



## **Cisco HyperFlex Data Platform CLI Guide, 3.0**

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# CHAPTER 1

## stcli Commands

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## stcli Commands

HX Data Platform Command Line Interface (CLI) commands all begin with **stcli**.

**stcli [-h] {about | services | vm | dp | snapshot-schedule | cluster | appliance | node | disk | datastore | file | security | license }**

Syntax Description	Option	Required or Optional	Description
	<b>about</b>	One of set required.	About controller VM service, the storage manager, <code>stMgr</code> .
	<b>appliance</b>	One of set required.	Commands supported in the storage cluster appliance namespace.
	<b>cluster</b>	One of set required.	Commands supported in the storage cluster namespace.
	<b>datastore</b>	One of set required.	Commands supported in the storage cluster datastore namespace.
	<b>disk</b>	One of set required.	Commands supported in the storage cluster disk namespace.
	<b>file</b>	One of set required.	Commands supported in the storage cluster VM file namespace.
	<b>license</b>	One of set required.	Commands supported in the Smart License namespace.

Option	Required or Optional	Description
<b>node</b>	One of set required.	Commands supported in the storage cluster node namespace. A storage cluster node is comprised of a hypervisor node and the storage controller. The storage cluster node uses the hypervisor ID/IP for identification.
<b>security</b>	One of set required.	Commands supported in the storage cluster security namespace.
<b>services</b>	One of set required.	Commands supported in the storage cluster system services namespace.
<b>snapshot-schedule</b>	One of set required.	Enables / disables snapshot schedules for all the objects in this storage cluster.
<b>vm</b>	One of set required.	Commands supported in the storage cluster VM namespace.

**Command Default** None. One option from the set is required.

**Usage Guidelines** Accompany the `stcli` command with one of the positional arguments enclosed in `{ }` or optionally, arguments enclosed in `[ ]`.

## stcli about Command

Displays information about the HX controller VM's service, storage manager, `stMgr`. This is the service that manages the controller VM.

### stcli about

**Command Default** None.

**Usage Guidelines** Run the `stcli about` command.

```
# stcli about
serviceType: stMgr
instanceUuid:
name: HyperFlex StorageController
locale: English (United States)
serialNumber:
apiVersion: 0.1
modelName: X9DRT
build: 2.0.1a-19584 (master)
displayVersion: 2.0(1a)
fullName: HyperFlex StorageController 2.0.1a
productVersion: 2.0.1a-19584
```

## stcli -help Command

Help option on all `stcli` commands.

`stcli [COMMAND] [-h]`

Syntax Description	Option	Required or Optional	Description
	<code>-h, --help</code>	Required	Shows the help message relative to the listed command and exits.
Command Default	None.		
Usage Guidelines	Accompany the <code>stcli</code> command with one of the positional commands or arguments and the <code>--help</code> option.		





## CHAPTER 2

# stcli appliance Commands

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## stcli appliance Command

Appliance operations.

**stcli appliance [-h] {list | discover}**

Syntax Description	Option	Required or Optional	Description
	<b>list</b>	One of set required.	Lists the storage cluster appliances in the storage cluster.
	<b>discover</b>	One of set required.	Discover new storage cluster appliances in the network.

**Command Default** None. One option from the set is required.

**Usage Guidelines** Accompany the `stcli appliance` command with one of the positional arguments enclosed in { }, or optional arguments enclosed in [ ].

## stcli appliance discover Command

Discover new storage cluster appliances in the network. If none are found, only the time spent searching is returned.

**stcli appliance discover [-h]**

**Command Default** None.

**Usage Guidelines** Run the `stcli appliance discover` command.

# stcli appliance list Command

Lists the storage cluster appliances in the storage cluster.

## stcli appliance list [-h]

### Command Default

None.

### Usage Guidelines

Run the `stcli appliance list appliance` command.

This example shows a truncated response:

```
# stcli appliance list

ps:
-----
status: green
name: Power Supply 1 PS1 Status: Power Supply AC lost - Deassert
-----
status: green
name: Power Supply 2: Running/Full Power-Enabled
-----
status: green
name: Power Supply 1: Running/Full Power-Enabled
-----
status: green
name: Power Supply 1 PS1 Status: Predictive failure - Deassert
-----
status: green
name: Power Supply 2 PS2 Status: Failure status - Deassert
-----
status: green
name: Power Supply 2 PS2 Status: Predictive failure - Deassert
-----
status: green
name: Power Supply 2 PS2 Status: Power Supply AC lost - Deassert
-----
status: green
name: Power Supply 1 PS1 Status: Failure status - Deassert
-----

serialNumber:
disks:
  EntityRef(type=10, id='5000c500642d17ad:0000000000000000', name='/dev/sde'):
    status: online
    serialNumber: 9XG4XS2V
    capacity: 931.5G
    slotNumber: 1.1.4
    logicalname: /dev/sde
    modelNumber: ST91000640NS
    entityRef:
      type: pdisk
      id: 5000c500642d17ad:0000000000000000
      name: /dev/sde
      version: SN03
      vendor: Seagate
    EntityRef ...

modelNumber: X9DRT
pnics:
```

```

EntityRef(type=3, id='00000000-0000-0000-0000-002590d423b2', name='cs-002a'):
-----
device: vmnic2
mac: 90:e2:ba:54:6d:04
pci: 0000:04:00.0
speedMb: 10000
-----
...
EntityRef(type=3, id='00000000-0000-0000-0000-002590d42388', name='cs-002c'):
-----
device: vmnic0
mac: 00:25:90:d4:23:88
pci: 0000:02:00.0
speedMb: 1000
-----
...

nodes:
  A:
    state: online
    upgradeState: ok
    storfsIp:
      addr: 10.104.48.24
      stService: stctl
      vlanId: 311
      gateway: 10.104.48.1
      subnetMask: 255.255.240.0
      method: static
    pNode:
      about:
        serviceType: sysmAgent
        instanceUuid: d8e6ec9a564de28a:9d870ca45456c471
        name:
        locale: en-US
        serialNumber: unset
        apiVersion: 0.0.1
        modelNumber: unset
        build: 2.0.1-release-20569
        displayVersion: 2.0(1a)
        fullName: HyperFlex StorageController-2.0.1a
        productVersion: 2.0.1a-20569
      retired: False
      compression: True
      ip: 10.104.48.24
      disks:
        -----
        blacklistCount: 0
        medium: rotational
        capacity: 931.5G
        state: ready
        version: 0
        entityRef:
          type: disk
          id: 5000c500642e0f8f:0000000000000000
        usage: persistence
        path: /dev/sdd
        lastModifiedTime: 1484715441000
        usedCapacity: 9.2G
        -----
        ...
        -----

```

```

dedup: True
nsPrimary: True
dataWriteThruEnabled: True
state: ready
bootTime: 0
master: False
entityRef:
  type: pnode
  id: d8e6ec9a564de28a:9d870ca45456c471
  name: 10.104.48.24
version: 0
lastModifiedTime: 1484715441000
name: 10.104.48.24

host:
state: online
about:
  serviceType: HostAgent
  instanceUuid: 00000000-0000-0000-0000-002590d423b2
  name: VMware ESXi
  locale: English (United States)
  serialNumber: 0123456789
  apiVersion: 6.0
  modelNumber: X9DRT
  build: 3380124
  fullName: VMware ESXi 6.0.0 build-3380124
  productVersion: 6.0.0

stctlvm:
name: stCtlVM-0123456789 (2)
ip: 10.104.48.24
guestHostname:
mgmtClusterIp: 10.104.32.32
storageNetworkIp: 10.104.48.24
moid: vm-885
role: storage
entityRef:
  type: virtmachine
  id: vm-885
  name: stCtlVM-0123456789 (2)
version: 2.1.1
passthrough: pci
guestState: running
mgmtNetworkIp: 10.104.32.28

name: cs-002a
ip:
  addr: 10.104.32.21
  stService: hypervisor
  vlanId: 0
  gateway: 10.104.32.1
  subnetMask: 255.255.240.0
  method: static
moid: host-879
ipmiSettings:
  addr: 10.104.32.20
  stService: ipmi
  gateway: 10.104.32.1
  subnetMask: 255.255.240.0
  method: dhcp

ioVisor:
about:
  serviceType: scvmclient
  instanceUuid:
  name: Springpath I/O Visor

```



```

        locale:
        serialNumber:
        apiVersion:
        modelNumber:
        build:
        fullName: Springpath I/O Visor
        productVersion: 2.0.1a-20569
    state: offline

bootTime: 0
entityRef:
  type: node
  id: 00000000-0000-0000-0000-002590d423b2
  name: cs-002a
vMotionIp:
  addr: 10.104.48.20
  vlanId: 311
  gateway: 10.104.32.1
  subnetMask: 255.255.240.0
  method: static
enclosureSerialNumber:

entityRef:
  type: node
  id: 00000000-0000-0000-0000-002590d423b2
  name: cs-002a
progress:
-----
  completion: 100
  parent:
    type: node
    id: 00000000-0000-0000-0000-002590d423b2
    name: 10.104.48.24
  name: Disk Prepare /dev/sdb
  state: succeeded
  entity:
    type: disk
    id: 55cd2e404b6d511e:0000000000000000
  description: Ignored solid state drive /dev/sdb
-----
  ...
-----
upgradeVersion: 2.0.1a-20569
C:
state: online
upgradeState: ok
storfsIp:
  addr: 10.104.48.27
  stService: stctl
  vlanId: 311
  gateway: 10.104.48.1
  subnetMask: 255.255.240.0
  method: static
pNode: ...

```





# CHAPTER 3

## stcli cluster Command

HX Data Platform storage cluster operations.

**stcli cluster [-h] {prepare | create | info | diag | refresh | shutdown | start | upgrade | upgrade-status | upgrade-kernel | version | create-config | recreate | reregister | get-data-replication-factor | get-cluster-access-policy | set-cluster-access-policy | enable-data-write-thru | disable-data-write-thru | storage-summary | get-zone | set-zone}**

Syntax Description	Option	Required or Optional	Description
	<b>create</b>	One of set required.	Creates a storage cluster with the name and the given nodes identified by IP addresses.
	<b>create-config</b>	One of set required.	Creates a storage cluster from a configuration file.
	<b>diag</b>	One of set required.	Provides diagnostic messages about the storage cluster.
	<b>disable-data-write-thru</b>	One of set required.	Disables data write through on the storage cluster.
	<b>enable-data-write-thru</b>	One of set required.	Enables data write through on the storage cluster.
	<b>get-cluster-access-policy</b>	One of set required.	Gets storage cluster Cluster Access Policy.
	<b>get-data-replication-factor</b>	One of set required.	Gets storage cluster Data Replication Factor.
	<b>info</b>	One of set required.	Provides information about the currently configured storage cluster.
	<b>prepare</b>	One of set required.	Prepares network configuration for storage cluster for the set of nodes identified by IP addresses.

Option	Required or Optional	Description
<b>recreate</b>	One of set required.	Recreates an existing storage cluster with force option.
<b>refresh</b>	One of set required.	Refreshes storage cluster status.
<b>reregister</b>	One of set required.	Reregister an existing storage cluster from one vCenter to another.
<b>set-cluster-access-policy</b>	One of set required.	Sets storage cluster Cluster Access Policy.
<b>shutdown</b>	One of set required.	Shuts down storage cluster.
<b>start</b>	One of set required.	Starts the storage cluster
<b>storage-summary</b>	One of set required.	Provides storage summary about the currently configured storage cluster.
<b>upgrade</b>	One of set required.	Upgrades the storage cluster
<b>upgrade-kernel</b>	One of set required.	Provides transitional information about storage cluster upgrade kernel.
<b>upgrade-status</b>	One of set required.	Provides transitional information about storage cluster upgrade status.
<b>version</b>	One of set required.	Provides information about storage cluster version.
<b>get-zone</b>	One of set required	Gets the zone details. This option is used to check if the zone is enabled.
<b>set-zone</b>	One of set required	Enable or disable zone(s).

**Command Default**

None. One option from the set is required.

**Usage Guidelines**

Accompany the `stcli cluster` command with one of the positional arguments enclosed in `{ }`, or optional arguments enclosed in `[ ]`.

- [stcli cluster create Command, on page 13](#)
- [stcli cluster create-config Command, on page 14](#)
- [stcli cluster diag Command, on page 15](#)
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- [stcli cluster enable-data-write-thru Command, on page 16](#)
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- [stcli cluster prepare Command, on page 19](#)
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## stcli cluster create Command

Creates a storage cluster with the name and the given nodes identified by IP addresses.



**Important**

Please enter password when prompted.

```
stcli cluster create [-h] --name NAME --ip IP --mgmt-ip MGMTIP [--vcenter-datacenter DATACENTER]
[--vcenter-cluster VCENTERCLUSTER] [--vcenter-url VCENTERURL] [--vcenter-sso-url
VCENTERSSOURL] [--vcenter-user VCENTERUSER] --node-ips NODEIPS [NODEIPS . . .]
--data-replication-factor {2 | 3} [--cluster-access-policy {strict | lenient}] [--zone { 0 | 1}]
[--vdi-only-deployment] [-f] [--dryrun] [--esx-username ESXUSERNAME]
```

*Table 1: Syntax Description*

Option	Required or Optional	Description
<b>--ip IP</b>	Required	IP address of storage cluster node. The IP is listed in the <code>stcli cluster info</code> command.
<b>--mgmt-ip MGMTIP</b>	Required	IP of storage cluster management server.
<b>--name NAME</b>	Required	Name of storage cluster.
<b>--node-ips NODEIPS [NODEIPS . . .]</b>	Required	IPs of all converged nodes to add to storage cluster.
<b>--vcenter-datacenter DATACENTER</b>	Optional	Name of vCenter datacenter.
<b>--vcenter-user VCENTERUSER</b>	Optional	User name of vCenter administrator. Enter vCenter administrator password when prompted.

Option	Required or Optional	Description
<b>--cluster-access-policy {strict, lenient}</b>	Optional. Default lenient	Cluster Access Policy (strict or lenient).
<b>--data-replication-factor {2, 3}</b>	Optional. Default 3	Data Replication Factor (2 or 3). This can only be set during initial storage cluster creation.
<b>--dryrun</b>	Optional	Only validate input parameters.
<b>--esx-username ESXUSERNAME</b>	Optional	User name of ESX administrator. Enter ESX administrator password when prompted.
<b>-f, --force</b>	Optional	Force create storage cluster. This ignores network configuration errors and creates the cluster with provided information.
<b>--vcenter-cluster VCENTERCLUSTER</b>	Optional	Name of vCenter cluster.
<b>--vcenter-sso-url VCENTERSSOURL</b>	Optional	URL of vCenter SSO server. This is inferred from <code>--vcenter-url</code> , if not specified.
<b>--vcenter-url VCENTERURL</b>	Optional	URL of vCenter, <code>&lt;vcentername&gt;</code> . Where <code>&lt;vcentername&gt;</code> can be FQDN or IP.
<b>--vdi-only-deployment</b>	Optional. Default is VSI.	Set Workload Type as VDI.
<b>-zone {0,1}</b>	Optional	Enable (1) or Disable (0) zones.
Controller VM root user password	Optional	All nodes must have the same password. Enter controller VM password when prompted.

**Command Default** None. See table for list of required and optional parameters.

**Usage Guidelines** Accompany the `stcli cluster create` command with appropriate positional arguments.

## stcli cluster create-config Command

Creates a storage cluster from a configuration file.



**Important** Please enter password when prompted.

```
stcli cluster create-config [-h] [-f] [--dryrun] --vcenter-user VCENTERUSER [--esx-username ESXUSERNAME] config
```

Table 2: Syntax Description

Option	Required or Optional	Description
<b>config</b>	Required	Configuration storage cluster file.
<b>--dryrun</b>	Optional	Only validate input parameters.
<b>--esx-username ESXUSERNAME</b>	Optional	User name of ESX administrator. Enter ESX administrator password when prompted.
<b>-f, --force</b>	Optional	Force create storage cluster. This ignores network configuration errors and creates the cluster with provided information.
<b>--vcenter-user VCENTERUSER</b>	Optional	User name of vCenter administrator. Enter vCenter administrator password when prompted.
Controller VM root user password	Optional	All nodes must have the same password. Enter controller VM password when prompted.

**Command Default** None. See table for list of required and optional parameters.

**Usage Guidelines** Accompany the `stcli cluster create-config` command with the appropriate positional arguments.  
See the Cisco HyperFlex Systems Installation Guide for VMware ESXi for requirements.

## stcli cluster diag Command

Provides diagnostic messages about the cluster.

**stcli cluster diag [-h] [--id ID | --ip NAME] [--type TYPE]**

Syntax Description	Option	Required or Optional	Description
	<b>--id ID</b>	Optional.	ID of storage cluster node. The ID is listed in the <code>stcli cluster info</code> command.
	<b>--ip NAME</b>	Optional.	IP address of storage cluster node. The IP is listed in the <code>stcli cluster info</code> command.
	<b>--type TYPE</b>	Optional.	Type of storage cluster node. Options are: <code>converged</code> OR <code>compute</code>

**Command Default** If no node is specified, default applies to all nodes in the storage cluster.

**Usage Guidelines** Accompany the `stcli cluster diag` command with optionally, arguments enclosed in [ ].

## stcli cluster disable-data-write-thru Command

Disable data write through on the storage cluster.

**stcli cluster disable-data-write-thru [-h] [--id ID | --ip NAME]**

Syntax Description	Option	Required or Optional	Description
	<b>--id ID</b>	Optional.	ID of storage cluster node. The ID is listed in the <code>stcli cluster info</code> command.
	<b>--ip NAME</b>	Optional.	IP address of storage cluster node. The IP is listed in the <code>stcli cluster info</code> command.

**Command Default** If no node is specified, default applies to all nodes in the storage cluster.

**Usage Guidelines** Accompany the `stcli cluster disable-data-write-thru` command with optionally positional arguments enclosed in [ ].

## stcli cluster enable-data-write-thru Command

Enable data write through on the storage cluster.

**stcli cluster enable-data-write-thru [-h] [--id ID | --ip NAME]**

Syntax Description	Option	Required or Optional	Description
	<b>--id ID</b>	Optional.	ID of storage cluster node. The ID is listed in the <code>stcli cluster info</code> command.
	<b>--ip NAME</b>	Optional.	IP address of storage cluster node. The IP is listed in the <code>stcli cluster info</code> command.

**Command Default** If no node is specified, default applies to all nodes in the storage cluster.

**Usage Guidelines** Accompany the `stcli cluster enable-data-write-thru` command with optionally positional arguments enclosed in [ ].

## stcli cluster get-cluster-access-policy Command

Gets storage cluster Cluster Access Policy.

**stcli cluster get-cluster-access-policy [-h]**

**Command Default** Return cluster setting.



**Usage Guidelines**

Enter the `stcli cluster get-cluster-access-policy` command.

```
# stcli cluster get-cluster-access-policy
lenient
```

## stcli cluster get-data-replication-factor Command

Gets storage cluster Data Replication Factor.

**stcli cluster get-data-replication-factor [-h]**

**Command Default**

Returns cluster setting.

**Usage Guidelines**

Run the `stcli cluster get-data-replication-factor` command.

```
# stcli cluster get-data-replication-factor
3
```

## stcli cluster info Command

Displays detailed information about the storage cluster and each node in the storage cluster.

**stcli cluster info [-h] --summary**

Syntax Description	Option	Required or Optional	Description
	<b>--summary</b>	Optional.	Return summary of information only.

**Command Default**

Returns full cluster information.

**Usage Guidelines**

Accompany the `stcli cluster info` command with the optional positional argument enclosed in [ ] to return a summary of the cluster information.

**Note**

When vCenter or stMgr is down, the error message from stcli data protection operations may not be self-explanatory. Please validate that the vCenter connection is good and that the “stcli cluster info” command returns cluster healthy status before running stcli data protection operations.

```
# stcli cluster info
about:
  serviceType: stMgr
  instanceUuid: 345258cf-12d4-4d71-ba9e-b91e47d15e49
  name: HyperFlex StorageController
```

```

locale: English (United States)
serialNumber:
apiVersion: 0.1
modelName: X9DRT
build: 2.0.1a-20569 (internal)
displayVersion: 2.0(1a)
fullName: HyperFlex StorageController 2.0.1a
productVersion: 2.0.1a-20569

vCluster:
  state: online
  boottime: 0
  entityRef:
    type: virtcluster
    id: domain-c876
    name: cs002-cl
  virtNodes:
    -----
    type: virtnode
    id: 00000000-0000-0000-0000-002590d423a4
    -----
    type: virtnode
    id: 00000000-0000-0000-0000-002590d42388
    -----
    type: virtnode
    id: 00000000-0000-0000-0000-002590d423b2
    -----

  virtDatastores:

upgradeState: ok
upgradeVersion: 2.0.1a-20569
cluster:
  allFlash: False
  healthState: healthy
  capacity: 5.0T
  state: online
  compliance: 1
  resiliencyInfo:
    nodeFailuresTolerable: 1
    state: 1
    messages:
      Storage cluster is healthy.
    cachingDeviceFailuresTolerable: 1
    persistentDeviceFailuresTolerable: 1

  activeNodes: 3
  uptime: 18:53:15
  boottime: 1484703014
  entityRef:
    type: cluster
    id: 345258cf12d44d71:456146e1b82ea1b7
  downtime: 0:00:00
  healingInfo:
    inProgress: False
  freeCapacity: 5.0T
  usedCapacity: 55.0G
  config:
    clusterUuid: 345258cf12d44d71:456146e1b82ea1b7
    ip: 10.104.48.28
    dataReplicationFactor: 2
    clusterAccessPolicy: lenient
    size: 3

  nodes:
    -----
    type: pnode

```

```

        id: bf7a0223564d0db8:88974e15886ab3e0
        name: 10.104.48.27
        -----
        type: pnode
        id: d1b5bc18564da19b:bc1e977ebd9aafec
        name: 10.104.48.26
        -----
        type: pnode
        id: d8e6ec9a564de28a:9d870ca45456c471
        name: 10.104.48.24
        -----
    rawCapacity: 10.0T
    state: online
    stNodes:
        -----
        type: node
        id: 00000000-0000-0000-0000-002590d423b2
        name: cs-002a
        -----
        type: node
        id: 00000000-0000-0000-0000-002590d42388
        name: cs-002c
        -----
        type: node
        id: 00000000-0000-0000-0000-002590d423a4
        name: cs-002d
        -----
    entityRef:
        type: cluster
        id: 3770173484459904369:4999354996629610935
        name: cs002-cl
    config:
        clusterUuid: 3770173484459904369:4999354996629610935
        name: cs002-cl
        mgmtIp:
            addr: 10.104.32.32
            method: dhcp
        vCenterDatacenter: cs002-dc
        ip:
            addr: 10.104.48.28
            method: dhcp
        vCenterClusterName: cs002-cl
        dataReplicationFactor: 2
        workloadType: 2
        vCenterClusterId: domain-c876
        nodeIPSettings:
            cs-002d:
            cs-002c:
            cs-002a:
        vCenterDatacenterId: datacenter-871
        clusterAccessPolicy: lenient
        vCenterURL: cs-vc6
        dnsServers:
        size: 3

```

## stcli cluster prepare Command

Prepares network configuration for the storage cluster for the set of nodes identified by IP addresses.



**Note** The **stcli cluster prepare** command is only supported when the cluster is not yet deployed. Use the automated workflow for a running cluster.



**Note** This is an advanced command. Do not use without TAC assistance.

```
stcli cluster prepare [-h] [--node-ips NODEIPS [NODEIPS . . .] | --config CONFIG] [--hypervisor-ips
HYPERVISORIPS [HYPERVISORIPS . . .]] [--storefs-ips STORFSIPS [STORFSIPS . . .]] [--ipmi-ips
IPMIIPS [IPMIIPS . . .]] [--vmotion-ips VMOTIONIPS [VMOTIONIPS . . .]] [--netmask NETMASK]
[--gateway GATEWAY] [--vlan VLAN] [--netmask1 NETMASK1] [--gateway1 GATEWAY1] [--vlan1
VLAN1] [--dns DNS [DNS . . .]] [--ntp NTP [NTP . . .]] [--timezone TIMEZONE] [--smtp STMPSERVER]
[--fromaddress FROMADDRESS] [--dryrun]
```

**Syntax Description**

Option	Required or Optional	Description
<b>--config CONFIG</b>	Require one from set.	Network configuration file.
<b>--node-ips NODEIPS [NODEIPS . . .]</b>	Require one from set.	IPs of storage cluster nodes to add to configuration. Separate multiple IPS with a space.
<b>--dns DNS [DNS . . .]</b>	Optional.	IPs of DNS server. Separate multiple IPS with a space.
<b>--dryrun</b>	Optional.	Only validate input parameters.
<b>--fromaddress FROMADDRESS</b>	Optional.	Address to send Auto Support emails from.
<b>--gateway GATEWAY</b>	Optional.	Default gateway.
<b>--gateway1 GATEWAY1</b>	Optional.	Default gateway1.
<b>--hypervisor-ips HYPERVISORIPS [HYPERVISORIPS . . .]</b>	Optional.	IPs of hypervisor to be applied. Separate multiple IPS with a space.
<b>--ipmi-ips IPMIIPS [IPMIIPS . . .]</b>	Optional.	IPs of IPMI to be applied. Separate multiple IPS with a space.
<b>--netmask NETMASK</b>	Optional.	Subnet mask.
<b>--netmask1 NETMASK1</b>	Optional.	Subnet mask1.
<b>--ntp NTP [NTP . . .]</b>	Optional.	IPs of NTP servers. Separate multiple server IDs with a space.
<b>--smtp SMTPSERVER</b>	Optional.	SMTP server.
<b>--storefs-ips STORFSIPS [STORFSIPS . . .]</b>	Optional.	IPs of storage cluster to be applied. Separate multiple IPS with a space.

Option	Required or Optional	Description
<b>--timezone</b> TIMEZONE	Optional.	Timezone.
<b>--vlan</b> VLAN	Optional.	VLAN tag.
<b>--vlan1</b> VLAN1	Optional.	VLAN tag1.
<b>--vmotion-ips</b> VMOTIONIPS [VMOTIONIPS . . .]	Optional.	IPs of vMotion to be applied. Separate multiple IPS with a space.

**Command Default**

None. One option from the set is required.

**Usage Guidelines**

Accompany the `stcli cluster prepare` command with one of the positional arguments enclosed in `{ }` and optionally arguments enclosed in `[ ]`.

**Note**

Do not use this command without TAC assistance.

## stcli cluster recreate Command

Recreates an existing storage cluster with force option.

**Important**

Please enter password when prompted.

**stcli cluster recreate [-h] --vcenter-user VCENTERUSER**

**Syntax Description**

Option	Required or Optional	Description
<b>--vcenter-user</b> VCENTERUSER	Required	User name of vCenter administrator. Enter vCenter administrator password when prompted.
Controller VM root user password	Optional	All nodes must have the same password. Enter controller VM password when prompted.

**Command Default**

None.

**Usage Guidelines**

Accompany the `stcli cluster recreate` command with the positional argument and optionally arguments enclosed in `[ ]`.

## stcli cluster refresh Command

Refreshes storage cluster status.

**stcli cluster refresh [-h]**

**Command Default** Returns refreshed cluster status.

**Usage Guidelines** Run the `stcli cluster refresh` command to manually refresh the cluster status.

## stcli cluster reregister Command

Shift registration of an existing storage cluster from one vCenter to another.



**Important**

- vCenter must be up and running to complete this command.
- Please enter password when prompted.

**stcli cluster reregister [-h] --vcenter-datacenter NEWDATACENTER --vcenter-cluster NEWVCENTERCLUSTER --vcenter-url NEWVCENTERURLIP [--vcenter-sso-url NEWVCENTERSSOURL] --vcenter-user NEWVCENTERUSER**

**Syntax Description**

Option	Required or Optional	Description
--vcenter-cluster NEWVCENTERCLUSTER	Required	Name of the new vCenter cluster.
--vcenter-datacenter NEWDATACENTER	Required	Name of the new vCenter datacenter.
--vcenter-sso-url NEWVCENTERSSOURL	Optional	URL of the new vCenter SSO server. This is inferred from --vcenter-url, if not specified.
--vcenter-url NEWVCENTERURLIP	Required	URL of the new vCenter, <vcentername>. Where <vcentername> can be IP or FQDN of new vCenter.
--vcenter-user NEWVCENTERUSER	Required	User name of the new vCenter administrator. Enter vCenter administrator password when prompted.

**Command Default** None.

**Usage Guidelines** Accompany the `stcli cluster reregister` command with the required arguments and optional arguments enclosed in [ ], as needed.

Use when moving a storage cluster from one vCenter server to another vCenter server. Task includes moving the storage cluster, registering the storage cluster with the new vCenter, and unregistering the storage cluster from the old vCenter. See the *Cisco HyperFlex Data Platform Administration Guide*.

## stcli cluster set-cluster-access-policy Command

Sets storage cluster Cluster Access Policy.

**stcli cluster set-cluster-access-policy [-h] --name {strict | lenient}**

Syntax Description	Option	Required or Optional	Description
	--name {strict, lenient}	Required.	Select the storage cluster Cluster Access Policy. <ul style="list-style-type: none"> <li>• Strict - Applies policies to protect against data loss.</li> <li>• Lenient - Applies policies to support longer storage cluster availability.</li> </ul>

**Command Default** No default using the `stcli cluster set-cluster-access-policy` command line. Using the HX Data Platform Installer, the default is `lenient`.

**Usage Guidelines** Used to change the setting applied during storage cluster creation. Accompany the `stcli cluster set-cluster-access-policy` command with one of the positional arguments enclosed in `{ }`.

This example shows setting the cluster Access Policy to strict. The command returns the applied setting.

```
# stcli cluster set-cluster-access-policy --name strict
strict
```

## stcli cluster shutdown Command

Stops storage cluster operations and shuts it down.

**stcli cluster shutdown [-h] [--formatchange]**

Syntax Description	Option	Required or Optional	Description
	--formatchange	Optional.	Enable disk format change after cluster shutdown.

**Command Default** None.

**Usage Guidelines** Run the `stcli cluster shutdown` command with optionally arguments enclosed in `[ ]`.

## stcli cluster start Command

Starts the storage cluster.

**stcli cluster start [-h]**

**Command Default** None.

**Usage Guidelines** The `stcli cluster start` command does not have any additional options.

## stcli cluster storage-summary Command

Provides storage summary about the currently configured the storage cluster.

**stcli cluster storage-summary [-h] [--]**

**Command Default** No additional options available.

**Usage Guidelines** Run `stcli cluster storage-summary` command to display the result.

```
# stcli cluster storage-summary
address: 10.104.48.28
name: cs002-cl
state: online
uptime: 0 days 19 hours 28 minutes 38 seconds
activeNodes: 3 of 3
compressionSavings: 83.2387622179
deduplicationSavings: 0.0
freeCapacity: 5.0T
healingInfo:
  inProgress: False
resiliencyInfo:
  messages:
    Storage cluster is healthy.
  state: 1
  nodeFailuresTolerable: 1
  cachingDeviceFailuresTolerable: 1
  persistentDeviceFailuresTolerable: 1
spaceStatus: normal
totalCapacity: 5.0T
totalSavings: 83.2387622179
usedCapacity: 55.0G
clusterAccessPolicy: lenient
dataReplicationCompliance: compliant
dataReplicationFactor: 2
```

## stcli cluster upgrade Command

Upgrades HX Data Platform software to the latest version.





**Important** Please enter password when prompted.

Syntax Description	Option	Required or Optional	Description
	--checksum CHECKSUM	Optional	Checksum of the installer.
	--components COMPONENTS	Required	Comma separated upgrade components {hxdp, ucs-fw, mgmt-only, hypervisor}
	--dryrun	Optional	Validate cluster upgrade can be possible.
	--info	Optional	Check for upgrade information.
	--location LOCATION	Optional	Location of the upgrade package. Best case use /tmp on the controller VM. <ul style="list-style-type: none"> <li>• Download the upgrade package to your computer.</li> <li>• Upload it (using scp or a similar tool) to the controller VM of the appliance on which you run the upgrade command.</li> </ul>
	--hypervisor-bundle HYPERVISOR-BUNDLE	Optional	Location of the ESXi offline bundle. Best case use /tmp on the controller VM. <ul style="list-style-type: none"> <li>• Download the upgrade package to your computer.</li> <li>• Upload it (using scp or a similar tool) to the controller VM of the appliance on which you run the upgrade command.</li> </ul>
	--status	Optional	Check for upgrade status.
	--ucsfw-version UCSFW-VERSION	Optional	UCS Server Firmware target version.
	--ucsm5-fw-version UCSM5-FW-VERSION	Optional	UCS Server Firmware target version for M5 servers.
	--ucsm-host UCSMHOST	Optional	Hostname or IP of UCS Manager server.
	--ucsm-user UCSMUSER	Conditionally required	User name of UCS Manager server. Required only if upgrading the UCS Manager component.
	--vcenter-user VCENTERUSER	Conditionally required	User name of vCenter administrator. Required only if upgrading the vCenter component. Enter vCenter administrator password when prompted.
	--vcenter-password VCENTERPWD	Conditionally required	Password for vCenter server. Required only if upgrading the vCenter component.

**Command Default** Assumes settings of existing storage cluster if additional options are not provided.

**Usage Guidelines** Accompany the `stcli cluster upgrade` command with one or more of the optional arguments enclosed enclosed in [ ].

See the Cisco HyperFlex Systems Upgrade Guide.

## stcli cluster upgrade-kernel Command



**Note** This command is not supported. .

## stcli cluster upgrade-status Command

Displays the last known upgrade status of the HX Data Platform software. If the upgrade is in progress, transitional status is listed. Once the upgrade is complete, the status lists the most recent upgrade. This also lists if an upgrade is available or you are due for an upgrade.

**stcli cluster upgrade-status [-h]**

**Command Default** No available options.

**Usage Guidelines** Accompany the `stcli cluster upgrade-status` command.

This example shows :

```
# stcli cluster upgrade-status
```

```
Nodes up to date: [cs-002a(10.104.32.21), cs-002c(10.104.32.25), cs-002d(10.104.32.27)]
Cluster upgrade succeeded.
```

## stcli cluster version Command

Displays the version number of each node in the storage cluster.

**stcli cluster version [-h]**

**Command Default** No options available.

**Usage Guidelines** Run the `stcli cluster version` command.

This example shows :

```
# stcli cluster version
```

```
Cluster version: 2.0(1a)
Node cs-002c version: 2.0(1a)
```

```
Node cs-002a version: 2.0(1a)
Node cs-002d version: 2.0(1a)
```

## stcli cluster get-zone Command

Gets the zone details. This option is used to check if the zone is enabled.

**stcli cluster get-zone**

---

**Command Default** No user input is required.

---

**Usage Guidelines** The `stcli cluster get-zone` command does not have any additional options.

## stcli cluster set-zone Command

Enable or disable zone(s).

**stcli cluster set-zone < --zone option\_arg {1:enable, 0:disable}> [--numzones option\_arg]**

---

**Command Default** If the option `< --numzones>` is not specified, storfs will automatically decide on the number of zones to be configured based on the active number of nodes in the cluster at the point of invocation.

---

**Usage Guidelines** Accompany the `stcli cluster set-zone` command with the zone option to enable or disable zone(s).

```
stcli cluster set-zone --zone 0 (to disable a zone)
```

```
stcli cluster set-zone --zone 1 (to enable and create default number of zones)
```

```
stcli cluster set-zone --zone 1 -numzones <integer-value> (to enable zones and create a
specific number of zones)
```

```
stcli rebalance start (you must execute the rebalance start command after you enable and
create zones)
```



---

**Warning**

Support for the `stcli rebalancecommand` is limited to Cisco Tech support only. General use is not supported.

---





## CHAPTER 4

# stcli datastore Command

Operations for storage cluster datastores.

**stcli datastore [-h] {list | create | info | update | delete | mount | unmount}**

Syntax Description	Option	Required or Optional	Description
	<b>create</b>	One of set required.	Creates a storage cluster datastore with the name and size.
	<b>delete</b>	One of set required.	Deletes a storage cluster datastore.
	<b>info</b>	One of set required.	Provides information about the specified storage cluster datastore.
	<b>list</b>	One of set required.	Lists the storage cluster datastores.
	<b>mount</b>	One of set required.	Mounts a storage cluster datastore.
	<b>unmount</b>	One of set required.	Unmounts a storage cluster datastore.
	<b>update</b>	One of set required.	Updates a storage cluster datastore's name and/or size.

**Command Default** None. One option from the set is required.

**Usage Guidelines** Accompany the `stcli datastore` command with one of the positional arguments enclosed in { } or optional arguments enclosed in [ ].

- [stcli datastore create Command, on page 30](#)
- [stcli datastore delete Command, on page 30](#)
- [stcli datastore info Command, on page 30](#)
- [stcli datastore list Command, on page 31](#)
- [stcli datastore mount Command, on page 31](#)
- [stcli datastore unmount Command, on page 31](#)
- [stcli datastore update Command, on page 32](#)

## stcli datastore create Command

Creates a storage cluster datastore with the provided name and size.

```
stcli datastore create [-h] --name NAME --size SIZE [--unit {kb | mb | gb | tb}] [--blocksize {8k,4k}]
```

Syntax Description	Option	Required or Optional	Description
	<code>--blocksize</code>	Optional.	Block size for stored data. Default 8K for all datastores. In VDI workloads, 4K is default.
	<code>--name NAME</code>	Required.	Name of storage cluster datastore.
	<code>--size SIZE</code>	Required.	Size of storage cluster datastore.
	<code>--unit {kb,mb,gb,tb}</code>	Optional.	Unit for size. Default GB.

**Command Default** ID or NAME must be specified. Default unit of measure is GB. Default blocksize is 8K.

**Usage Guidelines** Accompany the `stcli datastore create` command with both of the required parameters, and the optional parameter, if needed.

## stcli datastore delete Command

Deletes a storage cluster datastore.

```
stcli datastore delete [-h] {--id ID | --name NAME}
```

Syntax Description	Option	Required or Optional	Description
	<code>--id ID</code>	One of set required.	ID of datastore.
	<code>--name NAME</code>	One of set required.	Name of the datastore.

**Command Default** None. One option from the set is required.

**Usage Guidelines** Accompany the `stcli datastore delete` command with one of the positional arguments enclosed in `{ }` or optional arguments enclosed in `[ ]`.

## stcli datastore info Command

Provides information about the specified storage cluster datastore.

```
stcli datastore info [-h] {--id ID | --name NAME}
```

Syntax Description	Option	Required or Optional	Description
	<b>--id ID</b>	One of set required.	ID of datastore.
	<b>--name NAME</b>	One of set required.	Name of datastore.

**Command Default** None. One option from the set is required.

**Usage Guidelines** Accompany the `stcli datastore info` command with one of the positional arguments enclosed in `{ }` or optional arguments enclosed in `[ ]`.

## stcli datastore list Command

Lists the storage cluster datastores.

**stcli datastore list [-h]**

**Command Default** No available options.

**Usage Guidelines** Run the `stcli datastore list` command or add the optional argument enclosed in `[ ]`.

## stcli datastore mount Command

Mounts a storage cluster datastore.

**stcli datastore [-h] {--id ID | --name NAME}**

Syntax Description	Option	Required or Optional	Description
	<b>--id ID</b>	One of set required.	ID of datastore.
	<b>--name NAME</b>	One of set required.	Name of datastore.

**Command Default** None. One option from the set is required.

**Usage Guidelines** Accompany the `stcli datastore mount` command with one of the positional arguments enclosed in `{ }` or optional arguments enclosed in `[ ]`.

## stcli datastore unmount Command

Unmounts a storage cluster datastore.

**stcli datastore unmount [-h] {--id ID | --name NAME}**

Syntax Description	Option	Required or Optional	Description
	<b>--id ID</b>	One of set required.	ID of datastore.
	<b>--name NAME</b>	One of set required.	Name of datastore.

**Command Default** None. One option from the set is required.

**Usage Guidelines** Accompany the `stcli datastore unmount` command with one of the positional arguments enclosed in { } or optional arguments enclosed in [ ].

## stcli datastore update Command

Updates a storage cluster datastore's name and/or size.

```
stcli datastore update [-h] [--id ID | --name NAME] [--newname NEWNAME] [--size SIZE] [--unit {kb | mb | gb | tb}]
```

Syntax Description	Option	Required or Optional	Description
	<b>--id ID</b>	One of set required.	ID of datastore.
	<b>--name NAME</b>	One of set required.	Name of datastore.
	<b>--name NAME</b>	Optional.	New name of storage cluster datastore.
	<b>--size SIZE</b>	Optional.	New size of storage cluster datastore.
	<b>--unit {kb,mb,gb,tb}</b>	Optional.	Unit for size. Default GB.

**Command Default** None. One option from the set is required. Default unit is GB.

**Usage Guidelines** Accompany the `stcli datastore update` command with the required parameters, and any of the positional arguments enclosed in { } or optional arguments enclosed in [ ].





## CHAPTER 5

# stcli disk Command

Operations on the storage cluster disks.

```
stcli disk [-h] {list | add}
```

Syntax Description	Option	Required or Optional	Description
	<b>add</b>	One of set required.	Adds discovered new disks and specified blacklisted disks to the storage cluster.
	<b>list</b>	One of set required.	Lists the storage cluster disks in the node.

**Command Default** None. One option from the set is required.

**Usage Guidelines** Accompany the `stcli disk` command with one of the positional arguments enclosed in { } or optional arguments enclosed in [ ].

- [stcli disk add Command, on page 33](#)
- [stcli disk list Command, on page 34](#)

## stcli disk add Command

Adds discovered new disks and specified blacklisted disks to the storage cluster.

```
stcli disk add [-h] [--id ID | --name NAME] --blacklisted-disk-ids [DISKIDS [DISKIDS . . .]]
```

Syntax Description	Option	Required or Optional	Description
	<b>--id ID</b>	One of set required.	ID of storage cluster node.
	<b>--name NAME</b>	One of set required.	Name of storage cluster node.
	<b>--blacklisted-disk-ids [DISKIDS [DISKIDS . . .]]</b>	Required.	Blacklisted disks to add to storage cluster. Separate multiple IDs with a space.

**Command Default** None. One option from the set is required.

**Usage Guidelines**

Accompany the `stcli disk add` command with one of the positional arguments enclosed in `{ }` plus required `--blacklisted-disk-ids` option, or optional arguments enclosed in `[ ]`.

## stcli disk list Command

Lists the storage cluster disks in the node.

`stcli disk list [-h] [--id ID | --name NAME] [--rescan]`

**Syntax Description**

Option	Required or Optional	Description
<code>--id ID</code>	One of set required.	ID of storage cluster node. The ID is listed in the <code>stcli cluster info</code> command. <code>local</code> defaults to the local node.
<code>--ip NAME</code>	One of set required.	IP address of storage cluster node. The IP is listed in the <code>stcli cluster info</code> command. <code>localhost</code> defaults to the local node.
<code>--rescan</code>	Optional.	Rescan disks.

**Command Default**

None. One option from the set is required. Defaults for the options are: `local` for `ID` and `localhost` for `NAME`.

**Usage Guidelines**

Accompany the `stcli disk list` command with one of the positional arguments or optional arguments enclosed in `[ ]`.

**Note**

Sometimes when a disk is removed, it continues to be listed in cluster summary information. To refresh this, restart the HX cluster.



## CHAPTER 6

# stcli dp (data protection) Commands

- [stcli dp Command, on page 35](#)
- [stcli dp vm Commands, on page 35](#)
- [stcli dp group Commands, on page 50](#)
- [stcli dp peer Commands, on page 56](#)
- [stcli dp schedule Commands, on page 61](#)

## stcli dp Command

Data protection (DP) commands for replication and disaster recovery.

**stcli dp [-h] (vm | group | peer | schedule)**

Syntax Description	Option	Required or Optional	Description
	<b>group</b>	One of set required.	Data protection group snapshot operations.
	<b>peer</b>	One of set required.	Site replication pairing operations.
	<b>schedule</b>	One of set required.	Pause and resume replication, cluster wide for the sending cluster.
	<b>vm</b>	One of set required.	VM data protection with replication snapshot operations.

**Command Default** None. One option from the set is required.

**Usage Guidelines** Accompany the `stcli dp` command with one of the positional arguments enclosed in `{ }` or optionally, the arguments enclosed in `[ ]`.

## stcli dp vm Commands

HX Data Platform disaster recovery and native replication commands applied to virtual machines individually and not through the protection group.

**stcli dp vm [-h] {snapshot | add | list | info | delete | movein | moveout | schedule | prepareReverseProtect | reverseProtect | failover | testfailover | prepareFailover | migrate | hxtask}**

Syntax Description	Option	Required or Optional	Description
	<b>snapshot</b>	Unsupported	Beginning with HX Release 3.5(2g), the support for snapshot command was limited to Cisco Technical support only. General use is not supported.
	<b>add</b>	One of set required.	Add data protection to a virtual machine.
	<b>list</b>	One of set required.	List virtual machines under data protection.
	<b>info</b>	One of set required.	Display information about virtual machines under data protection.
	<b>delete</b>	One of set required.	Delete data protection from a virtual machine.
	<b>movein</b>	One of set required.	Move in data protection virtual machines to a protection group.
	<b>moveout</b>	One of set required.	Move out data protection virtual machines from a protection group.
	<b>schedule</b>	One of set required.	Schedule data protection for a virtual machine.
	<b>prepareReverseProtect</b>	One of set required.	Prepare reverse protection actions for the given virtual machine.
	<b>reverseProtect</b>	One of set required.	Perform reverse protection actions for the given virtual machine.
	<b>failover</b>	One of set required.	Failover the individual virtual machines from the recovery HX Storage Cluster.
	<b>testfailover</b>	One of set required.	Test recovery of individual virtual machines from the recovery HX Storage Cluster.
	<b>prepareFailover</b>	One of set required.	Prepare failover action for the given virtual machine.
	<b>migrate</b>	One of set required.	Migrate the given virtual machine.
	<b>hxtask</b>	One of set required.	Data protection related operations.

**Command Default** None. One option from the set is required.

**Usage Guidelines** Accompany the `stcli dp vm` command with one of the positional arguments enclosed in { } or optionally, the arguments enclosed in [ ].

## stcli dp vm snapshot Commands

Data protection virtual machine replication snapshot operations.



**Note** This command and its subcommands are not supported.

**stcli dp vm snapshot [-h] {create | replicate | list | info | delete}**

Syntax Description	Option	Required or Optional	Description
	<b>create</b>	One of set required.	Creates a replication snapshot for a virtual machine.
	<b>replicate</b>	One of set required.	Replicates a replication snapshot for a virtual machine.
	<b>list</b>	One of set required.	List replication snapshots available on this cluster.
	<b>info</b>	One of set required.	Show info for a replication snapshot.
	<b>delete</b>	One of set required.	Delete the specified replication snapshot.

**Command Default** None. One option from the set is required.

**Usage Guidelines** Accompany the `stcli dp vm snapshot` command with one of the positional arguments enclosed in { } or optionally, the arguments enclosed in [ ].

## stcli dp vm snapshot create Command

Creates a replication snapshot for a virtual machine.

**stcli dp vm snapshot create [-h] --vmid VMID [--vmidtype {VMBIOSUUID}] --snapname SNAPSHOTNAME [--desc DESCRIPTION] [--quiesce] [--offline]**

Syntax Description	Option	Required or Optional	Description
	<b>--vmid VMID</b>	Required.	Run command on the virtual machine that matches the specified BIOS UUID.
	<b>--vmidtype {VMBIOSUUID}</b>	Optional.	Run the command on the virtual machine that matches the specified ID type.
	<b>--snapname SNAPSHOTNAME</b>	Required.	Name of the replication snapshot.
	<b>--desc DESCRIPTION</b>	Optional.	Description of the replication snapshot.
	<b>--quiesce</b>	Optional.	Whether to use VMware Tools to quiesce the VMs before replication. VMware Tools must be installed in all the VMs in the replication group.
	<b>--Offline</b>	Optional	Take offline snapshot.

**Command Default** None.

**Usage Guidelines**

Accompany the `stcli dp vm snapshot create` command with the required arguments with leading two dashes (--), one of the positional arguments enclosed in { } or optionally, the arguments enclosed in [ ].

**stcli dp vm snapshot replicate Command**

Replicates a snapshot of a virtual machine to a remote cluster.

```
stcli dp vm snapshot replicate [-h] --vmid VMID [--vmidtype {VMBIOSUUID}] --snapshot-id SNAPSHOT-ID --outgoing OUTGOING
```

Syntax Description	Option	Required or Optional	Description
	<code>--vmid VMID</code>	Required.	Run command on the virtual machine that matches the specified BIOS UUID.
	<code>--vmidtype {VMBIOSUUID}</code>	Optional.	Run the command on the virtual machine that matches the specified ID type.
	<code>--snapshot-id SNAPSHOTID</code>	Required.	Snapshot ID of the VM to replicate.
	<code>--outgoing OUTGOING</code>	Required.	ID of the outgoing/target cluster where data is replicated to.

**Command Default**

None.

**Usage Guidelines**

Accompany the `stcli dp vm snapshot replicate` command with the required arguments with leading two dashes (--), one of the positional arguments enclosed in { } or optionally, the arguments enclosed in [ ].

**stcli dp vm snapshot list Command**

List replication snapshots available on this cluster.

```
stcli dp vm snapshot list [-h] --vmid VMID [--vmidtype {VMBIOSUUID}]
```

Syntax Description	Option	Required or Optional	Description
	<code>--vmid VMID</code>	Required.	Run command on the virtual machine that matches the specified BIOS UUID.
	<code>--vmidtype {VMBIOSUUID}</code>	Optional.	Run the command on the virtual machine that matches the specified ID type.

**Command Default**

None.

**Usage Guidelines**

Accompany the `stcli dp vm snapshot list` command with the required arguments with leading two dashes (--), one of the positional arguments enclosed in { } or optionally, the arguments enclosed in [ ].

**stcli dp vm snapshot info Command**

Show details of the VM snapshot.

**stcli dp vm snapshot info [-h] --vmid VMID [--vmidtype {VMBIOSUUID}] --snapshot-id SNAPSHOTID**

Syntax Description	Option	Required or Optional	Description
	<b>--vmid VMID</b>	Required.	Run command on the virtual machine that matches the specified BIOS UUID.
	<b>--vmidtype {VMBIOSUUID}</b>	Optional.	Run the command on the virtual machine that matches the specified ID type.
	<b>--snapshot-id SNAPSHOTID</b>	Required.	Snapshot ID of the VM.

**Command Default** None.

**Usage Guidelines** Accompany the `stcli dp vm snapshot info` command with the required arguments with leading two dashes (--), one of the positional arguments enclosed in { } or optionally, the arguments enclosed in [ ].

## stcli dp vm snapshot delete Command

Delete the specified snapshot.

**stcli dp vm snapshot delete [-h] --vmid VMID [--vmidtype {VMBIOSUUID}] --snapshot-id SNAPSHOTID**

Syntax Description	Option	Required or Optional	Description
	<b>--vmid VMID</b>	Required.	Run command on the virtual machine that matches the specified BIOS UUID.
	<b>--vmidtype {VMBIOSUUID}</b>	Optional.	Run the command on the virtual machine that matches the specified ID type.
	<b>--snapshot-id SNAPSHOTID</b>	Required.	Snapshot ID of the VM to be deleted.

**Command Default** None.

**Usage Guidelines** Accompany the `stcli dp vm snapshot delete` command with the required arguments with leading two dashes (--), one of the positional arguments enclosed in { } or optionally, the arguments enclosed in [ ].

## stcli dp vm add Command

Add data protection on a virtual machine.

**stcli dp vm add [-h] --vmid VMID [--vmidtype {VMBIOSUUID}]**

Syntax Description	Option	Required or Optional	Description
	<b>--vmid VMID</b>	Required.	Run command on the virtual machine that matches the specified BIOS UUID.  ID of the virtual machine (vmbiosuuid). For vCenter, specify the unique VMBIOSUUID of the virtual machine.
	<b>--vmidtype {VMBIOSUUID}</b>	Optional.	Run the command on the virtual machine that matches the specified ID type.  ID type of the virtual machine (vmbiosuuid). For vCenter, specify the unique virtual machine VMBIOSUUID.

**Command Default** None.

**Usage Guidelines** Accompany the `stcli dp vm add` command with the required arguments with leading two dashes (`--`) or optionally, the arguments enclosed in [ ].

## stcli dp vm list Command

List virtual machines with data protection. Display includes replication schedule.

`stcli dp vm list [-h] [--vmname VMNAME] [--vmid VMID] [--brief]`

Syntax Description	Option	Required or Optional	Description
	<b>--vmname VMNAME</b>	Optional.	Lists the protected virtual machine that matches the specified name.
	<b>--vmid VMID</b>	Optional.	Run command on the virtual machine that matches the specified internal original VM ID used to track the VM through its entire life cycle (also referred to as the BIOS UUID).
	<b>--brief</b>	Optional.	Display brief summary only.

**Command Default** Default lists all protected virtual machines.

**Usage Guidelines** Accompany the `stcli dp vm list` command with the required arguments with leading two dashes (`--`) or optionally, the arguments enclosed in [ ].

This example shows a summary list of protected virtual machines.

```
# stcli dp vm list --brief
vmInfo:
-----
name: dslvm-2
uuid: 423f11c4-20c9-893b-0dd8-2a0ad59ad634
```



```

-----
name: dslvm-1
uuid: 423f1d85-990a-4e06-ebef-a215c0ec4cf8
-----

```

## stcli dp vm info Command

List the data protection virtual machine information.

```
stcli dp vm info [-h] --vmid VMID [--vmidtype {VMBIOSUUID}]
```

Syntax Description	Option	Required or Optional	Description
	<b>--vmid VMID</b>	Required.	Run command on the virtual machine that matches the specified BIOS UUID.  ID of the virtual machine (vmbiosuuid). For vCenter, specify the unique virtual machine VMBIOSUUID.
	<b>--vmidtype {VMBIOSUUID}</b>	Optional.	Run the command on the virtual machine that matches the specified ID type.  ID type of the virtual machine (vcmoid, vmbiosuuid). For vCenter, specify the unique virtual machine VMBIOSUUID.
<b>Command Default</b>	None.		
<b>Usage Guidelines</b>	Accompany the <code>stcli dp vm info</code> command with the required arguments with leading two dashes ( <code>--</code> ) or optionally, the arguments enclosed in [ ].		

## stcli dp vm delete Command

Delete data protection from a virtual machine.

```
stcli dp vm delete [-h] --vmid VMID [--vmidtype {VMBIOSUUID}]
```

Syntax Description	Option	Required or Optional	Description
	<b>--vmid VMID</b>	Required.	Run command on the virtual machine that matches the specified BIOS UUID.  ID of the virtual machine (vmbiosuuid). For vCenter, specify the unique virtual machine VMBIOSUUID.

Option	Required or Optional	Description
<b>--vmidtype</b> <b>{VMBIOSUUID}</b>	Optional.	Run the command on the virtual machine that matches the specified ID type.  ID type of the virtual machine (vmbiosuuid). For vCenter, specify the unique virtual machine VMBIOSUUID.

**Command Default** None.

**Usage Guidelines** Accompany the `stcli dp vm delete` command with the required arguments with leading two dashes (--) or optionally, the arguments enclosed in [ ].

## stcli dp vm movein Command

Move in data protection virtual machines to a protection group.

**stcli dp vm movein [-h] --vmids VMIDS [VMIDS ...] --groupid GROUPID**

Syntax Description	Option	Required or Optional	Description
	<b>--vmid VMID</b>	Required.	Run command on the virtual machine that matches the specified BIOS UUID.  ID of the virtual machine (vmbiosuuid). If using vCenter, specify the unique virtual machine VMBIOSUUID.
	<b>--groupid GROUPID</b>	Optional.	ID of the group to which you want to move in the standalone virtual machine.

**Command Default** None.

**Usage Guidelines** Accompany the `stcli dp vm movein` command with the required arguments with leading two dashes (--) or optionally, the arguments enclosed in [ ].

## stcli dp vm moveout Command

Move out data protection virtual machine to a protection group.

**stcli dp vm moveout [-h] (--vmids VMIDS [VMIDS ...] | --allVMs) --groupid GROUPID**

Syntax Description	Option	Required or Optional	Description
	<b>--vmid VMID</b>	Required.	Run command on the virtual machine that matches the specified BIOS UUID.  ID of the virtual machine (vmbiosuuid). If using vCenter, specify the unique virtual machine VMBIOSUUID.
	<b>--allVMs</b>	Optional.	Move out all virtual machines from a group.
	<b>--groupid GROUPID</b>	Optional.	ID of the group from which you want to move out the standalone virtual machine.

**Command Default** None.

- Usage Guidelines**
- Accompany the `stcli dp vm moveout` command with the required arguments with leading two dashes (`--`) or optionally, the arguments enclosed in [ ].
  - `allVMs` can only be performed on a secondary. `allVMs` moves all the VMs out of the group and prepares them for **Recovery**. Use this option only if you plan to perform recovery on all VMs of the group. The `allVMs` option is deprecated and will be removed in a future release.

## stcli dp vm schedule Commands

HyperFlex data protection VM schedule operations.

**stcli dp vm schedule [-h] {set,get}**

Syntax Description	Option	Required or Optional	Description
	<b>--set</b>	Required one of set.	Set VM schedule operations.
	<b>--get</b>	Required one of set.	Get VM schedule.

**Command Default** None.

- Usage Guidelines**
- Accompany the `stcli dp vm schedule` command with one of the positional arguments enclosed in { } or optionally, the arguments enclosed in [ ].

### stcli dp vm schedule set Command

Set the VM replication schedule.

**stcli dp vm schedule set [-h] --vmid VMID [--vmidtype {VMBIOSUUID}] --replication-interval REPLICATIONINTERVALINMINUTES [--start-time REPLICATIONSTARTTIME] [--quiesce-using-tools] [--outgoing OUTGOING]**

Syntax Description	Option	Required or Optional	Description
	<b>--vmid VMID</b>	Required.	Run command on the virtual machine that matches the specified BIOS UUID.
	<b>--vmidtype {VMBIOSUUID}</b>	Optional.	Run the command on the virtual machine that matches the specified ID type.
	<b>--replication-interval REPLICATIONINTERVALMINUTES</b>	Required.	Replication interval in minutes
	<b>--start-time REPLICATIONSTARTTIME</b>	Optional	Replication start time in the format: mm/dd/yy_HH_MM.
	<b>--quiesce-using-tools</b>	Optional	Whether to use VMware Tools to quiesce the VMs before replication. VMware Tools must be installed in all the VMs in the replication group.
	<b>--outgoing OUTGOING</b>	Optional	ID of the outgoing/target cluster where data is replicated to.
<b>Command Default</b>	None.		
<b>Usage Guidelines</b>	Accompany the <code>stcli dp vm schedule set</code> command with the required arguments with leading two dashes (--), or optionally, the arguments enclosed in [ ].		

## stcli dp vm schedule get Command

Get the VM replication schedule information.

```
stcli dp vm schedule get [-h] --vmid VMID [--vmidtype {VMBIOSUUID}]
```

Syntax Description	Option	Required or Optional	Description
	<b>--vmid VMID</b>	Required.	Run command on the virtual machine that matches the specified BIOS UUID.
	<b>--vmidtype {VMBIOSUUID}</b>	Optional.	Run the command on the virtual machine that matches the specified ID type.
<b>Command Default</b>	None.		
<b>Usage Guidelines</b>	Accompany the <code>stcli dp vm schedule get</code> command with the required arguments with leading two dashes (--), or optionally, the arguments enclosed in [ ].		

## stcli dp vm prepareReverseProtect Command

Prepare reverse protection actions for the given virtual machine.

```
stcli dp vm prepareReverseProtect [-h] --vmid VMID [--force]
```

Syntax Description	Option	Required or Optional	Description
	<b>--vmid VMID</b>	Required.	Run command on the virtual machine that matches the specified BIOS UUID.  ID of the virtual machine (vmbiosuuid). If using vCenter, specify the unique virtual machine VMBIOSUUID.
	<b>--force</b>	Optional.	Perform force reverse protect preparation without validating the arguments.

**Command Default** None.

**Usage Guidelines** Accompany the `stcli dp vm prepareReverseProtect` command with the required arguments with leading two dashes (--) or optionally, the arguments enclosed in [ ].

## stcli dp vm reverseProtect command

Performs reverse protection action for the given VM.

**stcli dp vm reverseProtect [-h] --vmid VMID [--force] [--secondaryOnly]**

Option	Required or Optional	Description
<b>-h, --help</b>	Optional	Shows the help message relative to the listed command and exits.
<b>--vmid VMID</b>	Required	VMID BIOS UUID of the virtual machine.
<b>--force</b>	Optional	Do not validate the arguments and perform the operation.
<b>--secondaryOnly</b>	Optional	Execute reverseProtect only on secondary, assumes prepareReverseProtect is completed on primary.

## stcli dp vm failover Command

To failover the individual virtual machines from the recovery HX Storage Cluster. Where the recovery HX Storage Cluster is the target cluster for the replication pair protecting the virtual machines.

This command outputs the JOB-ID that is used for monitoring by the status command.

**stcli dp vm failover [-h] --vmid VMID [--resourcepool-id RESOURCEPOOL-ID | --resourcepool-name RESOURCEPOOL-NAME] [--folder-id FOLDER-ID | --folder-name FOLDER-NAME] [--network-mapping NETWORKMAPPING [NETWORKMAPPING ...]] [--poweron] [--force]**

Syntax Description	Option	Required or Optional	Description
	<b>--vmid VMID</b>	Required.	Run command on the virtual machine that matches the specified BIOS UUID.
	<b>--resourcepool-id RESOURCEPOOL-ID</b>	One of optional pair.	Place the recovered VM(s) on the resource pool with the listed ID.
	<b>--resourcepool-name RESOURCEPOOL-NAME</b>	One of optional pair.	Place the recovered VM(s) on the resource pool with the listed name.
	<b>--folder-id FOLDER-ID</b>	One of optional pair.	Place the recovered VM(s) in the folder with the listed ID.
	<b>--folder-name FOLDER-NAME</b>	One of optional pair.	Place the recovered VM(s) in the folder with the listed name.
	<b>--network-mapping NETWORKMAPPING [NETWORKMAPPING ...]</b>	Optional.	Map the source to destination network. Format <code>source_network:destination_network</code> . For example:  <pre>--network-mapping "source_network1:destination_network1", "source_network2:destination_network2"</pre>
	<b>--poweron</b>	Optional.	Power on the VM after recovery
	<b>--force</b>	Optional.	Do not validate the arguments and perform recovery

**Command Default** Location defaults to command execution path.

**Usage Guidelines** Accompany the `stcli dp vm failover` command with the required arguments with leading two dashes (`--`) or optionally, the arguments enclosed in `[ ]`.

## stcli dp vm testFailover Command

Test failover of the given virtual machine from the recovery HX Storage Cluster. Where the recovery HX Storage Cluster is the target cluster for the replication pair protecting the virtual machines.

```
stcli dp vm testFailover [-h] --vmid VMID [--resourcepool-id RESOURCEPOOL-ID |
--resourcepool-name RESOURCEPOOL-NAME] [--folder-id FOLDER-ID | --folder-name
FOLDER-NAME] [--test-network TESTNETWORK | --network-mapping NETWORKMAPPING
[NETWORKMAPPING ...]] [--poweron] [--force] [--newname NEWNAME]
```

Syntax Description	Option	Required or Optional	Description
	<b>--vmid VMID</b>	Required.	Run command on the virtual machine that matches the specified BIOS UUID.
	<b>--resourcepool-id RESOURCEPOOL-ID</b>	One of optional pair.	Place the recovered VM(s) on the resource pool with the listed ID.

Option	Required or Optional	Description
<b>--resourcepool-name</b> <b>RESOURCEPOOL-NAME</b>	One of optional pair.	Place the recovered VM(s) on the resource pool with the listed name.
<b>--folder-id</b> <b>FOLDER-ID</b>	One of optional pair.	Place the recovered VM(s) in the folder with the listed ID.
<b>--folder-name</b> <b>FOLDER-NAME</b>	One of optional pair.	Place the recovered VM(s) in the folder with the listed name.
<b>--test-network</b> <b>TESTNETWORK</b>	One of optional pair.	Test network to be used for test recovery. All source networks will be assigned to this network after recovery.
<b>--network-mapping</b> <b>NETWORKMAPPING</b> [ <b>NETWORKMAPPING</b> ...]	One of optional pair.	Map the source to destination network. Format <code>source_network:destination_network</code> . For example:  <pre>--network-mapping "source_network1:destination_network1",</pre>
<b>--poweron</b>	Optional.	Power on the virtual machine after recovery.
<b>--force</b>	Optional.	Performs test failover forcefully without validating the arguments.
<b>--newname</b> <b>NEWNAME</b>	Optional.	New name for the test recovered virtual machine.

**Command Default** Location defaults to command execution path.

**Usage Guidelines** Accompany the `stcli dp vm testFailover` command with the required arguments with leading two dashes (`--`) or optionally, the arguments enclosed in [ ].

## stcli dp vm prepareFailover Command

Prepare failover action for the given virtual machine.

**stcli dp vm prepareFailover [-h] --vmid VMID [--force]**

Syntax Description	Option	Required or Optional	Description
	<b>--vmid</b> <b>VMID</b>	Required.	Run command on the virtual machine that matches the specified BIOS UUID.  ID of the virtual machine ( <code>vmbiosuuid</code> ). If using vCenter, specify the unique virtual machine <code>VMBIOSUUID</code> .
	<b>--force</b>	Optional.	Perform force reverse failover preparation without validating the arguments.

**Command Default** None.

**Usage Guidelines** Accompany the `stcli dp vm prepareFailover` command with the required arguments with leading two dashes (--) or optionally, the arguments enclosed in [ ].

## stcli dp vm migrate Command

Migrate the given virtual machine.

```
stcli dp vm migrate [-h] --vmid VMID [--resourcepool-id RESOURCEPOOL-ID | --resourcepool-name
RESOURCEPOOL-NAME] [--folder-id FOLDER-ID | --folder-name FOLDER-NAME]
[--network-mapping NETWORKMAPPING [NETWORKMAPPING ...]] [--poweron]
```

Syntax Description	Option	Required or Optional	Description
	<code>--vmid VMID</code>	Required.	Run command on the virtual machine that matches the specified BIOS UUID.  ID of the virtual machine (vmbiosuuid). If using vCenter, specify the unique virtual machine VMBIOSUUID.
	<code>--resourcepool-id RESOURCEPOOL-ID</code>	Optional.	ID of the resource pool on which the recovered virtual machines have to be placed.
	<code>--resourcepool-name RESOURCEPOOL-NAME</code>	Optional.	Name of the resource pool on which the recovered virtual machines have to be placed.
	<code>--folder-id FOLDER-ID</code>	Optional.	ID of the folder on which the recovered virtual machines have to be placed.
	<code>--folder-name FOLDER-NAME</code>	Optional.	Name of the folder on which the recovered virtual machines have to be placed.
	<code>--network-mapping NETWORKMAPPING [NETWORKMAPPING ...]</code>	Optional.	Source to destination network map, in the format: "Source Network":"Destination Network".
	<code>--poweron</code>	Optional.	Power on the virtual machine after recovery.

**Command Default** None.

**Usage Guidelines** Accompany the `stcli dp vm migrate` command with the required arguments with leading two dashes (--) or optionally, the arguments enclosed in [ ].

## stcli dp vm hxtask Command

Data protection related operations.



**stcli dp vm hxtask [-h] [--vmid VMID] [--id ID] [--name NAME][--state {new,starting,running,suspended,shutting\_down,completed,terminated,canceled,exception,stalled}]**

Syntax Description	Option	Required or Optional	Description
	<b>- vmid VMID</b>	Required	ID of the virtual machine to add to the protection group.
	<b>--id ID</b>	Optional	ID of the virtual machine.
	<b>--name NAME</b>	Optional.	Reference name assigned to the replication network.  <b>Note</b> The hx task commands start with lower case, but the filtering of <code>--name</code> will start with uppercase. For example use <code>- TestFailover</code> instead of <code>testFailover</code> .  The name to be filtered are on: TestFailover Failover PrepareReverseProtect PrepareFailover ReverseProtect Migrate
	<b>--state</b>	Optional.	State of the replication process: new starting running suspended shutting_down completed terminated canceled exception stalled

**Command Default** None. One option from the set is required.

**Usage Guidelines** Accompany the `stcli dp vm hxtask` command with the required arguments with leading two dashes (`--`) or optionally, the arguments enclosed in `[ ]`.

## stcli dp group Commands

HX Data Platform disaster recovery and native replication commands applied to virtual machine protection groups and not to individual virtual machines.

**stcli dp group [-h] {add | list | delete | vm | snapshot | schedule}**

Syntax Description	Option	Required or Optional	Description
	<b>add</b>	One of set required.	Add data protection group.
	<b>list</b>	One of set required.	List of data protection groups.
	<b>delete</b>	One of set required.	Delete data protection group.
	<b>vm</b>	One of set required.	VM tasks in a data protection group.
	<b>snapshot</b>	One of set required.	Snapshot operations in a data protection group. This command is not supported.
	<b>schedule</b>	One of set required.	Schedule replication for a data protection group.

**Command Default** None. One option from the set is required.

**Usage Guidelines** Accompany the `stcli dp group` command with one of the positional arguments enclosed in { } or optionally, the arguments enclosed in [ ].



**Note** Beginning with HX Release 3.5(2g), support for the <command name> command was limited to Cisco Tech support only. General use is not supported.

## stcli dp group add Command

Add data protection group.

**stcli dp group add [-h] --groupname GROUPNAME**

Syntax Description	Option	Required or Optional	Description
	<b>--groupname GROUPNAME</b>	Required.	Name of the protection group.

**Command Default** None.

**Usage Guidelines** Accompany the `stcli dp group add` command with the required arguments with leading two dashes (--) or optionally, the arguments enclosed in [ ].

## stcli dp group list Command

List data protection group configuration and schedule.

**stcli dp group list [-h] [--groupname GROUPNAME] [--groupid GROUPID]**

Syntax Description	Option	Required or Optional	Description
	<b>--groupname GROUPNAME</b>	Optional.	List the protection group with given group name.
	<b>--groupid GROUPID</b>	Optional.	List the protection group with given ID.

**Command Default** List all data protection groups.

**Usage Guidelines** Accompany the `stcli dp group list` command with one of the positional arguments enclosed in `{ }` or optionally, the arguments enclosed in `[ ]`.

This example shows a list of data protection groups.

```
# stcli dp group list
clusterEr:
  type: cluster
  id: 21038104951568023:6930626691413900957
  name: source17-2.5.1a
vmGroupState: active
vmGroupEr:
  type: dp_vmgroup
  id: 4de5d40f-82d6-40f6-9425-e4942bdd9be9
  name: group1
members:
-----
  idtype: 2
  type: dp_vm
  id: 423f38fd-9754-a25c-0d60-1ddacacaac60
-----
  idtype: 2
  type: dp_vm
  id: 423fc732-4841-3a0a-8d75-6c7bdcf8de67
-----
schedules:
  replicationSchedule:
    targetClusterEr:
      type: cluster
      id: 1279191129902762643:7329250794747596775
      name: target17-2.5.1a
    enabled: True
    mode: 2
    startTime: 07/19/17_20:24
    intervalInMinutes: 15
```

## stcli dp group delete Command

Delete the specified data protection group.

**stcli dp group delete [-h] --groupid GROUPID**

Syntax Description	Option	Required or Optional	Description
	<b>--groupid GROUPID</b>	Required.	ID of the protection group. To delete a protection group, all virtual machines must be removed.

**Command Default** None.

**Usage Guidelines** Accompany the `stcli dp group delete` command with the required arguments with leading two dashes (--), or optionally, the arguments enclosed in [ ].

**stcli dp group vm Commands**

Hyperflex data protection group VM operations.

**stcli dp group vm [-h] {add | list | delete}**

Syntax Description	Option	Required or Optional	Description
	<b>add</b>	One of set required.	Add VM to data protection group.
	<b>list</b>	One of set required.	List VMs in data protection group.
	<b>delete</b>	One of set required.	Delete VM from data protection group.

**Command Default** None. One option from the set is required.

**Usage Guidelines** Accompany the `stcli dp group vm` command with one of the positional arguments enclosed in { } or optionally, the arguments enclosed in [ ].

**stcli dp group vm add Command**

Add a VM to a data protection group.

**stcli dp group vm add [-h] --groupid GROUPID --vmid VMID [--vmidtype {VMBIOSUUID}]**

Syntax Description	Option	Required or Optional	Description
	<b>--groupid GROUPID</b>	Required.	ID of the data protection group where the VMs reside.
	<b>--vmid VMID</b>	Required.	ID of the virtual machine to add to the protection group.
	<b>--vmidtype {VMBIOSUUID}</b>	Optional.	ID type for the virtual machine to add to the protection group. The VCMOID option is not supported.

**Command Default** None.

**Usage Guidelines** Accompany the `stcli dp group vm add` command with optionally, the arguments enclosed in [ ].

## stcli dp group vm list Command

List the VMs included in the data protection group.

`stcli dp group vm list [-h] --groupid GROUPID`

Syntax Description	Option	Required or Optional	Description
	<code>--groupid GROUPID</code>	Required.	ID of the data protection group where the VMs reside.

**Command Default** None.

**Usage Guidelines** Accompany the `stcli dp group vm list` command with optionally, the arguments enclosed in [ ].

## stcli dp group vm delete Command

Delete a protection group VM.

`stcli dp group vm delete [-h] --groupid GROUPID --vmid VMID [--vmidtype {VMBIOSUUID}]`

Syntax Description	Option	Required or Optional	Description
	<code>--groupid GROUPID</code>	Required.	ID of the data protection group where the VMs reside.
	<code>--vmid VMID</code>	Required.	ID of the virtual machine to be removed from the protection group.
	<code>--vmidtype {VMBIOSUUID}</code>	Optional.	ID type of the virtual machine to be removed from the protection group. Remove a VM from data protection group. The VCMOID option is not supported.

**Command Default** None.

**Usage Guidelines** Accompany the `stcli dp group vm delete` command with optionally, the arguments enclosed in [ ].

## stcli dp group snapshot Commands

HX Data Platform data protection group snapshot operations.

`stcli dp group snapshot [-h] {create}`

## stcli dp group snapshot create Command

Syntax Description	Option	Required or Optional	Description
	<b>create</b>	Required.	Creates a data protection snapshot of all the VMs in the given protection group.
<b>Command Default</b>	None.		
<b>Usage Guidelines</b>	Accompany the <code>stcli dp group snapshot</code> command with one of the positional arguments enclosed in <code>{ }</code> or optionally, the arguments enclosed in <code>[ ]</code> .		

## stcli dp group snapshot create Command

Creates data protection replication snapshots of the VMs in the given group.

`stcli dp group snapshot create [-h] --groupid GROUPID --snapshot SNAPSHOT [--desc DESC] [--quiesce]`

Syntax Description	Option	Required or Optional	Description
	<b>--groupid GROUPID</b>	Required.	ID of the data protection group where the VMs reside.
	<b>--snapshot SNAPSHOT</b>	Required.	Name of the snapshot.
	<b>--desc DESC</b>	Optional.	Description of the snapshot.
	<b>--quiesce</b>	Optional.	Whether to use VMware Tools to quiesce the VMs before replication. VMware Tools must be installed in all the VMs in the replication group.

**Command Default** Description is blank. Quiesce is not set.

**Usage Guidelines** Accompany the `stcli dp group snapshot create` command with one of the positional arguments enclosed in `{ }` or optionally, the arguments enclosed in `[ ]`.

## stcli dp group schedule Commands

Hyperflex protection group schedule operations.

`stcli dp group schedule [-h] {set | get}`

Syntax Description	Option	Required or Optional	Description
	<b>set</b>	One of set required.	Set the replication schedule for a data protection group.
	<b>get</b>	One of set required.	Get the replication schedule for a data protection group.

**Command Default** None. One option from the set is required.

**Usage Guidelines** Accompany the `stcli dp group schedule` command with one of the positional arguments enclosed in `{ }` or optionally, the arguments enclosed in `[ ]`.

## stcli dp group schedule set Command

Set the replication schedule for a data protection group.

`stcli dp group schedule set [-h] --groupid GROUPID --replication-interval REPINTERVALINMINS [--start-time REPSTARTTIME] [--quiesce-using-tools] [--outgoing OUTGOING]`

Syntax Description	Option	Required or Optional	Description
	<code>--groupid GROUPID</code>	Required.	ID of the data protection group where the VMs reside.
	<code>--replication-interval REPINTERVALINMINS</code>	Required.	Replication interval (frequency) in minutes. This sets how often the VMs are replicated to the target cluster.
	<code>--start-time REPSTARTTIME</code>	Optional.	Replication start time in format <code>mm/dd/yy_HH_MM</code> . Specifies when the first replication begins.
	<code>--quiesce-using-tools</code>	Optional.	Whether to use VMware Tools to quiesce the VMs before replication. VMware Tools must be installed in all the VMs in the replication group.
	<code>--outgoing OUTGOING</code>	Optional.	ID of the outgoing/target cluster where data is replicated to.

**Command Default** Start time is immediately upon execution of the command. Quiesce is not set. Outgoing cluster is the paired remote cluster.

**Usage Guidelines** Accompany the `stcli dp group schedule set` command with one of the positional arguments enclosed in `{ }` or optionally, the arguments enclosed in `[ ]`.

## stcli dp group schedule get Command

List the replication schedule information for a data protection group.

`stcli dp group schedule get [-h] --groupid GROUPID [--outgoing OUTGOING]`

Syntax Description	Option	Required or Optional	Description
	<code>--groupid GROUPID</code>	Required.	ID of the data protection group where the VMs reside.
	<code>--outgoing OUTGOING</code>	Optional.	ID of the outgoing/target cluster where data is replicated to.

**Command Default** Outgoing cluster is the paired remote cluster.

**Usage Guidelines**

Accompany the `stcli dp group schedule get` command with one of the positional arguments enclosed in `{ }` or optionally, the arguments enclosed in `[ ]`.

## stcli dp peer Commands

Hyperflex data protection operations on the remote (peer) cluster in a replication pair.

`stcli dp peer [-h] {get | add | list | query | edit | datastore | delete | forget | schedule}`

**Syntax Description**

Option	Required or Optional	Description
<code>get</code>	One of set required.	Get peer cluster details.
<code>add</code>	One of set required.	Add a pair using given inputs.
<code>list</code>	One of set required.	Show all pairs.
<code>query</code>	One of set required.	Query a pair to get pair-details.
<code>edit</code>	One of set required.	Edit pair description for peer management IP.
<code>datastore</code>	One of set required.	Edit mapped datastores in existing pair.
<code>delete</code>	One of set required.	Delete a replication pair.
<code>forget</code>	One of set required.	Forget peer using given inputs.
<code>schedule</code>	One of set required.	Peer schedule operations.

**Command Default**

None. One option from the set is required.

**Usage Guidelines**

Accompany the `stcli dp peer` command with one of the positional arguments enclosed in `{ }` or optionally, the arguments enclosed in `[ ]`.

## stcli dp peer get Command

List the peer cluster details.

**Note**

Please enter password when prompted.

`stcli dp peer get [-h] --mgmtIp MGMTIP --username USERNAME`

**Syntax Description**

Option	Required or Optional	Description
<code>--mgmtIp MGMTIP</code>	Required.	Peer cluster's management IP.
<code>--username USERNAME</code>	Required.	Peer cluster's user name.
		Enter peer cluster's user password when prompted.



**Command Default** None.

**Usage Guidelines** Accompany the `stcli dp peer get` command with the required arguments with leading two dashes (--) or optionally, the arguments enclosed in [ ].

## stcli dp peer add Command

Add a replication pair using given inputs.



**Attention** Please enter password when prompted.



**Note** This command does not invoke and verify the Test Remote Replication Network similar to the verification process that gets done automatically while configuring replication pair in HX Connect.

**stcli dp peer add [-h] --name NAME --description DESCRIPTION --mgmtIp MGMTIP --username USERNAME**

**Syntax Description**

Option	Required or Optional	Description
<b>--name NAME</b>	Required.	Name of cluster-pair.
<b>--description DESCRIPTION</b>	Required.	Description of cluster-pair.
<b>--mgmtIp MGMTIP</b>	Required.	Peer cluster's management IP.
<b>--username USERNAME</b>	Required.	Peer cluster's user name. Enter peer cluster's password when prompted.

**Command Default** None.

**Usage Guidelines** Accompany the `stcli dp peer add` command with the required arguments with leading two dashes (--) or optionally, the arguments enclosed in [ ].

## stcli dp peer list Command

Show all replication pairs.

**stcli dp peer list [-h]**

**Command Default** None.

**Usage Guidelines** Accompany the `stcli dp peer list` command with optionally, the arguments enclosed in [ ].

## stcli dp peer query Command

Query a replication pair for pair details.

**stcli dp peer query [-h] --name NAME**

Syntax Description	Option	Required or Optional	Description
	<b>--name NAME</b>	Required.	Name of cluster replication pair.

**Command Default** None.

**Usage Guidelines** Accompany the `stcli dp peer query` command with optionally, the arguments enclosed in [ ].

## stcli dp peer edit Command

Edit pair description or peer mgmtIp



**Note** This command is not supported.

**stcli dp peer edit [-h] --name NAME [--description DESCRIPTION] [--mgmtIp MGMTIP] --username USERNAME --password PASSWORD**

Syntax Description	Option	Required or Optional	Description
	<b>--name NAME</b>	Required.	Name of cluster-pair
	<b>--description DESCRIPTION</b>	Required	Description of cluster-pair
	<b>--mgmtIp MGMTIP</b>	Required	Peer cluster's management Ip
	<b>--username USERNAME</b>	Required	Peer cluster's user name
			Enter peer cluster's user password when prompted.

**Command Default** None.

**Usage Guidelines** Accompany the `stcli dp peer edit` command with one of the positional arguments enclosed in { } or optionally, the arguments enclosed in [ ].

## stcli dp peer datastore Commands

Edit mapped datastores in existing replication pair.



**Note** This command does not invoke and verify the Test Remote Replication Network similar to the verification process that gets done automatically while editing the pair in HX Connect.

**stcli dp peer datastore [-h] {edit | editstatus}**

Syntax Description	Option	Required or Optional	Description
	<b>edit</b>	One of set required.	Edit pair description or peer management IP.
	<b>editstatus</b>	One of set required.	Status of datastore edit job.

**Command Default** None. One option from the set is required.

**Usage Guidelines** Accompany the `stcli dp peer datastore` command with one of the positional arguments enclosed in { } or optionally, the arguments enclosed in [ ].

### stcli dp peer datastore edit Command

Edit mapped datastores in existing replication pair.

**stcli dp peer datastore edit [-h] --name NAME --datastore DATASTORE [--storageOnly] [--replication-interval REPLICATIONINTERVALINMINUTES]**

Syntax Description	Option	Required or Optional	Description
	<b>--name NAME</b>	Required.	Name of cluster-pair.
	<b>--datastore DATASTORE</b>	Required.	Datastore pairs with operations. Format is:  local_ds:remote_ds:OPERATION Operation choices are: ADD, DELETE.
	<b>--storageOnly</b>	Required.	SRM or an external DR orchestrator will manage the input datastore pair.
	<b>--replication-interval REPLICATIONINTERVALINMINUTES</b>	Required.	Replication interval in minutes.

**Command Default** None.

**Usage Guidelines** Accompany the `stcli dp peer datastore edit` command with the required arguments with leading two dashes (--) or optionally, the arguments enclosed in [ ].

This example shows changing the datastores associated with the replication pair.

```
# stcli dp peer datastore edit
```

```
<local ds 1>:<peer ds 1>:ADD,<local ds 2>:<peer ds 2>:DELETE,..
```

## stcli dp datastore editstatus Command

View the status of the datastore mapping change for the replication pair.

**stcli dp peer datastore editstatus [-h] [--jobid JOBID]**

Syntax Description	Option	Required or Optional	Description
	<b>--jobid JOBID</b>	Optional.	Job ID for a datastore change task.

**Command Default** Job ID default is all displays status of all datastore edits.

**Usage Guidelines** Accompany the `stcli dp peer datastore editstatus` command with the required arguments with leading two dashes (--) or optionally, the arguments enclosed in [ ].

This example shows changing the datastores associated with the replication pair.

```
# stcli dp peer datastore editstatus
[<jobid>,<jobid>...,<jobid>]
```

## stcli dp peer delete Command

Delete the peer from the replication pair.



### Important

Please enter password when prompted.

**stcli dp peer delete [-h] --name NAME --username USERNAME [--mgmtIp MGMTIP]**

Syntax Description	Option	Required or Optional	Description
	<b>--name NAME</b>	Required.	Name of cluster replication pair.
	<b>--username USERNAME</b>	Required.	Peer cluster's user name.
			Enter peer cluster's user password when prompted.
	<b>--mgmtIp MGMTIP</b>	Optional.	Peer cluster's management IP.

**Command Default** Management IP is assumed to be the currently associated peer.

**Usage Guidelines** Accompany the `stcli dp peer delete` command with the required arguments with leading two dashes (--) or optionally, the arguments enclosed in [ ].

## stcli dp peer forget Command

This removes the pairing between peers: the source and target clusters. Freeing up each cluster to be paired with a different cluster.

```
stcli dp peer forget [-h] [--name NAME] [--all]
```

Syntax Description	Option	Required or Optional	Description
	<code>--all</code>	One of set required.	Remove the pairing between peers, for all partially-paired and successfully paired clusters.
	<code>--name NAME</code>	One of set required.	Remove the pairing between peers, (the source and target clusters), for the cluster pair with the listed name.

**Command Default** None.

**Usage Guidelines** Accompany the `stcli dp peer forget` command the required arguments with leading two dashes (`--`) or optionally, the arguments enclosed in `[ ]`.



**Note** NR/NFS cleanup time delay—During the VM replication process, the message "Please retry again after outstanding replication jobs are complete", or "DP Peer forget failed: Failed to clean connection cache for peer replication CIP <IP address>. Replication jobs (#) in progress. Please retry again after outstanding replication jobs are complete." may appear indicating that detaching policies may fail. If you receive this message try again after a few minutes as there is a time delay in the NR/NFS cleanup.

## stcli dp schedule Commands

Data protection schedule operations.

```
stcli dp schedule [-h] {pause | resume | status}
```

Syntax Description	Option	Required or Optional	Description
	<code>pause</code>	One of set required.	Pause replication. Stop sending replication snapshot bits to the remote cluster.
	<code>resume</code>	One of set required.	Resume replication. Resume sending replication snapshot bits to the remote cluster.
	<code>status</code>	One of set required.	Query the scheduler state. That is the database state, not the status of scheduled events. It does not imply that the scheduler is full.

**Command Default** None. One option from the set is required.

**Usage Guidelines** Accompany the `stcli dp schedule` command with one of the positional arguments enclosed in `{ }` or optionally, the arguments enclosed in `[ ]`.

## stcli dp schedule pause Command

Pause replication. Stop monitoring existing jobs and stop creating new jobs sending replication snapshot bits to the remote cluster.

**stcli dp schedule pause [-h]**

**Command Default** None.

**Usage Guidelines** Accompany the `stcli dp schedule pause` command optionally, the arguments enclosed in `[ ]`.

## stcli dp schedule resume

Resume replication. Resume monitoring existing jobs and resume creating new jobs sending data replication bits to the remote cluster.

**stcli dp schedule resume [-h]**

**Command Default** None.

**Usage Guidelines** Accompany the `stcli dp schedule resume` command optionally, the arguments enclosed in `[ ]`.

## stcli dp schedule status

Query the scheduler state. That is the database state, not the status of scheduled events. It does not imply that the scheduler is full.

**stcli dp schedule status [-h]**

**Command Default** None.

**Usage Guidelines** Accompany the `stcli dp schedule status` command optionally, the arguments enclosed in `[ ]`.



## CHAPTER 7

# stcli license Commands

- [stcli license Commands](#), on page 63
- [stcli license deregister Command](#), on page 63
- [stcli license register Command](#), on page 64
- [stcli license renew Command](#), on page 64
- [stcli license show Command](#), on page 65

## stcli license Commands

Smart Licensing operations.

`stcli license [-h] {register | deregister | show | renew}`

Syntax Description	Option	Required or Optional	Description
	<code>register</code>	One of set required.	Register Smart Licensing with an ID token.
	<code>deregister</code>	One of set required.	Deregister Smart Licensing.
	<code>show</code>	One of set required.	Show Smart Licensing options. Includes summary, unique device identifier (UDI), usage count, technical support details, registration and authorization status, and instance name.
	<code>renew</code>	One of set required.	Renew Smart Licensing operations.

**Command Default** None. One option from the set is required.

**Usage Guidelines** Accompany the `stcli license` command with one of the positional arguments enclosed in `{ }` or optionally, the arguments enclosed in `[ ]`.

## stcli license deregister Command

Deregister Smart Licensing.

**stcli license deregister [-h]****Command Default** None.**Usage Guidelines** Accompany the `stcli license deregister` command with optionally, the arguments enclosed in [ ].

## stcli license register Command

Register a Smart License with an ID token.

**stcli license register [-h] --idtoken IDTOKEN [--force]**

Syntax Description	Option	Required or Optional	Description
	<b>--idtoken IDTOKEN</b>	Required.	Registration ID token.
	<b>--force</b>	Optional.	Force the registration when the cluster is already registered.

**Command Default** None.**Usage Guidelines** Accompany the `stcli license register` command with the required arguments with leading two dashes (--), or optionally, the arguments enclosed in [ ].

```
# stcli license register --token
ZmM2YTVhZjMtZTQxNi00...1LTE0ODg0NzkppYmF...A3OD0%3D%0...8caERE
```

## stcli license renew Command

Renew Smart Licensing operations.

**stcli license renew [-h] {id | auth}**

Syntax Description	Option	Required or Optional	Description
	<b>auth</b>	One of set required.	Renew Smart Licensing authorization.
	<b>id</b>	One of set required.	Renew registration and registration ID certificate information.

**Command Default** None. One option from the set is required.**Usage Guidelines** Accompany the `stcli license review` command with one of the positional arguments enclosed in { } or optionally, the arguments enclosed in [ ].



# stcli license show Command

Show Smart License information based on option selected.

## stcli license show

Syntax Description	Option	Required or Optional	Description
	<b>all</b>	Optional.	Show all license information.
	<b>auth-status</b>	Optional.	Show Smart Licensing authorization status.
	<b>inst-name</b>	Optional.	Show cluster instance name.
	<b>reg-status</b>	Optional.	Show Smart Licensing registration status.
	<b>status</b>	Optional.	Show Smart Licensing registration, authorization, and license status.
	<b>summary</b>	Optional.	Show Smart Licensing summary.
	<b>tech-support</b>	Optional.	Show Smart Licensing technical support details.
	<b>udi</b>	Optional.	Show Smart Licensing unique device identifier (UDI).
	<b>usage</b>	Optional.	Show Smart Licensing usage count.

**Command Default** None.

**Usage Guidelines** Accompany the `stcli license show` command with the required option, no leading dashes (--) required. Optionally, include the arguments enclosed in [ ].

An example when license not registered

```
# stcli license show status

Smart Licensing is ENABLED
Registration: Status: UNREGISTERED
Export-Controlled Functionality: Not Allowed
License Authorization: Status: EVAL MODE
Evaluation Period Remaining: 89 days, 23 hr, 57 min, 3 sec
Last Communication Attempt: NONE
```

An example when license is registered

```
# stcli license show summary

Smart Licensing is ENABLED
Registration:
  Status: REGISTERED
  Smart Account: HyperFlex License Test
  Virtual Account: derek
  Last Renewal Attempt: None
  Next Renewal Attempt: Aug 1 17:47:06 2017 PDT
License Authorization:
```

```
Status: AUTHORIZED
Last Communication Attempt: SUCCEEDED
Next Communication Attempt: Mar 4 16:47:11 2017 PST
License Usage:
```

License	Count	Entitlement Tag	Status
---------	-------	-----------------	--------

---

Cisco Vendor String XYZ	regid.2016-11.com.cisco.HX-SP-DP-S001,1.0_1c06...d45203		InCompliance
-------------------------	---	--	--------------



## CHAPTER 8

# stcli node Commands

Operations performed on the storage cluster nodes.



**Note** Do not perform conflicting actions simultaneously. For example, do not run node add and node remove at the same time: `stcli node add --node-ips NODEIPS remove --id-1 ID1`

**stcli nodes [-h] {discover | list | info | identify | disks | disk | add | remove | maintenanceMode}**

Syntax Description	Option	Required or Optional	Description
	<b>add</b>	One of set required.	Adds the set of nodes to the storage cluster.
	<b>discover</b>	One of set required.	Lists the storage cluster nodes discoverable on the same subnet as this node.
	<b>disk</b>	One of set required.	Locate a physical disk in the node.
	<b>disks</b>	One of set required.	Provides information about the physical disks of the storage cluster node.
	<b>identify</b>	One of set required.	Turns on/off the node beacon to identify a node.
	<b>info</b>	One of set required.	Provides information about the specified storage cluster node.
	<b>list</b>	One of set required.	Lists the storage cluster nodes in the storage cluster.
	<b>maintenanceMode</b>	One of set required.	Enter or exit maintenance mode.
	<b>remove</b>	One of set required.	Removes the node from the storage cluster.

**Command Default** None. One option from the set is required.

**Usage Guidelines** Accompany the `stcli node` command with one of the positional arguments enclosed in { } or optional arguments enclosed in [ ].

- [stcli node add Command, on page 68](#)

- [stcli node discover Command](#), on page 69
- [stcli node disk Command](#), on page 70
- [stcli node disks Command](#), on page 71
- [stcli node identify Command](#), on page 71
- [stcli node info Command](#), on page 72
- [stcli node list Command](#), on page 72
- [stcli node maintenanceMode Command](#), on page 75
- [stcli node remove Command](#), on page 75

## stcli node add Command

Adds the specified nodes to the storage cluster.



### Note

- Please enter password when prompted.
- Only use the `stcli node add` command when the storage cluster is online and healthy.
- Do not perform conflicting actions simultaneously. For example, do not run `node add` and `node remove` at the same time: `stcli node add --node-ips NODEIPS remove --id-1 ID1`

For standard cluster or edge cluster:

```
stcli node add [-h] --node-ips NODEIPS [NODEIPS . . .] [--esx-username ESXUSERNAME] [--dryrun]
```

For stretched cluster:

```
stcli node add [-h] --node-ips NODEIPS [NODEIPS . . .]:<Site Name> [--esx-username ESXUSERNAME] [--dryrun]
```

### Syntax Description

Option	Required or Optional	Description
<code>--node-ips NODEIPS [NODEIPS . . .]</code>	Required	ESXi management/vmk0 IP addresses of the nodes to be add to the storage cluster.
<code>--dryrun</code>	Optional	Only validate input parameters.
<b>Site Name</b>	Required for stretched cluster	Site name of the node.
<code>--esx-username ESCUSERNAME</code>	Optional	User name of ESX administrator. Enter ESX administrator password when prompted.
Controller VM root user password	Optional	All nodes must have the same password. Enter controller VM password when prompted.

### Command Default

None. Node identification is required.

**Usage Guidelines**

Accompany the `stcli node add` command with the `--node-ips` and optionally, the arguments enclosed in `[]`.

**Note**

When you add a new node to a storage cluster, if the storage cluster is in an Out of Space condition, the system automatically rebalances the storage cluster. Otherwise, it schedules a nightly rebalance.

## stcli node discover Command

Lists the storage cluster nodes discoverable on the same subnet as this node.

**stcli node discover [-h]**

**Command Default**

None. No additional parameters.

**Usage Guidelines**

Run the `stcli node discover` command on the storage cluster.

```
# stcli node discover

state:
storfsIp:
  addr:
  stService:
  gateway:
  subnetMask:
  method:

host:
  state:
  about:
    serviceType:
    instanceUuid:
    name:
    locale:
    serialNumber:
    apiVersion:
    modelNumber:
    build:
    fullName:
    productVersion:

stctlvm:
  name:
  ip:
  guestHostname:
  storageNetworkIp:
  moid:
  role:
  entityRef:
    type:
    id: v
    name:
  version:
  passthrough:
  guestState:
  mgmtNetworkIp:
```

```

name:
ip:
  addr:
  stService:
  vlanId:
  gateway:
  subnetMask:
  method:

moid:
ipmiSettings:
  addr:
  stService:
  gateway:
  subnetMask:
  method:

ioVisor:
  about:
    serviceType:
    instanceUuid:
    name:
    locale:
    serialNumber:
    apiVersion:
    modelNumber:
    build:
    fullName:
    productVersion:
  state:

bootTime:
entityRef:
  type:
  id:
  name:
vMotionIp:
  addr:
  vlanId:
  gateway:
  subnetMask:
  method:
enclosureSerialNumber:

entityRef:
  type:
  id:
  name:
progress:

```

## stcli node disk Command

Locate a physical disk in the node.

```
stcli node disk [-h] [--id ID | --ip NAME] [--lighton | lightoff]
```

Syntax Description	Option	Required or Optional	Description
	<b>--id ID</b>	One of set required.	A unique ID number for the storage cluster node. The ID is listed in the <code>stcli cluster info</code> command under the <code>stNode</code> field <code>id</code> .
	<b>--ip NAME</b>	One of set required.	IP address of storage cluster node. The IP is listed in the <code>stcli cluster info</code> command under the <code>stNode</code> field <code>name</code> .
	<b>--lighton</b>	Optional.	Turn the ID light on the disk on.
	<b>--lightoff</b>	Optional.	Turn the ID light on the disk off.

**Command Default** None. One option from the set is required.

**Usage Guidelines** Accompany the `stcli node disk` command with one of the positional arguments enclosed in `{ }`, and optionally arguments enclosed in `[ ]`.

## stcli node disks Command

Provides information about the physical disks of the storage cluster node.

`stcli node disks [-h] [--id ID | --ip NAME]`

Syntax Description	Option	Required or Optional	Description
	<b>--id ID</b>	One of set required.	A unique ID number for the storage cluster node. The ID is listed in the <code>stcli cluster info</code> command under the <code>stNode</code> field <code>id</code> .
	<b>--ip NAME</b>	One of set required.	IP address of storage cluster node. The IP is listed in the <code>stcli cluster info</code> command under the <code>stNode</code> field <code>name</code> .

**Command Default** None. One option from the set is required.

**Usage Guidelines** Accompany the `stcli node disks` command with one of the positional arguments enclosed in `{ }`.

## stcli node identify Command

Turns on/off the node beacon to identify a node.



### Important

Please enter password when prompted.

`stcli node identify [-h] --ipmiIp IPMIIP [--interval INTERVAL] [--user USER]`

Syntax Description	Option	Required or Optional	Description
	--ipmiIp IPMIIP	Required	Ipmi IP address.
	--interval INTERVAL	Optional	Number of seconds to turn the beacon on. If not specified, turns the beacon off.
	---user USER	Optional	The IPMI admin user name. Enter IPMI admin password when prompted.

**Command Default** None.

**Usage Guidelines** Accompany the `stcli node identify` command with the required arguments with leading two dashes (--), and optionally, one or more of the positional arguments enclosed in [ ].

## stcli node info Command

Provides information about the specified storage cluster node.

**stcli node info [-h] [--id ID | --ip NAME] [--summary]**

Syntax Description	Option	Required or Optional	Description
	--id ID	One of set required.	A unique ID number for the storage cluster node. The ID is listed in the <code>stcli cluster info</code> command under the <code>stNode</code> field <code>id</code> .
	--ip NAME	One of set required.	IP address of storage cluster node. The IP is listed in the <code>stcli cluster info</code> command under the <code>stNode</code> field <code>name</code> .  The --ip option is currently not supported.
	--summary	Optional.	Display summary only.

**Command Default** None. One option from the set is required.

**Usage Guidelines** Accompany the `stcli node info` command with one of the positional arguments enclosed in { } or optional arguments enclosed in [ ].

## stcli node list Command

Lists the nodes in the storage cluster.

**stcli node list [-h] --summary**



Syntax Description	Option	Required or Optional	Description
	<b>--summary</b>	Optional.	Display summary only.

**Command Default** None.

**Usage Guidelines** Run the `stcli node list` command and optionally include arguments enclosed in [ ].

```
# stcli node list
-----
upgradeState:
state:
storfsIp:
  addr:
  stService:
  vlanId:
  gateway:
  subnetMask:
  method:
pNode:
  about:
    serviceType:
    instanceUuid:
    name:
    locale:
    serialNumber:
    apiVersion:
    modelNumber:
    build:
    displayVersion:
    fullName:
    productVersion:
  retired:
  compression:
  ip:
  dedup:
  nsPrimary:
  dataWriteThruEnabled:
  state:
  bootTime:
  master:
  entityRef:
    type:
    id:
    name:
  version:
  lastModifiedTime:
  name:
host:
  state:
  about:
    serviceType:
    instanceUuid:
    name:
    locale:
    serialNumber:
    apiVersion:
    modelNumber:
```

```

    build:
    fullName:
    productVersion:

stctlvm:
  name:
  storageClusterIp:
  ip:
  guestHostname:
  mgmtClusterIp:
  storageNetworkIp:
  moid:
  role:
  entityRef:
    type:
    id:
    name:
  version:
  passthrough:
  guestState:
  mgmtNetworkIp:

name:
ip:
  addr:
  stService:
  vlanId:
  gateway:
  subnetMask:
  method:

moid:
ipmiSettings:
  addr:
  stService:
  gateway:
  subnetMask:
  method:

iovisor:
  about:
    serviceType:
    instanceUuid:
    name:
    locale:
    serialNumber:
    apiVersion:
    modelNumber:
    build:
    fullName:
    productVersion:
  state:

bootTime:
entityRef:
  type:
  id:
  name:
vMotionIp:
  addr:
  vlanId:
  gateway:
  subnetMask:
  method:
enclosureSerialNumber:

```

```
entityRef:
  type:
  id:
  name:
upgradeVersion:
-----
```

## stcli node maintenanceMode Command

Puts the ESX server in the storage cluster into HX maintenance mode.

```
stcli node maintenanceMode [-h] [--id ID | ip NAME] --mode MODE {enter | exit} [--timeout TIMEOUT]
```

Syntax Description	Option	Required or Optional	Description
	<b>--id ID</b>	One of set required.	A unique ID number for the storage cluster node. The ID is listed in the <code>stcli cluster info</code> command under the <code>stNode</code> field <code>id</code> .
	<b>--ip NAME</b>	One of set required.	IP address of storage cluster node. The IP is listed in the <code>stcli cluster info</code> command under the <code>stNode</code> field <code>name</code> .
	<b>--mode MODE</b>	Required	Mode to set <code>enter</code> or <code>exit</code> HX maintenance mode.
	<b>--timeout TIMEOUT</b>	Optional.	Set timeout in seconds for HX maintenance mode.

**Command Default** None. One option from the set is required and the `--mode` type

**Usage Guidelines** Accompany the `stcli node maintenanceMode` command with one of the positional arguments enclosed in `{ }` and the `--mode` type, plus optionally arguments enclosed in `[ ]`.

## stcli node remove Command

Removes specified nodes from the storage cluster.



**Note** Do not perform conflicting actions simultaneously. For example, do not run `node add` and `node remove` at the same time: `stcli node add --node-ips NODEIPS remove --id-1 ID1`



**Note** Use the `stcli node remove` command to permanently remove a node from the cluster. Do not run the `stcli node remove` command if you intend to add the same node back into the same cluster later. Adding a node back into a cluster that it was already part of is not supported.

**Command Default** None. One option from the set is required.

**Usage Guidelines**

Accompany the `stcli node remove` command with one of the positional arguments enclosed in `{ }`, or optional arguments enclosed in `[ ]`.

- Before you remove a node from a storage cluster, ensure that DRS is enabled. DRS migrates only powered-on VMs.
- For ESXi nodes, you must first put the node in Maintenance Mode before performing a node remove.
- For cluster sizes less than 5, please schedule a maintenance window and shut down the cluster before performing a node removal.
- If your network has powered-off VMs, you must manually migrate them to the storage cluster. Otherwise, they are inaccessible after you remove the node.
- If DRS is not enabled, manually migrate the VMs.
- Removing a node requires that the storage cluster is healthy and that removing the node will not reduce the number of available nodes below the minimum 3 nodes which would make the storage cluster unhealthy.



## CHAPTER 9

# stcli security Commands

Security related operations.

**stcli security [-h] {password | whitelist | ssh | encryption}**

Syntax Description	Option	Required or Optional	Description
	<b>password</b>	One of set required.	Commands supported in the Storage security password manipulation namespace.
	<b>ssh</b>	One of set required.	Commands supported in the Storage security ssh namespace.
	<b>whitelist</b>	One of set required.	Commands supported in the Storage security ip whitelist namespace.
	<b>encryption</b>	One of set required.	Commands supported in the Storage security encryption namespace.

**Command Default** None. One option from the set is required.

**Usage Guidelines** Accompany the `stcli security` command with one of the positional arguments enclosed in `{ }` or optional arguments enclosed in `[ ]`.

- [stcli security encryption Commands, on page 77](#)
- [stcli security password Command, on page 79](#)
- [stcli security ssh Command, on page 80](#)
- [stcli security whitelist Commands, on page 80](#)

## stcli security encryption Commands

Encryption management operations.

**stcli security encryption [-h] {ucsm-ro-user}**

Syntax Description	Option	Required or Optional	Description
	ucsm-ro-user	Required.	Commands supported in the security encryption UCSM RO user namespace.
<b>Command Default</b>	None.		
<b>Usage Guidelines</b>	Accompany the <code>stcli security encryption</code> command with one of the positional arguments enclosed in { } or optionally, the arguments enclosed in [ ].		

## stcli security encryption ucsn-ro-user Commands

Encryption UCSM read only (RO) user operations.

`stcli security encryption ucsn-ro-user [-h] {show | create | delete}`

Syntax Description	Option	Required or Optional	Description
	create	Required one of set.	Create UCSM RO user.
	delete	Required one of set.	Delete UCSM RO user.
	show	Required one of set.	Show UCSM RO user credentials.
<b>Command Default</b>	None.		
<b>Usage Guidelines</b>	Accompany the <code>stcli security encryption ucsn-ro-user</code> command with one of the positional arguments enclosed in { } or optionally, the arguments enclosed in [ ].		

## stcli security encryption ucsn-ro-user create Command

Encryption UCSM read only (RO) user create operations.



**Important** Please enter password when prompted.

`stcli security encryption ucsn-ro-user create [-h] --hostname HOSTNAME [--username USERNAME]`

Syntax Description	Option	Required or Optional	Description
	--hostname HOSTNAME	Required.	UCSM host name.
	--username USERNAME	Optional.	UCSM user name.
		<b>Note</b>	The UCSM user used to create the RO user should be the local UCSM user, and not an LDAP or AD user.
			Enter UCSM admin level password when prompted.

**Command Default** Username default is `admin`.

**Usage Guidelines** Accompany the `stcli security encryption ucsm-ro-user create` command with the required arguments with leading two dashes (--), and optionally, the arguments enclosed in [ ].

## stcli security encryption ucsm-ro-user delete Command

Encryption UCSM read only (RO) user delete operations.



**Important** Please enter password when prompted.

**stcli security encryption ucsm-ro-user delete [-h] --hostname HOSTNAME [--username USERNAME]**

Syntax Description	Option	Required or Optional	Description
	--hostname HOSTNAME	Required.	UCSM host name.
	--username USERNAME	Optional.	UCSM user name. Must be UCSM admin level user. Enter UCSM admin level password when prompted.

**Command Default** Username default is `admin`.

**Usage Guidelines** Accompany the `stcli security encryption ucsm-ro-user delete` command with the required arguments with leading two dashes (--), and optionally, the arguments enclosed in [ ].

## stcli security encryption ucsm-ro-user show Command

Encryption UCSM read only (RO) show users.

**stcli security encryption ucsm-ro-user show [-h]**

**Command Default** None.

**Usage Guidelines** Accompany the `stcli security encryption ucsm-ro-user show` command optionally, the arguments enclosed in [ ].

## stcli security password Command

SSH key management operations. Sets user password for all the controller VMs in the storage cluster.



**Important** Enter password when prompted

**stcli security password set [-h] [--user USER]**

Syntax Description	Option	Required or Optional	Description
	<b>set</b>	Required.	Sets user password for all the controller VMs in the storage cluster.
	<b>--user USER</b>	Optional.	User must be either admin or root. User root is assumed if not specified.
<b>Command Default</b>	Default controller VM username, <code>root</code> and password, <code>Cisco123</code> .		
<b>Usage Guidelines</b>	Accompany the <code>stcli security password set</code> command with one of the optional arguments enclosed in [ ].		

## stcli security ssh Command

SSH key management operations. Resyncs SSH keys in storage cluster.

**stcli security ssh [-h] resync**

Syntax Description	Option	Required or Optional	Description
	<b>resync</b>	Required.	Resyncs SSH keys in storage cluster.
<b>Command Default</b>	None.		
<b>Usage Guidelines</b>	Run the <code>stcli security ssh</code> command with the <code>resync</code> positional argument, or include the optional arguments enclosed in [ ].		

## stcli security whitelist Commands

IP tables white-listing operations.

**stcli security whitelist [-h] [list | add | remove | clear]**

Syntax Description	Option	Required or Optional	Description
	<b>add</b>	One of set required.	Adds IP addresses to IP table white-list.
	<b>clear</b>	One of set required.	Clears IP addresses from IP table white-list.
	<b>list</b>	One of set required.	List IP table white-listed entries.
	<b>remove</b>	One of set required.	Removes IP addresses from IP table white-list.
<b>Command Default</b>	None. One option from the set is required.		



**Usage Guidelines** Accompany the `stcli security whitelist` command with one of the positional arguments enclosed in `{ }` or optional arguments enclosed in `[ ]`.

## stcli security whitelist add Command

Adds IP addresses to the IP table white list.

```
stcli security whitelist add [-h] --ips IP [IP . . .]
```

Syntax Description	Option	Required or Optional	Description
	<code>--ips IP [IP . . .]</code>	Required.	The IP addresses to add to white list.

**Command Default** None. IP addresses required.

**Usage Guidelines** Accompany the `stcli security whitelist add` command with the IPs of the servers to add.

```
# stcli security whitelist add --ips 10.1.2.3 10.3.4.5
```

## stcli security whitelist clear Command

Deletes the entire list of IP addresses in the IP table white list.

```
stcli security whitelist clear [-h]
```

**Command Default** None.

**Usage Guidelines** Run the `stcli security whitelist clear` command to delete IP addresses from the white list.

## stcli security whitelist list Command

Displays the list of white list entries in the IP table.

```
stcli security whitelist list [-h]
```

**Command Default** None.

**Usage Guidelines** Accompany the `stcli security whitelist list` command, or include optional arguments enclosed in `[ ]`.

```
# stcli security whitelist list
10.1.1.2
10.1.2.3
```

## stcli security whitelist remove Command

Deletes the specified IP addresses from the IP table white list.

```
stcli security whitelist remove [-h] --ips IP [IP ...]
```

Syntax Description	Option	Required or Optional	Description
	<code>--ips IP [IP ...]</code>	Required.	IP addresses to remove from white list.

**Command Default** None.

**Usage Guidelines** Accompany the `stcli security whitelist remove` command with the IP addresses to remove from the white list.

```
# stcli security whitelist remove --ips 10.1.1.2.3
```



# CHAPTER 10

## stcli services Commands

System services related operations.

**stcli services [-h] [smtp | dns | ntp | asup | sch | remotesupport | timezone]**

Syntax Description	Option	Required or Optional	Description
	<b>asup</b>	One of set required.	Commands supported in the autosupport (ASUP) configuration namespace.
	<b>dns</b>	One of set required.	Commands supported in the storage DNS configuration namespace.
	<b>ntp</b>	One of set required.	Commands supported in the storage NTP configuration namespace.
	<b>remotesupport</b>	One of set required.	Commands supported for support remote access.
	<b>sch</b>	One of set required.	Commands supported in the Smart Call Home configuration namespace.
	<b>smtp</b>	One of set required.	Commands supported in the storage SMTP for autosupport configuration namespace.
	<b>timezone</b>	One of set required.	Commands supported in the timezone configuration namespace.

**Command Default** None. One option from the set is required.

**Usage Guidelines** Accompany the `stcli services` command with at least one of the positional arguments enclosed in { } or optional arguments enclosed in [ ].

- [stcli services asup Commands, on page 84](#)
- [stcli services dns Commands, on page 87](#)
- [stcli services ntp Commands, on page 89](#)
- [stcli services sch Commands, on page 91](#)
- [stcli services remotesupport Commands, on page 95](#)
- [stcli services smtp Commands, on page 96](#)
- [stcli services timezone Commands, on page 98](#)

## stcli services asup Commands

This section lists and describes the Cisco Automatic Support (ASUP) commands. ASUP enables you to proactively obtain information about failures and responds immediately. It also helps in planning system performance and capacity.



**Note** ASUP relies on SMTP. Before you enable ASUP, ensure that you configure SMTP in your network.

**stcli services asup [-h] {enable | disable | show | recipients}**

Syntax Description	Option	Required or Optional	Description
	<b>disable</b>	One of set required.	Disables ASUP.
	<b>enable</b>	One of set required.	Enables ASUP.
	<b>recipients</b>	One of set required.	Commands to support ASUP recipients list configuration.
	<b>show</b>	One of set required.	Shows the ASUP configuration.

**Command Default** None. One option from the set is required.

**Usage Guidelines** Accompany the `stcli services asup` command with one of the positional arguments enclosed in { } or optional arguments enclosed in [ ].

### stcli services asup disable Command

Disables HX auto support (ASUP) support.

**stcli services asup disable [-h]**

**Command Default** No additional options.

**Usage Guidelines** Run the `stcli services asup disable` command.

```
# stcli services asup disable
```

### stcli services asup enable Command

Enables HX auto support (ASUP) support.

**stcli services asup enable [-h]**

**Command Default** No additional options.

**Usage Guidelines**

1. Ensure SMTP is configured. See the `stcli services asup smtp` command.
2. Run the `stcli services asup enable` command.

```
# stcli services asup enable
```

**stcli services asup recipients Commands**

HX auto support (ASUP) recipient configuration operations.

```
stcli services asup recipients [-h] {set | clear | add | remove}
```

Syntax Description	Option	Required or Optional	Description
	<b>add</b>	One of set required.	Adds ASUP email recipients to an existing list of ASUP recipients.
	<b>clear</b>	One of set required.	Deletes the entire ASUP recipient list. To remove individual recipients, use <code>asup recipients remove</code> .
	<b>remove</b>	One of set required.	Deletes the specified ASUP email recipients from an existing list.
	<b>set</b>	One of set required.	Sets the ASUP recipient list. Replaces previously set list of recipients. To add recipients to an existing list, use <code>asup recipients add</code> .

**Command Default**

None. One option from the set is required.

**Usage Guidelines**

Accompany the `stcli services asup recipients` command with one of the positional arguments enclosed in { } or optional arguments enclosed in [ ].

- Use `clear` option to delete all recipients from an existing list of recipients.
- Use `remove` option to delete specific email addresses from the list of recipients.
- Use `add` option to add new email addresses to the list of recipients.
- Use `set` option to replace the previous list of recipients with a new list of recipients.

**stcli services asup recipients add Command**

Adds ASUP email recipients to an existing list of ASUP recipients. The existing list can be currently empty. Use this command to add one or more recipients.

```
stcli services asup recipients add [-h] --recipients RECIPIENTS [RECIPIENTS . . .]
```

Syntax Description	Option	Required or Optional	Description
	<b>--recipients</b> <b>RECIPIENTS</b> <b>[RECIPIENTS . . .]</b>	Required.	Add one or more email addresses to the current list of recipients that receive ASUP notifications.

**Command Default** None. At least one recipient is required.

**Usage Guidelines** Accompany the `stcli services asup recipients add` command with at least one recipient. Separate multiple recipients with a space between email addresses.

```
# stcli services asup recipients add --recipients user1@mycompany.com user2@mycompany.com
```

## stcli services asup recipients clear Command

Deletes the entire ASUP recipient list. To remove individual recipients, use `asup recipients remove`.

**stcli services asup recipients clear [-h]**

**Command Default** No additional options.

**Usage Guidelines** Run the `stcli services asup recipients clear` command to delete all email addresses from the recipient list.

## stcli services asup recipient remove Command

Deletes the specified individual email recipients from an existing list of ASUP recipients.

**stcli services asup recipients remove [-h] --recipients RECIPIENTS [RECIPIENTS . . .]**

Syntax Description	Option	Required or Optional	Description
	<b>--recipients</b> <b>RECIPIENTS</b> <b>[RECIPIENTS . . .]</b>	Required.	Delete individual email addresses from the current list of recipients that receive ASUP notifications.

**Command Default** None. At least one recipient is required.

**Usage Guidelines** Accompany the `stcli services asup recipients remove` command with at least one recipient. Separate multiple recipients with a space between email addresses.

```
# stcli services asup recipients remove --recipients user1@mycompany.com user2@mycompany.com
```

## stcli services asup recipients set Command

Replaces an existing list of ASUP email recipients with a provided list of email addresses. This deletes all recipients on the existing list. To add recipients to an existing list and not deleted the existing recipients, use `asup recipients add`.

**stcli services asup recipients set [-h] --recipients RECIPIENTS [RECIPIENTS . . .]**

Syntax Description	Option	Required or Optional	Description
	<b>--recipients RECIPIENTS [RECIPIENTS . . .]</b>	Required.	Add one or more email addresses to replace the existing list of recipients to receive ASUP notifications. Separate email recipients with a space.

**Command Default** None. At least one recipient is required.

**Usage Guidelines** Accompany the `stcli services asup recipients set` command with at least one recipient. Separate multiple recipients with a space between email addresses.

```
# stcli services asup recipients set --recipients user1@mycompany.com user2@mycompany.com
```

## stcli services asup show Command

Shows the ASUP configuration, this includes the ASUP recipient list and whether ASUP is enabled or disabled.

**stcli services asup show [-h]**

**Command Default** No additional options available.

**Usage Guidelines** Run the `stcli services asup show` command to list the applied ASUP settings.

This sample response indicates that ASUP is not enabled and there are no email addresses in the recipient list.

```
# stcli services asup show
recipientList:
enabled: False
```

## stcli services dns Commands

Domain Name Server (DNS) server configuration operations. DNS is a hierarchical distributed naming system for computers, services, or any resource connected to the Internet or a private network.

**stcli services dns [-h] {show | set | add | remove}**

Syntax Description	Option	Required or Optional	Description
	<b>add</b>	One of set required.	Adds servers to the DNS server list.
	<b>set</b>	One of set required.	Replace the DNS server list with this new list.
	<b>show</b>	One of set required.	Show the DNS server list.

Option	Required or Optional	Description
<code>remove</code>	One of set required.	Delete a server from the DNS server list.

**Command Default** None. One option from the set is required.

**Usage Guidelines** Accompany the `stcli services dns` command with one of the positional arguments enclosed in `{ }` or optional arguments enclosed in `[ ]`.

## stcli services dns add Command

Adds servers to the DNS server list.

`stcli services dns add [-h] --dns DNSSERVER [DNSSERVER . . .]`

Syntax Description	Option	Required or Optional	Description
	<code>--dns DNSSERVER [DNSSERVER . . .]</code>	Required.	List at least one server to add to the list of DNS servers.

**Command Default** None. At least one server ID is required.

**Usage Guidelines** Accompany the `stcli services dns add` command with at least one DNS server ID. Separate servers with a space.

```
# stcli services dns add --dns 10.60.8.9
```

## stcli services dns remove Command

Removes one or more or all servers from the existing list of servers in the DNS server list.

`stcli services dns remove [-h] --dns DNSSERVER [DNSSERVER . . .]`

Syntax Description	Option	Required or Optional	Description
	<code>--dns DNSSERVER [DNSSERVER . . .]</code>	Optional.	List at least one server to delete from the current list of DNS servers.

**Command Default** Default removes all DNS servers from the list.

**Usage Guidelines** Accompany the `stcli services dns remove` command with none, one, or more DNS server IDs. Separate servers with a space.

```
# stcli services dns remove --dns 10.60.6.7
```



## stcli services dns set Command

Replaces existing list of servers in the DNS server list. Deletes current list To add servers to an existing list, use `dns add`.

**stcli services dns set [-h] --dns DNSSERVER [DNSSERVER . . .]**

Syntax Description	Option	Required or Optional	Description
	<code>--dns DNSSERVER [DNSSERVER . . .]</code>	Required.	List at least one server to replace the current list of DNS servers.

**Command Default** None. At least one server ID is required.

**Usage Guidelines** Accompany the `stcli services dns set` command with at least one DNS server ID. Separate servers with a space.

```
# stcli services dns set --dns 10.60.1.1
```

## stcli services dns show Command

Displays the DNS server list.

**stcli services dns show [-h]**

**Command Default** No additional options.

**Usage Guidelines** Run the `stcli services dns show` command.

```
# stcli services dns show
10.64.1.8
10.64.1.9
```

## stcli services ntp Commands

The HX Data Platform Network Time Protocol (NTP) configuration operations.

NTP is a protocol that is used to synchronize computer clock times in a network of computers so that you can correlate events when you receive system logs and other time-specific events from multiple network devices. NTP uses the User Datagram Protocol (UDP) as its transport protocol. All NTP communications use Coordinated Universal Time (UTC).

**stcli services ntp [-h] {add | set | show | remove}**

Syntax Description	Option	Required or Optional	Description
	<b>add</b>	One of set required.	Add one or more servers to the list of storage NTP servers.
	<b>set</b>	One of set required.	Replace the existing list of NTP servers with the listed DNS servers.
	<b>show</b>	One of set required.	Display the list of storage NTP servers.
	<b>remove</b>	One of set required.	Remove one or more servers from the list of storage NTP servers.

**Command Default** None. One option from the set is required.

**Usage Guidelines** Accompany the `stcli services ntp` command with one of the positional arguments enclosed in `{ }` or optional arguments enclosed in `[ ]`.

## stcli services ntp add Command

Add one or more servers to the list of storage DNS servers.

```
stcli services ntp add [-h] --ntp NTPSERVER [NTPSERVER . . .]
```

Syntax Description	Option	Required or Optional	Description
	<b>--ntp NTPSERVER [NTPSERVER . . .]</b>	Required.	Add one or more servers to the list of storage NTP servers.

**Command Default** None. At least one server ID is required.

**Usage Guidelines** Accompany the `stcli services ntp add` command with at least one server ID.

```
# stcli services ntp add --ntp 136.158.1.0
```

## stcli services ntp remove Command

Delete one or more servers from the list of storage DNS servers.

```
stcli services ntp remove [-h] --ntp NTPSERVER [NTPSERVER . . .]
```

Syntax Description	Option	Required or Optional	Description
	<b>--ntp NTPSERVER [NTPSERVER . . .]</b>	Optional.	Remove one or more servers from the list of storage DNS servers.

**Command Default** Default removes all NTP servers from the list of storage NTP servers.

**Usage Guidelines** Accompany the `stcli services ntp remove` command with at least one server ID.

```
# stcli services ntp remove --ntp 136.158.1.0
```

## stcli services ntp set Command

Replaces existing list of NTP servers with new list. To add servers to an existing list, use `ntp add`.

```
stcli services ntp set [-h] --ntp NTPSERVER [NTPSERVER . . .]
```

Syntax Description	Option	Required or Optional	Description
	<code>--ntp NTPSERVER [NTPSERVER . . .]</code>	Required.	Provide one or more servers to replace the current the list of storage NTP servers.

**Command Default** None. At least one server ID is required.

**Usage Guidelines** Accompany the `stcli services ntp set` command with at least one server ID.

```
# stcli services ntp set --ntp 10.12.1.1
```

## stcli services ntp show Command

Display the list of storage DNS servers.

```
stcli services ntp show [-h]
```

**Command Default** No options available.

**Usage Guidelines** Run the `stcli services ntp show` command.

```
# stcli services ntp show
0.company.pool.ntp.org
ntp.ubuntu.com
```

## stcli services sch Commands

This section lists and describes the Cisco Smart Call Home (SCH) commands. Smart call home provides continuous monitoring, proactive diagnostics, alerts, service ticket notifications, and remediation recommendations about the HX storage cluster to the designated ASUP customer contacts. It also provides a means to provide the information through HTTPS and a proxy server, if needed.



**Note** If your HX storage cluster is behind a firewall, a proxy server is required for access. The **stcli services** cli support both HTTP and HTTPS proxy.

**stcli services sch [-h] {enable | disable | show | ping | clear | set}**

**Syntax Description**

Option	Required or Optional	Description
<b>clear</b>	One of set required.	Clears the smart call home configuration.
<b>disable</b>	One of set required.	Disables smart call home.
<b>enable</b>	One of set required.	Enables smart call home.
<b>ping</b>	One of set required.	Pings the smart call home endpoint.
<b>set</b>	One of set required.	Commands for smart call home registration, including proxy server for HTTPS access
<b>show</b>	One of set required.	Shows the smart call home configuration.

**Command Default**

None. One option from the set is required.

**Usage Guidelines**

Accompany the `stcli services sch` command with one of the positional arguments enclosed in `{ }` or optional arguments enclosed in `[ ]`.

## stcli services sch clear Command

Removes the smart call home email and proxy settings from the storage cluster configuration.

**stcli services sch clear [-h]**

**Command Default**

No additional options.

**Usage Guidelines**

Run the `stcli services sch clear` command to remove the smart call home notification email and proxy settings from storage cluster configuration.

```
# stcli services sch clear
```

## stcli services sch disable Command

Disables HX smart call home.

**stcli services sch disable [-h]**

**Command Default**

No additional options.

---

**Usage Guidelines** Run the `stcli services sch disable` command.

```
# stcli services sch disable
```

## stcli services sch enable Command

Enables HX smart call home. See `stcli services sch set` to configure the notification email address.

**stcli services sch enable [-h]**

---

**Command Default** No additional options.

---

**Usage Guidelines** Run the `stcli services sch enable` command.

```
# stcli services sch enable
```

## stcli services sch ping Command

Pings the Smart Call Home endpoint.

**stcli services sch ping [-h]**

---

**Command Default** No options.

---

**Usage Guidelines** Run the `stcli services sch ping` command.

This example shows :

```
# stcli services sch ping
ping to callhome endpoint was successful
```

## stcli services sch set Command

Configures the smart call home service required contact and proxy server.




---

**Important**

Please enter password when prompted.

The **stcli services** cli support both HTTP and HTTPS proxy.

---

```
stcli services sch set [-h] --email EMAILADDRESS [--proxy-url PROXYURL] [--proxy-port
PROXYPORT] [--proxy-user PROXYUSER] [--portal-url PORTALURL] [--enable-proxy
ENABLEPROXY]
```

Syntax Description	Option	Required or Optional	Description
	<b>--email EMAILADDRESS</b>	Required.	Add an email address for someone to receive email from Cisco support. Recommendation is to use a distribution list or alias.
	<b>--enable-proxy ENABLEPROXY</b>	Optional.	Explicitly enable or disable use of proxy.
	<b>--portal-url PORTALURL</b>	Optional.	Specify an alternative Smart Call Home portal URL, if applicable.
	<b>--proxy-url PROXYURL</b>	Optional.	Specify the HTTP or HTTPS proxy URL, if applicable.
	<b>--proxy-port PROXYPORT</b>	Optional.	Specify the HTTP or HTTPS proxy port, if applicable.
	<b>--proxy-user PROXYUSER</b>	Optional.	Specify the HTTP or HTTPS proxy user, if applicable.  Specify the HTTP or HTTPS proxy password, when prompted.

**Command Default** None. Email address is required. Proxy server is not configured by default.

**Usage Guidelines** Accompany the `stcli services sch set` command with an email recipient address. Set the proxy server if your HX storage cluster is behind a firewall.

To use the smart call home service, ensure it is enabled. See the `stcli services sch show` and `stcli services sch enable` commands.

```
# stcli services sch set --email alias@mycompany.com
```

## stcli services sch show Command

Shows the smart call home configuration, this includes configured notification email and proxy settings, and whether smart call home is enabled or disabled.

**stcli services sch show [-h]**

**Command Default** No additional options available.

**Usage Guidelines** Run the `stcli services sch show` command to list the applied smart call home settings.

This sample response indicates that smart call home is enabled, but the email addresses and proxy settings are not configured.

```
# stcli services sch show
proxyPort: 0
proxyUser:
```

```

enabled: True
proxyPassword:
cloudEnvironment: production
proxyUrl:
emailAddress:
portalUrl:
cloudAsupEndpoint: https://diag-hyperflex.io/

```

## stcli services remotesupport Commands

This section lists and describes the remote support commands. This command allows Cisco support to access your HX storage cluster to collect information about cluster operations, for example, configured notification email and proxy settings and support triggered support bundles.

This is enabled by default.

**stcli services remotesupport [-h] {set | show}**

Syntax Description	Option	Required or Optional	Description
	<b>set</b>	One of set required.	Commands to configure remote support.
	<b>show</b>	One of set required.	Shows the remote support configuration.

**Command Default** None. One option from the set is required.

**Usage Guidelines** Accompany the `stcli services remotesupport` command with one of the positional arguments enclosed in `{ }` or optional arguments enclosed in `[ ]`.

## stcli services remotesupport set Command

Set configuration for remote support access and actions.

**stcli services remotesupport set [-h] --enable ENABLE\_RS\_VALUE [--enable-support-bundle-action ENABLE\_RSB\_VALUE]**

Syntax Description	Option	Required or Optional	Description
	<b>--enable ENABLE_RS_VALUE</b>	Required.	Enable or disable remote support. Specify either value <code>true</code> or <code>false</code> .
	<b>--enable-support-bundle-action ENABLE_RSB_VALUE</b>	Optional.	Enable or disable support bundle actions. Specify either <code>true</code> or <code>false</code> .  Allows TAC to remotely trigger building a support bundle.

**Command Default** Remote support is enabled by default.

**Usage Guidelines** Accompany the `stcli services remotesupport set` command with the required parameter.

```
# stcli services remotesupport set --enable false
```

## stcli services remotesupport show Command

Shows the remote support configuration, this includes configured notification email and proxy settings, and whether remote support is enabled or disabled and if support triggered support bundles are enabled or disabled.

**stcli services remotesupport show [-h]**

**Command Default** No additional options available.

**Usage Guidelines** Run the `stcli services remotesupport show` command to list the applied settings.

This sample response indicates that remote access by support and remotely triggering support bundles are enabled.

```
# stcli services remotesupport show
enableSupportBundleAction: True
enabled: True
```

## stcli services smtp Commands

The HX Data Platform Simple Mail Transfer Protocol (SMTP) configuration options. SMTP is an Internet standard for email transmission. The SMTP servers are used with the HX ASUP feature.

**stcli services smtp [-h] {show | set | clear}**

Syntax Description	Option	Required or Optional	Description
	<b>clear</b>	One of set required.	Removes all SMTP servers from the storage cluster configuration settings.
	<b>set</b>	One of set required.	Add all SMTP servers to the storage cluster configuration.
	<b>show</b>	One of set required.	Lists all SMTP servers configured for the storage cluster.

**Command Default** None. One option from the set is required.

**Usage Guidelines** Accompany the `stcli services smtp` command with one of the positional arguments enclosed in `{ }` or optional arguments enclosed in `[ ]`.



## stcli services smtp clear Command

Removes all SMTP servers from the storage cluster configuration settings.

**stcli services smtp clear [-h]**

**Command Default** No additional options.

**Usage Guidelines** Run the `stcli services smtp clear` command to remove all SMTP servers from storage cluster configuration. To verify the SMTP servers are removed, check that the `/etc/msmtprc` file is missing.

```
# stcli services smtp clear
```

## stcli services smtp set Command

Adds SMTP servers to the storage cluster configuration settings.

**stcli services smtp set [-h] --smtp SMTPSERVER --fromaddress FROMADDRESS**

Syntax Description	Option	Required or Optional	Description
	<b>--smtp SMTPSERVER</b>	Required.	The hosting address of the SMTP server.
	<b>--fromaddress FROMADDRESS</b>	Required.	Email address to send Auto Support emails from. The address used by the SMTP server to send email notifications to the recipients.

**Command Default** None. Server information is required.

**Usage Guidelines** Accompany the `stcli services smtp set` command with the required parameters. To verify the SMTP servers are configured, check the `/etc/msmtprc` file.

```
# stcli services smtp set --smtp mailhost.eng.mycompany.com --fromAddress
smtpnotice@mycompany.com
```

## stcli services smtp show Command

Displays the storage cluster configured SMTP servers.

**stcli services smtp show [-h]**

**Command Default** No additional options.

**Usage Guidelines** Run the `stcli services smtp show` command to view all SMTP servers in storage cluster configuration.

```
# stcli services smtp show
```

```
smtpServer: mailhost.eng.mycompany.com
fromAddress: admin@mycompany.com
```

## stcli services timezone Commands

HX Data Platform timezone configuration operations.

**stcli services timezone [-h] {show | set}**

Syntax Description	Option	Required or Optional	Description
	<b>set</b>	One of set required.	Specifies the time zone for the controller VMs.
	<b>show</b>	One of set required.	Displays the system time zone that is currently set.

**Command Default** None. One option from the set is required.

**Usage Guidelines** Accompany the `stcli services timezone` command with one of the positional arguments enclosed in `{ }` or optional arguments enclosed in `[ ]`.

## stcli services timezone set Command

Specifies the time zone for the controller VMs.

**stcli services timezone set [-h] --timezone TIMEZONE**

Syntax Description	Option	Required or Optional	Description
	<b>--timezone TIMEZONE</b>	Required.	Specify a value for the time zone. For a list of valid time zone values, go to: <a href="http://manpages.ubuntu.com/manpages/jaunty/ma%20n3/DateTime::TimeZone::Catalog.3pm.html">http://manpages.ubuntu.com/manpages/jaunty/ma%20n3/DateTime::TimeZone::Catalog.3pm.html</a> <ul style="list-style-type: none"> <li>• Ensure that you specify a (case-sensitive) value for the time zone only from this list; for example: Europe/Paris or America/Los_Angeles.</li> <li>• Any value that is not in this list is invalid.</li> <li>• If you specify an invalid time zone, the system reverts to GMT.</li> </ul>

**Command Default** None. Timezone is required.

---

**Usage Guidelines**

Accompany the `stcli services timezone set` command with a valid timezone.

```
# stcli services timezone set --timezone America/Los_Angeles
```

## stcli services timezone show Command

Displays the system time zone that is currently set for the controller VMs.

**stcli services timezone show [-h]**

---

**Command Default**

No additional options.

---

**Usage Guidelines**

Run the `stcli services timezone show` command to view the timezone currently set.

```
# stcli services timezone show  
America/New_York
```





# CHAPTER 11

## stcli file clone Command

Creates a HX clone for the given file.

```
stcli file clone [-h] --name NAME --clone CLONE [--parentname PARENTNAME] [--replfirst] [--repl]
[--readonly] [--thick]
```

### Syntax Description

Option	Required or Optional	Description
<b>--clone CLONE</b>	Required.	Name to assign to the file clone.
<b>--name NAME</b>	Required.	Name of the file to be cloned.
<b>--parentname PARENTNAME</b>	Optional.	Name of the parent file of the file to be cloned.
<b>--replfirst</b>	Optional.	First replication file clone.
<b>--repl</b>	Optional.	Replication file clone.
<b>--readonly</b>	Optional.	Read only file clone.
<b>--thick</b>	Optional.	Thick file clone.

### Command Default

None. File name and clone name required.

### Usage Guidelines

Accompany the `stcli file clone` command with the positional arguments and optionally the arguments enclosed in [ ].

- [stcli snapshot-schedule Command, on page 101](#)
- [stcli vm Commands, on page 102](#)

## stcli snapshot-schedule Command

Enables or disables native snapshot schedules for all the objects in this cluster.

```
stcli snapshot-schedule [-h] {--enable | --disable}
```

Syntax Description	Option	Required or Optional	Description
	<b>--enable</b>	One of set required.	Enable the native snapshot schedule.
	<b>--disable</b>	One of set required.	Disable the native snapshot schedule.

**Command Default** None. One option from the set is required.

**Usage Guidelines** Accompany the `stcli snapshot-schedule` command with one of the positional arguments enclosed in { } or optional arguments enclosed in [ ].

Use the HX Data Platform plug-in to create the native snapshot schedule. This command allows you to disable the schedule and re-enable it without requiring you to rebuild the schedule.

## stcli vm Commands

HX Data Platform VM ReadyClone and Native Snapshot operations.

**stcli vm [-h] {clone | snapshot}**

Syntax Description	Option	Required or Optional	Description
	<b>clone</b>	One of set required.	Creates a specified number of ReadyClones for the given VM.
	<b>snapshot</b>	One of set required.	Creates a native snapshot for the given VM.

**Command Default** None. One option from the set is required.

**Usage Guidelines** Accompany the `stcli vm` command with one of the positional arguments enclosed in { } or optional arguments enclosed in [ ].

## stcli vm clone Command

Creates a specified number of ReadyClones for the given VM.

**stcli vm clone [-h] {--id ID | --name NAME} --clone CLONE --number NUMBER [--poweron] [--custspec CUSTSPEC] [--guestname GUESTNAME] [--startnumber STARTNUMBER] [--increment INCREMENT] [--resourcepool-id RP-ID | --resourcepool-name RP-NAME]**

Syntax Description	Option	Required or Optional	Description
	<b>--clone CLONE</b>	Required.	Name of the ReadyClone.
	<b>--id ID</b>	One of set required.	ID of source VM. The ID is listed in the <code>stcli cluster info</code> command.
	<b>--name NAME</b>	One of set required.	Name of the source VM.

Option	Required or Optional	Description
<b>--number NUMBER</b>	Required.	Number of ReadyClones to create.
<b>--custspec CUSTSPEC</b>	Optional.	Guest customization spec for the ReadyClones. See vCenter Customize Guest OS feature.
<b>--guestname GUESTNAME</b>	Optional.	Specify a guest name for the ReadyClones so it can be different from source VM name.  Default is the DNS name for the host. This name must be DNS resolvable before specifying it.
<b>--increment INCREMENT</b>	Optional.	Suffix to use for incrementing the ReadyClone names.  <b>Note</b> Do not try to increment clone numbers using a value = or > 10000000000.
<b>--poweron</b>	Optional.	Power on the created ReadyClone after cloning.
<b>--resourcepool-id RP-ID</b>	Optional.	ID of the resource pool to place the ReadyClones.
<b>--resourcepool-name RP-NAME</b>	Optional.	Name of the resource pool to place the ReadyClones.
<b>--startnumber STARTNUMBER</b>	Optional.	Starting number for the incrementing suffix for the ReadyClone names.

**Command Default**

None. Specified options are required.

**Usage Guidelines**

Accompany the `stcli vm clone` command with one of the required positional arguments listed and optionally, arguments enclosed in [ ].

## stcli vm snapshot Command

Creates a native snapshot for the given VM.

```
stcli vm snapshot [-h] {id ID | --name NAME | --folder-id FOLDER-ID | --folder-name FOLDER-NAME | --resourcepool-id RP-ID | --resourcepool-name RP-NAME} --snapshot SNAPSHOT [--desc DESC] [--memory | --quiesce]
```

**Syntax Description**

Option	Required or Optional	Description
<b>--snapshot SNAPSHOT</b>	Required.	Name of the native snapshot.
<b>-folder-id FOLDER-ID</b>	One of set required.	ID of the folder used to create the native snapshot.
<b>--folder-name FOLDER-NAME</b>	One of set required.	Name of the folder used to create the native snapshot.
<b>--id ID</b>	One of set required.	ID of the source VM used to create the native snapshot.

Option	Required or Optional	Description
<b>--name NAME</b>	One of set required.	Name of the source VM used to create the native snapshot.
<b>--resourcepool-id RP-ID</b>	One of set required.	ID of the resource pool used to create the native snapshot.
<b>--resourcepool-name RP-NAME</b>	One of set required.	Name of the resource pool used to create the native snapshot.
<b>--desc DESC</b>	Optional.	Description of the native snapshot.
<b>--memory</b>	One of pair optional.	Memory for the native snapshot.
<b>--quiesce</b>	One of pair optional.	Quiesce the file system in the virtual machine.

**Command Default**

None. Specified options are required.

**Usage Guidelines**

Accompany the `stcli vm snapshot` command with one of the required positional arguments listed and optionally, arguments enclosed in [ ].