運行Hyperflex運行狀況和升級前檢查工具

目錄

簡介

本文檔介紹運行Hypercheck運行狀況和預升級工具的過程。

必要條件

需求

思科建議您瞭解以下主題：

- Hyperflex

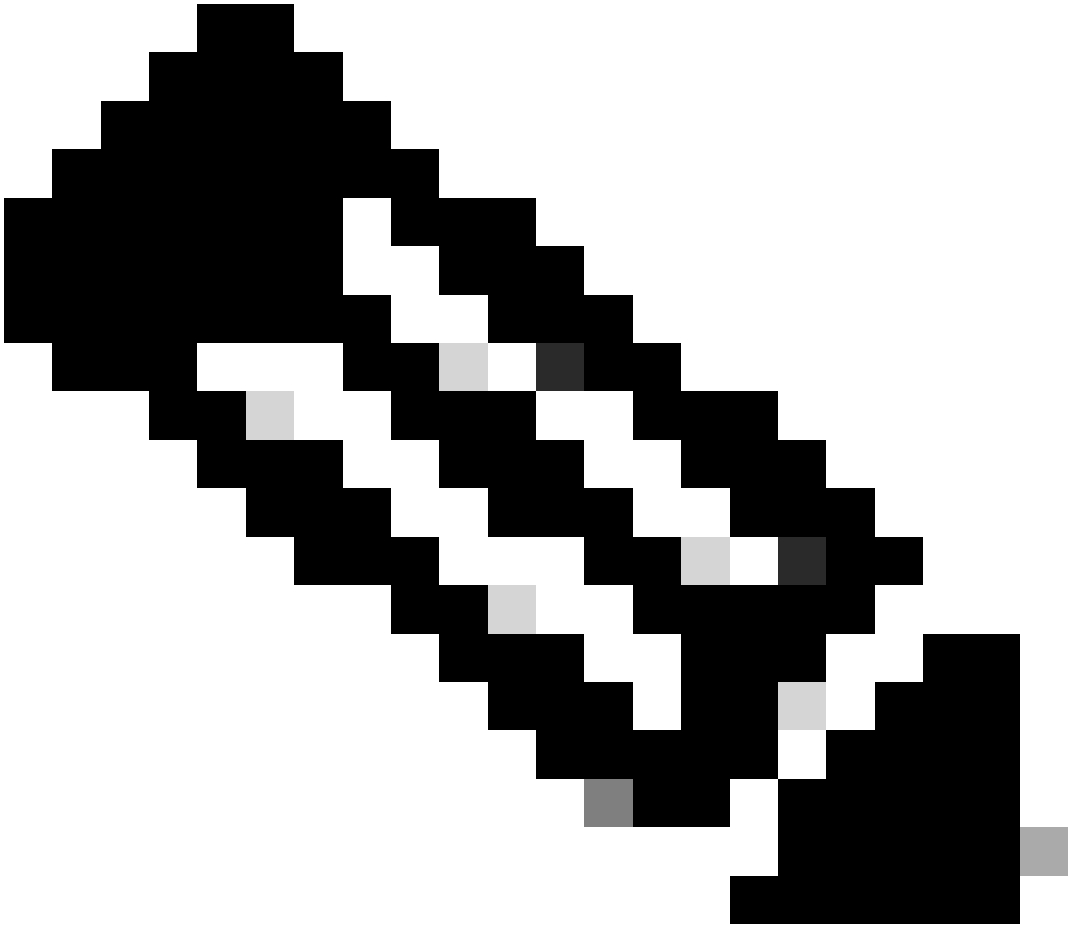
採用元件

本文檔中的資訊基於Hypercheck運行狀況和升級前工具。

本文中的資訊是根據特定實驗室環境內的裝置所建立。文中使用到的所有裝置皆從已清除（預設）的組態來啟動。如果您的網路運作中，請確保您瞭解任何指令可能造成的影響。

背景資訊

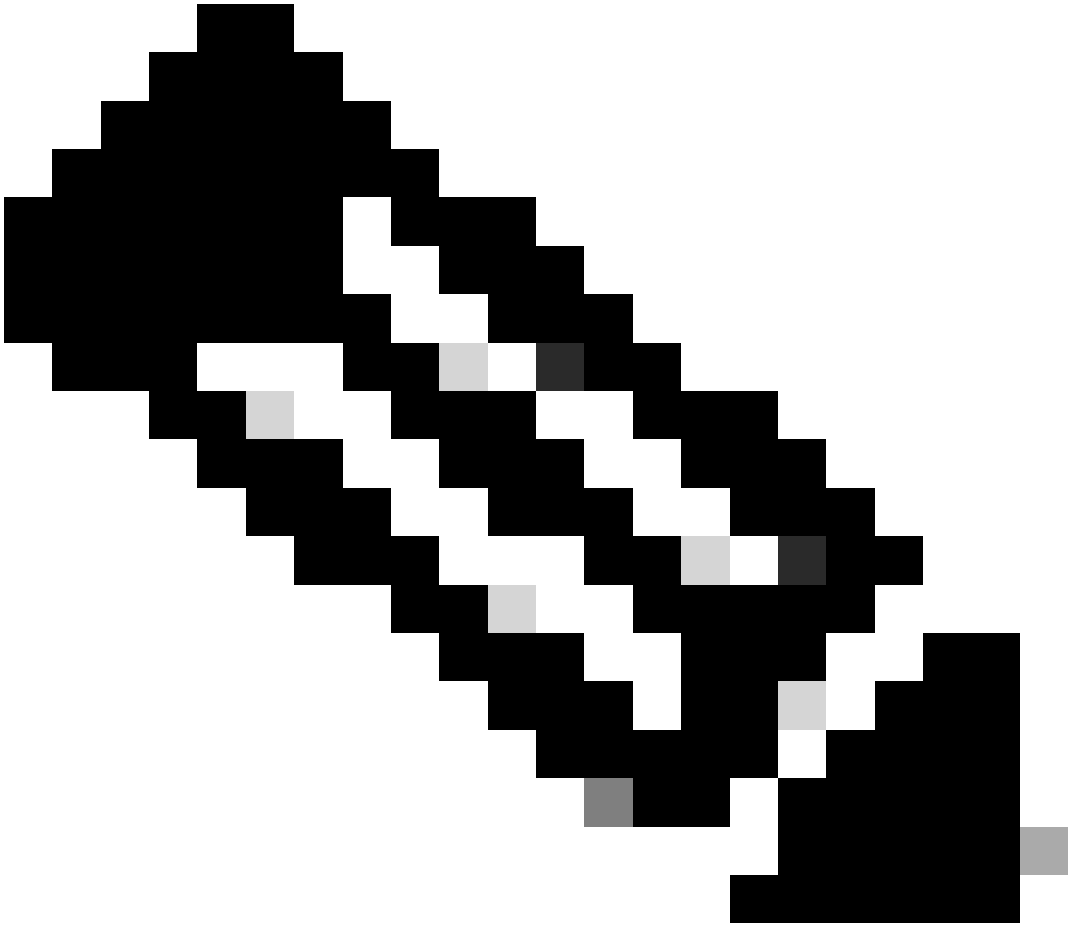
此工具是在Hyperflex系統上執行主動自我檢查以確保其穩定性和恢復能力的實用程式。它可自動執行Hyperflex系統的狀況清單和升級前檢查，以節省Hyperflex升級和維護作業的時間。



附註：使用前，請務必下載最新版本的工具。由於該工具經常增強，使用早期版本可能會導致缺少重要檢查。

支援的HX系統

- 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標準叢集
- Hyperflex延伸叢集
- Hyperflex邊緣叢集（2個節點、3個節點和4個節點）
- 僅在VMWare ESXi的Hyperflex群集上受支援



注意：有關如何在Hyperflex HyperV集群上運行Hypercheck的資訊，請參閱Hypercheck：Hyperflex運行狀況和升級前檢查工具- HyperV。

使用時機

使用Hyperflex健全狀況和升級前檢查工具的有效時間為：

- 在Hyperflex升級之前
- 維護時段前後的Hyperflex健全狀況檢查
- 為了辨識故障的磁碟機/磁碟
- 使用思科TAC時
- 隨時主動進行運行狀況檢查

使用方法

HX版本4.5及更高版本

步驟 1.使用群集管理IP (CMIP)（即您的HX連線IP）啟動與儲存控制器VM (SCVM)的SSH連線。

步驟 2.執行命令hypercheck 。

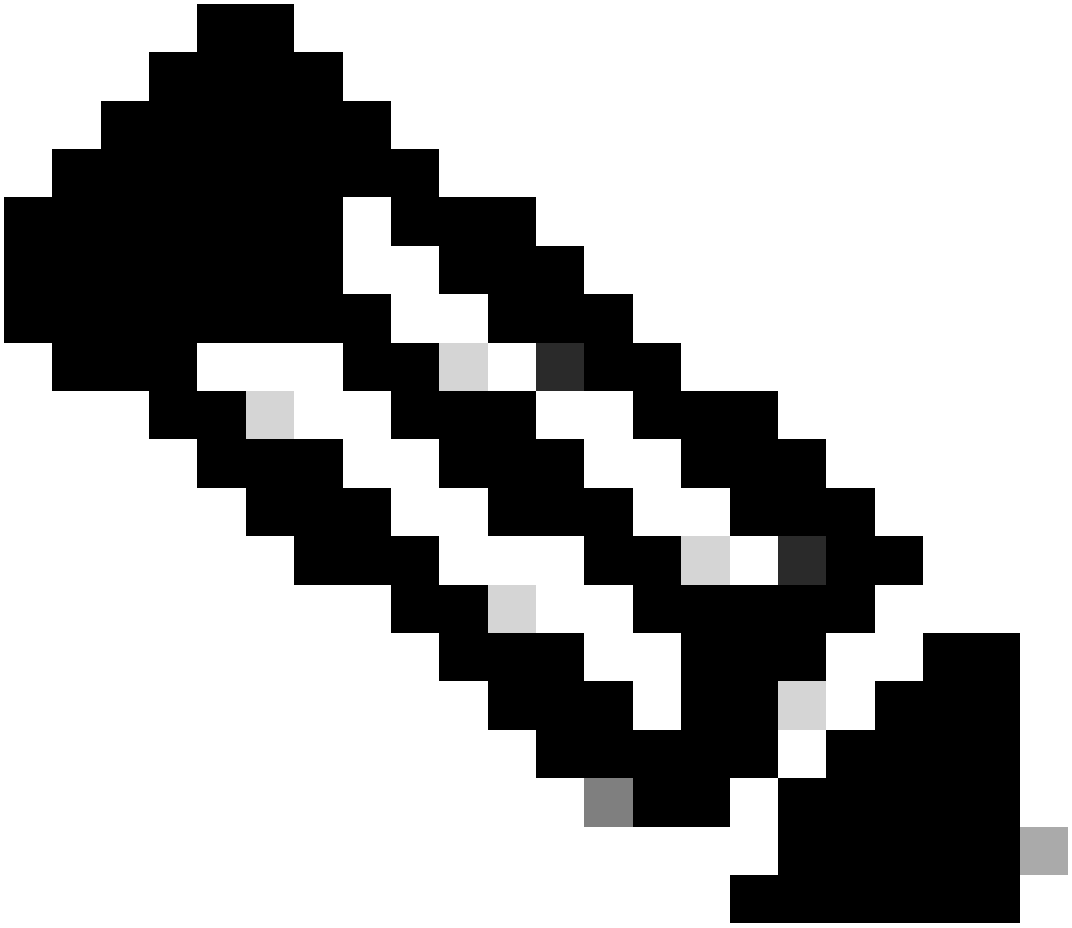
```
admin:~$ hypercheck
```

步驟 3.出現提示時，輸入SCVM管理員密碼，並輸入ESXi的根密碼。

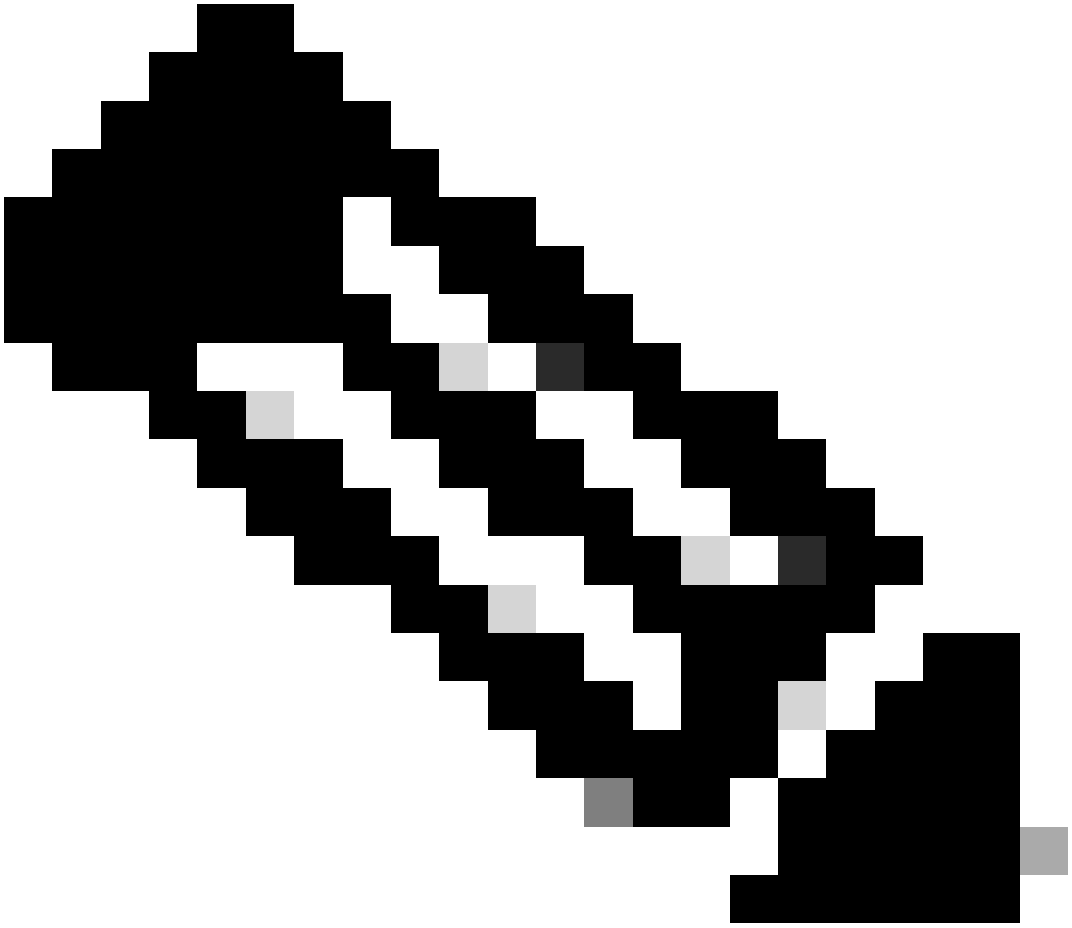
```
admin:~$ hypercheck

                  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

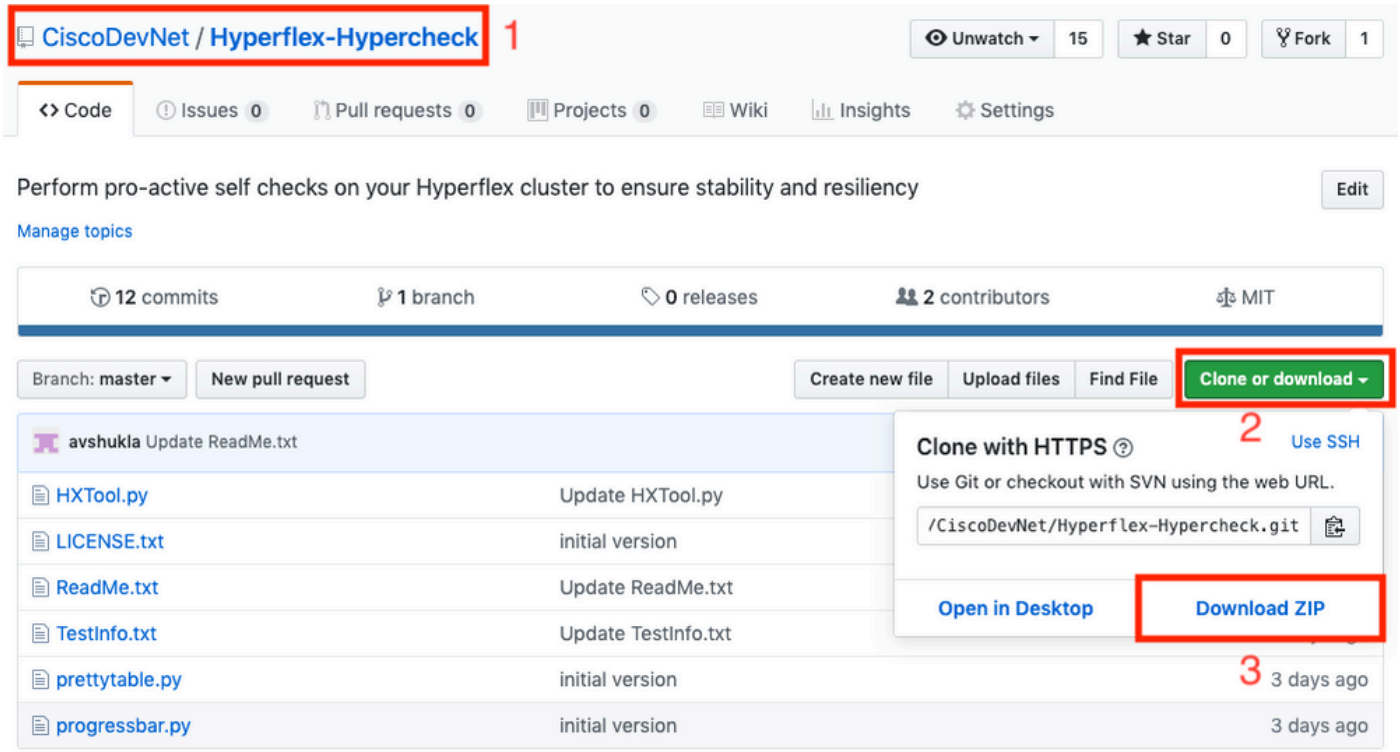
步驟 1.從Cisco github devnet帳戶下載Hyperflex-Hypercheck.zip。 取得具有最新改進和更新的最新復本。



注意：只有已註冊的思科使用者才能訪問內部思科工具、檔案和資訊。



注意：僅使用從Cisco github devnet帳戶下載的指令碼。



步驟 2.使用CMIP將其上傳到SCVM。

使用首選方法- scp/sftp/ftp/tftp -將Hyperflex-Hypercheck.zip複製到/tmp目錄。

對於MAC：

從CLI執行SCP(確認Hyperflex-Hypercheck.zip與運行SCP的資料夾相同)。

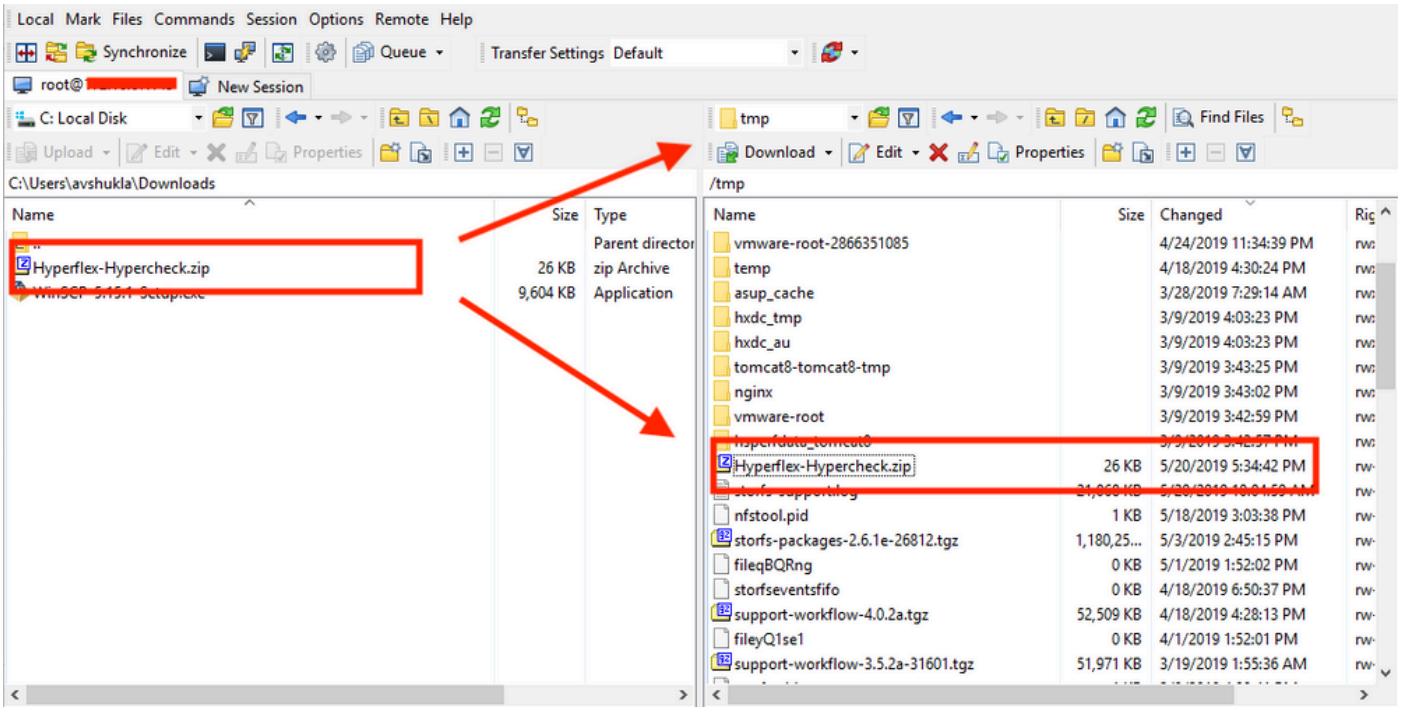
 # scp Hyperflex-Hypercheck.zip root@<scvm-eth0:mgmtip>:/tmp/.

使用此命令以確定HX環境中的集群管理IP - Hyperflex手冊。

```
AVSHUKLA-M-Q13M:Downloads avshukla$ scp Hyperflex-Hypercheck.zip root@[redacted]:/tmp/
  HyperFlex StorageController 3.5(2a)
root@[redacted]'s password:
Hyperflex-Hypercheck.zip                                      100%   26KB 107.4KB/s   00:00
AVSHUKLA-M-Q13M:Downloads avshukla$
AVSHUKLA-M-Q13M:Downloads avshukla$
```

對於Windows：

如下所示，您可以使用WINSCP傳輸檔案：



步驟 3.提取Hyperflex-Hypercheck.zip的內容。

鍵入cd /tmp以轉到/tmp目錄。

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

鍵入unzip Hyperflex-Hypercheck.zip 以解壓檔案。

```
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#
```

步驟 4.執行HXTool Python指令碼。

鍵入**cd Hyperflex-Hypercheck** 以導航到Hyperflex-Hypercheck目錄。

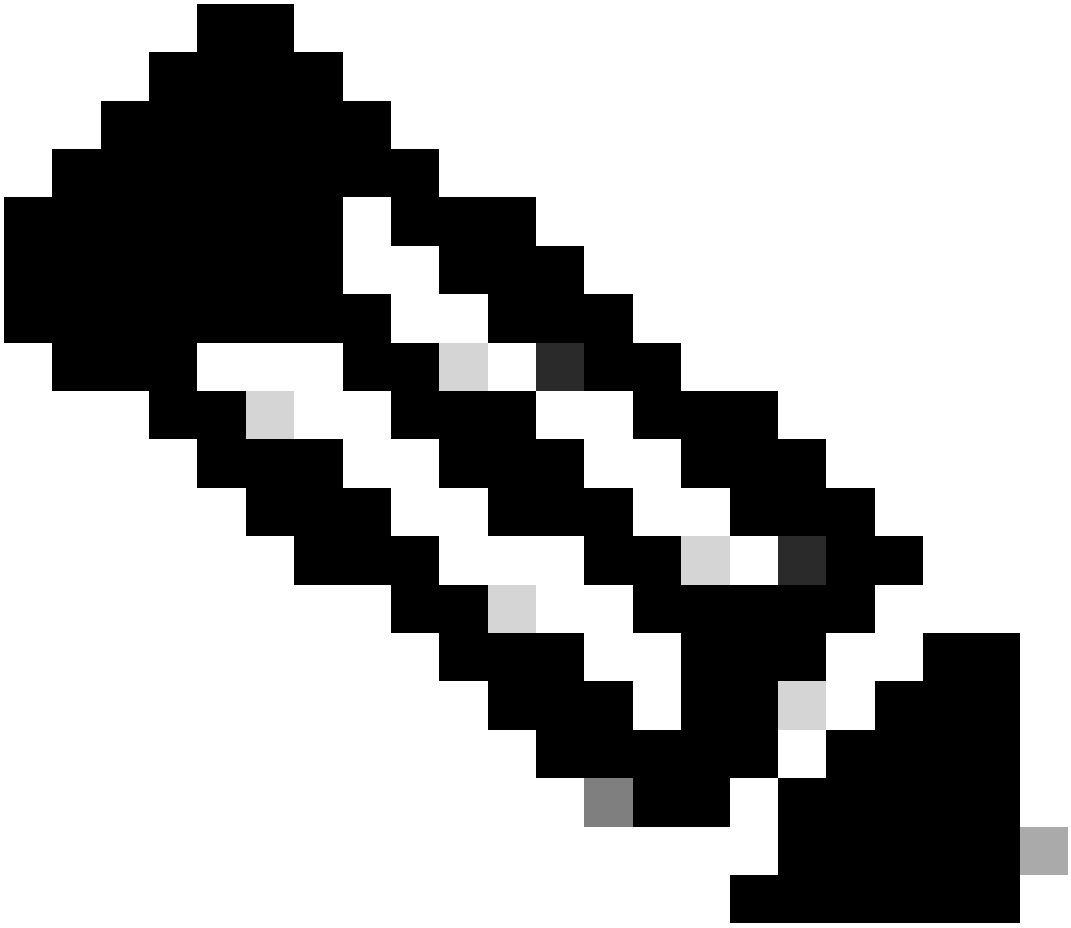
root@SpringpathControllerABCDE01234:/tmp# cd Hyperflex-Hypercheck

鍵入python HXTool.py 以執行指令碼。

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

步驟 5.出現提示時，輸入SCVM根密碼。

Enter this information of HX-Cluster:
Enter the HX-Cluster Root Password:
Enter the ESX Root Password:



注意：為了停止指令碼執行，請使用鍵(CTRL+Z)並立即停止。

步驟 6.Hyperflex-Hypercheck工具會啟動其檢查。完成執行大約需要3-10分鐘，具體取決於群集中的已收斂節點數。

步驟 7.獲取指令碼輸出的報告。您可以按如下所示接收：

Hypercheck Report tar檔案儲存在/var/log/springpath 和/tmp/Hyperflex-Hypercheck下。因此，您可以從/var/log/springpath或/tmp/Hyperflex-Hypercheck下下載tar捆綁包。 或者，您可以只生成並上傳storfs-support捆綁包，該捆綁包還包含超級檢查報告tar。

報告tar檔案示例- HX_Report_2020_08_30_10_43_50.tar被複製到路徑：/var/log/springpath。

鍵入ls -l | grep HX_Report以檢視Hyperflex-Hypercheck工具建立的檔案。

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日誌包中的檔案和日誌：

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

步驟 8.導出HX_YYYY_MM_DD_HH_MM_SS.tar並與TAC共用。

使用您首選的方法，以便使用scp/sftp/ftp/tftp從SCVM導出Hypercheck日誌，或者您只需下載包含HX_Report tar捆綁包的storfs-support捆綁包。

瞭解執行的輸出/檢查

由超級檢查執行的檢查

這些檢查由Hyperflex-Hypercheck工具執行：

<#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

- Verfies 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 confirgued

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)

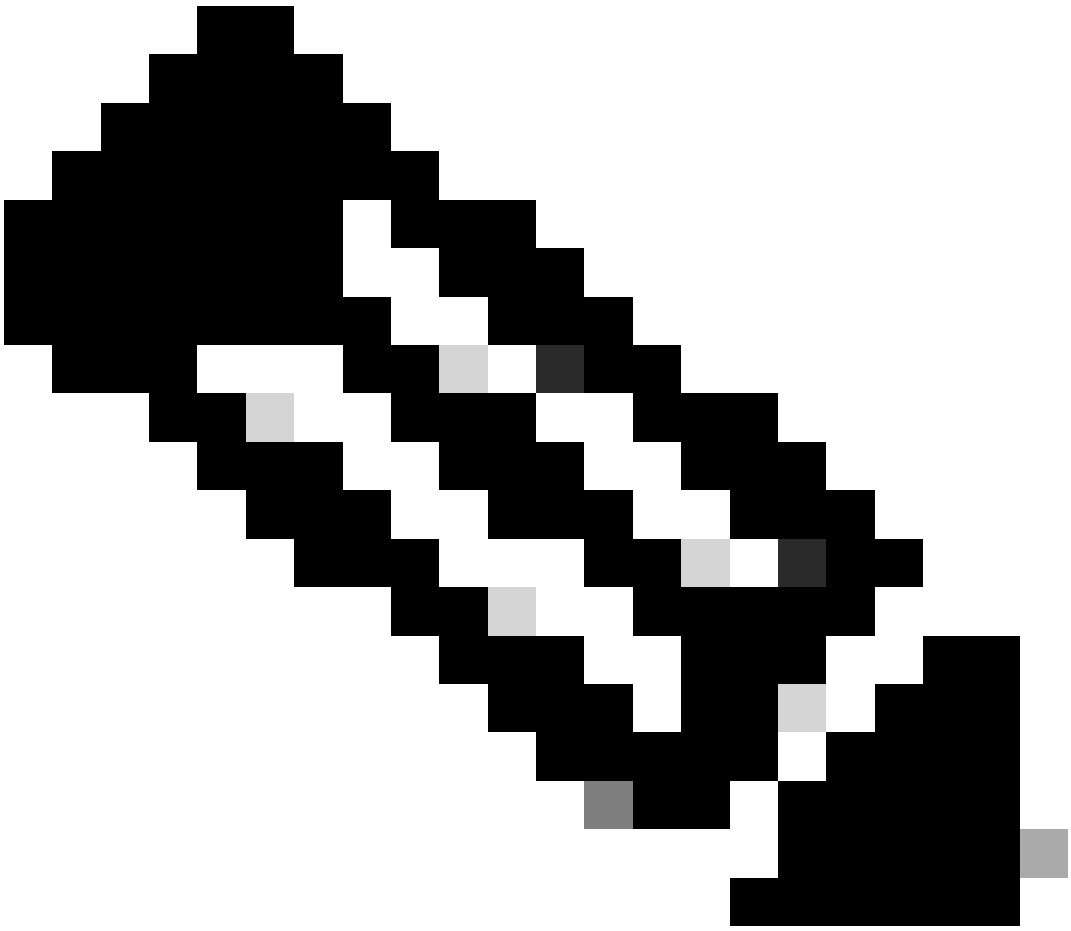
4節點延伸叢集的Hypercheck輸出範例

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-
| 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

分析工具輸出

後續步驟

- 該工具可自動執行在Hyperflex系統上執行手動指令的程式。
- 如果工具運行**OK**並在所有測試中均顯示**PASS**，則HX系統可用於指令碼執行的所有檢查。
- 如果工具**在某些檢查**中失敗或未能成功運行，您可以使用CLI命令（已列出）在Hyperflex系統上執行與指令碼中手動執行的檢查相同的檢查。
- 該工具不檢查任何舊/新/開/解決的警告，因此強烈建議在進行任何升級或維護活動之前檢視《Hyperflex發行說明》和《升級指南》。



注意：請勿打開TAC支援請求，因為指令碼無法運行。手動執行命令、辨識問題，然後為辨識的問題開啟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系統上：

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

相關資訊

- 思科技術支援與下載

關於此翻譯

思科已使用電腦和人工技術翻譯本文件，讓全世界的使用者能夠以自己的語言理解支援內容。請注意，即使是最佳機器翻譯，也不如專業譯者翻譯的內容準確。Cisco Systems, Inc. 對這些翻譯的準確度概不負責，並建議一律查看原始英文文件（提供連結）。