升級Catalyst 9400 SVL設定上的CPLD

目錄			
<u>簡介</u>			
<u>必要條件</u>			
<u>需求</u>			
<u>採用元件</u>			
<u>拓撲</u>			
<u>問題</u>			
<u>升級程式</u>			

簡介

本文描述如何在Catalyst 9400 StackWise虛擬連結(SVL)設定上升級複雜可程式化邏輯裝置 (CPLD)版本的分步程式。

必要條件

需求

思科建議您瞭解Catalyst 9400上的Stackwise虛擬安裝和配置的基本知識。

採用元件

本文檔中的資訊基於PID: C9404R軟體和硬體版本。

模組:

C9400-SUP-1XL

C9400-LC-24XS

軟體版本:17.09.4a

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。

拓撲



Switch-1

C9404R Switch-2

問題

在Catalyst 9400中,在某些罕見情況下升級Cisco IOS®版本時,裝置的CPLD版本未升級。特定版本的CPLD和Rommon版本可以從 <u>https://www.cisco.com/c/en/us/td/docs/switches/lan/catalyst9400/software/release/17-</u>

<u>13/release_notes/ol-17-13-9400/rommon_versions.html</u>連結進行檢查。

請參閱以下代碼段:

<#root>

9400-1#show platform Chassis type: C9404R

Switch 1

Slot	Туре	State	Insert time (ago)	
1 1/0 2 2/0 R0	C9400-LC-24XS C9400-LC-24XS C9400-SUP-1XL C9400-SUP-1XL	ok ok ok ok	00:05:00 00:00:56 00:05:00 00:00:53	
ok, active				
P1 P9	00:05:00 C9400-PWR-3200AC C9404-FAN	ok ok	00:04:38 00:04:37	
Slot	CPLD Version	Firmware Version		
1 2	20062105 20062105	17.10.1r 17.10.1r		

Switch 2

Slot	Туре	State	Insert time (ago)
1	C9400-LC-24XS	ok	00:04:57
1/0	C9400-LC-24XS	ok	00:00:08
2	C9400-SUP-1XL	ok	00:04:57
2/0 R0	C9400-SUP-1XL	ok	00:00:07
ok, sta	ndby		
	00:04:57		
P1	C9400-PWR-3200AC	ok	00:04:35
P9	C9404-FAN	ok	00:04:33
Slot	CPLD Version	Firmware Version	
1	19032905	17.10.1r	>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>
2	19032905	17.10.1r	>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>

在這種情況下,備用的CPLD在升級後沒有升級。

升級程式

步驟 1. 請使用show redundacny驗證SVL是否正常運行。

<#root>

Hardware Mode = Duplex Configured Redundancy Mode = sso

Operating Redundancy Mode = sso

Maintenance Mode = Disabled Communications = Up

Current Software state = ACTIVE

Uptime in current state = 4 minutes

Image Version = Cisco IOS Software [Cupertino], Catalyst L3 Switch Software (CAT9K_IOSXE), Version 17.9
Technical Support: http://www.cisco.com/techsupport
Copyright (c) 1986-2023 by Cisco Systems, Inc.
Compiled Fri 20-Oct-23 10:44 by mcpre
BOOT = bootflash:packages.conf;

Peer Processor Information :

Standby Location = Switch 2 >>>>>Switch 2 is standby

Current Software state = STANDBY HOT Uptime in current state = 0 minutes Image Version = Cisco IOS Software [Cupertino], Catalyst L3 Switch Software (CAT9K_IOSXE), Version 17.9 Technical Support: http://www.cisco.com/techsupport Copyright (c) 1986-2023 by Cisco Systems, Inc. Compiled Fri 20-Oct-23 10:44 by mcpre BOOT = bootflash:packages.conf;

步驟 2.要升級CPLD版本,請使用以下命令:

<#root>

upgrade hw-programmable cpld filename bootflash: switch $\{1-2\}$ RP active

<#root>

9400-1#

upgrade hw-programmable cpld filename bootflash: switch 2 R0

Firmware upgrade requires the SVL member to reload. Do you want to proceed?(y/n)y Use cli 'redundancy reload peer' to upgrade the firmware on peer

9400-1#

redundancy reload peer

Stack is in Half ring setup; Reloading a switch might cause stack split Reload peer [confirm] Preparing to reload peer

步驟 3.這裡您可以看到CPLD正在升級:

<#root>

Chassis 2 reloading, reason - Admin reload CLI May 4 01:34:23.829: %PMAN-5-EXITACTION: R0/0: pvp: Initializing Hardware.....

System Bootstrap, Version 17.10.1r, RELEASE SOFTWARE (P) Compiled Tue Aug 2 13:02:51 2022 by rel

Current ROMMON image : Primary Last reset cause : SoftwareResetTrig C9400-SUP-1XL platform with 16777216 Kbytes of main memory

Starting System FPGA Upgrade

Programming SPI Primary image is completed.

Authenticating SPI Primary image IO FPGA image is authenticated successfully.

Programming Header FPGA HDR file size: 12 Image page count: 1 Verifying programmed header Verifying programmed header Programmed header is verified successfully.

Power Cycle is needed to complete System firmware upgrade. It takes ~7 mins to upgrade firmwre after power cycle starts.

DO NOT DISRUPT AFTER POWER C Initializing Hardware.....

Initializing Hardware.....

System Bootstrap, Version 17.10.1r, RELEASE SOFTWARE (P) Compiled Tue Aug 2 13:02:51 2022 by rel

步驟 4.確認CPLD是否在待機狀態下升級:

<#root>

F241.24.02-9400-1#show platform Chassis type: C9404R

Switch 1

 Slot
 Type
 State
 Insert time (ago)

 1
 C9400-LC-24XS
 ok
 00:29:38

 1/0
 C9400-LC-24XS
 ok
 00:25:34

2	C9400-SUP-1XL	ok	00:29:38	
2/0	C9400-SUP-1XL	ok	00:25:3	1
R0	ok, a	ctive	00:29:38	
P1	C9400-PWR-320	0AC ok	00:29):16
P9	C9404-FAN	ok	00:29:14	
Slot	CPLD Version	Firmwa	re Version	

1	20062105	17.10.1r
2	20062105	17.10.1r

Switch 2

Slot	Туре	Stat	e	Insert time (ago)
1	C9400-LC	-24XS	ok	00:29:35
1/0	C9400-L0	C-24XS	ok	00:00:11
2	C9400-SU	P-1XL	ok	00:29:35
2/0	C9400-SU	JP-1XL	ok	00:00:10
R0		ok, sta	ndby	00:29:35
P1	C9400-PV	VR-3200	AC ok	00:29:13
P9	C9404-FA	AN	ok	00:29:11

Slot CPLD Version Firmware Version

1 20062105 17.10.1r >>>>>>CPLD got upgraded

2 20062105 17.10.1r >>>>>>CPLD got upgraded

步驟 5.在這種情況下,如果需要升級活動交換機的CPLD版本,您必須執行以下步驟:

<#root>

1. Do a switchover

9400-1#

redundency force-switchover

>>>>>>Initially Switch 1 is active and Switch 2 is standby. After switchover it is vise-versa

2. Upgrade the CPLD version of previous active [now standby] with the command:

9400-1#

upgrade hw-programmable cpld filename bootflash: switch 1 R0

3. Reload the the standby

9400-1#

redundancy reload peer

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)。