

# 升級安全防火牆的ASA主用/備用故障切換對

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## 簡介

本文檔介紹如何針對裝置模式下的Secure Firewall 1000、2100和Secure Firewall 3100/4200的故障切換部署升級ASA。

## 必要條件

### 需求

思科建議您瞭解以下主題：

- 思科安全防火牆威脅防禦。
- 思科自適應安全裝置(ASA)配置。

### 採用元件

本檔案中的資訊是根據軟體版本：

- 思科自適應安全裝置軟體版本9.14(4)
- 思科自適應安全裝置軟體版本9.16(4)

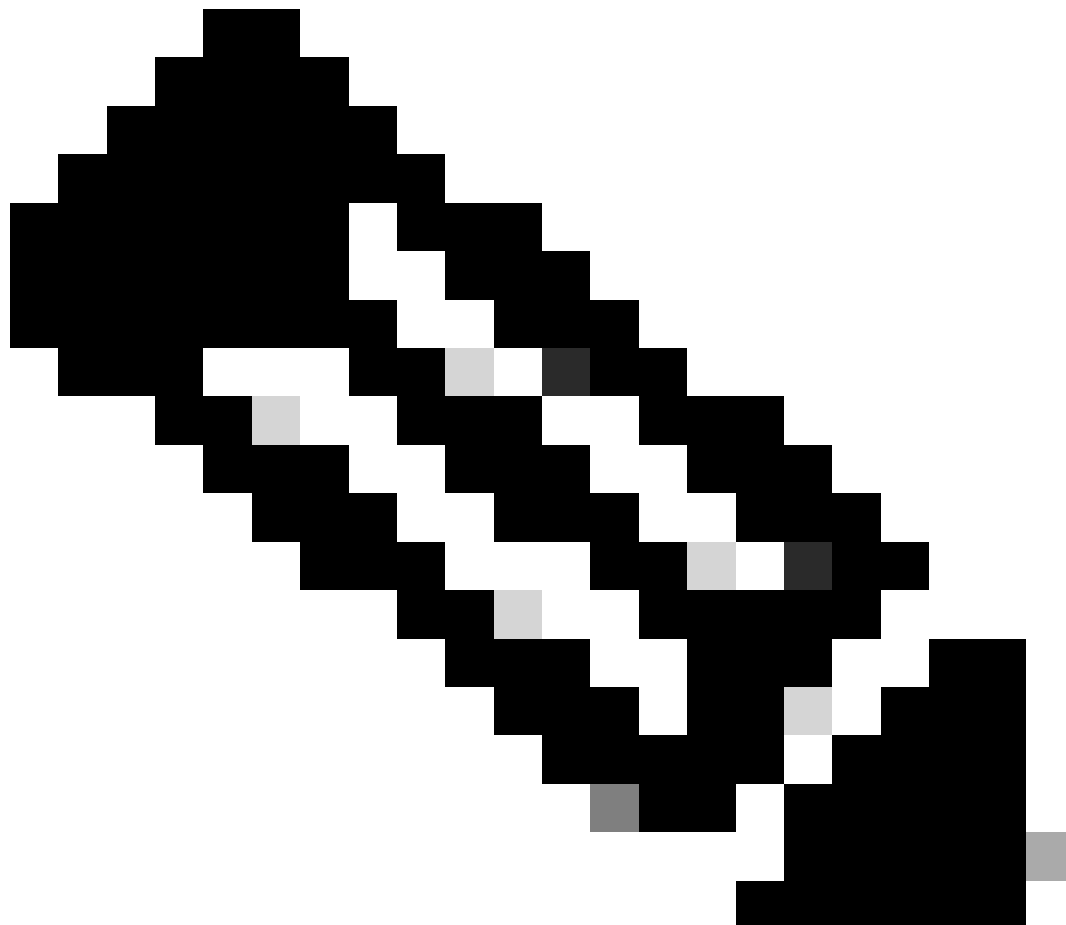
本文中的資訊是根據特定實驗室環境內的裝置所建立。文中使用到的所有裝置皆從已清除（預設）的組態來啟動。如果您的網路運作中，請確保您瞭解任何指令可能造成的影響。

## 設定

## 驗證必要條件

步驟 1. 運行命令 `show fxos mode` 以驗證裝置是否處於裝置模式

---



注意：對於9.13及更低版本中的安全防火牆21XX，僅支援平台模式。在版本9.14及更高版本中，裝置模式是預設模式。

---

```
<#root>
```

```
ciscoasa#
```

```
show fxos mode
```

```
Mode is currently set to appliance
```

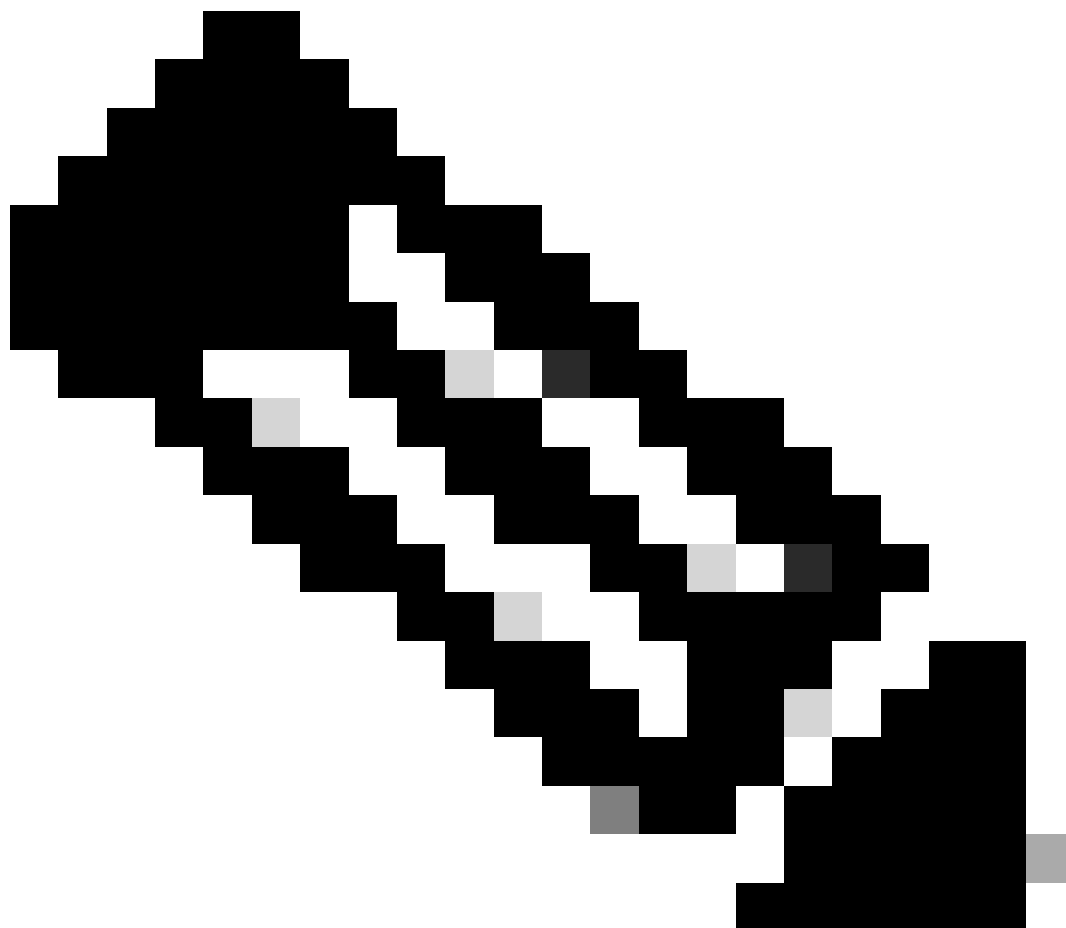
步驟 2. 驗證相容性。

請參閱Cisco安全防火牆ASA相容性檔案，驗證FTD硬體平台和安全防火牆ASA軟體之間的相容性。  
請參閱

### [Cisco Secure Firewall ASA相容性](#)

步驟 3.從[Cisco Software Central](#)下載升級軟體套件。

---



注意：對於安全防火牆1000/2100和安全防火牆3100/4200，您無法單獨安裝ASA或FXOS；這兩個映像都是捆綁包的一部分。

---

請參閱連結標題，瞭解捆綁包中的ASA和FXOS版本。請參閱[安全防火牆1000/2100和3100/4200 ASA和FXOS捆綁版本](#)。

### 使用CLI升級

步驟 1.重置ASDM映像。

在全局配置模式下連線到主裝置並運行以下命令：

<#root>

```
ciscoasa(config)#
```

```
asdm image disk0:/asdm.bin
```

```
ciscoasa(config)# exit
```

```
ciscoasa#
```

```
copy running-config startup-config
```

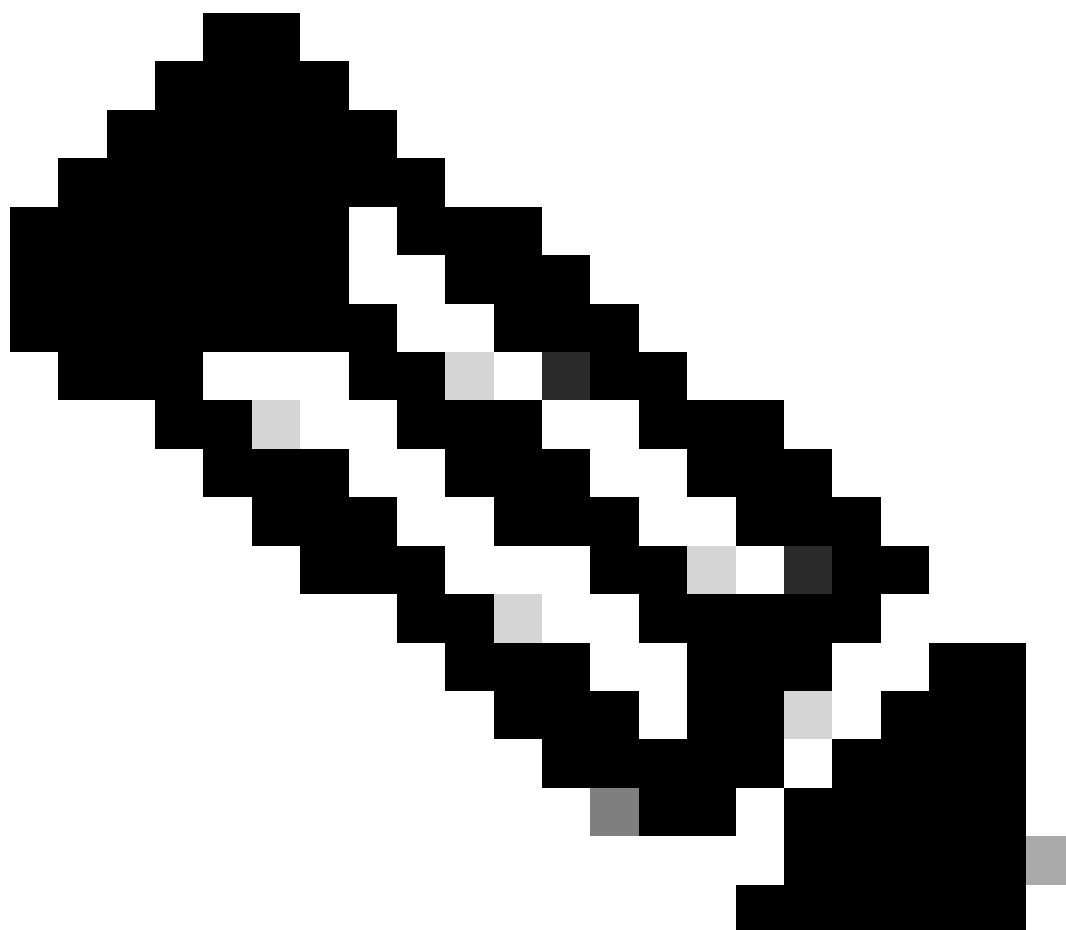
```
Source filename [running-config]?
```

```
Cryptochecksum: 6beb01d1 b7a3c30f 5e8eb557 a8ebb8ca
```

```
12067 bytes copied in 3.780 secs (4022 bytes/sec)
```

步驟 2. 將軟體映像上傳到主裝置。

---



注意：在本文檔中，您使用的是FTP伺服器，但可以使用TFTP、HTTP或其他伺服器型別

。

---

<#root>

ciscoasa#

```
copy ftp://calo:calo@10.88.7.12/cisco-asa-fp2k.9.16.4.SPA disk0:/cisco-asa-fp2k.9.16.4.SPA
```

Address or name of remote host [10.88.7.12]?

Source username [calo]?

Source password []? \*\*\*\*

Source filename [cisco-asa-fp2k.9.16.4.SPA]?

Destination filename [cisco-asa-fp2k.9.16.4.SPA]?

Accessing ftp://calo:<password>@10.88.7.12/cisco-asa-fp2k.9.16.4.SPA...!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!

Verifying file disk0:/cisco-asa-fp2k.9.16.4.SPA...

Writing file disk0:/cisco-asa-fp2k.9.16.4.SPA...

474475840 bytes copied in 843.230 secs (562842 bytes/sec)

步驟 3. 將軟體映像上傳到輔助裝置。

在主要單元上運行命令。

<#root>

ciscoasa#

```
failover exec mate copy /noconfirm ftp://calo:calo@10.88.7.12/cisco-asa-fp2k.9.16.4.SPA disk0:/cisco-asa-fp2k.9.16.4.SPA
```

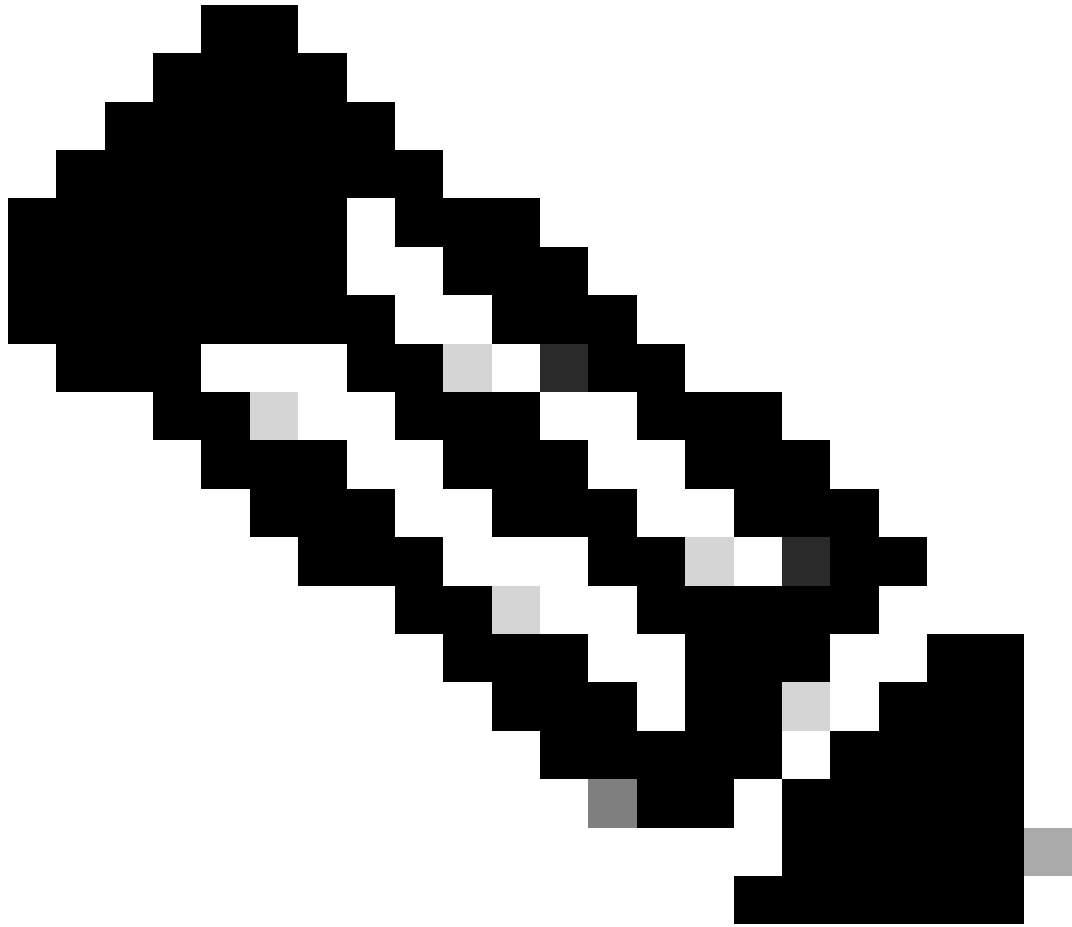
Accessing ftp://calo :<password>@10.88.7.12/cisco-asa-fp2k.9.16.4.SPA...!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!

Verifying file disk0:/cisco-asa-fp2k.9.16.4.SPA...

Writing file disk0:/cisco-asa-fp2k.9.16.4.SPA...

474475840 bytes copied in 843.230 secs (562842 bytes/sec)

步驟 4. 使用 `show running-config boot system` 命令檢查當前是否配置了引導映像。



註：您可能未配置引導系統。

---

<#root>

ciscoasa(config)#

show running-config boot system

```
boot system disk0:/cisco-asa-fp2k.9.14.4.SPA
```

步驟 5. (選用) 如果已配置引導映像，則必須將其刪除。

```
no boot system diskn : /asa_image_name
```

範例：

```
ciscoasa(config)# no boot system disk0:/cisco-asa-fp2k.9.14.4.SPA
```

步驟 6.選擇要啟動的映像。

```
<#root>
```

```
ciscoasa(config)#
```

```
boot system disk0:/cisco-asa-fp2k.9.16.4.SPA
```

The system is currently installed with security software package 9.14.4, which has:

- The platform version: 2.8.1.172
- The CSP (asa) version: 9.14.4

Preparing new image for install...

!!!!!!!!!!!!!!

Image download complete (Successful unpack the image).

Installation of version 9.16.4 will do the following:

- upgrade to the new platform version 2.10.1.217
- upgrade to the CSP ASA version 9.16.4

After installation is complete, ensure to do write memory and reload to save this config and apply the

Finalizing image install process...

Install\_status: ready.....

Install\_status: validating-images....

Install\_status: upgrading-npu

Install\_status: upgrading-system.

Install\_status: update-software-pack-completed

步驟 7.使用copy running-config startup-config命令儲存配置。

**步驟 8.**重新載入輔助裝置以安裝新版本。

```
<#root>
```

```
ciscoasa(config)#
```

```
failover reload-standby
```

等待輔助裝置載入。

**步驟 9.**備用裝置重新載入後，將主裝置從活動狀態更改為備用狀態。

```
<#root>
```

```
ciscoasa#
```

```
no failover active
```

**步驟 10.**重新載入新的備用裝置以安裝新版本。您必須連線到新的主用裝置。

```
<#root>
```



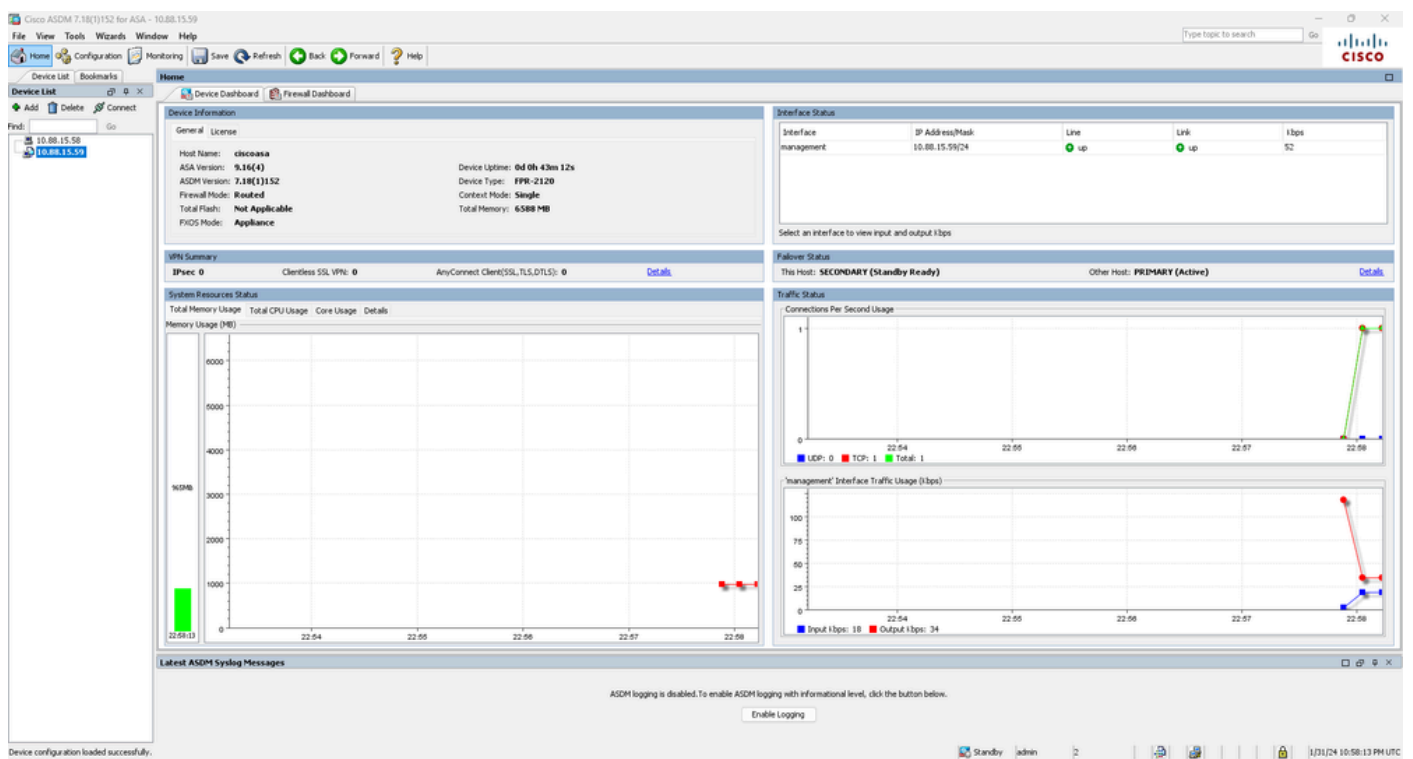
ciscoasa(config)#

failover reload-standby

新備用裝置載入後，升級即完成。

## 使用ASDM升級

步驟 1.使用ASDM連線到輔助裝置。



步驟 2.轉至工具 > 從本地電腦升級軟體。

Cisco ASDM 7.18(1)152 for ASA - 10.88.15.59

File View **Tools** Wizards Window Help

Home

Device List

Find: 10.88.15.59 10.88.15.59

- Command Line Interface...
- Show Commands Ignored by ASDM on Device
- Packet Tracer...
- Ping...
- Traceroute...
- File Management...
- Check for ASA/ASDM Updates...
- Upgrade Software from Local Computer...**
- Backup Configurations
- Restore Configurations
- System Reload...
- Administrator's Alert to Clientless SSL VPN Users...
- Migrate Network Object Group Members...
- Preferences...
- ASDM Java Console...

Back Forward Help

Full Dashboard

Device Uptime: **0d 0h 44m**

Device Type: **FPR-2120**

Context Mode: **Single**

Total Memory: **6588 MB**

Clientless SSL VPN: **0** AnyConnect Client(SSL,TLS,DTLS):

Total Memory Usage Total CPU Usage Core Usage Details

Memory Usage (MB)

Time	Memory Usage (MB)
22:59:53	965

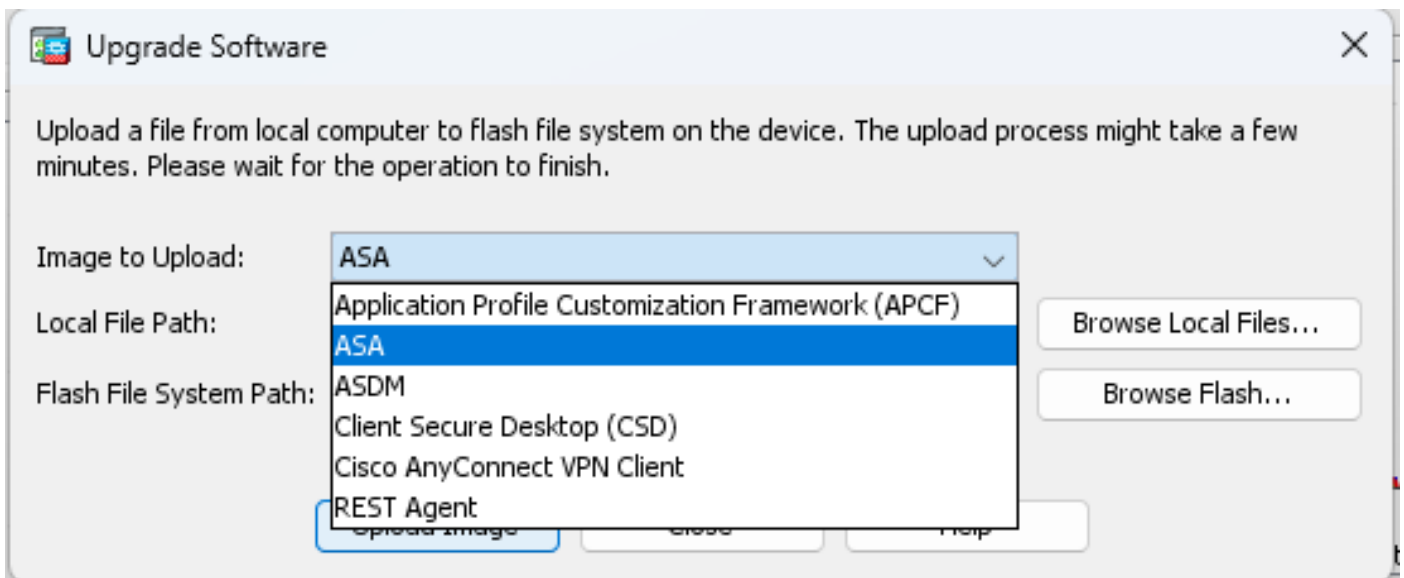
965MB

22:59:53 22:55 22:56 22:57 22:58

Latest ASDM Syslog Messages

Device configuration loaded successfully.

步驟 3.從下拉選單中選擇ASA。

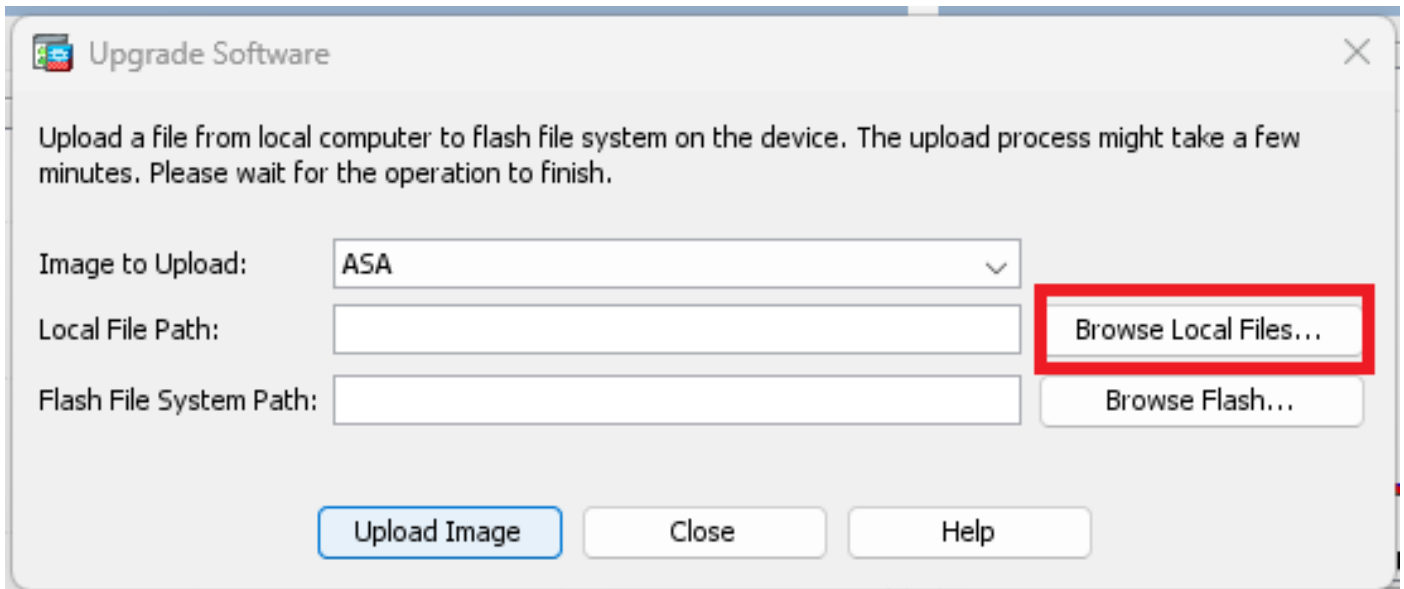


步驟 4.在Upgrade Software窗口中，按一下Browse Local Files將軟體映像上傳到輔助單元。

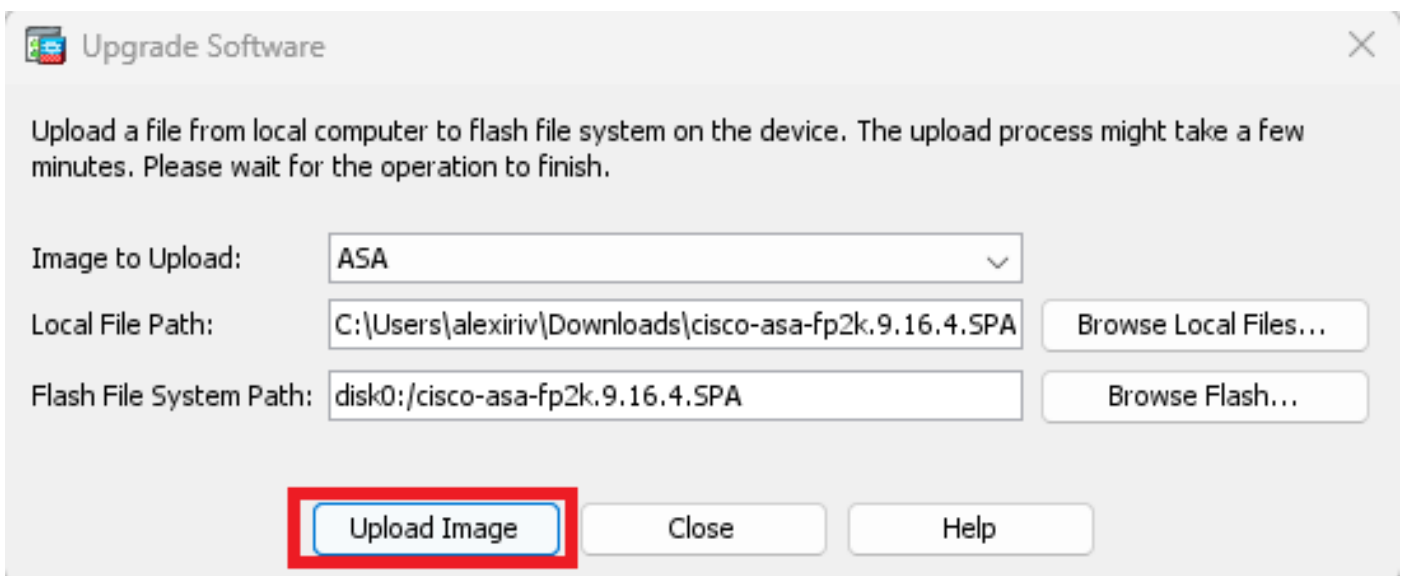


注意：預設情況下，Flash File System Path是disk0；要更改它，請按一下Browse Flash並選擇新路徑。

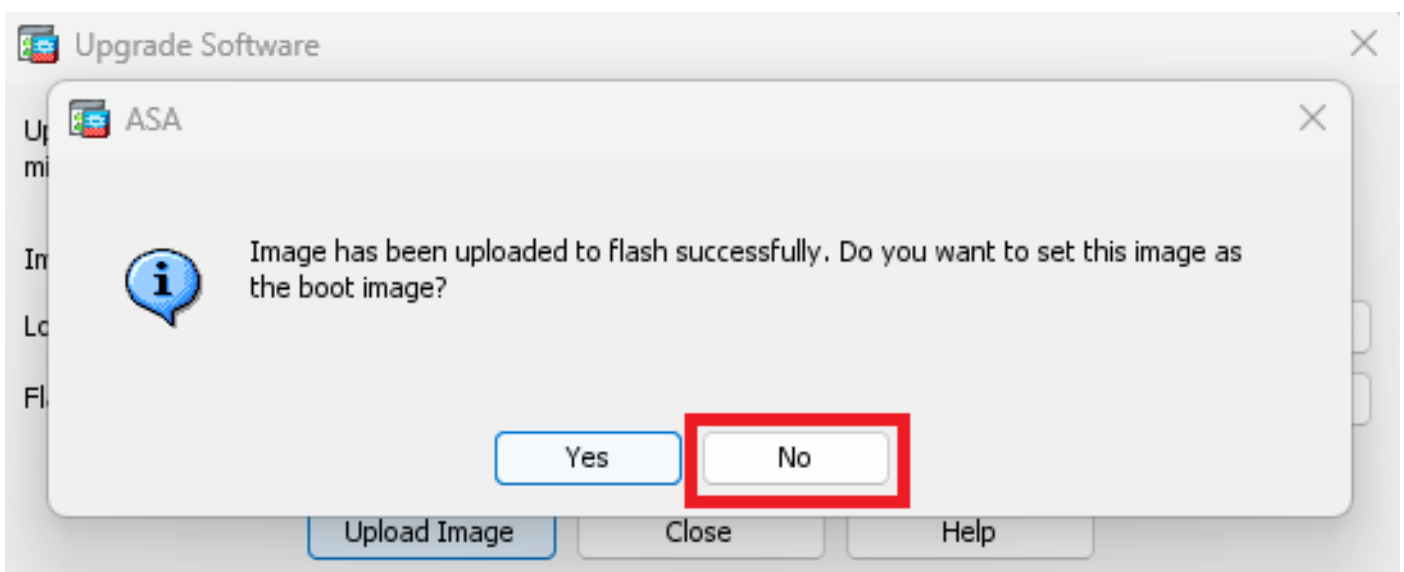
---



點選上傳影像。



映像上傳完成後，點選否。



步驟 5.重置ASDM映像。

使用ASDM連線到主裝置並轉到Configuration > Device Management > System Image/Configuration > Boot Image/Configuration。

在ASDM Image File Path中，輸入值disk0 : /asdm.bin和Apply。

The screenshot shows the Cisco ASDM 7.18(1)152 for ASA - 10.88.15.58 interface. The breadcrumb navigation path is Configuration > Device Management > System Image/Configuration > Boot Image/Configuration. The main content area is titled "Boot Configuration" and contains a table with the following data:

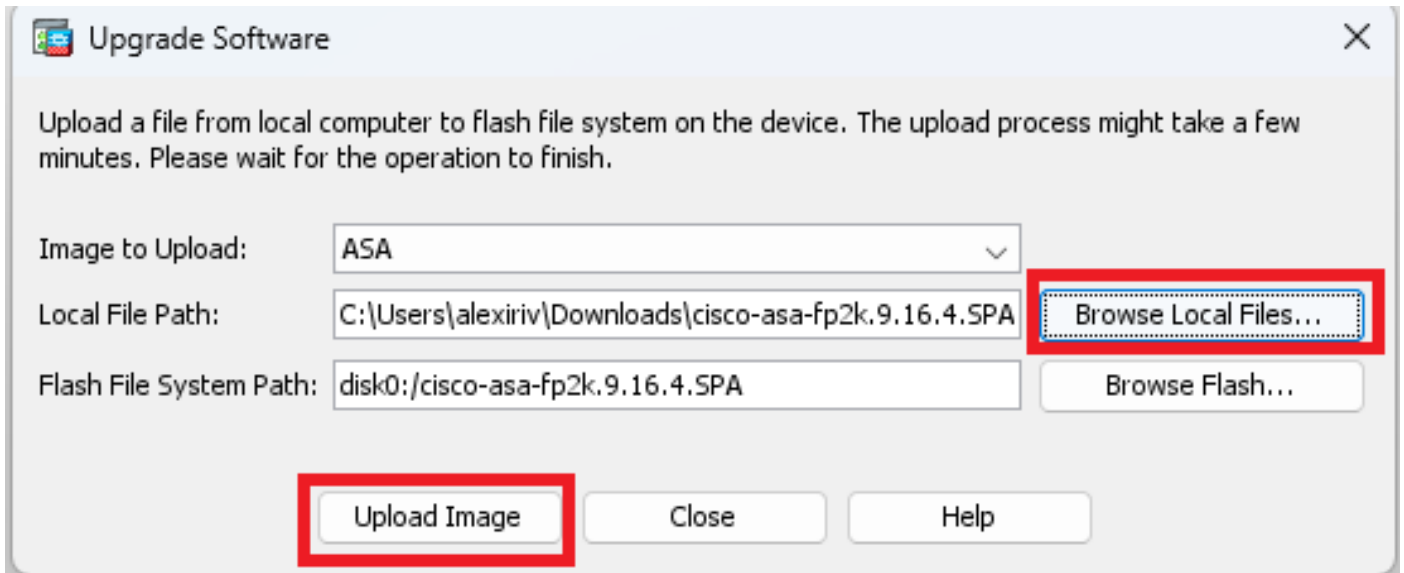
Boot Order	Boot Image Location
1	disk0:/cisco-asa-fp

Below the table, the "ASDM Image Configuration" section is visible, with the "ASDM Image File Path" field set to "disk0:/asdm.bin".

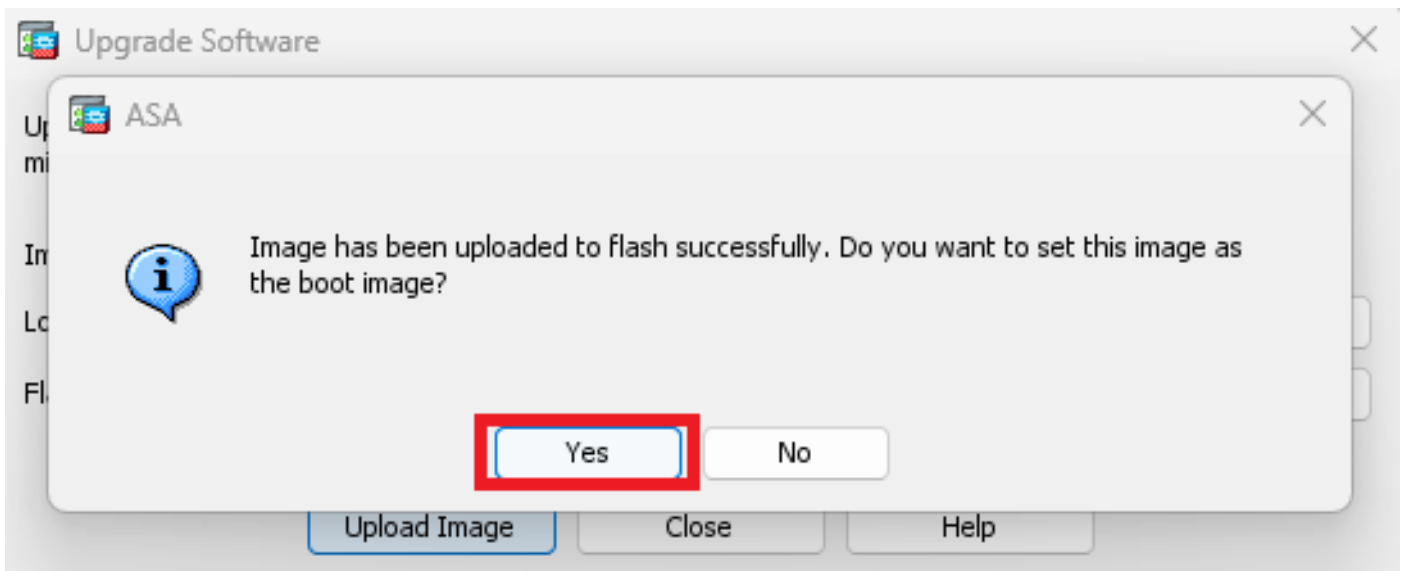
步驟 6. 將軟體映像上傳到主裝置。

按一下Browse Local Files，然後選擇裝置上的升級軟體套件。

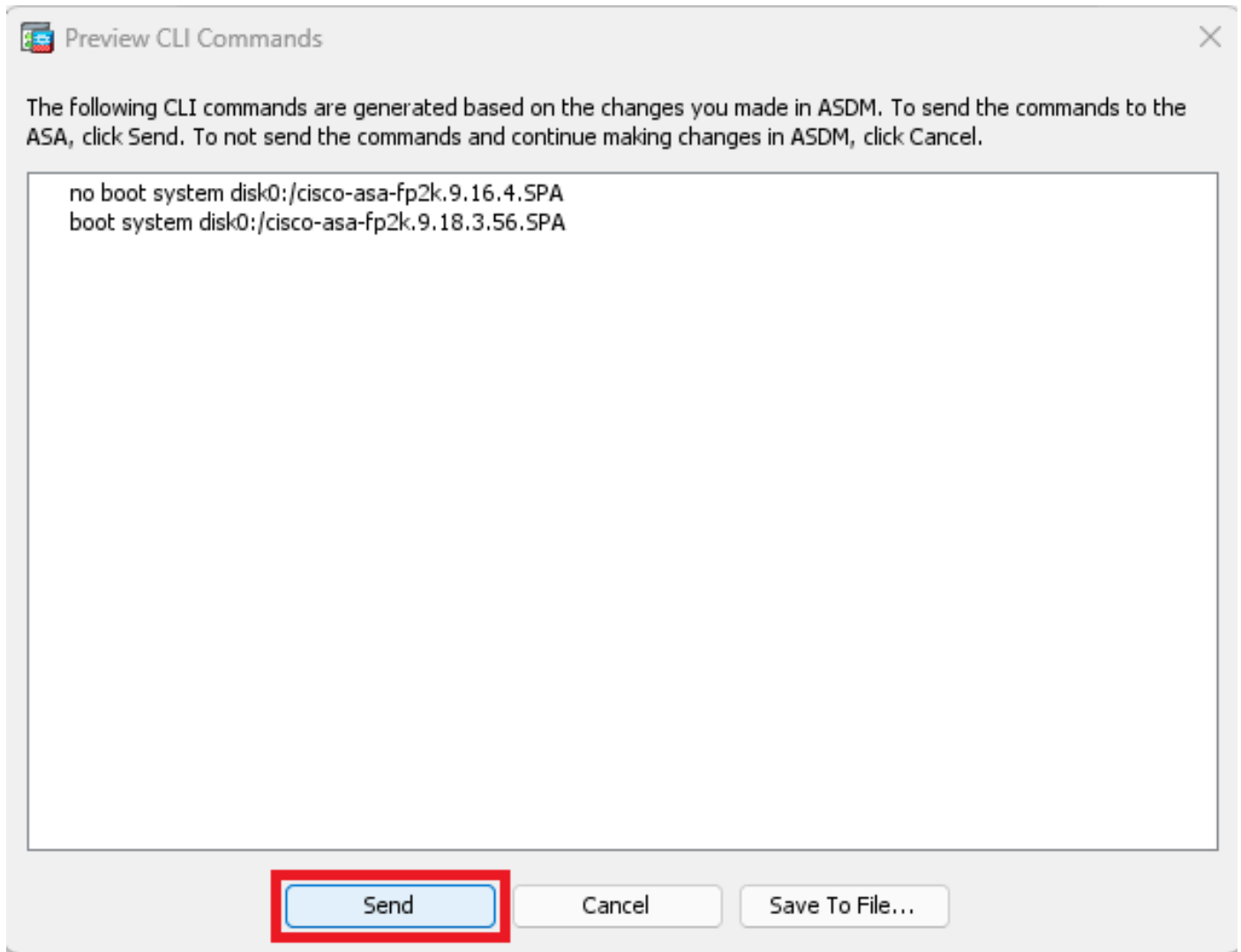
點選上傳影像。



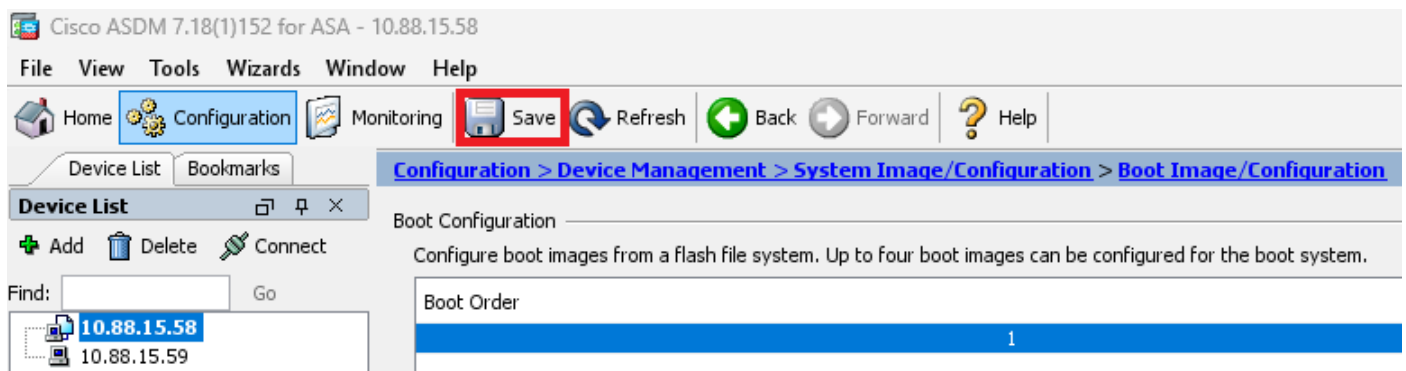
上傳完映像後，按一下Yes。



在預覽窗口中，點選傳送按鈕以儲存配置。



步驟 7. 按一下Save儲存配置。



步驟 8. 重新載入輔助裝置以安裝新版本。

轉至 > Properties > Failover > Status , 然後按一下Reload Standby。



Cisco ASDM 7.18(1)152 for ASA - 10.88.15.58

File View Tools Wizards Window Help

Home Configuration Monitoring Save Refresh Back Forward Help

Device List Bookmarks Monitoring > Properties > Failover > Status

Device List

Add Delete Connect

Find: 10.88.15.58 10.88.15.59

Properties

- AAA Servers
- Device Access
- AAA Local Locked Out Users
- Authenticated Users
- ASDM/HTTPS/Telnet/SSH
- Connection Graphs
  - Perfmon
  - Xlates
- CRL
- DNS Cache
- Failover
  - Status
  - History
  - Graphs
- Identity
  - AD Agent
  - Groups
  - Memory Usage
  - Users
- Identity by TrustSec
  - PAC
  - Environment Data
  - SXP Connections
  - IP Mappings
- IP Audit
- System Resources Graphs
  - Blocks
  - CPU
  - Memory
- WCCP

Interfaces

VPN

Routing

Properties

Logging

Failover state of the system:

```
Failover On
Failover unit Primary
Failover LAN Interface: folink Ethernet1/1 (up)
Reconnect timeout 0:00:00
Unit Poll frequency 1 seconds, holdtime 15 seconds
Interface Poll frequency 5 seconds, holdtime 25 seconds
Interface Policy 1
Monitored Interfaces 1 of 128 maximum
MAC Address Move Notification Interval not set
Version: Ours 9.16(4), Mate 9.16(4)
Serial Number: Ours JAD25430R73, Mate JAD25430RGG
Last Failover at: 22:45:48 UTC Jan 31 2024
This host: Primary - Active
Active time: 5781 (sec)
slot 0: FPR-2120 hw/sw rev (1.5/9.16(4)) status (Up_Sys)
```

Make Active Make Standby Reset Failover **Reload Standby**

Refresh

等待備用裝置載入。

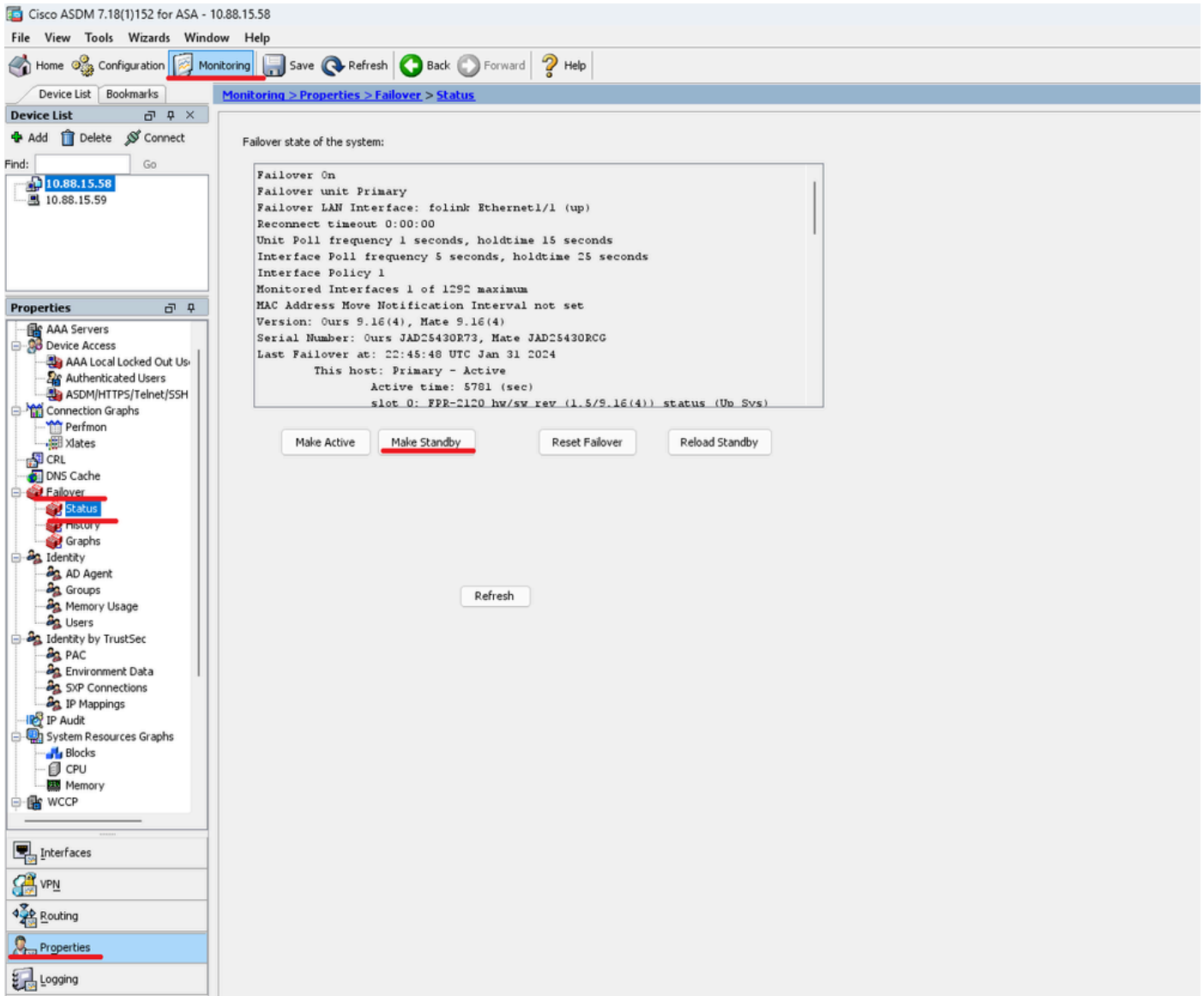
步驟 9.備用裝置重新載入後，將主裝置從活動狀態更改為備用狀態。

轉至 > Properties > Failover > Status，然後按一下 Make Standby。



註：ASMD自動連線到新的主用裝置。





步驟 10.重新載入新的備用裝置以安裝新版本。

轉至 > Properties > **Failover** > Status , 然後按一下**Reload Standby**。

Cisco ASDM 7.18(1)152 for ASA - 10.88.15.58

File View Tools Wizards Window Help

Home Configuration **Monitoring** Save Refresh Back Forward Help

Device List Bookmarks **Monitoring > Properties > Failover > Status**

**Device List**

Find: 10.88.15.58 10.88.15.59

**Properties**

- AAA Servers
- Device Access
  - AAA Local Locked Out Us
  - Authenticated Users
  - ASDM/HTTPS/Telnet/SSH
- Connection Graphs
  - Perfmon
  - Xlates
  - CRL
  - DNS Cache
- Failover**
  - Status**
  - History
  - Graphs
- Identity
  - AD Agent
  - Groups
  - Memory Usage
  - Users
- Identity by TrustSec
  - PAC
  - Environment Data
  - SXP Connections
  - IP Mappings
- IP Audit
- System Resources Graphs
  - Blocks
  - CPU
  - Memory
- WCCP

Interfaces

VPN

Routing

**Properties**

Logging

Failover state of the system:

```

Failover On
Failover unit Secondary
Failover LAN Interface: folink Ethernet1/1 (up)
Reconnect timeout 0:00:00
Unit Poll frequency 1 seconds, holdtime 15 seconds
Interface Poll frequency 5 seconds, holdtime 25 seconds
Interface Policy 1
Monitored Interfaces 1 of 1292 maximum
MAC Address Move Notification Interval not set
Version: Ours 9.18(3)56, Mate 9.16(4)
Serial Number: Ours JAD25430RCG, Mate JAD25430R73
Last Failover at: 00:53:34 UTC Feb 1 2024
This host: Secondary - Active
Active time: 3 (sec)
slot 0: FPR-2120 hw/sw rev (1.5/9.18(3)56) status (Up Sys)
  
```

Make Active Make Standby Reset Failover Reload Standby

Refresh

新備用裝置載入後，升級即完成。

## 驗證

要驗證兩台裝置是否均已完成升級，請透過CLI和ASDM檢查升級。

### 透過CLI

```
<#root>
```

```
ciscoasa#
```

show failover

Failover On  
Failover unit Primary  
Failover LAN Interface: folink Ethernet1/1 (up)  
Reconnect timeout 0:00:00  
Unit Poll frequency 1 seconds, holdtime 15 seconds  
Interface Poll frequency 5 seconds, holdtime 25 seconds  
Interface Policy 1  
Monitored Interfaces 1 of 1292 maximum  
MAC Address Move Notification Interval not set

Version: Ours 9.16(4), Mate 9.16(4)

Serial Number: Ours JAD25430R73, Mate JAD25430RCG  
Last Failover at: 22:45:48 UTC Jan 31 2024  
This host: Primary - Active  
Active time: 45 (sec)  
slot 0: FPR-2120 hw/sw rev (1.5/9.16(4)) status (Up Sys)  
Interface management (10.88.15.58): Normal (Monitored)  
Other host: Secondary - Standby Ready  
Active time: 909 (sec)  
slot 0: FPR-2120 hw/sw rev (1.5/9.16(4)) status (Up Sys)  
Interface management (10.88.15.59): Normal (Monitored)

#### Stateful Failover Logical Update Statistics

Link : folink Ethernet1/1 (up)  
Stateful Obj xmit xerr rcv rerr  
General 27 0 29 0  
sys cmd 27 0 27 0  
up time 0 0 0 0  
RPC services 0 0 0 0  
TCP conn 0 0 0 0  
UDP conn 0 0 0 0  
ARP tbl 0 0 1 0  
Xlate\_Timeout 0 0 0 0  
IPv6 ND tbl 0 0 0 0  
VPN IKEv1 SA 0 0 0 0  
VPN IKEv1 P2 0 0 0 0  
VPN IKEv2 SA 0 0 0 0  
VPN IKEv2 P2 0 0 0 0  
VPN CTCP upd 0 0 0 0  
VPN SDI upd 0 0 0 0  
VPN DHCP upd 0 0 0 0  
SIP Session 0 0 0 0  
SIP Tx 0 0 0 0  
SIP Pinhole 0 0 0 0  
Route Session 0 0 0 0  
Router ID 0 0 0 0

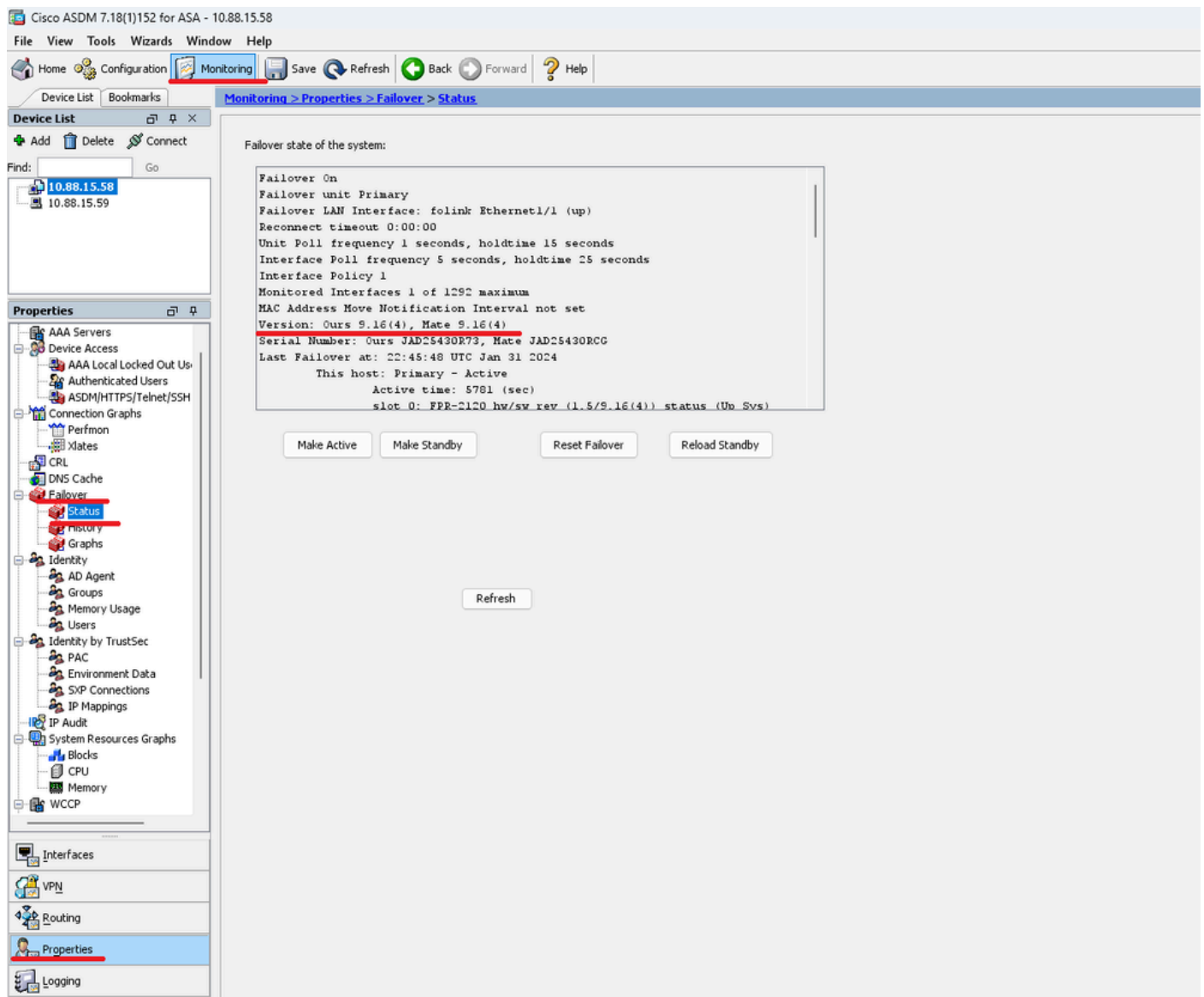
User-Identity 0 0 1 0  
CTS SGTNAME 0 0 0 0  
CTS PAC 0 0 0 0  
TrustSec-SXP 0 0 0 0  
IPv6 Route 0 0 0 0  
STS Table 0 0 0 0  
Umbrella Device-ID 0 0 0 0

### Logical Update Queue Information

Cur Max Total  
Recv Q: 0 10 160  
Xmit Q: 0 1 53

### 透過ASDM

轉至Monitoring > Properties > Failover > Status，您可以看到兩個裝置的ASA版本。



### 相關資訊

- 

[Cisco Secure Firewall ASA 相容性](#)

- 

[Cisco Secure Firewall ASA 升級指南](#)

## 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）。