更換Catalyst 6500 VSS 1440的管理模組

目錄

簡介

本文提供在Cisco Catalyst 6500虛擬交換系統中替換壞管理器的逐步程式。

虛擬交換系統(VSS)包括兩個Catalyst 6500機箱。每個機箱都配備一個管理引擎。如果其中一個Supervisor因硬體故障而終止，則帶有預設配置的替換Supervisor不會自動成為VSS成員。這個新的Supervisor最初在獨立模式下啟動，它需要VSS配置才能在VSS模式下啟動。

必要條件

需求

嘗試此組態之前，請確保符合以下要求：

- 將有效映像從活動VSS Supervisor複製到緊湊快閃記憶體裝置。
- 將活動VSS配置複製到緊湊快閃記憶體裝置（可以相同）。

採用元件

本文中的資訊係根據以下軟體和硬體版本：

Cisco IOS®軟體版本12.2$^{(}$33)SXH1或更新版本上的Cisco Catalyst 6500虛擬交換系統1440

本文中的資訊是根據特定實驗室環境內的裝置所建立。如果您的網路正在作用，請確保您已瞭解任何指令可能造成的影響。

慣例

請參閱思科技術提示慣例以瞭解更多有關文件慣例的資訊。

設定

本節提供用於設定本文件中所述功能的資訊。

註:使用Command Lookup Tool(僅供已註冊客戶使用)可獲取本節中使用的命令的詳細資訊。

新的Supervisor要求您使用有效的映像和配置進行引導。映像可以與TFTP或精簡型快閃裝置一起複製。如果快閃記憶體不可用,也可以使用TFTP複製軟體映像和配置檔案。

1. 將有效映像從活動VSS Supervisor複製到緊湊快閃記憶體裝置。
```
VSS#dir sup-bootdisk:
Directory of sup-bootdisk:/
1 -rwx 117668516 Jan 22 2008 11:53:58 +00:00 s72033-
   ipservices_wan-vz.122-33.SXH1
2 -rwx 33554432 Aug 16 2007 12:40:22 +00:00 sea_log.dat
3 -rwx 7366 Aug 22 2007 20:05:42 +00:00 default-config
```

   請注意,在VSS模式下,主用和備用管理引擎運行相同版本的軟體映像。
```
VSS#copy sup-bootdisk:s72033-ipservices_wan-vz.122-33.SXH1 disk0:
Destination filename [s72033-ipservices_wan-vz.122-33.SXH1]?
Copy in progress...CCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCC
   CCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCC
!--- Output suppressed.
```
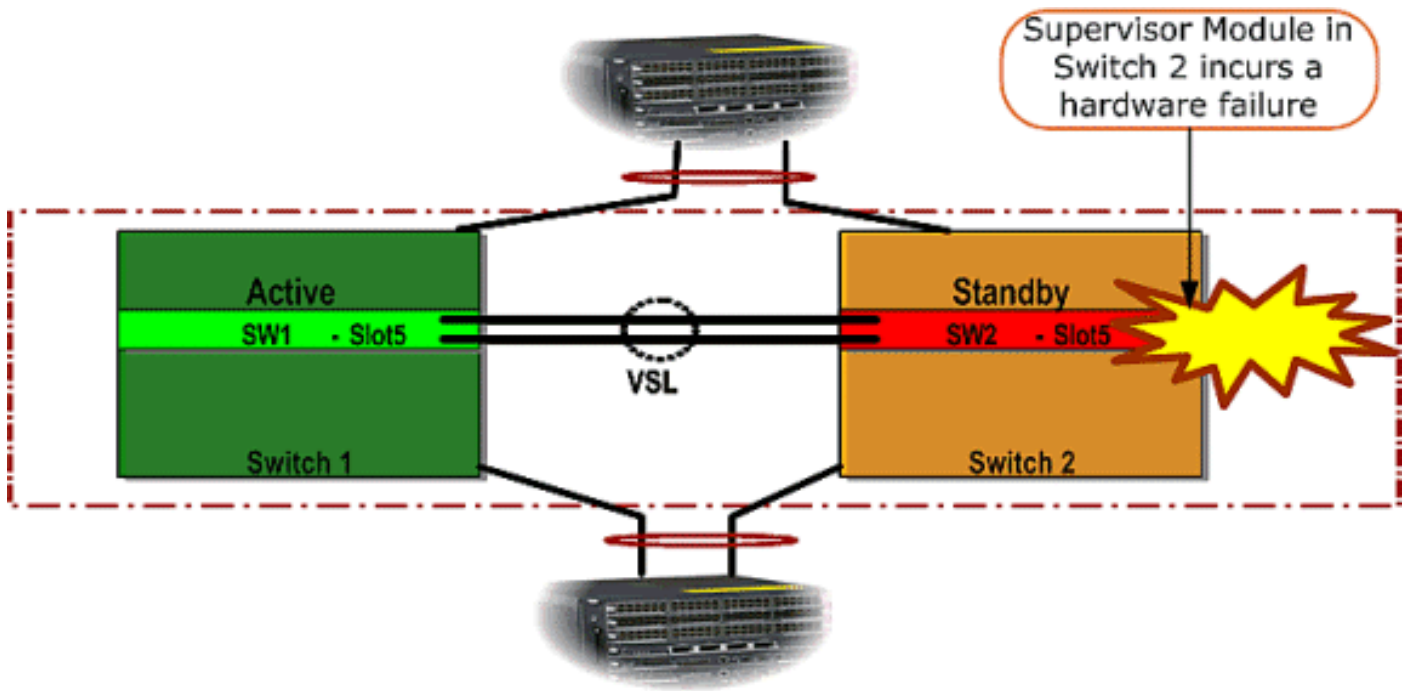2. 將當前配置從活動VSS Supervisor複製到緊湊快閃記憶體裝置。
```
VSS#copy running-config disk0:
Destination filename [startup-config]?
```

```
11196 bytes copied in 0.712 secs (15725 bytes/sec)
```

網路圖表

本檔案會使用以下網路設定:

交換機2管理引擎故障

Supervisor Module in Switch 2 incurs a hardware failure

安裝和配置新Supervisor

完成以下步驟以安裝和配置新Supervisor:

1. 在機箱中安裝新的Supervisor，如果Supervisor上行鏈路用於VSL，則以物理方式連線它們。從快閃記憶體啟動映像。
2. 清除新Supervisor的啟動配置檔案。要確保新Supervisor中不存在過時的配置，需要執行此步驟。
3. 將先前複製到快閃記憶體裝置的軟體映像複製到新的supervisor sup-bootdisk:
   ```
   Router#copy disk0:s72033-ipservices_wan-vz.122-33.SXH1 sup-bootdisk:
   Destination filename [s72033-ipservices_wan-vz.122-33.SXH1]?
   Copy in progress ..CCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCC
   CCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCC
   117668516 bytes copied in 332.283 secs (354121 bytes/sec)
   !--- Output suppressed. !--- If you choose to download software image from a tftp server,
   connect one of the switch interfaces to the network in order to have connectivity to the
   tftp server. Configure IP address to the management interface; verify the connectivity
   between the switch and the tftp server. !--- The management IP address should be different
   from what is already assigned to active VSS switch. !--- Configure management IP address
   Router(config)#interface gig 1/3 Router(config-if)#ip address 10.10.10.100 255.255.255.0
   Router(config-if)#no shutdown
   !--- verify Management interface status and configuration Router#show interface gig 1/3
   GigabitEthernet1/3 is up, line protocol is up (connected)
   Hardware is C6k 1000Mb 802.3, address is 0005.dce7.8180
      (bia 0005.dce7.8180)
   Internet address is 10.10.10.100/24
   !--- Output omitted !--- If the TFTP server and switch management interface are not in the
   same layer-3 subnet, add a (default) route. Router(config)#ip route 0.0.0.0 0.0.0.0
   10.10.10.1
   !--- verify IP connectivity between switch and TFTP server Router#ping 10.20.20.200

   Type escape sequence to abort.
   Sending 5, 100-byte ICMP Echos to 10.20.20.200, timeout is 2 seconds:
   !!!!!
   Success rate is 100 percent (5/5), round-trip min/avg/max = 1/1/4 ms
   !---Copy the new software image into supervisor bootflash: Router#copy tftp: sup-bootdisk:
   Address or name of remote host []? 10.20.20.200
   Source filename []? s72033-ipservices_wan-vz.122-33.SXH1
   ```

```
Destination filename [s72033-ipservices_wan-vz.122-33.SXH1]?
Copy in progress ..CCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCC
CCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCC
```
!--- Output omitted

4. 將先前儲存在快閃記憶體裝置上的活動Supervisor配置複製到新的Supervisor啟動配置檔案中
   。

```
Router#copy disk0:VSS.cfg startup-config
Destination filename [startup-config]?
11196 bytes copied in 7.460 secs (1501 bytes/sec)
Router#
```

註：此步驟至關重要，因為新增了引導正確的IOS軟體映像所需的VSS配置和任何引導變數。

*!--- Highlighted VSS configuration commands are critical to boot up the supervisor in VSS
mode. !--- Verify VSS configuration in the startup-config file* Router#**more nvram:startup-
config**
```
!
hostname VSS
```
boot system flash sup-bootdisk:s72033-ipservices_wan-vz.122-33.SXH1
!--- Switch Virtual domain **switch virtual domain 1**
switch mode virtual
*!--- this command gets populated upon converting standalone switch to VSS mode. Make sure
this command is part the configuration.* **switch 1 priority 110**
switch 2 priority 100

!--- Verify Virtual Switch Link (VSL) configuration interface Port-channel1 no switchport
```
no ip address switch virtual link 1
mls qos trust cos
no mls qos channel-consistency
!
interface Port-channel2
no switchport
no ip address
```
switch virtual link 2
```
mls qos trust cos
no mls qos channel-consistency
```
!--- Physical interfaces that are part of VSL interface TenGigabitEthernet1/1/4 no
switchport no ip address mls qos trust cos **channel-group 1 mode on**

```
interface TenGigabitEthernet1/1/5
no switchport
no ip address
mls qos trust cos
```
channel-group 1 mode on

```
interface TenGigabitEthernet2/1/4
no switchport
no ip address
mls qos trust cos
```
channel-group 2 mode on

```
interface TenGigabitEthernet2/1/5
no switchport
no ip address
mls qos trust cos
```
channel-group 2 mode on

5. 配置用於識別虛擬交換域中Catalyst 6500交換機的VSS Switch_ID。因為VSS只能包含兩台交
   換機，所以您需要根據活動交換機上定義的值選擇1或2。不能使用1或2以外的任何值。

!--- Verify active Switch_ID on the active switch Router#**switch read switch_num local**
```
Read switch_num from Active rommon is 1
```
!--- Note that since **Switch_ID=1** *is used for active switch, we would define* **Switch_ID=2** *in*

the new supervisor.

Router#**switch set switch_num 2 local**
Set rommon's switch_num to 2
!--- Verify the Switch_ID configuration on the new supervisor. Router#**switch read switch_num local**
Read switch_num from Active rommon is 2

6. 重新載入交換機，以便重新載入時，交換機以VSS模式啟動。**注意：此時不要將運行配置儲存到啟動配置。如果這樣做，啟動配置將被預設配置覆蓋，並且交換機不會在VSS模式下啟動。** CLI輸出示例：

Router# reload
System configuration has been modified. Save? [yes/no]: no
Proceed with reload? [confirm]
00:25:07: %SYS-5-RELOAD: Reload requested by console.
    Reload Reason: Reload Command.
00:26:49: %SYS-SP-3-LOGGER_FLUSHING:
    System pausing to ensure console debugging output.
00:26:49: %OIR-SP-6-CONSOLE:
    Changing console ownership to switch processor
!--- Output omitted !--- SP booting up, pay attention to the name of the image being loaded by SP System Bootstrap, Version 8.5(1) Copyright (c) 1994-2006 by cisco Systems, Inc.
Cat6k-Sup720/SP processor with 1048576 Kbytes of main memory Autoboot executing command: "
boot system flash
    sup-bootflash:s72033-ipservices_wan-vz.122-33.SXH1"
Loading image, please wait ...
Initializing ATA monitor library...
Self decompressing the image :
    ####################################
    ####################################
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Compiled Thu 17-Jan-08 04:38 by prod_rel_team
Image text-base: 0x01020150, data-base: 0x01021000
!--- VSS configuration pre-parsed during bootup **System detected Virtual Switch configuration...**
Interface TenGigabitEthernet 2/8/4 is member of Portchannel 2

!--- output omitted **Initializing as Virtual Switch STANDBY processor**
!--- VSL module (supervisor in this scenario) brought up and role is resolved as standby since there is already a active VSS switch. **00:00:30: %VSL_BRINGUP-6-MODULE_UP:**
    VSL module in slot 8 switch 2 brought up
00:00:57: %VSLP-5-VSL_UP:
    Ready for Role Resolution with Switch=1,
    MAC=0014.1bc6.1c00 over 8/4
00:01:01: %VSLP-5-RRP_ROLE_RESOLVED:
    Role resolved as STANDBY by VSLP

```
00:01:01: %VSL-5-VSL_CNTRL_LINK: New VSL Control Link 8/4
!--- RP is booting up System Bootstrap, Version 12.2(17r)SX5, RELEASE SOFTWARE (fc1)
Technical Support: http://www.cisco.com/techsupport Copyright (c) 2006 by cisco Systems,
Inc. Cat6k-Sup720/RP platform with 1048576 Kbytes of main memory Download Start
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Thu 17-Jan-08 04:04 by prod_rel_team Image text-base: 0x01020150, data-base: 0x01021000 !--
- output omitted Press RETURN to get started! !--- Look out for -- "%PFREDUN-SW2_SPSTBY-6-
STANDBY: Initializing for SSO mode" in the active console to make sure stadby is running in
SSO mode. !--- After standby boots up it's console is locked
VSS-sdby>
Standby console disabled
VSS-sdby>
Standby console disabled
```

注意：要在多個子網上配置VSS，不需要在VSS上進行備用配置。網關路由器應設定為VLAN SVI。

驗證

目前沒有適用於此組態的驗證程序。

輸出直譯器工具(僅供已註冊客戶使用)(OIT)支援某些**show**命令。使用OIT檢視**show**命令輸出的分析。

疑難排解

本節提供的資訊可用於對組態進行疑難排解。

Supervisor引擎之間的軟體不匹配

如果Supervisor引擎之間存在軟體不匹配，則獨立Supervisor在RPR冗餘模式（不處於SSO冗餘模式）下啟動，並且VSS沒有完全初始化。

為了解決此問題，請確保備用Supervisor的快閃記憶體中存在所需的軟體，且引導語句指向正確的軟體。重新載入獨立Supervisor，使其使用正確的軟體啟動並加入VSS。

相關資訊

- Cisco Catalyst 6500虛擬交換系統1440
- LAN 產品支援
- LAN 交換技術支援
- 技術支援與文件 - Cisco Systems