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Cisco HyperFlex Data Platform CLI Guide, 4.0

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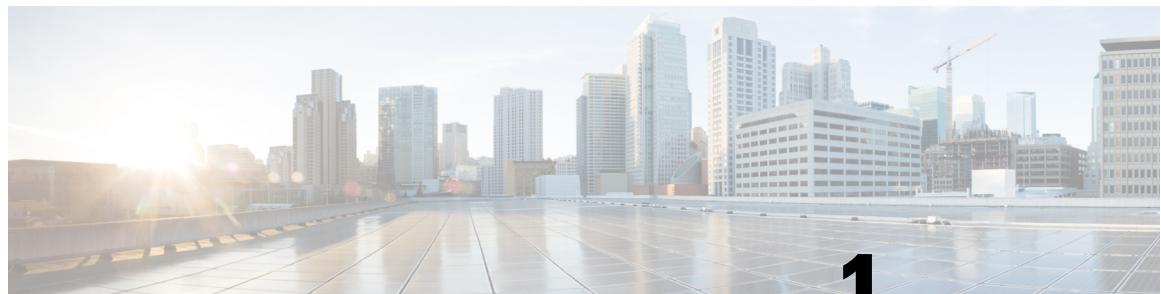
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CHAPTER 1

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
	about	One of set required.	About controller VM service, the storage manager, `stMgr`.
	appliance	One of set required.	Commands supported in the storage cluster appliance namespace.
	cluster	One of set required.	Commands supported in the storage cluster namespace.
	datastore	One of set required.	Commands supported in the storage cluster datastore namespace.
	disk	One of set required.	Commands supported in the storage cluster disk namespace.
	file	One of set required.	Commands supported in the storage cluster VM file namespace.
	license	One of set required.	Commands supported in the Smart License namespace.

Option	Required or Optional	Description
node	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.
security	One of set required.	Commands supported in the storage cluster security namespace.
services	One of set required.	Commands supported in the storage cluster system services namespace.
snapshot-schedule	One of set required.	Enables / disables snapshot schedules for all the objects in this storage cluster.
vm	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
modelNumber: 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]

	Option	Required or Optional	Description
Syntax Description	**-h, --help**	Required	Shows the help message relative to the listed command and exits.

Command Default None.

Usage Guidelines Accompany the `stcli` command with one of the positional commands or arguments and the `--help` option.

CHAPTER 2

stcli appliance Commands

stcli appliance Command

Appliance operations.

stcli appliance [-h] {list | discover}

Syntax Description	Option	Required or Optional	Description
	list	One of set required.	Lists the storage cluster appliances in the storage cluster.
	discover	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: ...
```

stcli appliance list Command

C H A P T E R 3

stcli cluster Commands

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
create	One of set required.	Creates a storage cluster with the name and the given nodes identified by IP addresses.
create-config	One of set required.	Creates a storage cluster from a configuration file.
diag	One of set required.	Provides diagnostic messages about the storage cluster.
disable-data-write-thru	One of set required.	Disables data write through on the storage cluster.
enable-data-write-thru	One of set required.	Enables data write through on the storage cluster.
get-cluster-access-policy	One of set required.	Gets storage cluster Cluster Access Policy.
get-data-replication-factor	One of set required.	Gets storage cluster Data Replication Factor.
info	One of set required.	Provides information about the currently configured storage cluster.
prepare	One of set required.	Prepares network configuration for storage cluster for the set of nodes identified by IP addresses.
recreate	One of set required.	Recreates an existing storage cluster with force option.
refresh	One of set required.	Refreshes storage cluster status.
reregister	One of set required.	Reregister an existing storage cluster from one vCenter to another.
set-cluster-access-policy	One of set required.	Sets storage cluster Cluster Access Policy.
shutdown	One of set required.	Shuts down storage cluster.
start	One of set required.	Starts the storage cluster
storage-summary	One of set required.	Provides storage summary about the currently configured storage cluster.
upgrade	One of set required.	Upgrades the storage cluster
upgrade-kernel	One of set required.	Provides transitional information about storage cluster upgrade kernel.

Option	Required or Optional	Description
upgrade-status	One of set required.	Provides transitional information about storage cluster upgrade status.
version	One of set required.	Provides information about storage cluster version.
get-zone	One of set required	Gets the zone details. This option is used to check if the zone is enabled.
set-zone	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

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-zk-ip DATAZKIP] --data-replication-factor {2 | 3} [--cluster-access-policy {strict | lenient}] [--zone { 0 | 1}] [--vdi-only-deployment] [--clusterType {0,1,2}] [-f] [--dryrun] [--esx-username ESXUSERNAME] [--deploymentMode {0,1}] [--managedBy {0,1}]

Table 1: Syntax Description

Option	Required or Optional	Description
--ip IP	Required	IP address of storage cluster node. The IP is listed in the `stcli cluster info` command.
--mgmt-ip MGMTIP	Required	IP of storage cluster management server.
--name NAME	Required	Name of storage cluster.
--node-ips NODEIPS [NODEIPS . . .]	Required	IPs of all converged nodes to add to storage cluster.

Option	Required or Optional	Description
--vcenter-user VCENTERUSER	Optional	User name of vCenter administrator. Enter vCenter administrator password when prompted.
--cluster-access-policy {strict, lenient}	Optional. Default `lenient`	Cluster Access Policy (strict or lenient).
[--data-zk-ip DATAZKIP]	Optional	IP of Data ZK server
--data-replication-factor {2, 3}	Optional. Default `3`	Data Replication Factor (2 or 3). This can only be set during initial storage cluster creation.
--dryrun	Optional	Only validate input parameters.
--esx-username ESXUSERNAME	Optional	User name of ESX administrator. Enter ESX administrator password when prompted.
-f, --force	Optional	Force create storage cluster. This ignores network configuration errors and creates the cluster with provided information.
--vcenter-cluster VCENTERCLUSTER	Optional	Name of vCenter cluster.
--vcenter-sso-url VCENTERSSOURL	Optional	URL of vCenter SSO server. This is inferred from `--vcenter-url`, if not specified.
--vcenter-url VCENTERURL	Optional	URL of vCenter, `<vcentername>`. Where `<vcentername>` can be FQDN or IP.
--vdi-only-deployment	Optional. Default is VSI.	Set Workload Type as VDI.
--clusterType {0,1,2}	Optional	0: Default cluster, 1: Stretch cluster, 2: Two Node Edge Cluster
-zone {0,1}	Optional	Enable (1) or Disable (0) zones.
--deploymentMode {0,1}	Optional	0: EDGE, 1: FI
--managedBy {0,1}	Optional	0: HX CONNECT, 1: INTERSIGHT
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
config	Required	Configuration storage cluster file.
--dryrun	Optional	Only validate input parameters.
--esx-username ESXUSERNAME	Optional	User name of ESX administrator. Enter ESX administrator password when prompted.
-f, --force	Optional	Force create storage cluster. This ignores network configuration errors and creates the cluster with provided information.
--vcenter-user VCENTERUSER	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
	--id ID	Optional.	ID of storage cluster node. The ID is listed in the `stcli cluster info` command.
	--ip NAME	Optional.	IP address of storage cluster node. The IP is listed in the `stcli cluster info` command.
	--type TYPE	Optional.	Type of storage cluster node. Options are: `converged` or `compute`

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
	--id ID	Optional.	ID of storage cluster node. The ID is listed in the `stcli cluster info` command.
	--ip NAME	Optional.	IP address of storage cluster node. The IP is listed in the `stcli cluster info` 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
	--id ID	Optional.	ID of storage cluster node. The ID is listed in the `stcli cluster info` command.
	--ip NAME	Optional.	IP address of storage cluster node. The IP is listed in the `stcli cluster info` 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
	--summary	Optional.	Return summary of information only.

Command Default   Returns full cluster information.

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
    modelNumber: 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
	--config CONFIG	Require one from set.	Network configuration file.
	--node-ips NODEIPS [NODEIPS . . .]	Require one from set.	IPs of storage cluster nodes to add to configuration. Separate multiple IPS with a space.
	--dns DNS [DNS . . .]	Optional.	IPs of DNS server. Separate multiple IPS with a space.
	--dryrun	Optional.	Only validate input parameters.
	--fromaddress FROMADDRESS	Optional.	Address to send Auto Support emails from.
	--gateway GATEWAY	Optional.	Default gateway.
	--gateway1 GATEWAY1	Optional.	Default gateway1.

Option	Required or Optional	Description
--hypervisor-ips HYPERVISORIPS [HYPERVISORIPS . . .]	Optional.	IPs of hypervisor to be applied. Separate multiple IPS with a space.
--ipmi-ips IPMIIPS [IPMIIPS . . .]	Optional.	IPs of IPMI to be applied. Separate multiple IPS with a space.
--netmask NETMASK	Optional.	Subnet mask.
--netmask1 NETMASK1	Optional.	Subnet mask1.
--ntp NTP [NTP . . .]	Optional.	IPs of NTP servers. Separate multiple server IDs with a space.
--smtp SMTPSERVER	Optional.	SMTP server.
--storefs-ips STORFSIPS [STORFSIPS . . .]	Optional.	IPs of storage cluster to be applied. Separate multiple IPS with a space.
--timezone TIMEZONE	Optional.	Timezone.
--vlan VLAN	Optional.	VLAN tag.
--vlan1 VLAN1	Optional.	VLAN tag1.
--vmotion-ips 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
	--vcenter-user 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.

Option	Required or Optional	Description
--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. • Strict - Applies policies to protect against data loss. • Lenient - Applies policies to support longer storage cluster availability.

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** Enter password when prompted.

stcli cluster upgrade [-h] [--status] [--info] [--components COMPONENTS {hxdp | ucs-fw}] [--location LOCATION] [--hypervisor-bundle HYPERVISOR-BUNDLE] [--vcenter-user VCENTERUSER] [--checksum CHECKSUM] [--ucsm-host UCSMHOST] [--ucsm-user UCSMUSER] [--ucsfw-version UCSFR-VERSION] [--ucsm5-fw-version UCSM5-FW-VERSION] [--dryrun]

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. • Download the upgrade package to your computer. • Upload it (using `scp` or a similar tool) to the controller VM of the appliance on which you run the upgrade command.
--hypervisor-bundle HYPERVISOR-BUNDLE	Optional	Location of the ESXi offline bundle. Best case use `/tmp` on the controller VM. • Download the upgrade package to your computer. • Upload it (using `scp` or a similar tool) to the controller VM of the appliance on which you run the upgrade command.

Option	Required or Optional	Description
--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.
--ucsm6-fw-version UCSM6-FW-VERSION	Optional	UCS Server Firmware target version for M6 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)
```

Warning   Support for the stcli rebalance command is limited to Cisco Tech support only. General use is not supported.

C H A P T E R 4

stcli datastore Commands

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
create	One of set required.	Creates a storage cluster datastore with the name and size.
delete	One of set required.	Deletes a storage cluster datastore.
info	One of set required.	Provides information about the specified storage cluster datastore.
list	One of set required.	Lists the storage cluster datastores.
mount	One of set required.	Mounts a storage cluster datastore.
unmount	One of set required.	Unmounts a storage cluster datastore.
update	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

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
--blocksize	Optional.	Block size for stored data. Default 8K for all datastores. In VDI workloads, 4K is default.
--name NAME	Required.	Name of storage cluster datastore.
--size SIZE	Required.	Size of storage cluster datastore.
--unit {kb,mb,gb,tb}	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
--id ID	One of set required.	ID of datastore.
--name NAME	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}

	Option	Required or Optional	Description
Syntax Description	**--id ID**	One of set required.	ID of datastore.
	--name NAME	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}

	Option	Required or Optional	Description
Syntax Description	**--id ID**	One of set required.	ID of datastore.
	--name NAME	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
	--id ID	One of set required.	ID of datastore.
	--name NAME	One of set required.	Name of datastore.
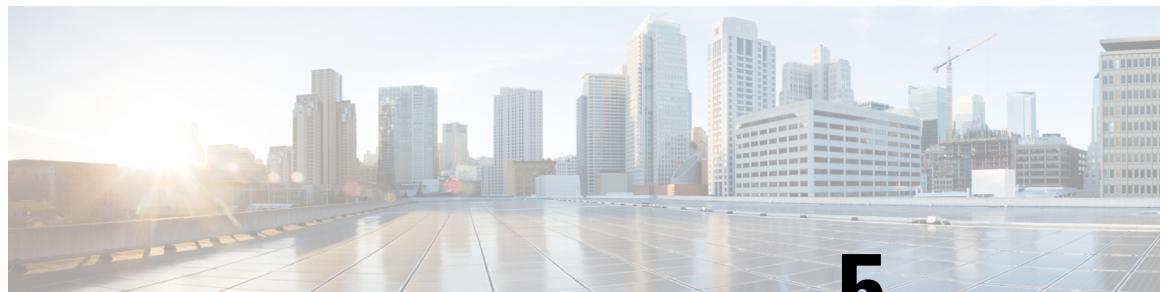
Command Default None. One option from the set is required.

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
	--id ID	One of set required.	ID of datastore.
	--name NAME	One of set required.	Name of datastore.
	--name NAME	Optional.	New name of storage cluster datastore.
	--size SIZE	Optional.	New size of storage cluster datastore.
	--unit {kb,mb,gb,tb}	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 [ ].

C H A P T E R 5

stcli disk Commands

stcli disk Command

Operations on the storage cluster disks.

stcli disk [-h] {list | add}

Syntax Description

Option	Required or Optional	Description
add	One of set required.	Adds discovered new disks and specified blacklisted disks to the storage cluster.
list	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

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
--id ID	One of set required.	ID of storage cluster node.
--name NAME	One of set required.	Name of storage cluster node.

Option	Required or Optional	Description
--blacklisted-disk-ids [DISKIDS [DISKIDS . . .]]	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]
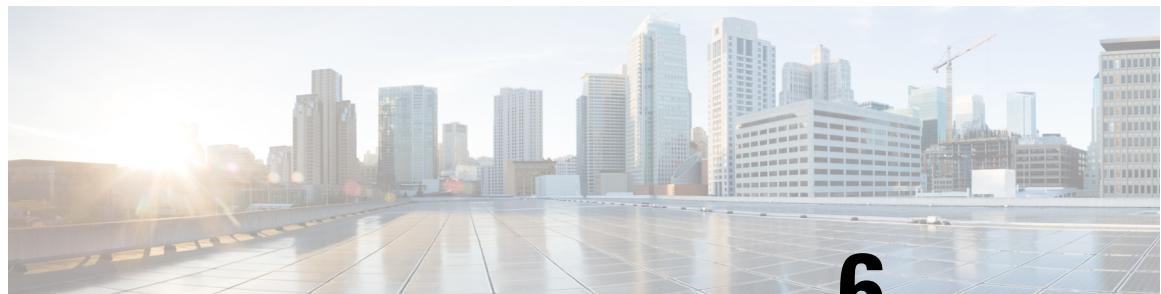
Syntax Description

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

stcli dp (data protection) Commands

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
	group	One of set required.	Data protection group snapshot operations.
	peer	One of set required.	Site replication pairing operations.
	schedule	One of set required.	Pause and resume replication, cluster wide for the sending cluster.
	vm	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
snapshot	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.
add	One of set required.	Add data protection to a virtual machine.
list	One of set required.	List virtual machines under data protection.
info	One of set required.	Display information about virtual machines under data protection.
delete	One of set required.	Delete data protection from a virtual machine.
movein	One of set required.	Move in data protection virtual machines to a protection group.
moveout	One of set required.	Move out data protection virtual machines from a protection group.
schedule	One of set required.	Schedule data protection for a virtual machine.
prepareReverseProtect	One of set required.	Prepare reverse protection actions for the given virtual machine.
reverseProtect	One of set required.	Perform reverse protection actions for the given virtual machine.
failover	One of set required.	Failover the individual virtual machines from the recovery HX Storage Cluster.
testfailover	One of set required.	Test recovery of individual virtual machines from the recovery HX Storage Cluster.
prepareFailover	One of set required.	Prepare failover action for the given virtual machine.
migrate	One of set required.	Migrate the given virtual machine.
hxtask	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}

	Option	Required or Optional	Description
Syntax Description	**create**	One of set required.	Creates a replication snapshot for a virtual machine.
	replicate	One of set required.	Replicates a replication snapshot for a virtual machine.
	list	One of set required.	List replication snapshots available on this cluster.
	info	One of set required.	Show info for a replication snapshot.
	delete	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]

	Option	Required or Optional	Description
Syntax Description	**--vmid VMID**	Required.	Run command on the virtual machine that matches the specified BIOS UUID.
	--vmidtype {VMBIOSUUID}	Optional.	Run the command on the virtual machine that matches the specified ID type.
	--snapname SNAPSHOTNAME	Required.	Name of the replication snapshot.
	--desc DESCRIPTION	Optional.	Description of the replication snapshot.
	--quiesce	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.
	--Offline	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
--vmid VMID	Required.	Run command on the virtual machine that matches the specified BIOS UUID.
--vmidtype {VMBIOSUUID}	Optional.	Run the command on the virtual machine that matches the specified ID type.
--snapshot-id SNAPSHOTID	Required.	Snapshot ID of the VM to replicate.
--outgoing OUTGOING	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
--vmid VMID	Required.	Run command on the virtual machine that matches the specified BIOS UUID.
--vmidtype {VMBIOSUUID}	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
	--vmid VMID	Required.	Run command on the virtual machine that matches the specified BIOS UUID.
	--vmidtype {VMBIOSUUID}	Optional.	Run the command on the virtual machine that matches the specified ID type.
	--snapshot-id SNAPSHOTID	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
	--vmid VMID	Required.	Run command on the virtual machine that matches the specified BIOS UUID.
	--vmidtype {VMBIOSUUID}	Optional.	Run the command on the virtual machine that matches the specified ID type.
	--snapshot-id SNAPSHOTID	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.

Command syntax for Cisco HyperFlex Release 5.0(2a) and earlier.

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

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

Command Default	None.
Usage Guidelines	This command is only supported in Cisco HyperFlex Release 5.0(2a) and earlier.
	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
	--vmname VMNAME	Optional.	Lists the protected virtual machine that matches the specified name.

Option	Required or Optional	Description
--vmid VMID	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).

	Note	If you perform a Recovery and Re-protect oper updated, but appears unchanged in the `stcli d` the internal protected tracking VM ID, please u `list`. For every DR operation, except when ini protection via `stcli` or REST, the **—vmid** mea inventory or the id returned by `stcli dp vm l`
		
		For example, to view the current instance UUI
		
		`root@ucs-stctlvm-303-1:~# stcli dp vm l`
		`421b909d-15c0-1b70-c0ca-0aefd9875a69 | `
		`| head -n1`
		
		`instanceUuid: 501bc1f3-3b02-2f4a-3ac6-f`
		
		From an ESXi host, cd into datastore/vmname, the old and new id in the `vmname.vmx` file. F
		
		`[root@ucs-215:/vmfs/volumes/30618dcb-e5`
		`cat maxCount8.vmx | grep -i uuid`
		
		`# uuid.bios = "42 1b 90 9d 15 c0 1b 70-`
		`5a 69".` (indicates the VMID)
		
		`vc.uuid = "50 1b c1 f3 3b 02 2f 4a-3a c`
		`8e"` (indicates the current instance UUID)
		
		`uuid.bios = "a4 18 30 42 22 51 78 e9-20`
		`21 25"` (indicates the BIOS UUID)

--brief	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
--vmid VMID	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.
--vmidtype {VMBIOSUUID}	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.

Command Default   None.

Usage Guidelines   Accompany the `stcli dp vm info` command with the required arguments with leading two dashes (--) 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
--vmid VMID	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.
--vmidtype {VMBIOSUUID}	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
--vmid VMID	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.
--groupid GROUPID	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
--vmid VMID	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.
--allVMs	Optional.	Move out all virtual machines from a group.
--groupid GROUPID	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}

	Option	Required or Optional	Description
Syntax Description	**--set**	Required one of set.	Set VM schedule operations.
	--get	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]

	Option	Required or Optional	Description
Syntax Description	**--vmid VMID**	Required.	Run command on the virtual machine that matches the specified BIOS UUID.
	--vmidtype {VMBIOSUUID}	Optional.	Run the command on the virtual machine that matches the specified ID type.
	--replication-interval REPLICATIONINTERVALINMINUTES	Required.	Replication interval in minutes
	--start-time REPLICATIONSTARTTIME	Optional	Replication start time in the format: mm/dd/yy_HH_MM.
	--quiesce-using-tools	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.
	--outgoing OUTGOING	Optional	ID of the outgoing/target cluster where data is replicated to.

Command Default	None.

Usage Guidelines	Accompany the `stcli dp vm schedule set` 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**
	--vmid VMID	Required.	Run command on the virtual machine that matches the specified BIOS UUID.
	--vmidtype {VMBIOSUUID}	Optional.	Run the command on the virtual machine that matches the specified ID type.

Command Default	None.

Usage Guidelines	Accompany the `stcli dp vm schedule get` 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**
	--vmid VMID	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.
	--force	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
-h, --help	Optional	Shows the help message relative to the listed command and exits.
--vmid VMID	Required	VMID BIOS UUID of the virtual machine.
--force	Optional	Do not validate the arguments and perform the operation.
--secondaryOnly	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
--vmid VMID	Required.	Run command on the virtual machine that matches the specified BIOS UUID.
--resourcepool-id RESOURCEPOOL-ID	One of optional pair.	Place the recovered VM(s) on the resource pool with the listed ID.
--resourcepool-name RESOURCEPOOL-NAME	One of optional pair.	Place the recovered VM(s) on the resource pool with the listed name.
--folder-id FOLDER-ID	One of optional pair.	Place the recovered VM(s) in the folder with the listed ID.
--folder-name FOLDER-NAME	One of optional pair.	Place the recovered VM(s) in the folder with the listed name.
--network-mapping NETWORKMAPPING [NETWORKMAPPING ...]	Optional.	Map the source to destination network. Format `source_network:destination_network`. For example: `--network-mapping "source_network1:destination_network1", "source_network2:destination_network2"`

Option	Required or Optional	Description
--poweron	Optional.	Power on the VM after recovery
--force	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
--vmid VMID	Required.	Run command on the virtual machine that matches the specified BIOS UUID.
--resourcepool-id RESOURCEPOOL-ID	One of optional pair.	Place the recovered VM(s) on the resource pool with the listed ID.
--resourcepool-name RESOURCEPOOL-NAME	One of optional pair.	Place the recovered VM(s) on the resource pool with the listed name.
--folder-id FOLDER-ID	One of optional pair.	Place the recovered VM(s) in the folder with the listed ID.
--folder-name FOLDER-NAME	One of optional pair.	Place the recovered VM(s) in the folder with the listed name.
--test-network TESTNETWORK	One of optional pair.	Test network to be used for test recovery. All source networks will be assigned to this network after recovery.
--network-mapping NETWORKMAPPING [NETWORKMAPPING ...]	One of optional pair.	Map the source to destination network. Format `source_network:destination_network`. For example: `--network-mapping "source_network1:destination_network1",`
--poweron	Optional.	Power on the virtual machine after recovery.

Option	Required or Optional	Description
--force	Optional.	Performs test failover forcefully without validating the arguments.
--newname NEWNAME	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
	--vmid VMID	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.
	--force	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
	--vmid VMID	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.
	--resourcepool-id RESOURCEPOOL-ID	Optional.	ID of the resource pool on which the recovered virtual machines have to be placed.
	--resourcepool-name RESOURCEPOOL-NAME	Optional.	Name of the resource pool on which the recovered virtual machines have to be placed.
	--folder-id FOLDER-ID	Optional.	ID of the folder on which the recovered virtual machines have to be placed.
	--folder-name FOLDER-NAME	Optional.	Name of the folder on which the recovered virtual machines have to be placed.
	--network-mapping NETWORKMAPPING [NETWORKMAPPING ...]	Optional.	Source to destination network map, in the format: "Source Network":"Destination Network".
	--poweron	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,cancelled,exception,stalled}]

Syntax Description	Option	Required or Optional	Description
	– vmid VMID	Required	ID of the virtual machine to add to the protection group.
	--id ID	Optional	ID of the virtual machine.

Option	Required or Optional	Description
--name NAME	Optional.	Reference name assigned to the replication network.
		Note The hx task commands start with lower case, but the filtering of `--name` will start with uppercase. For example use – TestFailover instead of testFailover.
		The name to be filtered are on:
		TestFailover
		Failover
		PrepareReverseProtect
		PrepareFailover
		ReverseProtect
		Migrate
--state	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
	add	One of set required.	Add data protection group.
	list	One of set required.	List of data protection groups.
	delete	One of set required.	Delete data protection group.
	vm	One of set required.	VM tasks in a data protection group.
	snapshot	One of set required.	Snapshot operations in a data protection group. This command is not supported.
	schedule	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.

Command syntax for Cisco HyperFlex Release 5.0(2a) and earlier.

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

Syntax Description	Option	Required or Optional	Description
	--groupname GROUPNAME	Required.	Name of the protection group.

Command Default   None.

Usage Guidelines   This command is only supported in Cisco HyperFlex Release 5.0(2a) and earlier.

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
	--groupname GROUPNAME	Optional.	List the protection group with given group name.
	--groupid GROUPID	Optional.	List the protection group with given ID.
	--brief	Optional.	Display brief summary only.

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**
	--groupid GROUPID	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**
	add	One of set required.	Add VM to data protection group.
	list	One of set required.	List VMs in data protection group.
	delete	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**
	--groupid GROUPID	Required.	ID of the data protection group where the VMs reside.
	--vmid VMID	Required.	ID of the virtual machine to add to the protection group.
	--vmidtype {VMBIOSUUID}	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
--groupid GROUPID	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
--groupid GROUPID	Required.	ID of the data protection group where the VMs reside.
--vmid VMID	Required.	ID of the virtual machine to be removed from the protection group.
--vmidtype {VMBIOSUUID}	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 schedule Commands

Hyperflex protection group schedule operations.

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

	Option	Required or Optional	Description
Syntax Description	**set**	One of set required.	Set the replication schedule for a data protection group.
	get	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]

	Option	Required or Optional	Description
Syntax Description	**--groupid GROUPID**	Required.	ID of the data protection group where the VMs reside.
	--replication-interval REPINTERVALINMINS	Required.	Replication interval (frequency) in minutes. This sets how often the VMs are replicated to the target cluster.
	--start-time REPSTARTTIME	Optional.	Replication start time in format `mm/dd/yy_HH_MM`. Specifies when the first replication begins.
	--quiesce-using-tools	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.
	--outgoing OUTGOING	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
	--groupid GROUPID	Required.	ID of the data protection group where the VMs reside.
	--outgoing OUTGOING	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
	get	One of set required.	Get peer cluster details.
	add	One of set required.	Add a pair using given inputs.
	list	One of set required.	Show all pairs.
	query	One of set required.	Query a pair to get pair-details.
	edit	One of set required.	Edit pair description for peer management IP.
	datastore	One of set required.	Edit mapped datastores in existing pair.
	delete	One of set required.	Delete a replication pair.
	forget	One of set required.	Forget peer using given inputs.
	schedule	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
	--mgmtIp MGMTIP	Required.	Peer cluster's management IP.
	--username USERNAME	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
	--name NAME	Required.	Name of cluster-pair.
	--description DESCRIPTION	Required.	Description of cluster-pair.
	--mgmtIp MGMTIP	Required.	Peer cluster's management IP.
	--username USERNAME	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
--name NAME	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
--name NAME	Required.	Name of cluster-pair
--description DESCRIPTION	Required	Description of cluster-pair
--mgmtIp MGMTIP	Required	Peer cluster's management Ip
--username USERNAME	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 | add | delete | editSchedule | editstatus | forget | }

Syntax Description

Option	Required or Optional	Description
edit	One of set required.	Edit mapped datastores in existing pair.
add	One of set required.	Add a datastore mapping in existing cluster pair
delete	One of set required.	Delete a datastore mapping in existing cluster pair
editSchedule	One of set required.	Edit schedule of a datastore mapping in existing cluster pair.
editstatus	One of set required.	Status of datastore edit job.
forget	One of set required.	Forget datastore pair edit-in-progress; Forget datastore pairs

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] [--backupOnly] [--quiesce]
[-fallbackToCrashConsistent]

Syntax Description

Option	Required or Optional	Description
--name NAME	Required.	Name of cluster-pair.

Option	Required or Optional	Description
--datastore DATASTORE	Required.	Datastore pairs with operations. Format is: `local_ds:remote_ds:OPERATION` Operation choices are: `ADD`, `DELETE`.
--storageOnly	Required.	SRM or an external DR orchestrator will manage the input datastore pair.
--replication-interval REPLICATIONINTERVALINMINUTES	Required.	Replication interval in minutes.
--backupOnly	Required.	The input datastore pair will be used for Backup only.
--quiesce	Required.	When backupOnly is set, this flag specifies whether quiesce is preferred.
--fallbackToCrashConsistent	Required.	When backupOnly and quiesce are set, and VM tools check fails, this flag specifies whether fallback to Crash Consistent snapshot is preferred.

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
--jobid JOBID	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
--name NAME	Required.	Name of cluster replication pair.
--username USERNAME	Required.	Peer cluster's user name. Enter peer cluster's user password when prompted.
--mgmtIp MGMTIP	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
--all	One of set required.	Remove the pairing between peers, for all partially-paired and successfully paired clusters.
--name NAME	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
pause	One of set required.	Pause replication. Stop sending replication snapshot bits to the remote cluster.
resume	One of set required.	Resume replication. Resume sending replication snapshot bits to the remote cluster.
status	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

Smart Licensing operations.

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

Syntax Description	Option	Required or Optional	Description
	register	One of set required.	Register Smart Licensing with an ID token.
	deregister	One of set required.	Deregister Smart Licensing.
	show	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.
	renew	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 [ ].
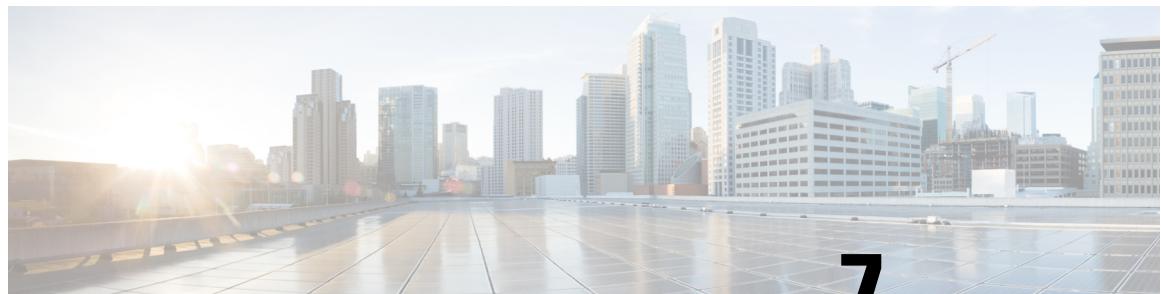
stcli license register Command

Register a Smart License with an ID token.

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

Syntax Description	Option	Required or Optional	Description
	--idtoken IDTOKEN	Required.	Registration ID token.
	--force	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--idtoken
```
ZmM2YTVhZjJMtZTQxNi00...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
	auth	One of set required.	Renew Smart Licensing authorization.
	id	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

	Option	Required or Optional	Description
Syntax Description	**all**	Optional.	Show all license information.
	auth-status	Optional.	Show Smart Licensing authorization status.
	inst-name	Optional.	Show cluster instance name.
	reg-status	Optional.	Show Smart Licensing registration status.
	status	Optional.	Show Smart Licensing registration, authorization, and license status.
	summary	Optional.	Show Smart Licensing summary.
	tech-support	Optional.	Show Smart Licensing technical support details.
	udi	Optional.	Show Smart Licensing unique device identifier (UDI).
	usage	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                    Entitlement Tag
                 Count        Status

   _____


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

CHAPTER **8**

stcli node Commands

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
add	One of set required.	Adds the set of nodes to the storage cluster.
discover	One of set required.	Lists the storage cluster nodes discoverable on the same subnet as this node.
disk	One of set required.	Locate a physical disk in the node.
disks	One of set required.	Provides information about the physical disks of the storage cluster node.
identify	One of set required.	Turns on/off the node beacon to identify a node.

Option	Required or Optional	Description
info	One of set required.	Provides information about the specified storage cluster node.
list	One of set required.	Lists the storage cluster nodes in the storage cluster.
maintenanceMode	One of set required.	Enter or exit maintenance mode.
remove	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

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
--node-ips NODEIPS [NODEIPS . . .]	Required	ESXi management/vmk0 IP addresses of the nodes to be add to the storage cluster.
--dryrun	Optional	Only validate input parameters.
Site Name	Required for stretched cluster	Site name of the node.
--esx-username ESCUSERNAME	Optional	User name of ESX administrator. Enter ESX administrator password when prompted.

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

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 `stcli cluster info` command under the `stNode` field `id`.
	--ip NAME	One of set required.	IP address of storage cluster node. The IP is listed in the `stcli cluster info` command under the `stNode` field `name`. 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
--summary	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]

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

IMPORTANT: 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.

Note For HX 4.5(1a) and later, you can only remove 1 converged node.

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`

Warning **Prior to removing a node or nodes for HyperFlex clusters with Logical Availability Zones (LAZ) configured, LAZ must be disabled.**

If LAZ is utilized in the HyperFlex cluster, then the number of remaining nodes must be in a balanced configuration that supports LAZ per the LAZ Guidelines and Considerations **prior to reenabling LAZ.**

stcli node remove [-h] {--id-1 ID1 | --ip-1 NAME1} [-f]

Table 3: Syntax Description

Option	Required or Optional	Description
--id-1 ID1	One of set required.	A unique ID number for the storage cluster node. The ID is listed in the `stcli cluster info` command under the `stNode` field `id`.
--ip-1 NAME1	One of set required.	IP address of storage cluster node. The IP is listed in the `stcli cluster info` command under the `stNode` field `name`.
-f, --force	Optional.	Forcibly remove storage cluster nodes.

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.

stcli node remove Command

CHAPTER 9

stcli security Commands

stcli security Commands

Security related operations.

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

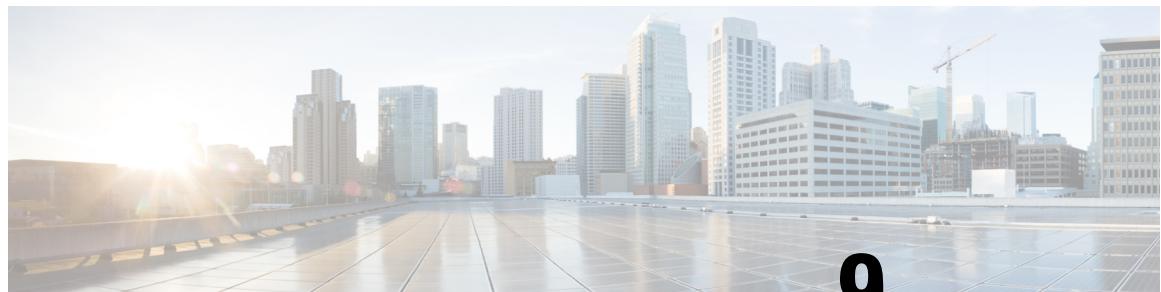| Syntax Description	Option	Required or Optional	Description
	password	One of set required.	Commands supported in the Storage security password manipulation namespace.
	ssh	One of set required.	Commands supported in the Storage security ssh namespace.
	whitelist	One of set required.	Commands supported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

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.

Command Default	None.

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

stcli security encryption ucsm-ro-user Commands

Encryption UCSM read only (RO) user operations.

stcli security encryption ucsm-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.

Command Default	None.

Usage Guidelines	Accompany the `stcli security encryption ucsm-ro-user` command with one of the positional arguments enclosed in { } or optionally, the arguments enclosed in [ ].

stcli security encryption ucsm-ro-user create Command

Encryption UCSM read only (RO) user create operations.

☞

Important	Please enter password when prompted.

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

Syntax Description	Option	Required or Optional	Description
	--hostname HOSTNAME	Required.	UCSM host name.

Option	Required or Optional	Description
--username USERNAME	Optional.	UCSM user name.
		Note 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
	set	Required.	Sets user password for all the controller VMs in the storage cluster.
	--user USER	Optional.	User must be either admin or root. User root is assumed if not specified.

Command Default Default controller VM username, `root` and password, `Cisco123`.

Usage Guidelines Accompany the `stcli security password set` 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
	resync	Required.	Resyncs SSH keys in storage cluster.

Command Default None.

Usage Guidelines Run the `stcli security ssh` command with the `resync` 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
	add	One of set required.	Adds IP addresses to IP table white-list.
	clear	One of set required.	Clears IP addresses from IP table white-list.
	list	One of set required.	List IP table white-listed entries.
	remove	One of set required.	Removes IP addresses from IP table white-list.

Command Default	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
	--ips IP [IP . . .]	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**
	--ips IP [IP . . .]	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 10.1.2.3
```

stcli services Commands

stcli services Commands

System services related operations.

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

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

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
disable	One of set required.	Disables ASUP.
enable	One of set required.	Enables ASUP.
recipients	One of set required.	Commands to support ASUP recipients list configuration.
show	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
add	One of set required.	Adds ASUP email recipients to an existing list of ASUP recipients.
clear	One of set required.	Deletes the entire ASUP recipient list. To remove individual recipients, use `asup recipients remove`.
remove	One of set required.	Deletes the specified ASUP email recipients from an existing list.
set	One of set required.	Sets the ASUP recipient list. Replaces previously set list of recipients. To add recipients to an existing list, use `asup recipients add`.

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
	--recipients RECIPIENTS [RECIPIENTS . . .]	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
	--recipients RECIPIENTS [RECIPIENTS . . .]	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
	--recipients RECIPIENTS [RECIPIENTS . . .]	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
	add	One of set required.	Adds servers to the DNS server list.
	set	One of set required.	Replace the DNS server list with this new list.
	show	One of set required.	Show the DNS server list.
	remove	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
	--dns DNSSERVER [DNSSERVER . . .]	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
	--dns DNSSERVER [DNSSERVER . . .]	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
	--dns DNSSERVER [DNSSERVER . . .]	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}

	Option	Required or Optional	Description
Syntax Description	**add**	One of set required.	Add one or more servers to the list of storage NTP servers.
	set	One of set required.	Replace the existing list of NTP servers with the listed DNS servers.
	show	One of set required.	Display the list of storage NTP servers.
	remove	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 . . .]

	Option	Required or Optional	Description
Syntax Description	**--ntp NTPSERVER [NTPSERVER . . .]**	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
	--ntp NTPSERVER [NTPSERVER . . .]	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
	--ntp NTPSERVER [NTPSERVER . . .]	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
clear	One of set required.	Clears the smart call home configuration.
disable	One of set required.	Disables smart call home.
enable	One of set required.	Enables smart call home.
ping	One of set required.	Pings the smart call home endpoint.
set	One of set required.	Commands for smart call home registration, including proxy server for HTTPS access
show	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
--email EMAILADDRESS	Required.	Add an email address for someone to receive email from Cisco support. Recommendation is to use a distribution list or alias.
--enable-proxy ENABLEPROXY	Optional.	Explicitly enable or disable use of proxy.
--portal-url PORTALURL	Optional.	Specify an alternative Smart Call Home portal URL, if applicable.
--proxy-url PROXYURL	Optional.	Specify the HTTP or HTTPS proxy URL, if applicable.
--proxy-port PROXYPORT	Optional.	Specify the HTTP or HTTPS proxy port, if applicable.
--proxy-user PROXYUSER	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**
	set	One of set required.	Commands to configure remote support.
	show	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**
	--enable ENABLE_RS_VALUE	Required.	Enable or disable remote support. Specify either value `true` or `false`.

Option	Required or Optional	Description
--enable-support-bundle-action **ENABLE_RSB_VALUE**	Optional.	Enable or disable support bundle actions. Specify either `true` or `false`. 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
clear	One of set required.	Removes all SMTP servers from the storage cluster configuration settings.
set	One of set required.	Add all SMTP servers to the storage cluster configuration.

Option	Required or Optional	Description
show	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
--smtp SMTPSERVER	Required.	The hosting address of the SMTP server.
--fromaddress FROMADDRESS	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
set	One of set required.	Specifies the time zone for the controller VMs.
show	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
	--timezone TIMEZONE	Required.	Specify a value for the time zone.
			For a list of valid time zone values, go to:
			http://manpages.ubuntu.com/manpages/jaunty/ma%20n3/DateTime::TimeZone::Catalog.3pm.html
			• Ensure that you specify a (case-sensitive) value for the time zone only from this list; for example: Europe/Paris or America/Los_Angeles.
			• Any value that is not in this list is invalid.
			• If you specify an invalid time zone, the system reverts to GMT.

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

stcli file clone Commands

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]

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

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

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

	Option	Required or Optional	Description
Syntax Description	**--enable**	One of set required.	Enable the native snapshot schedule.
	--disable	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}

	Option	Required or Optional	Description
Syntax Description	**clone**	One of set required.	Creates a specified number of ReadyClones for the given VM.
	snapshot	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]

	Option	Required or Optional	Description
Syntax Description	**--clone CLONE**	Required.	Name of the ReadyClone.
	--id ID	One of set required.	ID of source VM. The ID is listed in the `stcli cluster info` command.
	--name NAME	One of set required.	Name of the source VM.
	-number NUMBER	Required.	Number of ReadyClones to create.
	--custspec CUSTSPEC	Optional.	Guest customization spec for the ReadyClones. See vCenter Customize Guest OS feature.
	--guestname GUESTNAME	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.
	--increment INCREMENT	Optional.	Suffix to use for incrementing the ReadyClone names.
			Note Do not try to increment clone numbers using a value = or > 10000000000.
	--poweron	Optional.	Power on the created ReadyClone after cloning.
	--resourcepool-id RP-ID	Optional.	ID of the resource pool to place the ReadyClones.
	--resourcepool-name RP-NAME	Optional.	Name of the resource pool to place the ReadyClones.
	--startnumber STARTNUMBER	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]

	Option	Required or Optional	Description
Syntax Description	**--snapshot SNAPSHOT**	Required.	Name of the native snapshot.

Option	Required or Optional	Description
-folder-id FOLDER-ID	One of set required.	ID of the folder used to create the native snapshot.
--folder-name FOLDER-NAME	One of set required.	Name of the folder used to create the native snapshot.
--id ID	One of set required.	ID of the source VM used to create the native snapshot.
--name NAME	One of set required.	Name of the source VM used to create the native snapshot.
--resourcepool-id RP-ID	One of set required.	ID of the resource pool used to create the native snapshot.
--resourcepool-name RP-NAME	One of set required.	Name of the resource pool used to create the native snapshot.
--desc DESC	Optional.	Description of the native snapshot.
--memory	One of pair optional.	Memory for the native snapshot.
--quiesce	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 [ ].