	Description	Value	Restore Operation	App Type

mountpointperdisk	Specifies a mount point for a specific volume. The `mountpointperdisk` option requires the following format:
	
	`option-<unique volume id>=value`
	
	To properly specify the `mountpointperdisk` restore option:
	
	1. Use the `udsinfo lsbackup` command to locate the volume uuid. Every volume in the backup image has a unique volume identifier.
	
	2. Specify `mountpointperdisk` in the format:
	
	`restoreoptionname-volumeuniqueid=restoreoptionvalue`
	
	For example:
	
	`$ udstask mountimage -image Image_0007344 -host oel65 -restoreoption mountpointperdisk-dasvol:172.16.201.216:/myNFS=/mnt/test123`
		String	scrubmount, mount, clone, failover, failovertest	—————

mountpointperimage	Specifies the root directory for all mount points.	String	scrubmount, mount, clone, failover, failovertest	—————
provisioningoptions	Specifies a path to a app-aware mount provisioning options. The `provisioningoptions` property indicates that this is an app-aware mount, regardless of the `-appaware` flag. Use the `udsinfo lsappclass` command to retrieve the supported appclass and its associated properties to include as the defined provisioning options.	String	restore	—————

Restore Option	Description	Value	Restore Operation	App Type
recover	Recovery option for SQL Server to bring the database online. The appliance restores/copies mdf/ldf files from the backup image and brings the SQL Server database online. Once the SQL Server database is online, Transaction logs can not be applied to the database.	String	restore	SQLServer Writer
reprotect	Directive in the provisioning options XML file to reprotect the application. Use the `udsinfo lsappclass` command to retrieve the supported appclass and its associated properties to include as the defined provisioning options.	Boolean	mount, mountstack	—————
restoremacaddr	Restore the MAC address of the network card.	Boolean	mount,clone, failover	VMBackup

restoretype	Recovery option for Oracle ASM instance to allow a restore image to be ASM-rebalance capable. When performing a restore using an ASM switch, the backup image will be mounted using an ASM switch. After the job completes, the image will be mounted and locked with the rebalance capable flag set. The `restoretype` option requires the following format:
	
	`restoretype=asmswitch,volgroupname=<diskgroup name>,asmracnodelist=<node ip list>`
	
	For example:
	
	`$ udstask mountimage -image Image_3350783 -restoreoption restoretype=asmswitch,volgroupname=ASMFSDG,asmracnodelist=172.16.16.20 -host orarac1`
		String	mount	Oracle, ConsistGrp

Restore Option	Description	Value	Restore Operation	App Type
slpid	Specifies the SLP ID to use for the mount operation.	String	mount, mountstack	————
sltid	Specifies the SLT ID to use for the mount operation.	String	mount, mountstack	————

vmdkprovisionformatper disk	Specifies the disk provisioning format for a specific volume	`sourcevmdkformat` - Use same data format as the source vmdk.
		
		`thinprovisioned`
		
		`thickeagerzero provisioned`
		
		`thicklazyzero provisioned`
			restore and clone	VMB acku p

vmdkprovisionformatperi mage	Specifies the disk provisioning strategy for all volumes	`sourcevmdkformat` - Use same data format as the source vmdk.
		
		`thinprovisioned`
		
		`thickeagerzero provisioned`
		
		`thicklazyzero provisioned`
			restore and clone	VMB acku p

volgroupname	Name of the volume group or storage pool to be used for discovered disks.	String	scrubmount, mount, clone, failover, failovertest	Orac le, Cons istGr p