

# 运行Hyperflex运行状况和升级前检查工具

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## 简介

本文档介绍运行Hypercheck运行状况和预升级工具的过程。

## 先决条件

### 要求

Cisco 建议您了解以下主题：

- Hyperflex

### 使用的组件

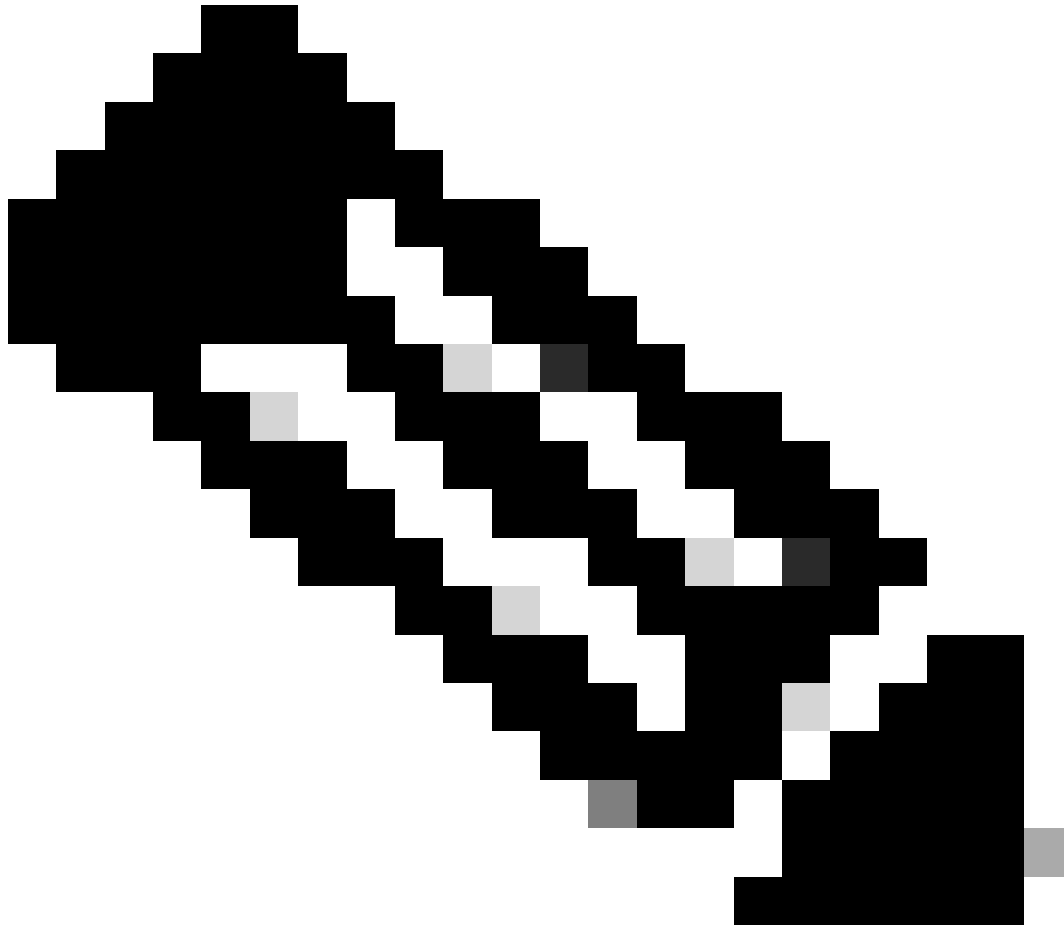
本文档中的信息基于Hypercheck运行状况和升级前工具。

本文档中的信息都是基于特定实验室环境中的设备编写的。本文档中使用的所有设备最初均采用原始（默认）配置。如果您的网络处于活动状态，请确保您了解所有命令的潜在影响。

## 背景信息

此工具是一个实用程序，可对Hyperflex系统进行主动自检，以确保其稳定性和恢复能力。它有助于在Hyperflex升级和维护操作期间自动执行Hyperflex系统运行状况和升级前检查列表，从而节省时间。

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注意：在使用之前，请始终下载该工具的最新版本。由于该工具经常增强，使用早期版本可能会导致缺少重要检查。

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## 支持的HX系统

- Hyperflex版本- 1.8、2.0、2.1、2.5、2.6、3.0、3.5、4.0、4.5、5.0、5.5
- Hyperflex标准集群
- Hyperflex扩展集群
- Hyperflex边缘集群 ( 2节点、3节点和4节点 )
- 仅在VMWare ESXi的Hyperflex集群上受支持



注：有关如何在Hyperflex HyperV集群上运行超级检查的信息，请参阅[超级检查：Hyperflex运行状况和升级前检查工具- HyperV](#)。

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## 适用场合

使用Hyperflex运行状况和升级前检查工具的有效时间是：

- 在Hyperflex升级之前
- 维护窗口前后的Hyperflex运行状况检查
- 为了确定发生故障的驱动器/磁盘
- 当您与Cisco TAC合作时
- 随时进行主动运行状况检查

## 操作方法

HX版本4.5及更高版本

步骤1:使用群集管理IP (CMIP) ( 即您的HX连接IP ) 启动与存储控制器虚拟机(SCVM)的SSH连接。

第二步：执行hypercheck 命令。

```
admin:~$ hypercheck
```

第三步：出现提示时，输入SCVM管理员密码，然后输入ESXi的根密码。

```
admin:~$ hypercheck
```

```
                HX Health Check 4.5.0
```

```
Please enter below info of HX-Cluster:
```

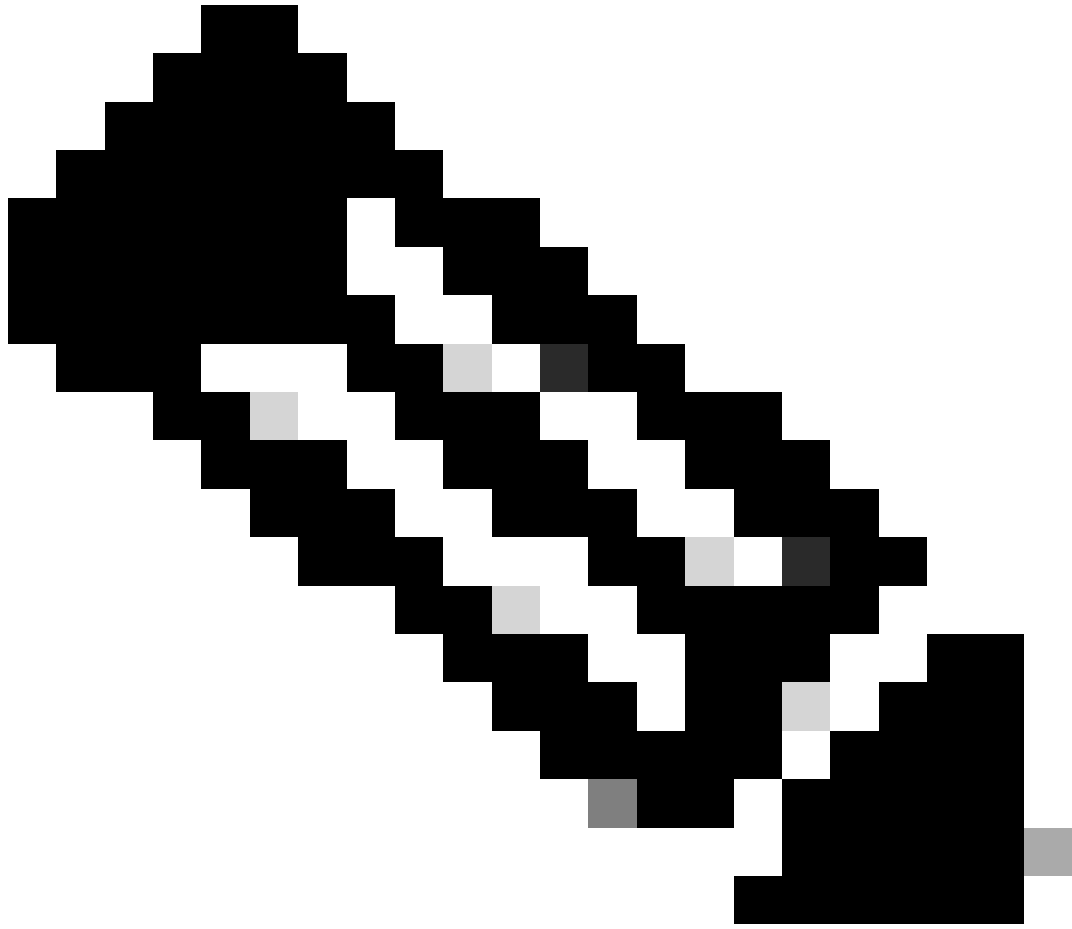
```
Enter the HX-Cluster Root Password:
```

```
Enter the HX-Cluster Admin Password:
```

```
Enter the ESX Root Password:
```

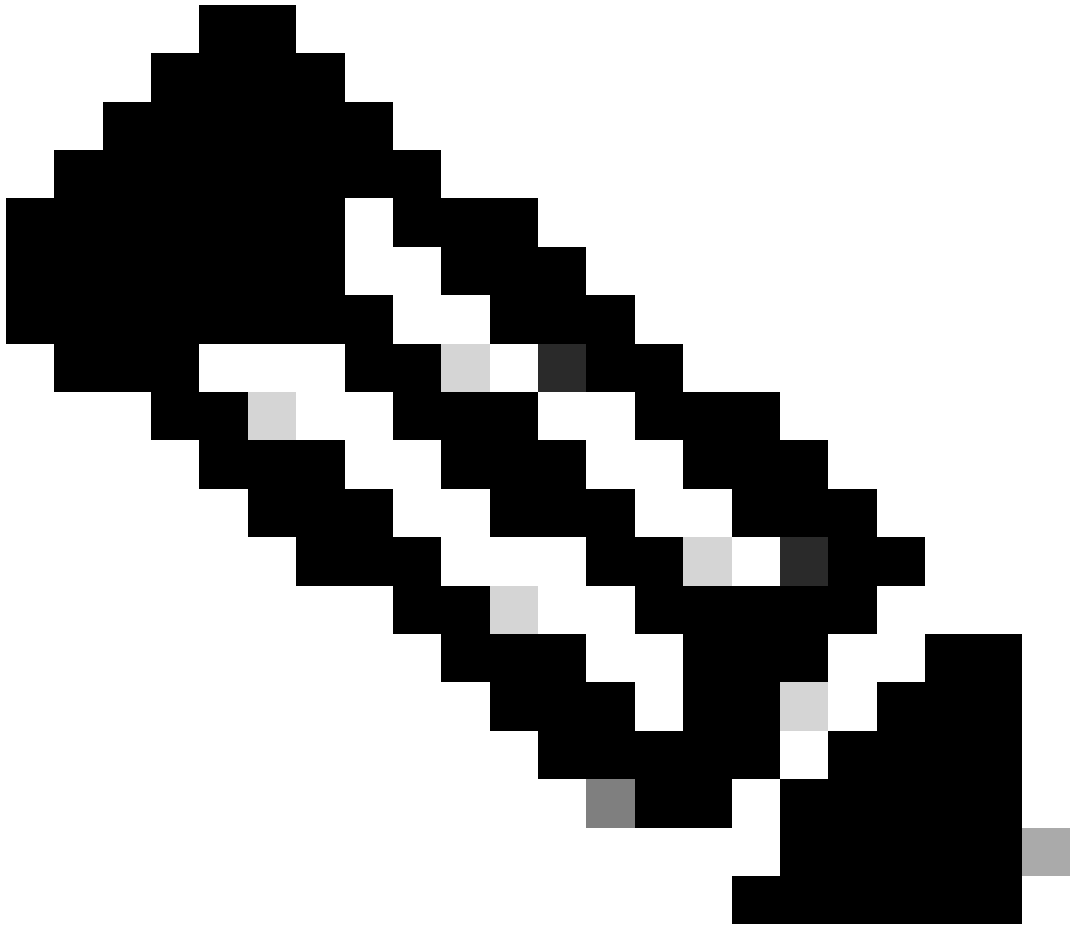
## HX版本4.0及更低版本

步骤1:从[Cisco github devnet帐户](#)下载Hyperflex-Hypercheck.zip。获取具有最新改进和更新的最新副本。



注意：只有思科注册用户才能访问内部思科工具、文件和信息。





注意：仅使用从Cisco github devnet帐户下载脚脚本。



第二步：使用CMIP将其上传到SCVM。

使用您首选的方法- scp/sftp/ftp/tftp - 以将Hyperflex-Hypercheck.zip复制到/tmp目录。

对于MAC：

从CLI执行SCP(确认Hyperflex-Hypercheck.zip位于运行SCP的同一文件夹中)。

```
# scp Hyperflex-Hypercheck.zip root@<scvm-eth0:mgmtip>:/tmp/.
```

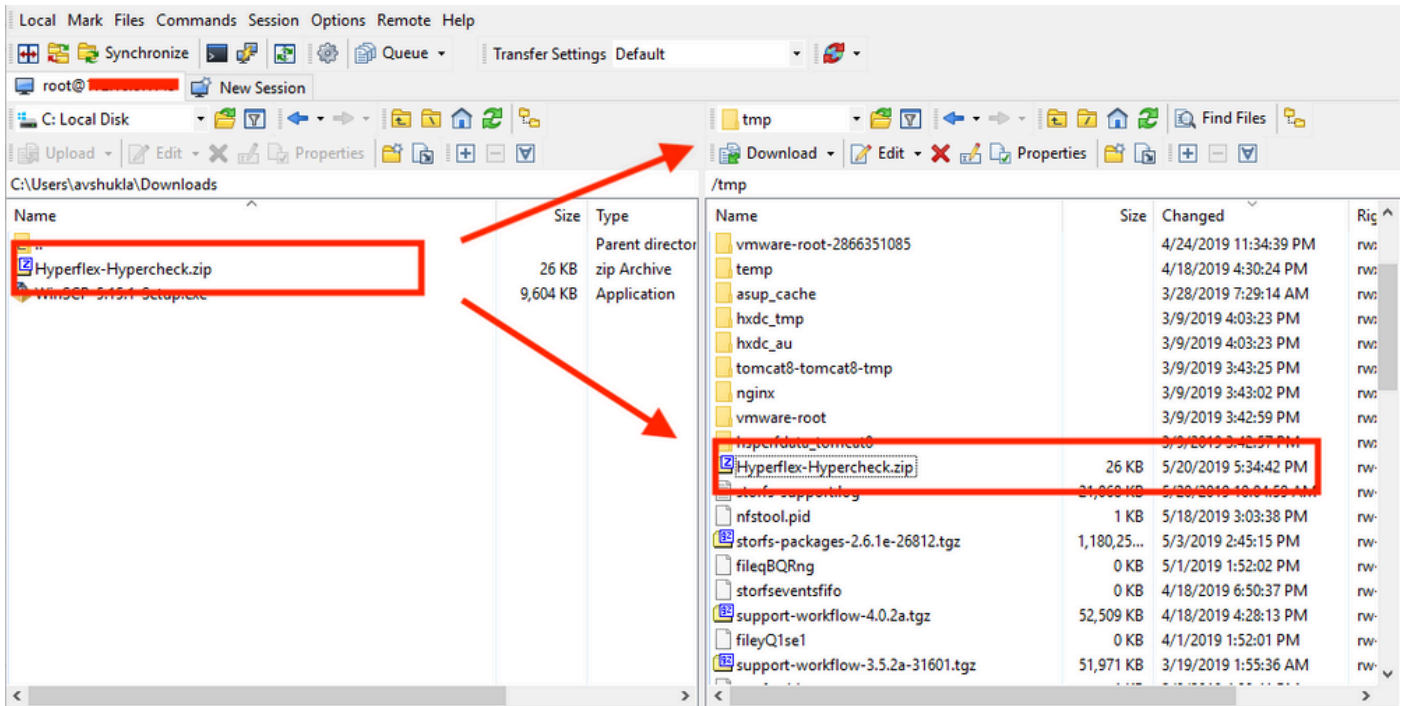
使用此命令可确定HX环境中的集群管理IP - [Hyperflex手册](#)。

```
[AVSHUKLA-M-Q13M:Downloads avshukla$ scp Hyperflex-Hypercheck.zip root@[REDACTED]:/tmp/
HyperFlex StorageController 3.5(2a)
root@[REDACTED]'s password:
Hyperflex-Hypercheck.zip
[AVSHUKLA-M-Q13M:Downloads avshukla$
[AVSHUKLA-M-Q13M:Downloads avshukla$
```

100% 26KB 107.4KB/s 00:00

Windows：

如下所示，您可以使用WINSOCP传输文件：



第三步：提取Hyperflex-Hypercheck.zip的内容。

键入`cd /tmp`以切换到/tmp目录。

```
root@SpringpathController7PVQWP6WV1:~# cd /tmp/
```

键入`unzip Hyperflex-Hypercheck.zip`以解压文件。

```
root@SpringpathController7PVQWP6WV1:/tmp# unzip Hyperflex-Hypercheck.zip
Archive: Hyperflex-Hypercheck.zip
b61c59f7962b72902692ce70548ba3d760efdf06
  creating: Hyperflex-Hypercheck/
  inflating: Hyperflex-Hypercheck/HXTool.py
  inflating: Hyperflex-Hypercheck/LICENSE.txt
  inflating: Hyperflex-Hypercheck/ReadMe.txt
  inflating: Hyperflex-Hypercheck/TestInfo.txt
  inflating: Hyperflex-Hypercheck/prettytable.py
  inflating: Hyperflex-Hypercheck/progressbar.py
root@SpringpathController7PVQWP6WV1:/tmp#
```

第四步：执行HXTool Python脚本



键入**cd Hyperflex-Hypercheck** 以导航到Hyperflex-Hypercheck目录。

```
root@SpringpathControllerABCDE01234:/tmp# cd Hyperflex-Hypercheck
```

键入**python HXTool.py** 以执行脚本。

```
root@SpringpathControllerABCDE01234:/tmp/Hyperflex-Hypercheck# python HXTool.py
```

第五步：出现提示时，输入SCVM根密码。

Enter this information of HX-Cluster:

Enter the HX-Cluster Root Password:

Enter the ESX Root Password:



注意：要停止脚本执行，请使用键(CTRL+Z)并立即停止。

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第六步：Hyperflex-Hypercheck工具开始检查。完成执行大约需要3-10分钟，具体取决于集群中融合节点的数量。

步骤 7.获取脚本输出报告。您可以按如下所示接收：

Hypercheck Report tar文件保存在/var/log/springpath 和/tmp/Hyperflex-Hypercheck下。因此，您可以从/var/log/springpath或/tmp/Hyperflex-Hypercheck下载tar捆绑包。或者，您可以生成并上传一个同样包含超检查报告tar的storfs-support捆绑包。

报告tar文件示例- HX\_Report\_2020\_08\_30\_10\_43\_50.tar被复制到路径：/var/log/springpath。

键入ls -l | grep HX\_Report以查看由Hyperflex-Hypercheck工具创建的文件。

Under /var/log/springpath,

```
root@SpringpathControllerABCDE01234:/var/log/springpath# ls -l | grep HX_Report
-rw-r--r-- 1 root root 380K Sep 23 15:41 HX_Report_2020_08_30_10_43_50.tar
root@SpringpathControllerABCDE01234:/var/log/springpath#
```

Under /tmp/Hyperflex-Hypercheck,

```
root@SpringpathControllerABCDE01234:/tmp/Hyperflex-Hypercheck# ls
HX_Report_2020_08_30_10_43_50.tar prettytable.py HX_Report_2020_08_30_10_43_50 TestInfo.txt progressbar.py
HXTool.py prettytable.pyc ReadMe.txt progressbar.pyc LICENSE.txt
root@SpringpathControllerABCDE01234:/tmp/Hyperflex-Hypercheck#
```

Hypercheck 日志包中的文件和日志：

```
root@SpringpathControllerABCDE01234:/tmp/Hyperflex-Hypercheck# ls HX_Report_2020_08_30_10_43_50/
HX_Tool_2020-08-30_10-43-50.log
HX_Tool_Main_Report_2020-08-30_10-54-34.txt
HX_Tool_Summary.json
```

步骤 8 导出 HX\_YYYY\_MM\_DD\_HH\_MM\_SS.tar 并与 TAC 共享。

使用您首选的方法，以便使用 scp/sftp/ftp/tftp 从 SCVM 导出 Hypercheck 日志，或者您只需下载包含 HX\_Report tar 捆绑包的 storfs-support 捆绑包。

了解执行的输出/检查

由超级检查执行的检查

这些检查由 Hyperflex-Hypercheck 工具执行：

<#root>

#### Hyperflex Checks:

(Below checks are performed on all the storage controller VMs)

#### Cluster services check

- Verifies the status of storfs, stMgr and stNodeMgr services

#### **Enospc state check**

- Checks if the cluster space usage is above the warning threshold or no

#### **Zookeeper check**

- Checks whether the Zookeeper is running or no

#### **Exhibitor check**

- Verifies the status of the Exhibitor service which manages the ZK

#### **System Disks Usage**

- Checks if /sda1, var/stv and /var/zookeeper is less than 80%

#### **HDD health check**

- Reports if you have any blacklisted disk in your cluster

#### **DNS check**

- Checks whether DNS is configured and reachable

#### **vCenter reachability check**

- Checks whether the vCenter is reachable on the required ports

#### **Timestamp check**

- Checks if all the controller VMs have the exact same time

#### **NTP sync check**

- Checks whether NTP is reachable from the storage controller VMs and synced

#### **Check package & versions -**

Checks for packages and versions on Storage Controller VMs

#### **Check Iptables count**

- Checks for Iptables count on and ensure it is same on all Storage Controller VMs.

#### **Extra pnodes check**

- Looks for any extra/duplicate pnode entries in the cluster

#### **Out of memory check**

- Checks through the log files if the cluster had any oom event

#### **Supported vsphere versions**

- Shows all the vSphere Versions supported with your current HXDP version

#### Permissions for /tmp

- Checks if the /tmp permissions are set correctly

#### Check Cluster Policy

- Checks the Configured Cluster Policy

#### Check springpath\_keystore.jceks file

- Check if All the SCVM have same keystore file

#### SED Capable

- Checks if the cluster is SED Capable

#### SED Enabled

- Checks if Encryption is enabled in the Cluster

#### USB-0 Check

- If Encryption is enabled, Checks that USB0 interface is present on all the SCVMs

#### SED 5100/5200

Drive Check - If we have Micron SED 5100 drives and version is below 3.5.2b, we wont be able to replac

#### Disk Lock Check

- If Encryption is enabled, Checks for any Locked drives

#### Network Checks

- Checks the connectivity in Storage network

#### Check ZK-Cleanup-Script

- Checks to identify ZKTxnCleanUp Script

#### Replication Checks

- If replication is enabled, we check the local and remote network connectivity (HX 4.5 Only)

#### Stretched Cluster Checks

- Checks the latency between the sites and the witness VM (HX 4.5 Only)

#### ESXi Checks:

(Below checks are performed on each ESXI node)

#### HX User Account check

- Verifies if the HXUser is created on all the esxi hosts and has admin rights

#### vMotion enabled check

- Checks if the vMotion network is configued

**Check for ESXI Failback timer**

- Check for ESXi Failback timer on ESXi host

**Check connectivity between vmk1 and eth1**

- Checks the connectivity between the Mgmt and Storage network

**No extra controller vm folders check**

- Checks for duplicate Controller SCVM Folders

**VMware Tools location check**

- Checks for Non default VMware Tools location

**vfat Disk Usage check**

- Checks for vfat Disk Usage

**Check /tmp usage**

- Checking for /tmp usage

**Compute Node Checks**

- All the ESXI checks are also performed on Compute nodes (HX 4.5 Only)

**4节点扩展集群的Hypercheck输出示例**

```

Enter this information of HX-Cluster: Enter the HX-Cluster Root Password: Enter the ESX Root Password: Cluster Name: HX-10-Stretched Site-100 Site-100
| Check ZK-Cleanup-Script | PASS | Checks to identify ZKTxnCleanUp Script. |
+-----+-----+-----+-----+ HX Controller: 192.168.53.136 Test Summary: +-----+
| Check ZK-Cleanup-Script | PASS | Checks to identify ZKTxnCleanUp Script. |
+-----+-----+-----+-----+ HX Controller: 192.168.53.137 Test Summary: +-----+
| Check ZK-Cleanup-Script | PASS | Checks to identify ZKTxnCleanUp Script. |
+-----+-----+-----+-----+ HX Controller: 192.168.53.138 Test Summary: +-----+
| Check ZK-Cleanup-Script | PASS | Checks to identify ZKTxnCleanUp Script. |
+-----+-----+-----+-----+ | Check Disk for SMART Failure. | PASS | Checks disk
+-----+-----+-----+-----+ #####

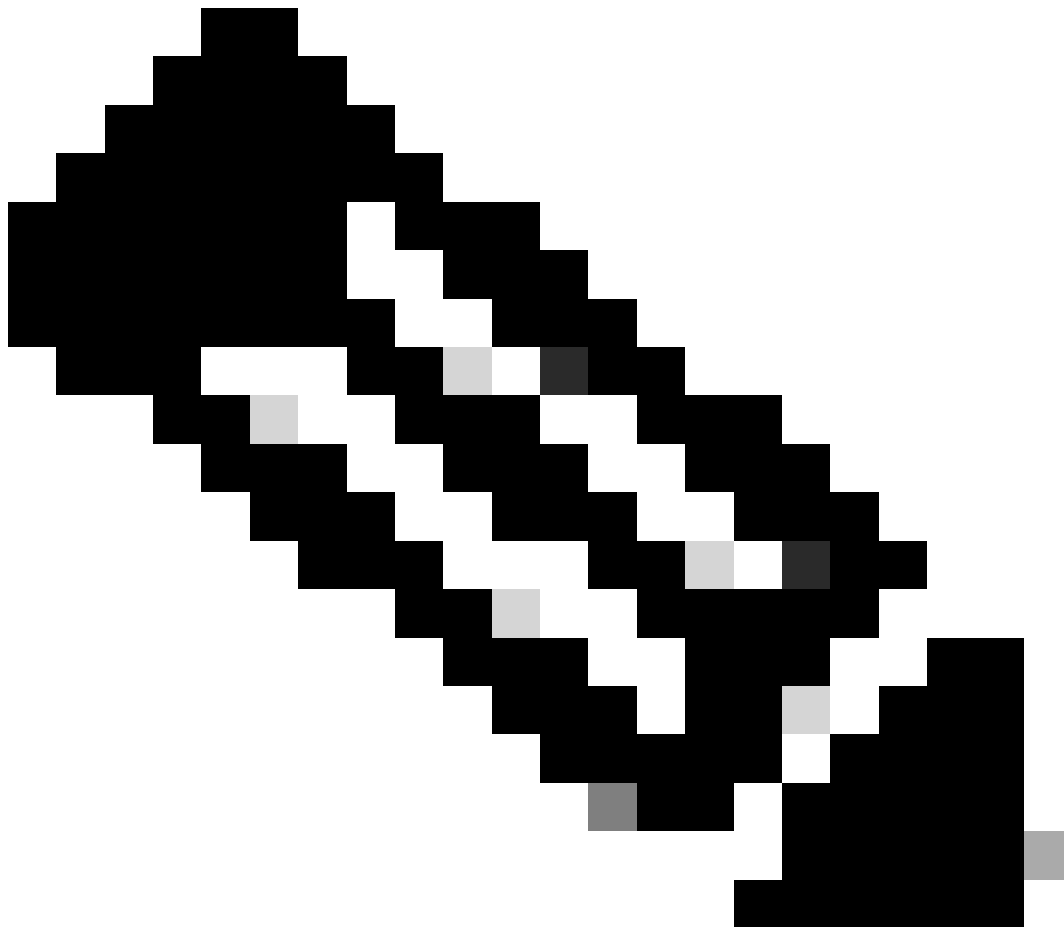
```

4) If you have performed any activity on your vcenter(like upgrade, certificate replacement,etc.), it is recommended to reregister your cluster to the vcenter

**分析工具输出**

**后续步骤**

- 该工具可自动执行在Hyperflex系统上运行手动命令的流程。
- 如果工具运行OK并对所有测试发出PASS，则HX系统适用于脚本执行的所有检查。
- 如果工具在某些检查中失败或者未能成功运行，可以使用CLI命令（已列出）对Hyperflex系统执行与脚本中手动执行的检查相同的检查。
- 该工具不检查任何旧/新/开放/已解决的警告，因此强烈建议在任何升级或维护活动之前查看Hyperflex发行说明和升级指南。



**注意：**请勿打开TAC支持请求，因为脚本无法运行。手动运行这些命令，确定问题，然后为确定的问题打开SR。

---

## CLI命令

在Hyperflex SCVM上：

SSH to All Hyperflex SCVMs-

```
# service_status.sh
```

```
# sysmtool --ns cluster --cmd enospcinfo
```

```
# echo srvr | nc 0 2181
```

```
# pidof exhibitor
```

```
# stcli disk list --ip <Corresponding ESXi Mgmt IP Address> |grep -B 2 -A 8 blacklisted
```

```
# stcli services dns show (and ping the IPs listed)
```

```
# ping <vCenter IP Address>
```

```
# date ; compare the time on all SCVMs. They should ideally be identical
```

```
# stcli services ntp show
```

```
# stcli cleaner info
```

```
# ntpq -p -4
```

```
# dpkg -l | grep -i springpath | grep -v storfs-support*
```

```
# sysmtool --ns disk --cmd list | grep -i blacklisted
```

```
# iptables -L -n | wc -l
```

```
# stcli cluster info
```

```
# df -h ; check that /var/stv should be less than 80%
```

```
# zgrep -i "out of memory" /var/log/springpath/debug-storfs.*
```

```
# ping -I eth0 <eth0> of all SCVMs
```

```
# ping -I eth1 <eth1> of all SCVMs
```

```
# "ls -ld /tmp" check for 775 and 777
```

```
# stcli cluster info | grep -i 'clusterAccessPolicy:' | head -1
```

```
# md5sum /etc/springpath/secure/springpath_keystore.jceks
```

```
# cat /etc/springpath/sed_capability.conf
```

```
# cat /etc/springpath/sed.conf
```



```
# cat /var/log/springpath/diskslotmap-v2.txt
```

```
# stcli cluster info | grep dataZkIp (ping dataZkIp for latency)
```

在ESXi系统上：

SSH to all ESXi hosts

```
# esxcli system account list
```

```
# esxcli network firewall ruleset list | grep -i vMotion
```

```
# esxcli software vib list | egrep -i 'scvm|stHyper|stfs'
```

```
# chkconfig --list | grep -E 'ntpd|hostd|vpxa|stHypervisorSvc|scvmclient|hxctlvm'
```

```
# esxcfg-vmknic -l ; confirm that vMotion VMK2 is created
```

```
# vmkping -I vmk1 <eth1> of all SCVMs
```

```
# cd /vmfs/volumes/Springpath-XXXXXXXXXX ; Ensure that it has only one Folder that has the Storage Controller VM
```

```
# df -h | grep vfat ; Ensure dir has free space
```

相关信息

- [思科技术支持和下载](#)

## 关于此翻译

思科采用人工翻译与机器翻译相结合的方式将此文档翻译成不同语言，希望全球的用户都能通过各自的语言得到支持性的内容。

请注意：即使是最好的机器翻译，其准确度也不及专业翻译人员的水平。

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