

# Hyperflex Playbook For Easier Administration

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## Introduction

When you are troubleshooting Hyperflex with Cisco Support, they would often request you to login to all the SCVM and/or the ESXi's if need be.

This document introduces one of the tools Cisco Support would generally ask you to install so that administration of the SCVM's becomes easier.

This document also introduces you to commands that are helpful in day to day Hyperflex administration.

**SCVM = Storage Controller Virtual Machine**

**Q.** How do I view all the SCVM status without having to putty into each one separately ?

**A.**

When you are troubleshooting a problem with Cisco Support, they would want to have a look at the status of all the SCVM's in your environment.

To make the administration easier:

For Windows:

**MobaXterm** is recommended to assist with multiexec on all SCVMs and ESXi hosts

For Mac:

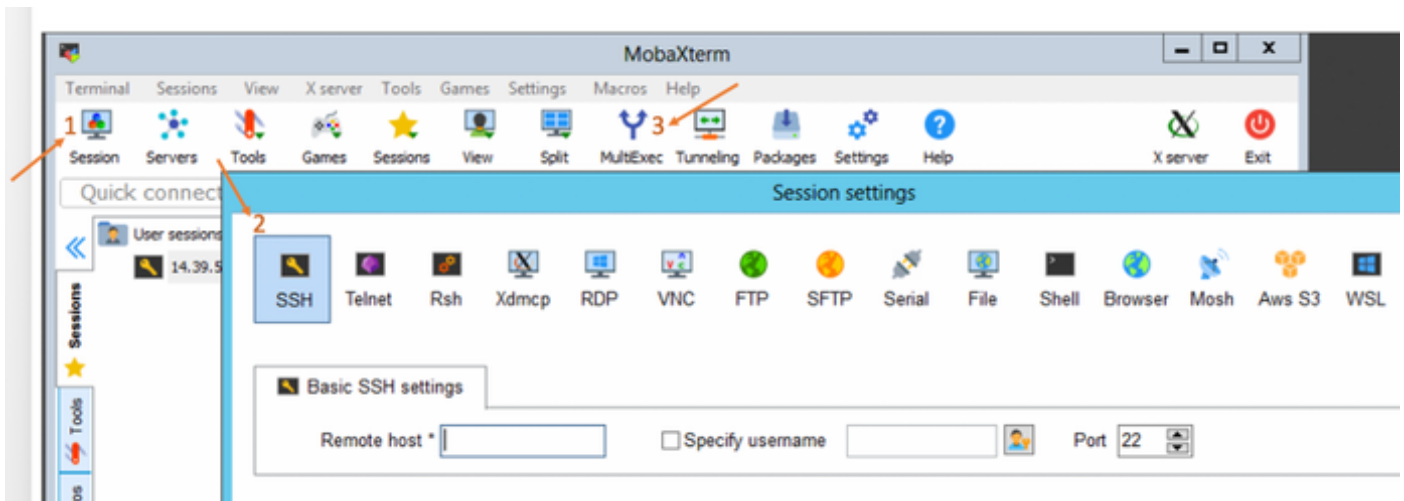
**iTerm2** is recommended to assist with multiexec on all SCVMs and ESXi hosts

SSH client software

- MobaXterm software download URL: [MobaXterm Software Download](#)
- iTerm2 software download URL [iTerm2 Software Download](#)

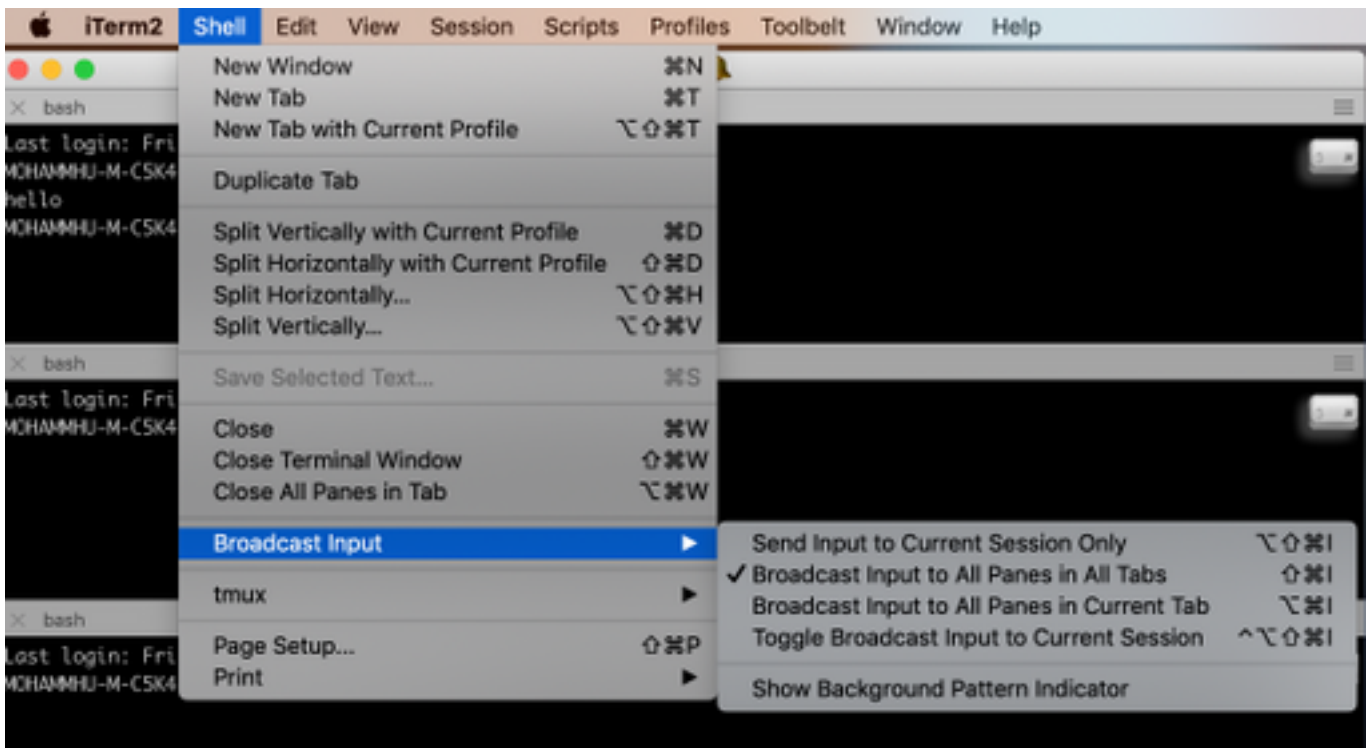
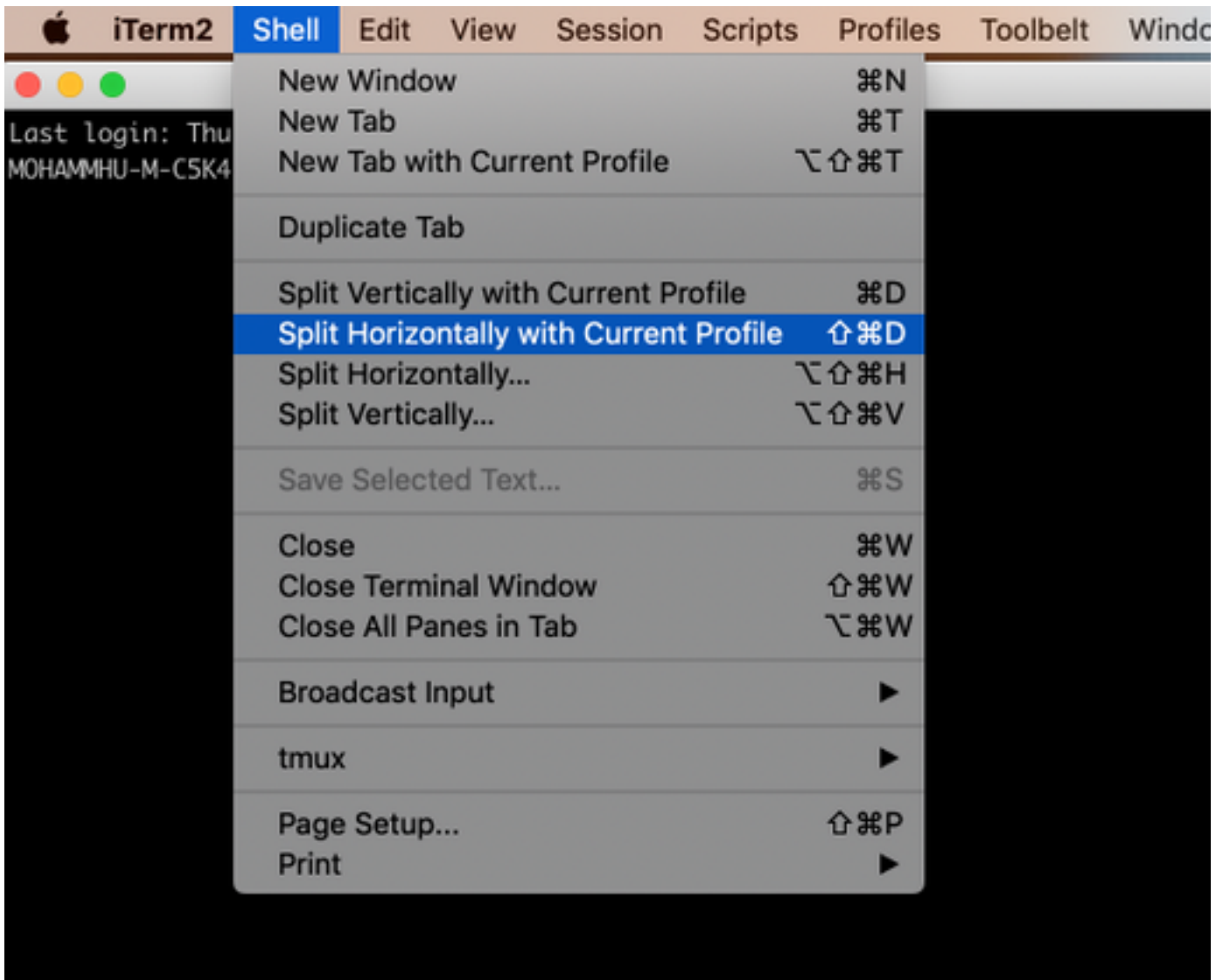
## MobaXTerm

1. Select Session
2. Select SSH, enter credentials. Repeat for the number of sessions you want to launch
3. Merge the sessions by selecting MultiExec



## iTerm2

1. Click on Shell
2. Select "Split Vertically/Horizontally with Current Profile" for the session you want
3. Merge the sessions by selecting Broadcast Input



Q. I can't seem to recollect a command and tab won't auto complete ?

**A.**

Suffix the command with **-h** or **--help**

Example:

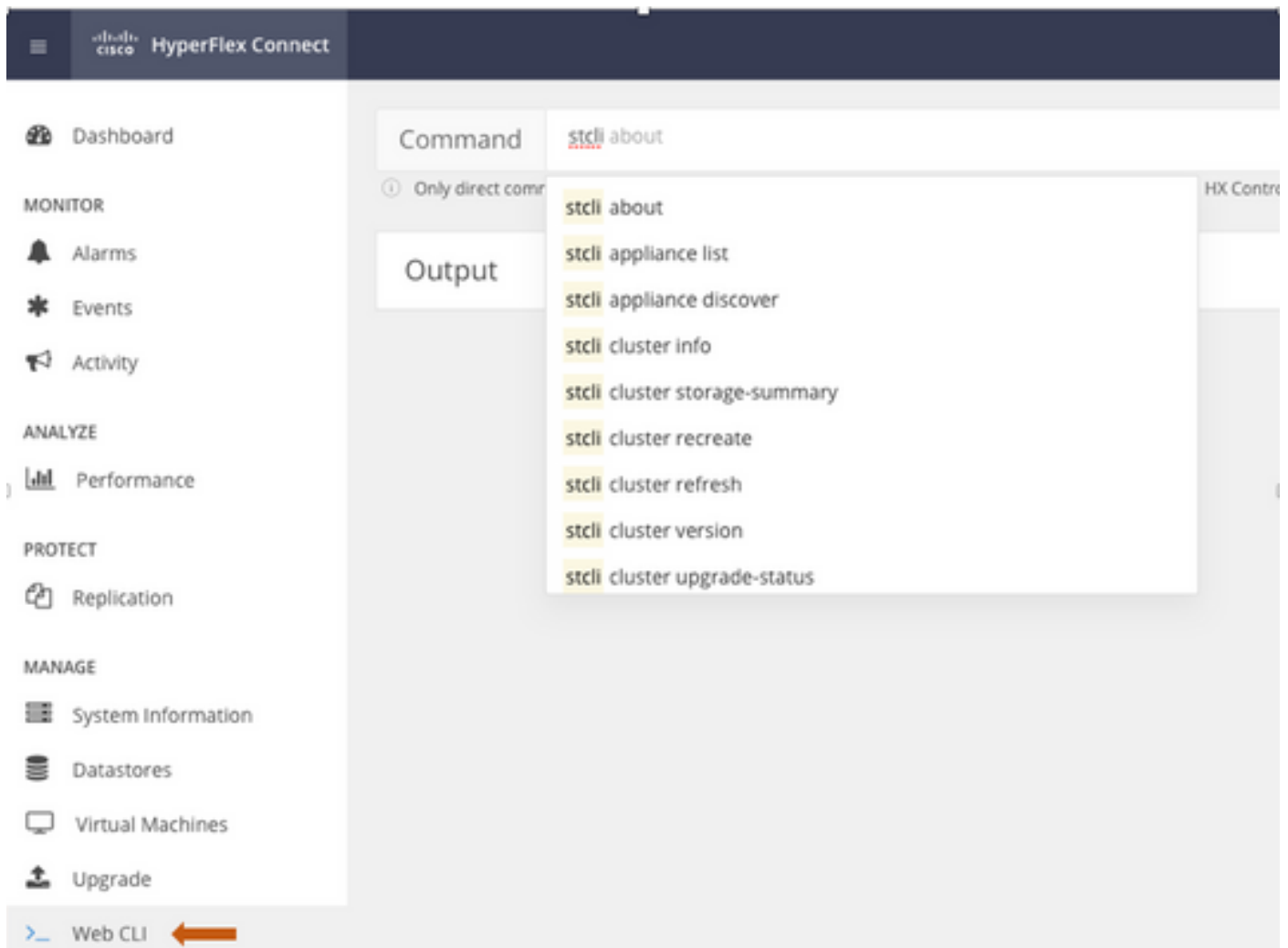
**stcli -h**

usage: stcli [-h]

{about, services, vm, dp, snapshot-schedule, cluster, appliance, node, disk, cleaner, datastore, file, security, license, rebalance}

You could also go to the web CLI and run the commands from there. (There are a few handy commands in here, but its not full blown like the CLI is)

As you type the commands in the Web CLI will pop with a handful suggestions



**Q.** How do I check the serial number, model and version of HXDP all from a single command ?

**A.**

```
root@SpringpathController4ZH SN:~# stcli about
```

```
serviceType: stMgr
```

```
instanceUuid: 71 904-4 9- -8810- ea4f513
```

```
name: HyperFlex StorageController
```

```
locale: English (United States)
```

```
serialNumber: WZJ PN
```

```
apiVersion: 0.1
```

```
modelName: HX220C-M5SX
```

```
build: 3.0.1i-29888 (internal)
```

```
displayVersion: 3.0(1i)
```

```
fullName: HyperFlex StorageController 3.0.1i
```

```
productVersion: 3.0.1i-29888
```

**Q.** I wonder what my ESXi and SCVM IPs are ?

**A.**

```
root@SpringpathController4ZH SN:~# stcli cluster info
```

```
<++snip++>
```

**nodeIPSettings:**

```
10.xx.xx.xx: <<<<<< ESXi IP address
```

```
-----
```

```
addr: 10.xx.xx.xx
```

```
stService: hypervisor
```

```
vlanId: 421
```

```
gateway:10.xx.xx.xx
```

```
subnetMask: 255.255.255.224
```

```
method: static
```

-----  
addr: 192.xx.xx.xx

stService: vmotion

vlanId: 424

gateway:

subnetMask: 255.255.255.224

method: static  
-----

addr: **10..xx.xx.xx** <<<<<<<< SCVM IP address

stService: stctl\_mgmt

vlanId: 421

gateway: 10..xx.xx.xx

subnetMask: 255.255.255.224

method: static  
-----

addr: 192..xx.xx.xx

stService: stctl

vlanId: 424

gateway:

subnetMask: 255.255.255.224

method: static  
-----

stService: ipmi

vlanId: 421

gateway: 10..xx.xx.xx

subnetMask: 255.255.255.224

method: dhcp

Output of the other esxi and scvm have been truncated

<+snip+>

**Q.** Which ESXi server does the SCVM I've logged into live on ?

**A.**

```
root@SpringpathController4ZH SN:~# /opt/springpath/storfs-mgmt-cli/getLocalNode.sh
```

```
nodeId=7e c4-b a-b e-b 6-6dc 865
```

```
serialNumber=WZJ PN
```

```
chassisSerialNumber=WZJ PN
```

```
esxiIP=10.xx.xx.xx
```

**Q.** What is my cluster management IP (HX Connect IP) ?

**A.**

Run **ifconfig -a** on all the SCVM's the one with eth0:mgmtip is the cluster management IP

```
eth0:mgmtip Link encap:Ethernet HWaddr 00:0c:29:0f:61:81
```

```
inet addr:10..xx.xx.xx Bcast:10..xx.xx.xxMask:255.255.255.224
```

```
UP BROADCAST RUNNING MULTICAST MTU:1500 Metric:1
```

Info can also be obtained from

```
stcli cluster info
```

<+snip+>

```
mgmtip:
```

```
addr: 10..xx.xx.xx
```

```
stService: mgmt
```

```
vlanId: -1
```

```
gateway:
```

```
subnetMask: 255.255.255.224
```

```
method: static
```

<+snip+>

## Q. What are the IP addresses of all my SCVM's, UCSM and vCenter

A.

```
root@SpringpathControllerMAN 3Z:~# stcli cluster info | grep -i stctl_mgmt -n5
```

```
gateway: 192.168.52.30  
subnetMask: 255.255.255.224  
method: static
```

```
-----  
addr: 10.xx.xx.xx  
stService: stctl_mgmt  
vlanId: 361  
gateway: 10.xx.xx.xx  
subnetMask: 255.255.255.224  
method: static
```

```
-----  
addr: 10.xx.xx.xx  
stService: stctl_mgmt  
vlanId: 361  
gateway: 14.xx.xx.xx  
subnetMask: 255.255.255.224  
method: static
```

```
-----  
addr: 10.xx.xx.xx  
stService: stctl_mgmt  
vlanId: 361  
gateway: 10.xx.xx.xx  
subnetMask: 255.255.255.224  
method: static
```

```
root@SpringpathControllerMAN 3Z:~# stcli cluster info | grep -i ucs
```

```
ucsmOrg: VaultTech  
ucsmHostName: 10.xx.xx.xx
```

```
root@SpringpathControllerMAN 3Z:~# stcli cluster info | grep -i vcenter
```

```
vCenterUrl: https://10.xx.xx.xx  
vCenterClusterId: domain-c55  
vCenterDatacenter: DC-HX-06  
vCenterSSOURL:  
vCenterURL: 10.xx.xx.xx  
vCenterDatacenterId: datacenter-50  
vCenterClusterName: HX-06
```

## Q. What were the NTP, DNS IP's again ?



**A.**

```
root@SpringpathController4ZH SN:~# stcli services dns show
```

-----

```
172..xx.xx.xx
```

-----

```
172..xx.xx.xx
```

-----

```
root@SpringpathController4ZH SN:~# stcli services ntp show
```

```
172..xx.xx.xx
```

Use **-h** to find other services

```
root@SpringpathController4ZH SN:~# stcli services -h
```

```
usage: stcli services [-h] {smtp,dns,ntp,asup,sch,remotesupport,timezone} ...
```

system services related operations

positional arguments:

```
{smtp,dns,ntp,asup,sch,remotesupport,timezone}
```

stCli system services

smtp        Commands supported in the Storage SMTP configuration namespace.

dns         Commands supported in the Storage DNS configuration namespace.

ntp         Commands supported in the Storage NTP configuration namespace.

asup        Commands supported in the ASUP configuration namespace.

sch         Commands supported in the smart-callhome configuration namespace.

remotesupport    Commands supported for remote support.

timezone            Commands supported in the Timezone configuration namespace.

**Q.** Can I monitor the state of my cluster in real time during an upgrade ?

**A.**

```
root@SpringpathControllerGDA LE:~# sysmtool --ns cluster --cmd healthdetail | grep -i state
State: ONLINE
HealthState: HEALTHY
Health State Reason: Storage cluster is healthy.
```

**Q.** I know "stcli cluster storage-summary" gives me the health of my cluster, but it seems to be failing to return output. Is there any alternate command to make sure that the cluster is healthy before I press the panic button or call Cisco Support ?

**A.**

If you experience a symptom like so

```
stcli cluster storage-summary --detail
```

Get cluster storage summary failed:

Cluster invalid state

```
sysmtool --ns cluster --cmd info
```

```
<++snip++>
```

Cluster Resiliency State: **HEALTHY**

Persistent device failures tolerable: 2

Caching device failures tolerable: 2

Node failures tolerable: 1

**Storage cluster is healthy.**

**Q.** How do I view the disks that the SCVM I'm on has access to ?

**A.**

```
root@SpringpathController4ZH SN:~# lsscsi
```

```
[2:0:0:0] disk ATA SAMSUNG MZ 40 1F3Q /dev/sdb
```

```
[2:0:1:0] disk TOSHIBA AL14 0N 5705 /dev/sdc
```

```
[2:0:2:0] disk TOSHIBA AL14 0N 5705 /dev/sdd
[2:0:3:0] disk ATA INTEL SSD 48 CS01 /dev/sde
[2:0:4:0] disk TOSHIBA AL14 0N 5705 /dev/sdf
[2:0:5:0] disk TOSHIBA AL14 0N 5705 /dev/sdg
[2:0:6:0] disk TOSHIBA AL14 20N 5705 /dev/sdh
[2:0:7:0] disk TOSHIBA AL14 20N 5705 /dev/sdi
[3:0:0:0] disk VMware Virtual disk 2.0 /dev/sda
```

You can also use

**sysmtool --ns disk --cmd list**

Disk Details:

-----:

UUID: 5000039888436425:0000000000000000

Type: DISK

Medium: ROTATIONAL

Usage: PERSISTENCE

State: CLAIMED

Runtime State: None

Blacklist Count: 0

Progress Pct: 0.000000

Path: /dev/sdg

Capacity: 1.09T

Usage: 0.00

Last Modified Time: 1553031537000

Version: 0

<++snip++>

**Q.** After generating the techsupport (storfs-support) bundle, How do I get it off from the controller VM ?

## A.

SCVM:

```
/var/support# ls
storfs-support_2019-03-22--17-08-51_SpringpathController4ZH  SN.tar.gz
```

**For mac/linux :**

```
scp root@14.39.54.65:/var/support/storfs-support_2019-03-22--17-08-51_SpringpathController4ZH  SN.tar.gz /Users/mohammhu/Desktop/
```

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root@14.39.54.65's password:

```
storfs-support_2019-03-22--17-08-51_SpringpathController4ZH  SN.tar.gz 100% 50MB 1.3MB/s
00:38
```

Syntax:

To copy files from a remote host to local host

```
scp username@remotehost:<files> /some/local/directory
```

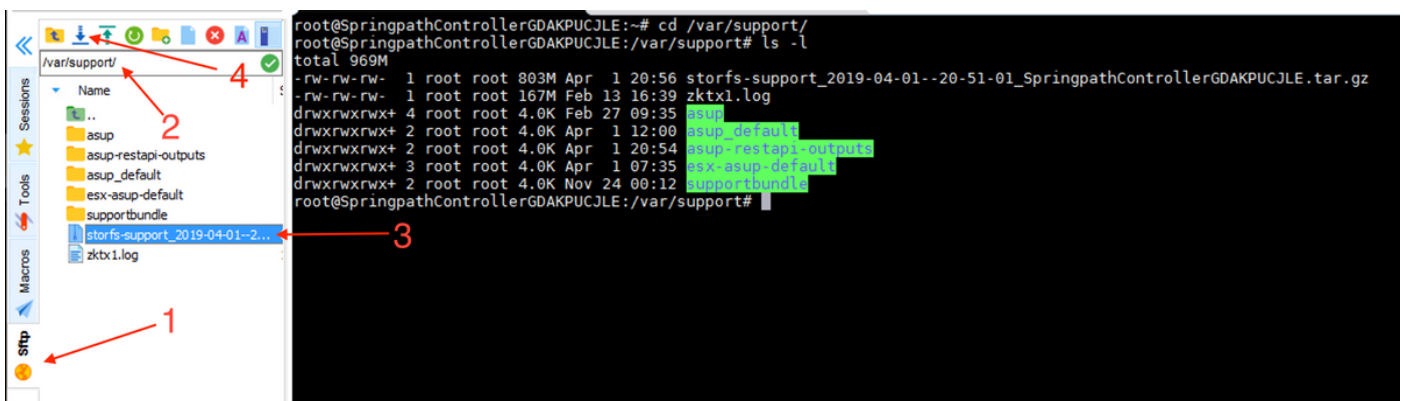
To copy files from local host to remote host (if need be)

```
scp <file> username@remotehost:/some/remote/directory
```

**For Windows:** use WINscp or MobaXterm

MobaXterm:

1. Go to SFTP tab from the left pane.
2. Change directory to the location /var/support.
3. Select the support bundle.
4. Click on the Download button.



WINscp:

1. Launch an SCP session to the SCVM's ip.

2. Click on the Parent Directory button to get to the root directory.
3. No navigate to /var/support.
4. Select the support bundle.
5. Click on the download button.

