

# Cisco Catalyst 9400 Dual Supervisor ىلى IOS 16.6.2 رادىسىلە XE، ىقورت

## تايوتحمل

---

[قمدقمل](#)

[قئساسال تابلطتم](#)

[تابلطتم](#)

[قمدختسىمل تانوكمل](#)

[CPLD قئقورتو دئهمتللىمىمخت قادل قئقورتلىلى قئقورتلىلى](#)

[فرشملى دئهمتل قفلتخم قرت](#)

[قئساسال فرشملى قئقورتلىلى تاوتوخ](#)

[اھىف بوغرملى رىغ مزجلىلا قلازا 1. قوطخلى](#)

[flash ىلى قدىج قروص خسنا 2. قوطخلى](#)

[دئهمتللى فشك صخف 3. قوطخلى](#)

[Flash ىلى چماربلى تئببثت قروص 4. قوطخلى](#)

[قئقورتلىلى دعبو وصللىلى قدىجلىلى مزجلىلى نم ققختلىلى 5. قوطخلى](#)

[قدىجلىلى دئهمتللىلىمخت قادل رادىسىلىلى نم ققختلىلى 6. قوطخلى](#)

[ىونىللىلى فرشملىلى قئقورتلىلى تاوتوخ](#)

[اھىف بوغرملى رىغ مزجلىلى قلازا 1. قوطخلى](#)

[flash ىلى قدىج قروص خسنا 2. قوطخلى](#)

[دئهمتللىلى فشك صخف 3. قوطخلى](#)

[Flash ىلى چماربلىلى تئببثت قروص 4. قوطخلى](#)

[قئقورتلىلى دعبو وصللىلى قدىجلىلى مزجلىلى نم ققختلىلى 5. قوطخلى](#)

[باركتلىلى صخف](#)

[RPR باركت](#)

[SSO باركت](#)

---

## قمدقمل

16.6.2 ىلى 16.6.1 رادىسىلىلى نم قئقورتلىلى عارجىلىلى دنتسىملىلى اذھ حضوى

## قئساسال تابلطتم

### تابلطتم

FTP و TFTP نم قفرعم تنلىلى قىلتنىلىلى نلىلى صوى cisco


### قمدختسىملىلى تانوكمل

قئلاتلىلى قئداملىلى تانوكمللىلى چماربلىلى تارادىسىلىلى دنتسىملىلى اذھ قىلىلى قىلىلى قىلىلى تامولعملىلىلى دنتست

- C9410R : قزھجلىلى

- جم انربل: cat9k\_iosxe.16.06.01.SPA.bin

يه فدهل ا ةروصل او cat9k\_iosxe.16.06.01.SPA.bin يه ةي لالحا ك تروص ، ل ا ث م ل ا ذه ي ف نم ال د ب C9407R ل ك يه ك ي دل ن ا ك ا ذ ا اض ي ا ة ا ر ج ا ل ا ذه ل م ع ي cat9k\_iosxe.16.06.02.SPA.bin. ل ك يه C9410R.

 نم Cisco IOS® XE Everest جم انربل نم ني ج و د زم ل ا ني فر ش م ل ا ة ي ق ر ت ب م ق ت ا ل : ة ط ح ا ل م ة رم ل ك ي ف د ح ا و فر ش م ج ا ر د ا ب م ق . ت ق و ل ا س ف ن ي ف 16.6.2 ر ا د ص ا ل ا ي ل ا 16.6.1 ر ا د ص ا ل ا 16.6.2. نم ة ي ق ر ت ل ا ا ن ا ث ا

ة ص ا خ ة ي ل م ع م ة ئ ي ب ي ف ة د و ج و م ل ا ة ز ه ج ا ل ا نم د ن ت س م ل ا ا ذه ي ف ة د ر ا و ل ا ت ا م و ل ع م ل ا ا ش ن ا م ت ت ن ا ك ا ذ ا . ( ي ض ا ر ت ف ا ) ح و س م م ن ي و ك ت ب د ن ت س م ل ا ا ذه ي ف ة م د خ ت س م ل ا ة ز ه ج ا ل ا ع ي م ج ت ا د ب ر م ا ي ا ل ل م ت ح م ل ا ر ي ث ا ت ل ل ك م ه ف نم د ك ا ت ف ، ل ي غ ش ت ل ا د ي ق ك ت ك ب ش

## CPLD ة ي ق ر ت و د ي ه م ت ل ا ل ي م ح ت ة ا د ا ل ة ي ئ ا ق ل ت ل ا ة ي ق ر ت ل ا

د ي ه م ت ل ا ل ي م ح ت ة ا د ا ل ة ي ئ ا ق ل ت ة ي ق ر ت

ة ر م ل ل ث د ح ا و ا ث د ح ا ر ا د ص ا ل ا ي ل ا ك ي د ل ل و ح م ل ا ي ل ع ي ل ا ح ا ل Cisco IOS® XE ر ا د ص ا ل ا نم ة ي ق ر ت ل ا د ن ع ا ذ ا . ل و ح م ل ا نم ز ا ه ج ل ا ر ا د ص ا ل ا ي ل ا ا د ا ن ت س ا ، ا ي ئ ا ق ل ت د ي ه م ت ل ا ل ي م ح ت ة ا د ا ة ي ق ر ت ن ك م ي ، ي ل و ا ل ا ة ا د ا ن ي ك م ت ل ل ي م ح ت ة د ا ع ا ب ا ي ئ ا ق ل ت فر ش م ل ا م و ق ي س ، د ي ه م ت ل ا ل ي م ح ت ة ا د ا ة ي ق ر ت ت م ت م ت ي ا ل د ي ه م ت ل ا ل ي م ح ت ة ا د ا ن ا ف ، ا ذه د ع ب م د ق ا ل ا ر ا د ص ا ل ا ي ل ا ت ع ج ر ا ذ ا . ة د ي د ج ل ا د ي ه م ت ل ا ل ي م ح ت ة ق ب ا س ل ل ا ر ا د ص ا ل ا ع ي م ج ة ث د ح م ل ا د ي ه م ت ل ا ل ي م ح ت ة ا د ا م ع د ي . ا ه ض ف خ

ل ي م ح ت ل ي م ح ت ز ا ه ج ك ا ن ه ن ا ك ا ذ ا ، ة ي ل ا ل Cisco IOS® XE Everest 16.x.x ت ا ر ا د ص ا ل ا ة ب س ن ل ا ب د ي ه م ت د ن ع ل و ح م ل ا نم ز ا ه ج ل ا ر a د ص ا ل ا ي ل ا ا د ا ن ت س a ا ي ئ ا ق ل ت ه ت ي ق ر ت ن ك م ي ، ر a د ص ا ل ا ا ذه ي ف د ي د ج ة ر م ل و ا ل ة د ي د ج ل ا ة ر و ص ل ا م ا د خ ت س ا ب ل و ح م ل ا

ر a د ص ا ل ا ي ل ا Cisco IOS® XE Everest 16.6.1 ر a د ص ا ل ا نم ة ي ق ر ت ل ا ب ه ي ف م و ق ت ي ذ ل ا ت ق و ل ا ي ف ث a ل ت ط ب ض ل ا ة د ا ع ا ب م ا ط ن ل ا م و ق ي ا م ن ي ب ت ق و ل ا ض ع ب ة ي ق ر ت ل ا ق ر غ ت س ت ن ا ن ك م ي ، 16.6.2 ة ل ب ا ق ل ل ة د ق ع م ل ا و ة ع ئ ا ش ل ل (CPLD) ة ي ق ط ن م ل ا ة ز ه ج ا ل ا ي ل ا ة ي ق ر ت ل ا ب ب س ب ك ل ذ و ، ت ا ر م 16.6.2 ر a د ص ا ل ا ، Cisco IOS® XE Everest نم ة ل ا ح ل ا و ذ ل ي و ح ت ل ا م ع د م ت ي . ة ج م ر ب ل ل

## ف ر ش م ل ا د ي ه م ت ل ة ف ل ت خ م ق ر ط

ن ي ت ق ي ر ط نم ل ا م ع ت س ا ل ا ع م فر ش م ل ا ت د ه م ع ي ط ت س ي ت ن ا ، ح ا ت ف م 9400 ة ز ا ف ح ة د ا م ي ف

- ت ي ب ث ل ا ع ض و
- .bin ف ل م نم ز ا ه ج ل ا د ي ه م ت ل ة ي د ي ل ق ت ل ا ة ق ي ر ط ل ا


ف ل م و (.pkg) Cisco IOS® XE ة م ز ح ت ا ف ل م ن ي ز خ ت م ت ي ، ت ي ب ث ل ا ع ض و ي ف ل و ح م ل ا ل م ع ي ا م د ن ع ع م ح ا ت ف م ت د ه م ا م د ن ع . (flash:) م ا ط ن ل ا ة ح و ل ب ة ص ا خ ل ا Flash ة ر ك ا ذ ي ف (packages.conf) د ا د م ا ل ا ة ح و ل م ا ط ن ي ف ت ن ز خ د ر ب م (.bin) . ة م ز ح ة ي ج م ر ب Cisco IOS® XE د ه م ي ، د ر ب م .bin نم ل ا م ع ت س ا ل ا ة ح و ل ب (flash:) ة ر ك ا ذ ق ر ب

ا ه م ا د خ ت س ا م ت ي ت ل ا د ي ه م ت ل ا ة ق ي ر ط ن ع ر ط ن ل ا ض غ ب ة ا ر ج ا ل ا ل م ع ي ، 16.6.2 ة ي ق ر ت ل ا د ع ب

ةيقرتب موقبي انه عارجال نإف ،كلذ عمو .16.6.1 ةيلالال ةروصلال لعل لولملا ديمتل  
عصولا تيبتتل (فرشمل كرحم) Supervisor Engine

## يساسال فرشملل ةيقرتل تاوطخ

اهي بوغرمل ريغ مزحلل ةلازا 1. ةوطخل

 Flash يف لقالا لعل تياباجي 1 ةحاسم كيذل نأ دكأت .ةوطخل هذه يخطت ال :ةظالم  
ةيافك مدع ةلاح يف ةميذلل تيبتتل تاफलم فيظنت .ةديج ةروص عيسوتل  
ةحاسملا

```
Switch#install remove inactive
```

```
Cleaning up unnecessary package files  
No path specified, can use booted path flash:packages.conf  
Cleaning flash:  
Scanning boot directory for packages ... done.  
Preparing packages list to delete ...  
cat9k-cc_srdriver.16.06.01.SPA.pkg  
File is in use, cannot delete.  
cat9k-espbase.16.06.01.SPA.pkg  
File is in use, can not delete.  
cat9k-rpbase.16.06.01.SPA.pkg  
File is in use, cannot delete.  
cat9k-rpboot.16.06.01.SPA.pkg  
File is in use, will not delete.  
cat9k-sipbase.16.06.01.SPA.pkg  
File is in use, will not delete.  
cat9k-sipspace.16.06.01.SPA.pkg  
File is in use, will not delete.  
cat9k-srdriver.B16.06.01.SPA.pkg  
File is in use, will not delete.  
cat9k-webui.16.06.01.SPA.pkg  
File is in use, will not delete.  
packages.conf  
File is in use, will not delete.  
done.  
The following files will be deleted:  
[R0]:  
/flash/cat9k-cc_srdriver.16.06.01.SPA.pkg  
/flash/cat9k-espbase.16.06.01.SPA.pkg  
/flash/cat9k-rpbase.16.06.01.SPA.pkg  
/flash/cat9k-rpboot.16.06.01.SPA.pkg  
/flash/cat9k-sipbase.16.06.01.SPA.pkg  
/flash/cat9k-sipspace.16.06.01.SPA.pkg  
/flash/cat9k-srdriver.16.06.01.SPA.pkg  
/flash/cat9k-webui.16.06.01.SPA.pkg  
/flash/cat9k_1.bin  
/flash/cat9k_1.conf  
/flash/cat9k_2.1.conf  
/flash/cat9k_2.bin  
/flash/cat9k_2.conf  
/flash/cat9k_iosxe.16.06.01.SSA.bin  
/flash/packages.conf.00-
```

```
Do you want to remove the above files? [y/n]y
[R0]:
Deleting file flash:cat9k-cc_srdriver.16.06.01.SPA.pkg ... done.
Deleting file flash:cat9k-espbase.16.06.01.SPA.pkg ... done.
Deleting file
Deleting file flash:cat9k-rpbase.16.06.01.SPA.pkg ... done.
Deleting file flash:cat9k-rpboot.16.06.01.SPA.pkg ... done.
Deleting file flash:cat9k-sipbase.B16.06.01.SPA.pkg ... done.
Deleting file flash:cat9k-sipspace.16.06.01.SPA.pkg ... done.
Deleting file flash:cat9k-srdriver.16.06.01.SPA.pkg ... done.
Deleting file flash:cat9k-webui.16.06.01.SPA.pkg ... done.
Deleting file flash:cat9k_1.bin ... done.
Deleting file flash:cat9k_1.conf ... done.
Deleting file flash:cat9k_2.1.conf ... done.
Deleting file flash:cat9k_2.bin ... done.
Deleting file flash:cat9k_2.conf ... done.
Deleting file flash:cat9k_iosxe.16.06.01.SSA.bin ... done.
Deleting file flash:packages.conf.00- ... done.
SUCCESS: Files deleted.
--- Starting Post_Remove_Cleanup ---
Performing Post_Remove_Cleanup on Active/Standby
[R0] Post_Remove_Cleanup package(s) on R0
[R0] Finished Post_Remove_Cleanup on R0
Checking status of Post_Remove_Cleanup on [R0]
Post_Remove_Cleanup: Passed on [R0]
Finished Post_Remove_Cleanup

SUCCESS: install_remove Tue Jun 20 14:16:29 PDT 2017
```

## flash إلى ةديج ةروص خسنا 2. ةوطخلا

(bootflash) ةتقؤملا ديهمتلا ةركاذ إلى TFTP مداخل نم ةروصلا خسنب موقت، لاثملا اذه يف فرشم لل.

```
Switch#copy tftp: bootflash:
Address or name of remote host []? 172.16.53.46
Source filename []? cat9k_iosxe.16.06.02.SPA.bin
Destination filename [cat9k_iosxe.16.06.02.SPA.bin]?
```

```
Accessing tftp://172.16.53.46/cat9k_iosxe.16.06.02.SPA.bin...
Loading /cat9k_iosxe.16.06.02.SPA.bin from 10.8.0.6 (via GigabitEthernet0/0): !!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!
[OK - 601216545 bytes]
```

601216545 bytes copied in 50.649 secs (11870255 bytes/sec)

Step 3. Use the dir flash command to confirm that the image has been successfully copied to flash.

```
Switch#dir bootflash:*.bin
Directory of bootflash:/*.bin
```

Directory of flash:/

```
434184 -rw- 601216545 Jul 26 2017 10:18:11 -07:00 cat9k_iosxe.16.06.02.SPA.bin
11353194496 bytes total (8976625664 bytes free)
```

### ديهمتال فشك صرحف 3. ةوطخلال

بكري لخداد 16.6.2 ىقرت تنأ نأ لبق packages.conf ىل نوكي نايب ةمزج تللكش نأ تنمض packages.conf ىل وه تريغ يغبني تنأ، دربم .bin ىل وه تتبث نأ. بولسأ

```
<#root>
```

```
Switch#show boot
BOOT variable = bootflash:cat9k_iosxe.16.06.01.SPA.bin;
Configuration Register is 0x102
MANUAL_BOOT variable = no
BAUD variable = 9600
ENABLE_BREAK variable does not exist
CONFIG_FILE variable does not exist
```

Change boot variable to point to packages.conf

```
Switch(config)#no boot system
Switch(config)#boot system bootflash:packages.conf
*Nov 14 15:12:50.043: %SYS-5-CONFIG_I: Configured from console by console
```

Please save the configuration to reflect the new boot variable.

```
Switch#wr mem
Building configuration...
[OK]
Switch#show boot
BOOT variable = bootflash:packages.conf;
Configuration Register is 0x102
MANUAL_BOOT variable =
```

```
no
```

```
>>
```

If manual variable is set to no, it means system is set to auto boot

```
BAUD variable = 9600
ENABLE_BREAK variable does not exist
CONFIG_FILE variable does not exist
```

You can set the system to auto boot or manual boot by setting the variables:

Changing system to auto boot

```
Switch(config)#no boot manual
```

Changing system to manual boot

```
Switch(config)#boot manual
```

If your switches are configured with auto boot, then the switch will automatically boot up with the new image. If your switches are not configured with auto boot and the switch is reloaded, you will receive a prompt where you must then manually boot the new image flash:packages.conf

```
Switch: boot flash:packages.conf"
```

## Flash إلى جمارب ال تي ب ث ت ة روص 4. ة و ط خ ل ا

ك ن ك م ي flash. إلى ف د ه ل ا ة روص ل ا تي ب ث ت ل install add file activate commit ر م أ ل ا م د خ ت س أ ت م ق ا ذ ا ( ة ت ق و م ل ا ة ك ا ذ ل ا ) Boot Flash ة ك ا ذ ي ف و أ TFTP م د ا خ ي ل ع ر د ص م ل ا ة روص ل ا إلى ة ر ا ش إ ل ا إلى ة روص ل ا خ س ن ب ت م ق د ق ل ، ل ا ث م ل ا ا ذ ه ي ف . (flash) ة ت ق و م ل ا ة ك ا ذ ل ا إلى ة روص ل ا خ س ن ب ل ع ف ل ل ا ب (flash) ة ت ق و م ل ا ة ك ا ذ ل ا

```
<#root>
```

```
Switch#install add file bootflash:cat9k_iosxe.16.06.02.SPA.bin activate commit install_add_activate_com
```

```
This operation requires a reload of the system. Do you want to proceed?  
Please confirm you have changed boot config to flash:packages.conf [y/n]y
```

```
--- Starting Add ---
```

```
Performing Add on Active/Standby
```

```
[R0] Add package(s) on R0
```

```
[R0] Finished Add on R0
```

```
Checking status of Add on [R0]
```

```
Add: Passed on [R0]
```

```
Finished Add
```

```
install_add_activate_commit: Activating PACKAGE
```

```
*Nov 13 22:37:09.730: %IOSXE-4-PLATFORM: R0/0: kernel: ISOFS: Unable to identify CD-ROM format.Following
```

```
/flash/cat9k-wlc.16.06.02.SPA.pkg
```

```
/flash/cat9k-webui.16.06.02.SPA.pkg
```

```
/flash/cat9k-srdriver.16.06.02.SPA.pkg
```

```
/flash/cat9k-sipspace.16.06.02.SPA.pkg
```

```
/flash/cat9k-sipbase.16.06.02.SPA.pkg
```

```
/flash/cat9k-rpboot.16.06.02.SPA.pkg
```

```
/flash/cat9k-rpbase.16.06.02.SPA.pkg
```

```
/flash/cat9k-guestshell.16.06.02.SPA.pkg
```

```
/flash/cat9k-espbase.16.06.02.SPA.pkg
```

```
/flash/cat9k-cc_srdriver.16.06.02.SPA.pkg
```

```
This operation requires a reload of the system. Do you want to proceed? [y/n]y
```

```
--- Starting Activate ---
```

```
Performing Activate on Active/Standby
```

```
[R0] Finished Activate on R0
```

```
Checking status of Activate on [R0]
```

```
Activate: Passed on [R0]
```

```
Finished Activate
```

```
--- Starting Commit ---
```

```
Performing Commit on Active/Standby
```

\*Nov 13 22:38:40.654: %IOSXE-5-PLATFORM: R0/0: Nov 13 22:38:40 rollback\_timer.sh: %INSTALL-5-INSTALL\_AU  
[R0] Finished Commit on R0  
Checking status of Commit on [R0]  
Commit: Passed on [R0]  
Finished Commit

Install will reload the system now!

SUCCESS: install\_add\_activate\_commit Mon Nov 13 22:39:07 UTC 2017

\*Nov 13 22:39:07.715: %IOSXE-5-PLATFORM: R0/0: Nov 13 22:39:07 install\_engine.sh: %INSTALL-5-INSTALL\_CO

Initializing Hardware...

System Bootstrap, Version 16.6.1r [FC2], RELEASE SOFTWARE (P)  
Compiled Sat 07/15/2017 10:06:12.23 by rel

Current image running:  
Primary Rommon Image

Last reset cause: SoftwareResetTrig  
C9400-SUP-1 platform with 16777216 Kbytes of main memory

Preparing to autoboot. [Press Ctrl-C to interrupt] 0  
attempting to boot from [bootflash:packages.conf]

Located file packages.conf

#  
#####

Validate packages: SHA-1 hash:  
calculated 550C9730:667B2788:DD6F6B06:D0FFA819:01A315DA  
expected 550C9730:667B2788:DD6F6B06:D0FFA819:01A315DA  
Warning: ignoring ROMMON var "USER\_BOOT\_PARAM"

%IOSXEBOOT-4-BOOTLOADER\_UPGRADE: (rp/0): ### Mon Nov 13 22:42:05 Universal 2017 PLEASE DO NOT POWER CYCL

%IOSXEBOOT-4-BOOTLOADER\_UPGRADE: (rp/0): boot loader upgrade successful <<< Bootloader upgrade done

%IOSXEBOOT-4-BOOTLOADER\_UPGRADE: (rp/0): Reloading the Supervisor to enable the New BOOTLOADER

Initializing Hardware...

Initializing Hardware...

Initializing Hardware...

System Bootstrap, Version 16.6.2r[FC1], RELEASE SOFTWARE (P)  
Compiled Tue 10/31/2017 11:38:44.98 by rel

Current image running:  
Primary Rommon Image

Last reset cause: SoftwareResetTrig  
C9400-SUP-1 platform with 16777216 Kbytes of main memory

Preparing to autoboot. [Press Ctrl-C to interrupt] 0  
attempting to boot from [bootflash:packages.conf]

Located file packages.conf

#

#####

Validate packages: SHA-1 hash:

calculated 550C9730:667B2788:DD6F6B06:D0FFA819:01A315DA

expected 550C9730:667B2788:DD6F6B06:D0FFA819:01A315DA

Warning: ignoring ROMMON var "USER\_BOOT\_PARAM"

Restricted Rights Legend

Use, duplication, or disclosure by the Government is  
subject to restrictions as set forth in subparagraph  
(c) of the Commercial Computer Software - Restricted  
Rights clause at FAR sec. 52.227-19 and subparagraph

(c) (1) (ii) of the Rights in Technical Data and Computer  
Software clause at DFARS sec. 252.227-7013.

cisco Systems, Inc.

170 West Tasman Drive

San Jose, California 95134-1706

Cisco IOS® Software [Everest], Catalyst L3 Switch Software (CAT9K\_IOSXE), Version 16.6.2, RELEASE SOFTWARE

Technical Support: <http://www.cisco.com/techsupport>

Copyright (c) 1986-2017 by Cisco Systems, Inc.

Compiled Wed 01-Nov-17 07:26 by mcpre

ةيقرتل دعب روصل او ةديجال مزحل نم ققحتل 5. ةوطخل

.pkg تافل ملى ع يوتحي ةتقؤملا ةركاذلا مسق نأ نم ققحت، حاجنب جم انربل تيبتت دعب  
انه تاجرخلم ل جذومن ةيؤر كنكمي. ةديجال

Switch#dir bootflash:\*.pkg

Directory of bootflash:/\*.pkg


Directory of bootflash:/

```
405607 -rw- 5186504 Nov 13 2017 22:36:25 +00:00 cat9k-cc_srdriver.16.06.02.SPA.pkg
405608 -rw- 76649412 Nov 13 2017 22:36:27 +00:00 cat9k-espbase.16.06.02.SPA.pkg
405609 -rw- 1536964 Nov 13 2017 22:36:27 +00:00 cat9k-guestshell.16.06.02.SPA.pkg
405610 -rw- 380625856 Nov 13 2017 22:36:38 +00:00 cat9k-rpbase.16.06.02.SPA.pkg
405616 -rw- 29580684 Nov 13 2017 22:36:48 +00:00 cat9k-rpboot.16.06.02.SPA.pkg
405611 -rw- 27612100 Nov 13 2017 22:36:39 +00:00 cat9k-sipbase.16.06.02.SPA.pkg
405614 -rw- 12268480 Nov 13 2017 22:36:41 +00:00 cat9k-webui.16.06.02.SPA.pkg
405612 -rw- 54981568 Nov 13 2017 22:36:40 +00:00 cat9k-sipspace.16.06.02.SPA.pkg
405613 -rw- 6521796 Nov 13 2017 22:36:40 +00:00 cat9k-srdriver.16.06.02.SPA.pkg
405615 -rw- 1536960 Nov 13 2017 22:36:41 +00:00 cat9k-wlc.16.06.02.SPA.pkg
11250098176 bytes total (8812113920 bytes free)
```



ةدي دجل ديهمت ل ليمحت ةادأو رادصلإ نم ققحت ل 6. ةوطخل

show version رمأل مادختساب ةدي دجل ةروصل رادصلإ نم ققحت ،ةدي دجل ةروصل ديهمت دنع

 ايئاقلت ديهمت ل ليمحت ةادأ ةيقرت متت ،ةدي دجل ةروصل ديهمت دنع :ةظالم

<#root>

Switch#show version  
Cisco IOS® XE Software, Version

16.06.02

Cisco IOS® Software [Everest], Catalyst L3 Switch Software (CAT9K\_IOSXE),

Version 16.6.2

, RELEASE SOFTWARE (fc2)  
Technical Support: <http://www.cisco.com/techsupport>  
Copyright (c) 1986-2017 by Cisco Systems, Inc.  
Compiled Wed 01-Nov-17 07:26 by mcpre

Cisco IOS® XE software, Copyright (c) 2005-2017 by Cisco Systems, Inc.  
All rights reserved. Certain components of Cisco IOS®-XE software are licensed under the GNU General Public License ("GPL") Version 2.0. The software code licensed under GPL Version 2.0 is free software that comes with ABSOLUTELY NO WARRANTY. You can redistribute and/or modify such GPL code under the terms of GPL Version 2.0. For more details, see the documentation or "License Notice" file accompanying the IOS-XE software, or the applicable URL provided on the flyer accompanying the IOS-XE software.

ROM: IOS-XE ROMMON

BOOTLDR: System Bootstrap, Version 16.6.2r[FC1], RELEASE SOFTWARE (P)

Switch uptime is 20 minutes  
Uptime for this control processor is 22 minutes  
System returned to ROM by reload  
System image file is "bootflash:packages.conf"  
Last reload reason: EHSB standby down

This product contains cryptographic features and is subject to United States and local country laws governing import, export, transfer and use. Delivery of Cisco cryptographic products does not imply third-party authority to import, export, distribute or use encryption. Importers, exporters, distributors and users are responsible for compliance with U.S. and local country laws. By using this product you agree to comply with applicable laws and regulations. If you are unable to comply with U.S. and local laws, return this product immediately.

A summary of U.S. laws governing Cisco cryptographic products can be found at:  
<http://www.cisco.com/wwl/export/crypto/tool/stqrg.html>

If you require further assistance please contact us by sending email to [export@cisco.com](mailto:export@cisco.com).

## Technology Package License Information:

Technology-package Current	Type	Technology-package Next reboot
network-advantage	Permanent	network-advantage

cisco C9410R (X86) processor (revision V01) with 869104K/6147K bytes of memory.  
Processor board ID FXS2130Q28F  
2 Virtual Ethernet interfaces  
192 Gigabit Ethernet interfaces  
16 Ten Gigabit Ethernet interfaces  
4 Forty Gigabit Ethernet interfaces  
32768K bytes of non-volatile configuration memory.  
15958488K bytes of physical memory.  
11161600K bytes of Bootflash at bootflash:.  
1638400K bytes of Crash Files at crashinfo:.  
0K bytes of WebUI ODM Files at webui:.

Configuration register is 0x2

Switch#show module  
Chassis Type: C9410R

Mod	Ports	Card Type	Model	Serial No.
1	48	48-Port 10/100/1000 (RJ-45)	C9400-LC-48T	JAE212409NQ
2	48	48-Port 10/100/1000 (RJ-45)	C9400-LC-48T	JAE212409N2
3	48	48-Port UPOE 10/100/1000 (RJ-45)	C9400-LC-48U	JAE21270C1R
4	48	48-Port UPOE 10/100/1000 (RJ-45)	C9400-LC-48U	JAE21270C1C
5	10	Supervisor 1 Module	C9400-SUP-1	JAE2124023Z


Mod	MAC addresses	Hw	Fw	Sw	Status
1	E4AA.5D59.8420 to E4AA.5D59.844F	1.0	16.6.2r[FC1	16.06.02	ok
2	E4AA.5D59.85AC to E4AA.5D59.85DB	1.0	16.6.2r[FC1	16.06.02	ok
3	E4AA.5D59.BC0C to E4AA.5D59.BC3B	1.0	16.6.2r[FC1	16.06.02	ok
4	E4AA.5D59.B72C to E4AA.5D59.B75B	1.0	16.6.2r[FC1	16.06.02	ok
5	2C5A.0F1C.4F2C to 2C5A.0F1C.4F35	0.6	16.6.2r[FC1	16.06.02	ok

Mod	Redundancy Role	Operating Redundancy Mode	Configured Redundancy Mode
5	Active	active	sso

## يوناتل فرشم لل ةيقرتلا تاوطخ

فرشم لا لخدأو ةقبا سلا تاوطخلا ي ف اه ةيقرت تم تي لال 5 ةحتفلال نم فرشم لا ةلازاب مق ارظن ةمه لوالا فرشم لا ةلازاب ةي لمع دع . لك يهال ي ف 6 ةحتفلال ي ف دادعت سالا عضو ي ف تنأ . اقبا س روك ذم وه امك موعدم ريغ لك يهال ي ف امه ي لك لا خدإ متي امن ي ب ني فرشم ةيقرتل فرشم فيضي اتي دح لا نسح ي نأ انه قثوي steps نيسحت هسفن لا تترك عي طتسي .

## اهي بوعرمل ريغ مزحل ؤلازا 1. ؤوطخل

 Flash في لقالا يلع تي ابا جيح 1 ؤحاسم كي دل نأ دكأت. ؤوطخل هذه ي طختت ال: ؤطخال م ؤي افك مدع ؤلاحي في ؤمي دقلا تي بثتلا تا فل م في ظنت. ؤدي دج ؤروص عي سوتل ؤحاسم ل.

```
Switch#install remove inactive
```

```
Cleaning up unnecessary package files
No path specified, will use booted path flash:packages.conf
Cleaning flash:
Scanning boot directory for packages ... done.
Preparing packages list to delete ...
cat9k-cc_srdriver.16.06.01.SPA.pkg
File is in use, will not delete.
cat9k-espbase.16.06.01.SPA.pkg
File is in use, will not delete.
cat9k-rpbase.16.06.01.SPA.pkg
File is in use, will not delete.
cat9k-rpboot.16.06.01.SPA.pkg
File is in use, will not delete.
cat9k-sipbase.16.06.01.SPA.pkg
File is in use, will not delete.
cat9k-sipspa.16.06.01.SPA.pkg
File is in use, will not delete.
cat9k-srdriver.B16.06.01.SPA.pkg
File is in use, will not delete.
cat9k-webui.16.06.01.SPA.pkg
File is in use, will not delete.
packages.conf
File is in use, will not delete.
done.
The following files will be deleted:
[R0]:
/flash/cat9k-cc_srdriver.16.06.01.SPA.pkg
/flash/cat9k-espbase.16.06.01.SPA.pkg
/flash/cat9k-rpbase.16.06.01.SPA.pkg
/flash/cat9k-rpboot.16.06.01.SPA.pkg
/flash/cat9k-sipbase.16.06.01.SPA.pkg
/flash/cat9k-sipspa.16.06.01.SPA.pkg
/flash/cat9k-srdriver.16.06.01.SPA.pkg
/flash/cat9k-webui.16.06.01.SPA.pkg
/flash/cat9k_1.bin
/flash/cat9k_1.conf
/flash/cat9k_2.1.conf
/flash/cat9k_2.bin
/flash/cat9k_2.conf
/flash/cat9k_iosxe.16.06.01.SSA.bin
/flash/packages.conf.00-

Do you want to remove the above files? [y/n]y
[R0]:
Deleting file flash:cat9k-cc_srdriver.16.06.01.SPA.pkg ... done.
Deleting file flash:cat9k-espbase.16.06.01.SPA.pkg ... done.
Deleting file
Deleting file flash:cat9k-rpbase.16.06.01.SPA.pkg ... done.
Deleting file flash:cat9k-rpboot.16.06.01.SPA.pkg ... done.
```

```
Deleting file flash:cat9k-sipbase.B16.06.01.SPA.pkg ... done.
Deleting file flash:cat9k-sipspace.16.06.01.SPA.pkg ... done.
Deleting file flash:cat9k-srdriver.16.06.01.SPA.pkg ... done.
Deleting file flash:cat9k-webui.16.06.01.SPA.pkg ... done.
Deleting file flash:cat9k_1.bin ... done.
Deleting file flash:cat9k_1.conf ... done.
Deleting file flash:cat9k_2.1.conf ... done.
Deleting file flash:cat9k_2.bin ... done.
Deleting file flash:cat9k_2.conf ... done.
Deleting file flash:cat9k_iosxe.16.06.01.SSA.bin ... done.
Deleting file flash:packages.conf.00- ... done.
SUCCESS: Files deleted.
--- Starting Post_Remove_Cleanup ---
Performing Post_Remove_Cleanup on Active/Standby
[R0] Post_Remove_Cleanup package(s) on R0
[R0] Finished Post_Remove_Cleanup on R0
Checking status of Post_Remove_Cleanup on [R0]
Post_Remove_Cleanup: Passed on [R0]
Finished Post_Remove_Cleanup
```

SUCCESS: install\_remove Tue Jun 20 14:16:29 PDT 2017

## flash إلى ديديج ةروص خسننا 2. ةوطخل

فرشملل ةتقؤملا ةركاذلا إلى TFTP مداخ نم ةروصل خسنن موقت، لاثملا اذه يف

```
Switch#copy tftp: bootflash:
Address or name of remote host []? 172.16.53.46
Source filename []? cat9k_iosxe.16.06.02.SPA.bin
Destination filename [cat9k_iosxe.16.06.02.SPA.bin]?
```

```
Accessing tftp://172.16.53.46/cat9k_iosxe.16.06.02.SPA.bin...
Loading /cat9k_iosxe.16.06.02.SPA.bin from 10.8.0.6 (via GigabitEthernet0/0):
!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!
!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!
[OK - 601216545 bytes]
```

601216545 bytes copied in 50.649 secs (11870255 bytes/sec)

Step 3 Use the dir flash command to confirm that the image has been successfully copied to flash.

```
Switch#dir bootflash:*.bin
Directory of bootflash:/*.bin
```

```
Directory of flash:/
434184 -rw- 601216545 Jul 26 2017 10:18:11 -07:00 cat9k_iosxe.16.06.02.SPA.bin
11353194496 bytes total (8976625664 bytes free)
```

## ديهمتلل فشك صحنف 3. ةوطخل

بكري لخد 16.6.2 يقرت تنأ نأ لبق packages.conf إلى نوكي نايب ةمزج تللكش نأ تنمض  
packages.conf إلى وه تريغ يغبنني تنأ، دربم .bin إلى لتتبث نوكي نإ. بولسأ

```
Switch#show boot
BOOT variable = bootflash:packages.conf;
Configuration Register is 0x2
MANUAL_BOOT variable = no
BAUD variable = 9600
ENABLE_BREAK variable =
BOOTMODE variable does not exist
IPXE_TIMEOUT variable does not exist
CONFIG_FILE variable =
```

If your switches are configured with auto boot, then the switch automatically boots up with the new image.  
If not, you can manually boot flash:packages.conf  
Switch: boot flash:packages.conf

#### Flash إلى جماربلا تي بثت ة روص 4. ة و ط خ ل ا

ك ن ك م ي flash. إلى فدهل ة روصلا تي بثتل دي كأت طيشنت فلم ة فاضا تي بثت رمأ مدختسأ تمق اذا Bootflash ديهمتل ة ركاذي ف وأ ك ب صاخلا TFTP مداخ يل ع روصملا ة روصلا إلى ة راشإل إلى ة روصلا خسنب تمق دقل، لاثملا اذه ي ف (flash). ة تقؤملا ة ركاذل إلى ة روصلا خسنب ل ع فلاب (flash) ة تقؤملا ة ركاذل.

```
Switch#install add file bootflash:cat9k_iosxe.16.06.02.SPA.bin activate commit
install_add_activate_commit: START Mon Nov 13 23:24:02 UTC 2017
```

```
System configuration has been modified.
Press Yes(y) to save the configuration and proceed.
Press No(n) for proceeding without saving the configuration.
Press Quit(q) to exit, you can save configuration and re-enter the command. [y/n/q]y
Building configuration...
[OK]Modified configuration has been saved
```

```
*Nov 13 23:24:09.935: %SYS-2-PRIVCFG_ENCRYPT: Successfully encrypted private config file
*Nov 13 23:24:11.314: %IOSXE-5-PLATFORM: R1/0: Nov 13 23:24:11 install_engine.sh: %INSTALL-5-INSTALL_S
```

This operation requires a reload of the system. Do you want to proceed?  
Please confirm you have changed boot config to flash:packages.conf [y/n]y

```
--- Starting Add ---
Performing Add on Active/Standby
[R1] Add package(s) on R1
[R1] Finished Add on R1
Checking status of Add on [R1]
Add: Passed on [R1]
Finished Add
```

```
install_add_activate_commit: Activating PACKAGE
```

```
*Nov 13 23:25:28.589: %IOSXE-4-PLATFORM: R1/0: kernel: ISOFS: Unable to identify CD-ROM format.Followi
/flash/cat9k-wlc.16.06.02.SPA.pkg
/flash/cat9k-webui.16.06.02.SPA.pkg
/flash/cat9k-srdriver.16.06.02.SPA.pkg
/flash/cat9k-sipspace.16.06.02.SPA.pkg
/flash/cat9k-sipbase.16.06.02.SPA.pkg
/flash/cat9k-rpboot.16.06.02.SPA.pkg
```

/flash/cat9k-rpbase.16.06.02.SPA.pkg  
/flash/cat9k-guestshell.16.06.02.SPA.pkg  
/flash/cat9k-espbases.16.06.02.SPA.pkg  
/flash/cat9k-cc\_srdriver.16.06.02.SPA.pkg

This operation requires a reload of the system. Do you want to proceed? [y/n]y

--- Starting Activate ---

Performing Activate on Active/Standby

[R1] Activate package(s) on R1

head: invalid number of lines: '/tmp/Activate.rp-1-1-1.20171113232845.out.log'

[R1] Finished Activate on R1

Checking status of Activate on [R1]

Activate: Passed on [R1]

Finished Activate

--- Starting Commit ---

Performing Commit on Active/Standby

\*Nov 13 23:28:47.521: %IOSXE-5-PLATFORM: R1/0: Nov 13 23:28:47 rollback\_timer.sh: %INSTALL-5-INSTALL\_A

[R1] Finished Commit on R1

Checking status of Commit on [R1]

Commit: Passed on [R1]

Finished Commit

Install will reload the system now!

SUCCESS: install\_add\_activate\_commit Mon Nov 13 23:29:14 UTC 2017

Switch#

\*Nov 13 23:29:14.578: %IOSXE-5-PLATFORM: R1/0: Nov 13 23:29:14 install\_engine.sh: %INSTALL-5-INSTALL\_C

Initializing Hardware...

System Bootstrap, Version 16.6.1r [FC2], RELEASE SOFTWARE (P)

Compiled Sat 07/15/2017 10:06:12.23 by rel

Current image running:

Primary Rommon Image

Last reset cause: SoftwareResetTrig

C9400-SUP-1 platform with 16777216 Kbytes of main memory

Preparing to autoboot. [Press Ctrl-C to interrupt] 0

attempting to boot from [bootflash:packages.conf]

Located file packages.conf

#

#####

Validate packages: SHA-1 hash:

calculated 550C9730:667B2788:DD6F6B06:D0FFA819:01A315DA

expected 550C9730:667B2788:DD6F6B06:D0FFA819:01A315DA

%IOSXEBOOT-4-BOOTLOADER\_UPGRADE: (rp/1): ### Mon Nov 13 23:32:20 Universal 2017 PLEASE DO NOT POWER CYC

%IOSXEBOOT-4-BOOTLOADER\_UPGRADE: (rp/1): boot loader upgrade successful << Bootloader upgrade done

%IOSXEBOOT-4-BOOTLOADER\_UPGRADE: (rp/1): Reloading the Supervisor to enable the New BOOTLOADER

Initializing Hardware...

Initializing Hardware...

Initializing Hardware...

System Bootstrap, Version 16.6.2r[FC1], RELEASE SOFTWARE (P)

Compiled Tue 10/31/2017 11:38:44.98 by re1

Current image running:  
Primary Rommon Image

Last reset cause: SoftwareResetTrig  
C9400-SUP-1 platform with 16777216 Kbytes of main memory

Preparing to autoboot. [Press Ctrl-C to interrupt] 0  
attempting to boot from [bootflash:packages.conf]

Located file packages.conf

#  
#####

Validate packages: SHA-1 hash:

calculated 550C9730:667B2788:DD6F6B06:D0FFA819:01A315DA  
expected 550C9730:667B2788:DD6F6B06:D0FFA819:01A315DA

### Restricted Rights Legend

Use, duplication, or disclosure by the Government is subject to restrictions as set forth in subparagraph (c) of the Commercial Computer Software - Restricted Rights clause at FAR sec. 52.227-19 and subparagraph (c) (1) (ii) of the Rights in Technical Data and Computer Software clause at DFARS sec. 252.227-7013.

cisco Systems, Inc.  
170 West Tasman Drive  
San Jose, California 95134-1706

Cisco IOS® Software [Everest], Catalyst L3 Switch Software (CAT9K\_IOSXE), Version 16.6.2, RELEASE SOFTWARE  
Technical Support: <http://www.cisco.com/techsupport>  
Copyright (c) 1986-2017 by Cisco Systems, Inc.  
Compiled Wed 01-Nov-17 07:26 by mcpre

ة ققحتل 5 ةوطخلل

.pkg تافل م يل ع يوتحي ةتقؤملا ةركاذلا مسق نأ نم ققحت ، حاجن بن جم انربلا تيبتت دع ب  
انه تاجرخلل جذومن ةيؤر كنكمي .ةديجلل

Switch#dir bootflash:\*.pkg  
Directory of bootflash:/\*.pkg

Directory of bootflash:/

405607 -rw- 5186504 Nov 13 2017 22:36:25 +00:00 cat9k-cc\_srdriver.16.06.02.SPA.pkg  
405608 -rw- 76649412 Nov 13 2017 22:36:27 +00:00 cat9k-espbase.16.06.02.SPA.pkg  
405609 -rw- 1536964 Nov 13 2017 22:36:27 +00:00 cat9k-guestshell.16.06.02.SPA.pkg  
405610 -rw- 380625856 Nov 13 2017 22:36:38 +00:00 cat9k-rpbase.16.06.02.SPA.pkg  
405616 -rw- 29580684 Nov 13 2017 22:36:48 +00:00 cat9k-rpboot.16.06.02.SPA.pkg  
405611 -rw- 27612100 Nov 13 2017 22:36:39 +00:00 cat9k-sipbase.16.06.02.SPA.pkg  
405614 -rw- 12268480 Nov 13 2017 22:36:41 +00:00 cat9k-webui.16.06.02.SPA.pkg

```

405612 -rw- 54981568 Nov 13 2017 22:36:40 +00:00 cat9k-sipspace.16.06.02.SPA.pkg
405613 -rw- 6521796 Nov 13 2017 22:36:40 +00:00 cat9k-srdriver.16.06.02.SPA.pkg
405615 -rw- 1536960 Nov 13 2017 22:36:41 +00:00 cat9k-wlc.16.06.02.SPA.pkg
11250098176 bytes total (8812113920 bytes free)

```

نأ بجي 5. ةحتفلال ي لوالا فرشمالا لخدا ف، يدر ف لكشب هتيقورت تمت فرشمالا الك نأ امب دادعتسالا عضو ي فرشمالا مضمنت.

Checking module status with both supervisors inserted Switch#show module  
Chassis Type: C9410R

Mod	Ports	Card Type	Model	Serial No.
1	48	48-Port 10/100/1000 (RJ-45)	C9400-LC-48T	JAE212409NQ
2	48	48-Port 10/100/1000 (RJ-45)	C9400-LC-48T	JAE212409N2
3	48	48-Port UPOE 10/100/1000 (RJ-45)	C9400-LC-48U	JAE21270C1R
4	48	48-Port UPOE 10/100/1000 (RJ-45)	C9400-LC-48U	JAE21270C1C
5	10	Supervisor 1 Module	C9400-SUP-1	JAE21240235
6	10	Supervisor 1 Module	C9400-SUP-1	JAE21240235

Mod	MAC addresses	Hw	Fw	Sw	Status
1	E4AA.5D59.8420 to E4AA.5D59.844F	1.0	16.6.2r[FC1	16.06.02	ok
2	E4AA.5D59.85AC to E4AA.5D59.85DB	1.0	16.6.2r[FC1	16.06.02	ok
3	E4AA.5D59.BC0C to E4AA.5D59.BC3B	1.0	16.6.2r[FC1	16.06.02	ok
4	E4AA.5D59.B72C to E4AA.5D59.B75B	1.0	16.6.2r[FC1	16.06.02	ok
5	2C5A.0F1C.4F2C to 2C5A.0F1C.4F35	0.6	16.6.2r[FC1	16.06.02	ok
6	2C5A.0F1C.4F36 to 2C5A.0F1C.4F3F	0.6	16.6.2r[FC1	16.06.02	ok

Mod	Redundancy Role	Operating Redundancy Mode	Configured Redundancy Mode
5	Standby	standby hot	sso
6	Active	active	sso

## راركتال صرحف

Cisco ي ف جماربالا راركت معد متي. راركتال (ةزهجالا) 9400 ةزافح ةدام ي فرشمالا تادحو معدت جلاع م راركت ةزيم معد متي ال، 16.6.2 جمانرب رادصا ي ف 16.6.2 رادصا ال، IOS ® XE Everest، لك نيوكت نامضل راركت show platform software و show undancy رماوا مدختسا (RPR). هي جوتال ل ي وحت ةي لمع ي اءار ج لبق IOMD و SwitchOver (SSO) نم.

## RPR راركت

عم هت نم ازم متي و اي ةئج ةأيهم ةلاح ي ف أدبي ه نإ ف، RPR عضو ي فرشمالا كرحم لمع ي ام دنع 16.6.2 ي لال رادصا ال ي ف موعدم ريغ RPR. طشنال فرشمالا كرحم ل رمتس مال نيوكتال



م تي RPR عضو في هنأل تانايابل رورم ة كرح ليطعت م تي ، فرشمال كرحم ليدبت ة لاج في قلعتت فرشمال تاكرحم نيب ة ظوفحم ة لاج دجوت ال هنأل ة يدامال ذفانملا عي مج ليدغت ة داعإ كرحم) Supervisor Engine ة ئيهت لامتك دنع ، ليدجتال دنع . اهتلاحو ة يطمنال تادجولوا عاونأب ة يطمنال ة دجولوا نم ة رشابم ة زهجال تامولعم أرقى هنأف ، دادعتسالال عضو في (فرشمال طشنال عضولوا في (فرشمال كرحم) Supervisor Engine حبصوي

## SSO راركت

Supervisor Engine كرحم أدبي ، SSO عضو في (فرشمال كرحم) Supervisor Engine كرحم لمعي ام دنع نيوكتال عم نمازيو ة لماك ة ئيهت ة لاج في دادعتسالال عضو في (فرشمال كرحم) Supervisor Engine كرحم . طشنال عضولوا في (فرشمال كرحم) Supervisor Engine كرحم ليراجال نيوكتالو رمتسمال تارييغتال عي مج ة نمازم م تي و ، انه ة جردملا تالوكوتوربلا لىل ة لاجال لىل دع ب امي ف ظفاجي ة لاجال دجت ي تال ليدبتال تاي لمع م عدت ي تال تازي ملل جم ارابلوا ة زهجال تالاج في

فرشم كرحم نيوكت في 2 ة ق بطلال لمع تاسل ل ة يرفص ة عطاقم رفوي هنأف ، يلاتالابو يطايتحإ

، طابترا ل كل زاهجال طابترا ة لاج لىل فرعتي دادعتسالال عضو في فرشمال كرحم نأل ارظن . ة لصولا ذفانم نمضتت ي تالوا ة طشن لظت ، ليدجتال لبق ة طشن تناك ي تال ذفانملا نأف نإ تلصف تنك عي طتسي مه ، كرحم فرشمال لىل اي عيبب نو كي ءانيم ة لصولا نأل ، امهم ت. لزا نو كي كرحم فرشمال

Supervisor Engine كرحم حبصي ، طشنال عضولوا في (فرشمال كرحم) Supervisor Engine لشف ة لاج في اثيدح طشنال فرشمال كرحم مدختسي . اطشن دادعتسالال عضو في (فرشمال كرحم) Supervisor Engine تانايابل رورم ة كرح هي جوت ة داعإ ة عباتم ة دوجومال 2 ة ق بطلال ليدجت تامولعم

<#root>

IOMD is Input Output Module Driver software process. Check if IOMDs are ready and have initialized Softw

```
Switch# show platform software iomd redundancy
  Configured Redundancy Mode = sso
  Operating Redundancy Mode = sso
    Local RF state = ACTIVE
    Peer RF state = STANDBY HOT
```

slot	PSM	STATE	SPA	INTF	HA_STATE	HA_ACTIVE
1		ready	started		ready	00:10:49
2		ready	started		ready	00:10:49
3		ready	started		ready	00:10:48
4		ready	started		ready	00:10:49
5		ready	started		ready	00:10:54
6		ready	started		ready	00:10:53 ***active RP

```
Switch#show redundancy
Redundant System Information :
```

```
-----
Available system uptime = 31 minutes
Switchovers system experienced = 0
Standby failures = 0
Last switchover reason = none
```

Hardware Mode = Duplex  
Configured Redundancy Mode = sso  
Operating Redundancy Mode = sso  
Maintenance Mode = Disabled  
Communications = Up

Current Processor Information :

-----

Active Location = slot 6  
Current Software state = ACTIVE  
Uptime in current state = 31 minutes  
Image Version = Cisco IOS ®Software [Everest], Catalyst L3 Switch Software (CAT9K\_IOSXE), Version 16.6  
RELEASE SOFTWARE (fc2)  
Technical Support: <http://www.cisco.com/techsupport>  
Copyright (c) 1986-2017 by Cisco Systems, Inc.  
Compiled Wed 01-Nov-17 07:26 by mcpre  
BOOT = bootflash:packages.conf;  
CONFIG\_FILE =  
Configuration register = 0x2

Peer Processor Information :

-----

Standby Location = slot 5  
Current Software state = STANDBY HOT  
Uptime in current state = 26 minutes  
Image Version = Cisco IOS ®Software [Everest], Catalyst L3 Switch Software (CAT9K\_IOSXE), Version 16.6  
RELEASE SOFTWARE (fc2)  
Technical Support: <http://www.cisco.com/techsupport>  
Copyright (c) 1986-2017 by Cisco Systems, Inc.  
Compiled Wed 01-Nov-17 07:26 by mcpre  
BOOT = bootflash:packages.conf;  
CONFIG\_FILE =  
Configuration register = 0x2

ةمچرتل هذه لوج

ةللأل تاي نقتل نم ةومچم مادختساب دن تسمل اذه Cisco تچرت  
ملاعلاء انءمچ يف نيمدختسمل معدى وتحم مي دقتل ةيرشبل او  
امك ةقيد نوك تنل ةللأل ةمچرت لصف أن ةظحال مچرئ. ةصاغل مه تلبل  
Cisco يلخت. فرتحم مچرت مامدقي يتل ةيفارتحال ةمچرتل عم لاعل وه  
ىل إأمئاد ةوچرلاب يصوت و تامچرتل هذه ةقد نع اهتيلوئسم Cisco  
Systems (رفوتم طبارل) يلصلأل يزىلچنل دن تسمل