

# 在ASA 55xx-X裝置上安裝和升級Firepower威脅防禦

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## 簡介

本檔案介紹ASA55xx-X裝置上的Firepower威脅防禦(FTD)安裝、升級和註冊程式。

## 必要條件

### 需求

本文件沒有特定需求。

### 採用元件

本文中的資訊係根據以下軟體和硬體版本：

- ASA5508-X
- ASA5512-X
- 運行6.0.1的FireSIGHT管理中心(FMC) ( 內部版本1213 )

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

FTD是可在以下平台上安裝的整合軟體映像：

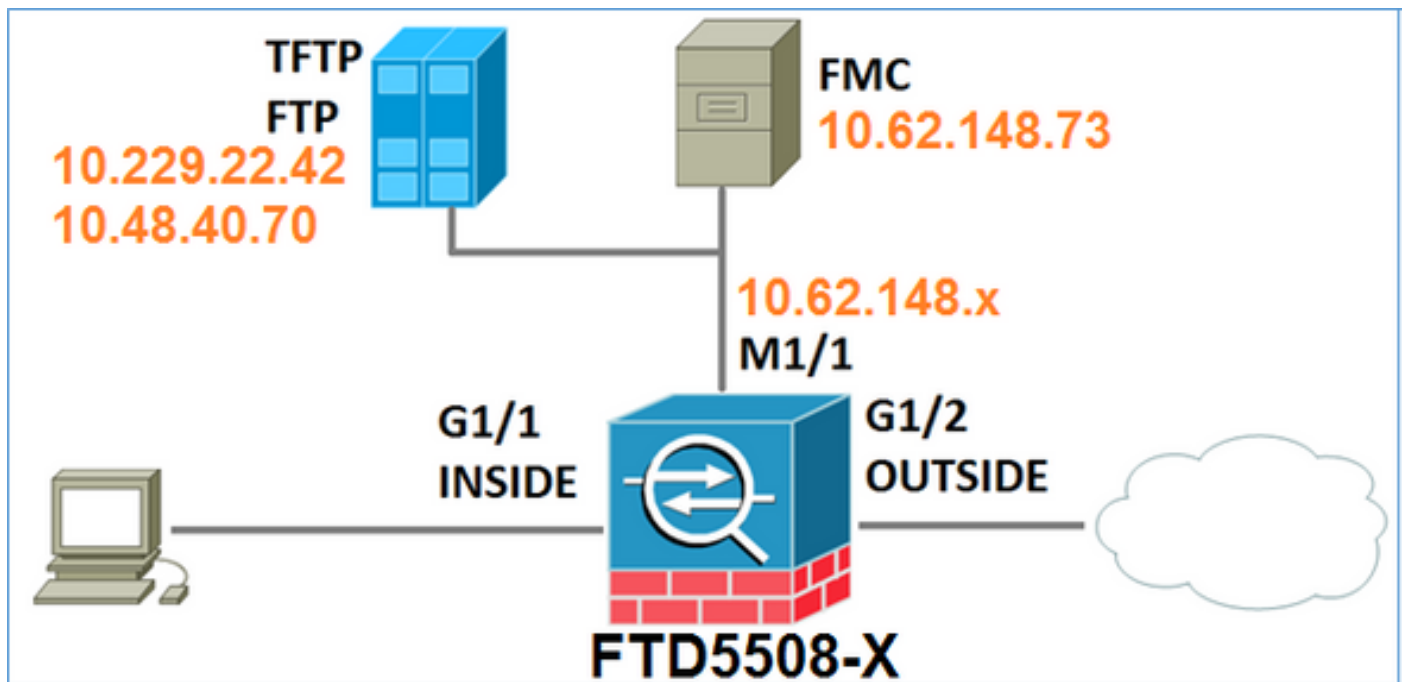
- ASA5506-X、ASA5506W-X、ASA5506H-X、ASA5508-X、ASA5516-X
- ASA5512-X、ASA5515-X、ASA5525-X、ASA5545-X、ASA5555-X
- FPR4100、FPR9300
- VMWare (ESXi)
- Amazon Web Services (AWS)
- KVM
- ISR 路由器模組

本文的目標是演示：

- 在ASA5508-X和ASA5512-X平台上安裝FTD 6.0.0版
- FTD從6.0.0版升級到6.0.1版的過程
- Firepower管理中心(FMC)註冊和基本許可

## 設定

### 網路圖表



### FTD軟體下載

導航到下一代防火牆(NGFW)>具備FirePOWER服務的ASA >具備FirePOWER服務的ASA 5508-X，然後選擇Firepower威脅防禦軟體：

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[Downloads Home](#) > [Products](#) > [Security](#) > [Firewalls](#) > [Next-Generation Firewalls \(NGFW\)](#) > [ASA with FirePOWER Services](#) > [ASA 5508-X with FirePOWER Services](#)

Select a Software Type:

- ASA Rommon Software
- Adaptive Security Appliance (ASA) Device Manager
- Adaptive Security Appliance (ASA) Software
- Adaptive Security Appliance REST API Plugin
- FirePOWER Services Software for ASA
- Firepower Threat Defense Software

類似於ASA5512-X軟體。

## 任務1.驗證前提條件

在FTD安裝之前驗證必要條件。

解決方案：

對於FTD安裝，請使用兩個映像：

1. 作業系統映像 (AKA引導映像) — 對於ASA5506-X、ASA5506H-X、ASA5506W-X、ASA5508-X、ASA5516-X上的Firepower威脅防禦，是一個\*.lfbff檔案。對於銷售上的Firepower威脅防禦(ASA5512-X、ASA5515-X、ASA5525-X、ASA5545-X、ASA555-X)是\*.cdisk檔案。
2. 系統映像 — 這是.pkg檔案。

繼續進行FTD安裝之前，請確認這點：

- ASA快閃記憶體必須至少具有3.1 GB的可用空間 (3 GB位元組+啟動映像大小)
- 將啟動映像上傳到TFTP伺服器
- 系統映像被上傳到HTTP或FTP伺服器
- 在ASA5506/08/16上，ROMMON至少為1.1.8版本

驗證可用空間：

```
FTD5508X# show flash | i free
7859437568 bytes total (4273819648 bytes free)
```

驗證以下映像：

檔案名稱	說明
ftd-boot-9.6.1.0.lfbff	適用於5506/5508/5516的V6.0.1 Firepower威脅防禦啟動映像。 這是5506/5508/5516上全新安裝的引導映像
ftd-boot-9.6.1.0.cdisk	v6.0.1 ASA 5512/5515/5525/5545/5555的Firepower威脅防禦啟動映像。 這是5512/5515/5525/5545/5555上全新安裝的引導映像
ftd-6.0.0-1005.pkg	v6.0.0針對所有受支援的ASA的Firepower威脅防禦 ：5506/5508/5512/5515/5516/5525/5545/5555。 這是用於全新安裝的系統映像

## 任務2.升級ASA5508-X ROMMON

正如必備條件中提到的，ASA5506-X、ASA5508-X和ASA5516-X裝置必須位於ROMMON v1.1.8上。如果未安裝，則安裝asa5500-firmware-1108.SPA ( 可在Cisco ASA下載頁面中找到 )。

工作需求：

將ASA5508 ROMMON從1.1.1升級到1.1.8。

解決方案：

[ASA ROMMON升級指南](#)中介紹了該過程。

步驟1.驗證現有的ROMMON版本：

```
FTD5508X# show module
Mod  Card Type                               Model                               Serial No.
-----
  1 ASA 5508-X with FirePOWER services, 8GE, AC, ASA5508          JAD192100SZ
sfr FirePOWER Services Software Module          ASA5508          JAD192100SZ

Mod  MAC Address Range                       Hw Version  Fw Version  Sw Version
-----
  1 188b.9d1e.ca7c to 188b.9d1e.ca84  1.0         1.1.1      9.5(2)
sfr 188b.9d1e.ca7b to 188b.9d1e.ca7b  N/A         N/A        5.4.1-211
```

步驟2.將ROMMON韌體下載到ASA的快閃記憶體中：

```
FTD5508X# copy ftp://10.48.40.70/ANG/mzafeiro/asa5500-firmware-1108.SPA disk0:asa5500-firmware-1108.SPA
```

```
Address or name of remote host [10.48.40.70]?
```

```
Source filename [ANG/mzafeiro/asa5500-firmware-1108.SPA]?
```

```
Destination filename [asa5500-firmware-1108.SPA]?
```

```
Accessing ftp://10.48.40.70/ANG/mzafeiro/asa5500-firmware-1108.SPA...!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!! Done!
```

```
Computed Hash  SHA2: d824bdeecee1308fc64427367fa559e9
           eefe8f182491652ee4c05e6e751f7a4f
           5cdea28540cf60acde3ab9b65ff55a9f
           4e0cfb84b9e2317a856580576612f4af
```

```
Embedded Hash  SHA2: d824bdeecee1308fc64427367fa559e9
           eefe8f182491652ee4c05e6e751f7a4f
           5cdea28540cf60acde3ab9b65ff55a9f
           4e0cfb84b9e2317a856580576612f4af
```

```
Digital signature successfully validated
```

```
Writing file disk0:/asa5500-firmware-1108.SPA...
```

```
!!!!!!!!!!!!
```

```
9241408 bytes copied in 18.890 secs (513411 bytes/sec)
```

步驟3.升級ASA ROMMON映像：

```
FTD5508X# upgrade rommon disk0:asa5500-firmware-1108.SPA
Verifying file integrity of disk0:/asa5500-firmware-1108.SPA
```

Computed Hash SHA2: d824bdeeceel308fc64427367fa559e9  
eefe8f182491652ee4c05e6e751f7a4f  
5cdea28540cf60acde3ab9b65ff55a9f  
4e0cfb84b9e2317a856580576612f4af

Embedded Hash SHA2: d824bdeeceel308fc64427367fa559e9  
eefe8f182491652ee4c05e6e751f7a4f  
5cdea28540cf60acde3ab9b65ff55a9f  
4e0cfb84b9e2317a856580576612f4af

**Digital signature successfully validated**

File Name : disk0:/asa5500-firmware-1108.SPA  
Image type : Release

Signer Information

Common Name : abraxas  
Organization Unit : NCS\_Kenton\_ASA  
Organization Name : CiscoSystems  
Certificate Serial Number : 55831CF6  
Hash Algorithm : SHA2 512  
Signature Algorithm : 2048-bit RSA  
Key Version : A

**Verification successful.**

System config has been modified. Save? [Y]es/[N]o: **Y**  
Cryptochecksum: cb47de8a cad3b773 7fc07212 3e76ef4f

2804 bytes copied in 0.260 secs

**Proceed with reload? [confirm]**

\*\*\*  
\*\*\* --- START GRACEFUL SHUTDOWN ---  
\*\*\*  
\*\*\* Message to all terminals:  
\*\*\*  
\*\*\* **Performing upgrade on rom-monitor.**

Shutting down License Controller  
Shutting down File system

\*\*\*  
\*\*\* --- SHUTDOWN NOW ---  
\*\*\*  
\*\*\* Message to all terminals:  
\*\*\*  
\*\*\* **Performing upgrade on rom-monitor.**

Process shutdown finished  
Rebooting.....  
INIT: Sending processes the TERM signal  
Deconfiguring network interfaces... done.  
Sending all processes the TERM signal...  
Sending all processes the KILL signal...  
Deactivating swap...  
Unmounting local filesystems...  
Rebooting...  
**Rom image verified correctly**

Cisco Systems ROMMON, Version 1.1.01, RELEASE SOFTWARE  
Copyright (c) 1994-2014 by Cisco Systems, Inc.  
Compiled Mon 10/20/2014 15:59:12.05 by builder

Current image running: Boot ROM0



Platform ASA5508 with 8192 Mbytes of main memory  
MAC Address: 18:8b:9d:1e:ca:7c

Use BREAK or ESC to interrupt boot.  
Use SPACE to begin boot immediately.

Located '.boot\_string' @ cluster 859024.

#  
Attempt autoboot: "boot disk0:/asa952-lfbff-k8.SPA"  
Located 'asa952-lfbff-k8.SPA' @ cluster 818273.

#####  
#####  
#####  
#####  
#####  
#####  
#####  
#####  
#####  
#####  
#####  
#####  
#####  
#####  
#####  
#####  
#####  
#####  
#####

LFBBFF signature verified.  
INIT: version 2.88 booting  
Starting udev  
Configuring network interfaces... done.  
Populating dev cache  
dosfsck 2.11, 12 Mar 2005, FAT32, LFN  
There are differences between boot sector and its backup.  
Differences: (offset:original/backup)  
65:01/00  
Not automatically fixing this.  
Starting check/repair pass.  
/cisco\_config  
"." is missing. Can't fix this yet.  
/cisco\_config  
".." is missing. Can't fix this yet.  
Starting verification pass.  
/cisco\_config  
"." is missing. Can't fix this yet.  
/cisco\_config  
".." is missing. Can't fix this yet.  
/dev/sdb1: 182 files, 849380/1918808 clusters  
dosfsck(/dev/sdb1) returned 0  
IO Memory Nodes: 1  
IO Memory Per Node: 499122176 bytes

Global Reserve Memory Per Node: 314572800 bytes Nodes=1

Processor memory 3807834603  
LCMB: got 499122176 bytes on numa-id=0, phys=0x1b8000000, virt=0x2aaaaae0000  
LCMB: HEAP-CACHE POOL got 314572800 bytes on numa-id=0, virt=0x2aaac8a0000

Compiled on Sat 28-Nov-15 00:16 PST by builders

Total NICs found: 13  
i354 rev03 Gigabit Ethernet @ irq255 dev 20 index 08 MAC: 188b.9d1e.ca7c  
ivshmem rev03 Backplane Data Interface @ index 09 MAC: 0000.0001.0002  
en\_vtun rev00 Backplane Control Interface @ index 10 MAC: 0000.0001.0001  
en\_vtun rev00 Backplane Int-Mgmt Interface @ index 11 MAC: 0000.0001.0003  
en\_vtun rev00 Backplane Ext-Mgmt Interface @ index 12 MAC: 0000.0000.0000

**Rom-monitor was successfully upgraded.**

...

## 驗證:

您可以使用**show module**命令驗證ROMMON軟體版本：

```
FTD5508X> enable
Password:
FTD5508X# show module
```

Mod	Card Type	Model	Serial No.
1	ASA 5508-X with FirePOWER services, 8GE, AC, sfr FirePOWER Services Software Module	ASA5508 ASA5508	JAD192100SZ JAD192100SZ

Mod	MAC Address Range	Hw Version	Fw Version	Sw Version
1	188b.9d1e.ca7c to 188b.9d1e.ca84	1.0	<b>1.1.8</b>	9.5(2)
sfr	188b.9d1e.ca7b to 188b.9d1e.ca7b	N/A	N/A	5.4.1-211

## 任務3.在ASA55xx-X上安裝FTD引導映像

工作需求：

在ASA5508-X上安裝FTD啟動映像ftd-boot-9.6.1.0.lfbff。

解決方案：

有多種方法可以做到這一點。這是第一個：

方法1.從ROMMON

步驟1.重新載入ASA並進入ROMMON模式：

```
FTD5508X# reload
Proceed with reload? [confirm]
FTD5508X#
```

```
***
*** --- START GRACEFUL SHUTDOWN ---
Shutting down isakmp
Shutting down webvpn
Shutting down sw-module
Shutting down License Controller
Shutting down File system

***
*** --- SHUTDOWN NOW ---
Process shutdown finished
Rebooting.....
INIT: Sending processes the TERM signal
Deconfiguring network interfaces... done.
Sending all processes the TERM signal...
Sending all processes the KILL signal...
Deactivating swap...
Unmounting local filesystems...
```





```
Boot image size = 100308208 (0x5fa94f0) bytes
[image size]      100308208
[MD5 signaure]   781dde41844d750f8c0db1cd1e1e164f
LFBFF signature verified.
INIT: version 2.88 booting
Starting udev
Configuring network interfaces... done.
Populating dev cache
Detected PID ASA5508.
Found device serial number JAD192100SZ.
Found USB flash drive /dev/sdb
Found hard drive(s): /dev/sda
fsck from util-linux 2.23.2
dosfsck 2.11, 12 Mar 2005, FAT32, LFN
/dev/sdb1: 47 files, 24618/1919063 clusters =====
Launching boot CLI ... Configuring network interface using static IP Bringing up network
interface. Depending on your network, this might take a couple of minutes when using DHCP...
ifup: interface lo already configured Using IPv4 address: 10.62.148.62
Using IPv6 address: fe80::1a8b:9dff:fe1e:ca7b
Using DNS server: 10.62.145.72
Using default gateway: 10.62.148.100
INIT: Starting system message bus: dbus.
Starting OpenBSD Secure Shell server: sshd
    generating ssh RSA key...
    generating ssh ECDSA key...
    generating ssh DSA key...
done.
Starting Advanced Configuration and Power Interface daemon: acpid.
acpid: starting up

acpid: 1 rule loaded

acpid: waiting for events: event logging is off

Starting ntpd: done
Starting syslog-ng:.
Starting crond: OK
```

### **Cisco FTD Boot 6.0.0 (9.6.1.)**

Type ? for list of commands

firepower-boot>

在ASA5512/15/25/45/55上，步驟相同，但僅引導映像名稱不同：

```
rommon #0> ADDRESS=10.62.148.10
rommon #1> SERVER=10.229.22.42
rommon #2> GATEWAY=10.62.148.1
rommon #3> IMAGE=ftd-boot-9.6.1.0.cdisk
```

## 方法2.從ASA模式

步驟1.從ASA exec模式 ( 無ROMMON ) 將FTD啟動映像複製到ASA快閃記憶體：

```
ciscoasa# copy ftp://10.48.40.70/ANG/mzafeiro/ftd-boot-9.6.1.0.lfbff flash
```

步驟2.從磁碟中刪除所有ASA映像：

```
ciscoasa# delete flash:asa*
```

刪除ASA映像後的快閃記憶體內容：

```
ciscoasa# show flash
--#-- --length-- -----date/time----- path
 131 33          May 20 2016 09:27:28   .boot_string
   11 4096       Mar 03 2016 11:48:34   log
 154 16767     May 20 2016 09:23:48   log/asa-appagent.log
 155 465       Mar 03 2016 11:54:58   log/asa-ssp_ntp.log
   21 4096       Jun 10 2015 06:45:42   crypto_archive
   22 4096       Jun 10 2015 06:46:00   coredumpinfo
   23 59         Jun 10 2015 06:46:00   coredumpinfo/coredump.cfg
 134 25627616  Dec 01 2015 04:01:58   asdm-752.bin
 135 52563     Feb 09 2016 02:49:58   system.cfg
 136 25028660  Feb 09 2016 02:50:28   asdm-751-112.bin
 137 38409858  Feb 09 2016 02:51:14   anyconnect-win-3.1.10010-k9.pkg
 138 25629676  Feb 09 2016 04:38:10   asdm-752-153.bin
151 100308208 May 20 2016 09:39:57 ftd-boot-9.6.1.0.lfbff <--
```

步驟3.重新載入ASA。其從FTD開機映像啟動：

```
Located 'ftd-boot-9.6.1.0.lfbff' @ cluster 45093.
#####
..
LFBFF signature verified.
INIT: version 2.88 booting
..
          Cisco FTD Boot 6.0.0 (9.6.1.)
            Type ? for list of commands
```

firepower-boot>

## 任務4.在ASA55xx-X上安裝FTD系統映像

在ASA5508-X上安裝FTD系統映像。

### 解決方案

firepower-boot> setup

```
Welcome to Cisco FTD Setup
[hit Ctrl-C to abort]
Default values are inside []
```

```
Enter a hostname [firepower]: FTD5508
Do you want to configure IPv4 address on management interface?(y/n) [Y]:
Do you want to enable DHCP for IPv4 address assignment on management interface?(y/n) [Y]: N
Enter an IPv4 address: 10.62.148.29
Enter the netmask: 255.255.255.128
Enter the gateway: 10.62.148.1
Do you want to enable DHCP for IPv4 address assignment on management interface?(y/n) [N]: Enter
an IPv4 address [10.62.148.29]: Enter the netmask [255.255.255.128]: Enter the gateway
[10.62.148.1]: Do you want to configure static IPv6 address on management interface?(y/n) [N]:
Stateless autoconfiguration will be enabled for IPv6 addresses. Enter the primary DNS server IP
address: 173.38.200.100
Do you want to configure Secondary DNS Server? (y/n) [n]: y
Enter the secondary DNS server IP address: 144.254.71.184
Do you want to configure Local Domain Name? (y/n) [n]:
Do you want to configure Search domains? (y/n) [n]:
Do you want to enable the NTP service? [Y]:
```

Enter the NTP servers separated by commas [203.0.113.126]: **171.68.38.65**

Please review the final configuration:

Hostname: FTD5508

Management Interface Configuration

IPv4 Configuration: static  
IP Address: 10.62.148.29  
Netmask: 255.255.255.128  
Gateway: 10.62.148.1

IPv6 Configuration: Stateless autoconfiguration

DNS Configuration:  
DNS Server:  
173.38.200.100  
144.254.71.184

NTP configuration:  
171.68.38.65

CAUTION:

You have selected IPv6 stateless autoconfiguration, which assigns a global address based on network prefix and a device identifier. Although this address is unlikely to change, if it does change, the system will stop functioning correctly. We suggest you use static addressing instead.

**Apply the changes?(y,n) [Y]:**

Configuration saved successfully!

Applying...

Done.

Press ENTER to continue...

firepower-boot>

## 驗證與FTP伺服器的連線：

```
firepower-boot> ping 10.229.22.42
PING 10.229.22.42 (10.229.22.42) 56(84) bytes of data.
64 bytes from 10.229.22.42: icmp_seq=1 ttl=124 time=1.30 ms
64 bytes from 10.229.22.42: icmp_seq=2 ttl=124 time=1.32 ms
64 bytes from 10.229.22.42: icmp_seq=3 ttl=124 time=1.45 ms
^C
--- 10.229.22.42 ping statistics ---
3 packets transmitted, 3 received, 0% packet loss, time 2002ms
rtt min/avg/max/mdev = 1.302/1.360/1.458/0.075 ms
```

## 安裝系統軟體包：

```
firepower-boot> system install ftp://10.229.22.42/ftd-6.0.0-1005.pkg
```

```
##### WARNING #####
# The content of disk0: will be erased during installation! #
#####
```

Do you want to continue? [y/N] **y**

Erasing disk0 ...

Verifying

Enter credentials to authenticate with ftp server

Username: **ftp**

Password:

**Verifying Downloading Extracting**

<-- Here give it some time (~10 min)

Package Detail

Description: Cisco ASA-NGFW 6.0.0-1005 System Install  
Requires reboot: Yes

**Do you want to continue with upgrade? [y]: <-- Press Enter**

Warning: Please do not interrupt the process or turn off the system.  
Doing so might leave system in unusable state.

Starting upgrade process ...

**Populating new system image <-- Here give it some time (~5 min)**

**Reboot is required to complete the upgrade. Press 'Enter' to reboot the system. <-- Press Enter**

Broadcast message from root@firepow: Stopping OpenBSD Secure Shell server: sshd stopped  
/usr/sbin/sshd (pid 1963)

.  
Stopping Advanced Configuration and Power Interface daemon: stopped /usr/sbin/acpid (pid 1967)  
acpid: exiting

acpid.

Stopping system message bus: dbus.

Stopping ntpd: stopped process in pidfile '/var/run/ntp.pid' (pid 2055)  
done

Stopping crond: OK

Deconfiguring network interfaces... done.

Sending all processes the TERM signal...

Sending all processes the KILL signal...

Deactivating swap...

Unmounting local filesystems...

Rebooting... y

Rom image verified correctly

Cisco Systems ROMMON, Version 1.1.8, RELEASE SOFTWARE  
Copyright (c) 1994-2015 by Cisco Systems, Inc.  
Compiled Thu 06/18/2015 12:15:56.43 by builders

Current image running: Boot ROM1

Last reset cause: PowerCycleRequest

DIMM Slot 0 : Present

DIMM Slot 1 : Present

Platform ASA5508 with 8192 Mbytes of main memory

MAC Address: 18:8b:9d:1e:ca:7c

Use BREAK or ESC to interrupt boot.

Use SPACE to begin boot immediately.

Located '.boot\_string' @ cluster 186016.

#

Attempt autoboot: "boot disk0:os.img"

Located 'os.img' @ cluster 160001.

#####

LFBBFF signature verified.

INIT: version 2.88 booting

Starting udev

Configuring network interfaces... done.

Populating dev cache

Detected PID ASA5508.

Found device serial number JAD192100SZ.  
Found USB flash drive /dev/sdb  
Found hard drive(s): /dev/sda  
fsck from util-linux 2.23.2  
dosfsck 2.11, 12 Mar 2005, FAT32, LFN  
/dev/sdb1: 7 files, 26064/1919063 clusters

=====

Use ESC to interrupt boot and launch boot CLI.  
Use SPACE to launch Cisco FTD immediately.  
Cisco FTD launch in 20 seconds ...

Running on kenton

Mounting disk partitions ...

Initializing Threat Defense ...

[ OK ]

Starting system log daemon...

[ OK ]

Flushing all current IPv4 rules and user defined chains: ...success

Clearing all current IPv4 rules and user defined chains: ...success

Applying iptables firewall rules:

Flushing chain `PREROUTING'

Flushing chain `INPUT'

Flushing chain `FORWARD'

Flushing chain `OUTPUT'

Flushing chain `POSTROUTING'

Flushing chain `INPUT'

Flushing chain `FORWARD'

Flushing chain `OUTPUT'

Applying rules succeeded

Flushing all current IPv6 rules and user defined chains: ...success

Clearing all current IPv6 rules and user defined chains: ...success

Applying ip6tables firewall rules:

Flushing chain `PREROUTING'

Flushing chain `INPUT'

Flushing chain `FORWARD'

Flushing chain `OUTPUT'

Flushing chain `POSTROUTING'

Flushing chain `INPUT'

Flushing chain `FORWARD'

Flushing chain `OUTPUT'

Applying rules succeeded

Starting nscd...

mkdir: created directory '/var/run/nscd'

[ OK ]

Starting , please wait...grep: /ngfw/etc/motd: No such file or directory

...complete.

Firstboot detected, executing scripts

Executing S01reset\_failopen\_if

[ OK ]

Executing S04fix-httpd.sh

[ OK ]

Executing S05set-mgmt-port

[ OK ]

Executing S06addusers

[ OK ]

Executing S07uuid-init

[ OK ]

Executing S09configure\_mysql

[ OK ]

\*\*\*\*\* Attention \*\*\*\*\*

Initializing the configuration database. Depending on available  
system resources (CPU, memory, and disk), this may take 30 minutes  
or more to complete.

\*\*\*\*\* Attention \*\*\*\*\*

Executing S10database

[ OK ]

Executing S12install\_infodb

[ OK ]

Executing S15set-locale.sh

[ OK ]

Executing S16update-sensor.pl

[ OK ]

```
Executing S19cert-tun-init [ OK ]
Executing S20cert-init [ OK ]
Executing S21disable_estreamer [ OK ]
Executing S25create_default_des.pl [ OK ]
Executing S30init_lights_out_mgmt.pl [ OK ]
Executing S40install_default_filters.pl [ OK ]
Executing S42install_default_dashboards.pl [ OK ]
Executing S43install_default_report_templates.pl [ OK ]
Executing S44install_default_app_filters.pl [ OK ]
Executing S45install_default_realms.pl [ OK ]
Executing S47install_default_sandbox_EO.pl [ OK ]
Executing S50install-remediation-modules [ OK ]
Executing S51install_health_policy.pl [ OK ]
Executing S52install_system_policy.pl [ OK ]
Executing S53change_reconciliation_baseline.pl [ OK ]
Executing S70update_sensor_objects.sh [ OK ]
Executing S85patch_history-init [ OK ]
Executing S90banner-init [ OK ]
Executing S95copy-crontab [ OK ]
Executing S96grow_var.sh [ OK ]
```

\*\*\*\*\* Attention \*\*\*\*\*

Initializing the system's localization settings. Depending on available system resources (CPU, memory, and disk), this may take 10 minutes or more to complete.

\*\*\*\*\* Attention \*\*\*\*\*

```
Executing S96localize-templates [ OK ]
Executing S96ovf-data.pl [ OK ]
Executing S97compress-client-resources [ OK ]
Executing S97create_platinum_forms.pl [ OK ]
Executing S97install_cloud_support.pl [ OK ]
Executing S97install_geolocation.pl [ OK ]
Executing S97install_ssl_inspection.pl [ OK ]
Executing S97update_modprobe.pl [ OK ]
Executing S98check-db-integrity.sh [ OK ]
Executing S98htaccess-init [ OK ]
Executing S99correct_ipmi.pl [ OK ]
Executing S99start-system [ OK ]
Executing S99z_db_restore [ OK ]
Firstboot scripts finished.
Configuring NTP... [ OK ]
Model reconfigure detected, executing scripts
Pinging mysql
Found mysql is running
Executing 45update-sensor.pl [ OK ]
Executing 55recalculate_arc.pl [ OK ]
Starting xinetd:
Mon Mar 14 18:28:11 UTC 2016
Starting MySQL...
Pinging mysql
Pinging mysql, try 1
Found mysql is running
Running initializeObjects...
Stopping MySQL...
Killing mysqld with pid 10993
Wait for mysqld to exit\c
done
Mon Mar 14 18:28:21 UTC 2016
Starting sfid... [ OK ]
Starting Cisco ASA5508-X Threat Defense, please wait...No PM running!
...started.
INIT: Starting system message bus: dbus.
```

```
Starting OpenBSD Secure Shell server: sshd
  generating ssh RSA key...
  generating ssh ECDSA key...
  generating ssh DSA key...
done.
Starting Advanced Configuration and Power Interface daemon: acpid.
Starting crond: OK
Mar 14 18:28:26 ciscoasa SF-IMS[11490]: [11490] init script:system [INFO] pmmon Setting affinity
to 5-7...
pid 11486's current affinity list: 0-7
pid 11486's new affinity list: 5-7
Mar 14 18:28:26 ciscoasa SF-IMS[11492]: [11492] init script:system [INFO] pmmon The Process
Manager is not running...
Mar 14 18:28:26 ciscoasa SF-IMS[11493]: [11493] init script:system [INFO] pmmon Starting the
Process Manager...
Mar 14 18:28:26 ciscoasa SF-IMS[11494]: [11494] pm:pm [INFO] Using model number 75K
```

```
Cisco ASA5508-X Threat Defense v6.0.0 (build 1005)
ciscoasa login:
Compiled on Sat 07-Nov-15 16:13 PST by builders
```

```
Total NICs found: 13
i354 rev03 Gigabit Ethernet @ irq255 dev 20 index 08 MAC: 188b.9d1e.ca7c
ivshmem rev03 Backplane Data Interface @ index 09 MAC: 0000.0001.0002
en_vtun rev00 Backplane Control Interface @ index 10 MAC: 0000.0001.0001
en_vtun rev00 Backplane Int-Mgmt Interface @ index 11 MAC: 0000.0001.0003
en_vtun rev00 Backplane Ext-Mgmt Interface @ index 12 MAC: 0000.0000.0000
```

```
INFO: Unable to read firewall mode from flash
      Writing default firewall mode (single) to flash
```

```
INFO: Unable to read cluster interface-mode from flash
      Writing default mode "None" to flash
```

Verify the activation-key, it might take a while...

Failed to retrieve permanent activation key.

Running Permanent Activation Key: 0x00000000 0x00000000 0x00000000 0x00000000 0x00000000

The Running Activation Key is not valid, using default settings:

Licensed features for this platform:

Maximum Physical Interfaces	: Unlimited	perpetual
Maximum VLANs	: 50	perpetual
Inside Hosts	: Unlimited	perpetual
Failover	: Active/Active	perpetual
Encryption-DES	: Enabled	perpetual
Encryption-3DES-AES	: Disabled	perpetual
Security Contexts	: 2	perpetual
GTP/GPRS	: Disabled	perpetual
AnyConnect Premium Peers	: 4	perpetual
AnyConnect Essentials	: Disabled	perpetual
Other VPN Peers	: 100	perpetual
Total VPN Peers	: 100	perpetual
Shared License	: Disabled	perpetual
AnyConnect for Mobile	: Disabled	perpetual
AnyConnect for Cisco VPN Phone	: Disabled	perpetual
Advanced Endpoint Assessment	: Disabled	perpetual
Total UC Proxy Sessions	: 320	perpetual
Botnet Traffic Filter	: Disabled	perpetual
Cluster	: Disabled	perpetual
VPN Load Balancing	: Enabled	perpetual

Encryption hardware device : Cisco ASA Crypto on-board accelerator (revision 0x1)

Cisco Adaptive Security Appliance Software Version 99.1(3)194



\*\*\*\*\* Warning \*\*\*\*\*

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 the enclosed items immediately.

A summary of U.S. laws governing Cisco cryptographic products may 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).

\*\*\*\*\* Warning \*\*\*\*\*

**... output omitted ...**

Reading from flash...

!  
Cryptochecksum (changed): 6129864f 6298b553 75f279ea e547792b

INFO: Power-On Self-Test in process.

.....

INFO: Power-On Self-Test complete.

INFO: Starting HW-DRBG health test...

INFO: HW-DRBG health test passed.

INFO: Starting SW-DRBG health test...

INFO: SW-DRBG health test passed.

Cisco ASA5508-X Threat Defense v6.0.0 (build 1005)

firepower login: **admin**

Password: <-- **Admin123**

**You must accept the EULA to continue.**

**Press**

**... EULA is displayed - output is omitted**

END USER LICENSE AGREEMENT

**Please enter 'YES' or press to AGREE to the EULA:**

System initialization in progress. Please stand by.

You must change the password for 'admin' to continue.

Enter new password:

Confirm new password:

You must configure the network to continue.

You must configure at least one of IPv4 or IPv6.

**Do you want to configure IPv4? (y/n) [y]: Do you want to configure IPv6? (y/n) [n]:**

Configure IPv4 via DHCP or manually? (dhcp/manual) [manual]:

Enter an IPv4 address for the management interface [192.168.45.45]: **10.62.148.29**

Enter an IPv4 netmask for the management interface [255.255.255.0]: **255.255.255.128**

Enter the IPv4 default gateway for the management interface []: **10.62.148.1**

Enter a fully qualified hostname for this system [firepower]: **FTD5508**

Enter a comma-separated list of DNS servers or 'none' []: **173.38.200.100,144.254.71.184**

Enter a comma-separated list of search domains or 'none' []:

If your networking information has changed, you will need to reconnect.

For HTTP Proxy configuration, run 'configure network http-proxy'

**Configure firewall mode? (routed/transparent) [routed]:**  
Configuring firewall mode ...

Update policy deployment information  
- add device configuration

You can register the sensor to a Firepower Management Center and use the Firepower Management Center to manage it. Note that registering the sensor to a Firepower Management Center disables on-sensor Firepower Services management capabilities.

When registering the sensor to a Firepower Management Center, a unique alphanumeric registration key is always required. In most cases, to register a sensor to a Firepower Management Center, you must provide the hostname or the IP address along with the registration key.

```
'configure manager add [hostname | ip address ] [registration key ]'
```

However, if the sensor and the Firepower Management Center are separated by a NAT device, you must enter a unique NAT ID, along with the unique registration key.

```
'configure manager add DONTRESOLVE [registration key ] [ NAT ID ]'
```

Later, using the web interface on the Firepower Management Center, you must use the same registration key and, if necessary, the same NAT ID when you add this sensor to the Firepower Management Center.

>

**提示：**您可以使用noconfirm選項安裝映像。在這種情況下，安裝過程中不會收到提示。

```
firepower-boot>system install noconfirm ftp://10.229.22.42/ftd-6.0.0-1005.pkg
```

在FTD 6.1.x及更高版本上，系統會提示您輸入管理模式（本機與遠端）。

For HTTP Proxy configuration, run 'configure network http-proxy'

**Manage the device locally? (yes/no) [yes]: no**  
Configure firewall mode? (routed/transparent) [routed]:

本地模式=僅適用於ASA55xx-X裝置。您可以從Firepower裝置管理器(FDM)管理FTD。

遠端模式=您從FMC管理FTD

## 驗證

```
> show version
-----[ FTD5508 ]-----
Model                : Cisco ASA5508-X Threat Defense (75) Version 6.0.0 (Build 1005)
UUID                 : 8c3f4b7e-ea11-11e5-94f1-f3a55afb51a3
Rules update version : 2015-10-01-001-vrt
VDB version          : 252
-----
```

>

ASA5512/15/25/45/55上的系統映像安裝與上面相同。

## 任務5.向FMC註冊FTD

向FMC伺服器註冊FTD 使用以下設定：

主機	10.62.148.29
顯示名稱	FTD5508
註冊金鑰	思科
組無	
訪問控制策略	FTD5508
訪問控制策略基礎策略	無
訪問控制策略預設操作	阻止所有流量

### 解決方案

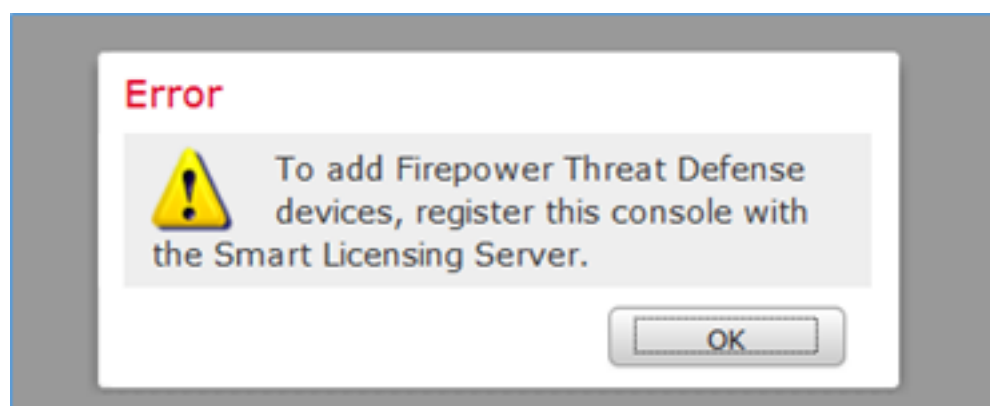
步驟1.在FTD上，指定FMC伺服器：

```
> configure manager add 10.62.148.73 cisco
Manager successfully configured.
Please make note of reg_key as this will be required while adding Device in FMC.
```

```
> show managers
Host                : 10.62.148.73
Registration Key    : ****
Registration        : pending
RPC Status         :
Type               : Manager
Host               : 10.62.148.73
Registration        : Pending
```

>

步驟2.在新增FTD之前，您需要向智慧許可伺服器註冊FMC。如果您嘗試新增FTD裝置而沒有使用智慧授權，將會收到以下錯誤：



您可以選擇Evaluation Mode。這樣可讓您使用FTD 90天，無需使用要求高度加密的功能（例如VPN）。

Overview Analysis Policies Devices Objects AMP Deploy System Help admin

Configuration Users Domains Integration Updates Licenses > Smart Licenses Health Monitoring Tools


**Welcome to Smart Licenses**

Before you use Smart Licenses, obtain a registration token from [Cisco Smart Software Manager](#), then click Register

**Smart License Status**

Usage Authorization:	--
Product Registration:	Unregistered
Assigned Virtual Account:	--
Export-Controlled Features:	--

**Evaluation Mode**

 You are about to start your evaluation period. Evaluation period is a one time 90 day period in which you will be able to explore your Cisco products full functionality. When evaluation mode ends, you will have to register with the Smart Licensing Cloud to continue to use your product. Do you wish to begin your evaluation period now?

Overview Analysis Policies Devices Objects AMP Deploy System Help admin

Configuration Users Domains Integration Updates Licenses > Smart Licenses Health Monitoring Tools

**Welcome to Smart Licenses**

Before you use Smart Licenses, obtain a registration token from [Cisco Smart Software Manager](#), then click Register

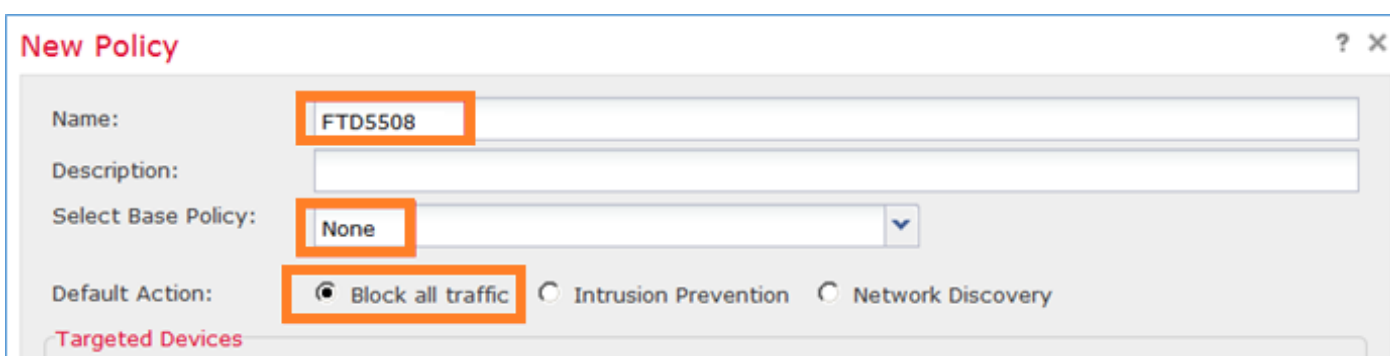
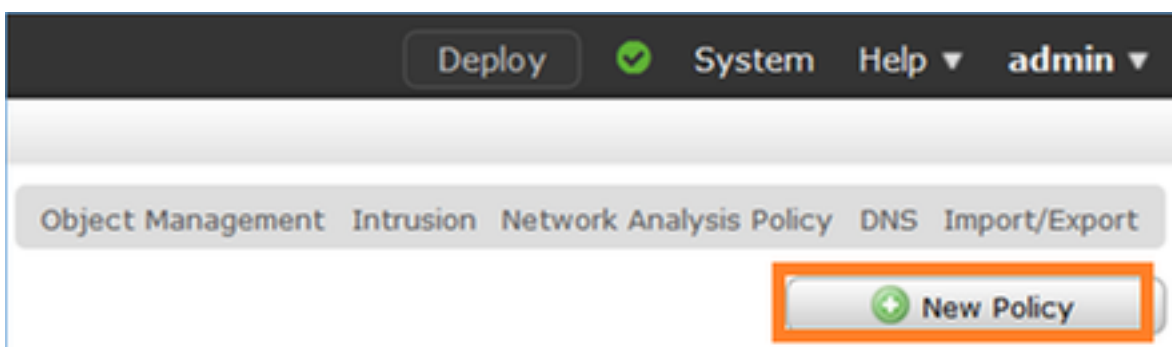
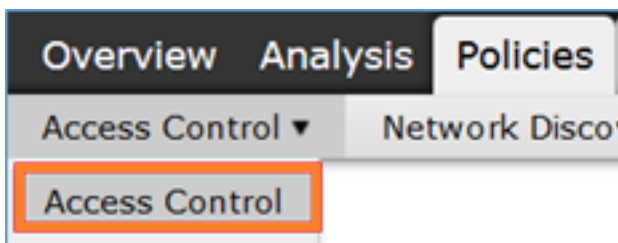
**Smart License Status** [Cisco Smart Software Manager](#)

Usage Authorization:	N/A
Product Registration:	<span>✔</span> Evaluation Period (Expires in 89 days)
Assigned Virtual Account:	Evaluation Mode
Export-Controlled Features:	Enabled

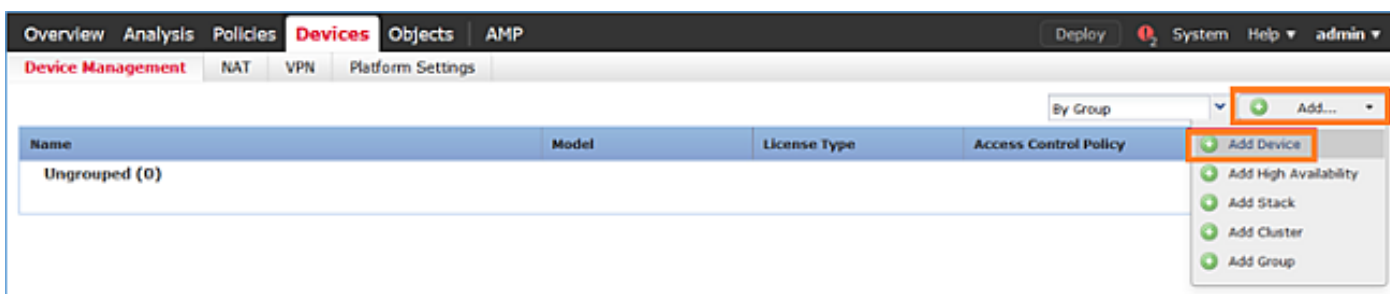
**Smart Licenses**

License Type/Device Name	License Status	Device Type	Domain	Group
Base (0)				
Malware (0)				
Threat (0)				
URL Filtering (0)				

步驟3.在FMC上，首先建立FTD將使用的訪問控制策略。導航到策略>訪問控制，然後選擇新建策略：



然後新增FTD裝置：



**Add Device** [?] [X]

Host: 10.62.148.29

Display Name: FTD5508

Registration Key: cisco

Group: None

Access Control Policy: FTD5508

**Smart Licensing**

Malware:

Threat:

URL Filtering:

**Advanced**

On version 5.4 devices or earlier, the licensing options will need to be specified from [licensing page](#).

**Register** Cancel

在FTD增加結束時，系統會部署原則：

Deployments Health Tasks

1 total | 1 running | 0 success | 0 warnings | 0 failures

**FTD5508** Deployment to device in progress. 35s 80%

在新增FTD裝置時，若要檢查背景中發生的情況，請在FMC和FTD上啟用pigtail。

在FMC上：

```
admin@fs4k:~$ sudo pigtail
```

```
*****
*****
** Displaying logs: ACTQ HTTP DCSM VMSS MOJO NGFW NGUI VMSB TCAT DEPL MSGS USMS
*****
*****
```

在FTD上：

> **piptail**

```
*****  
** Displaying logs: HTTP ACTQ DCSM VMSS MOJO NGUI NGFW TCAT VMSB DEPL USMS MSGS  
*****
```

附註：如果FTD管理介面狀態為關閉，請確保組態值是0x1。

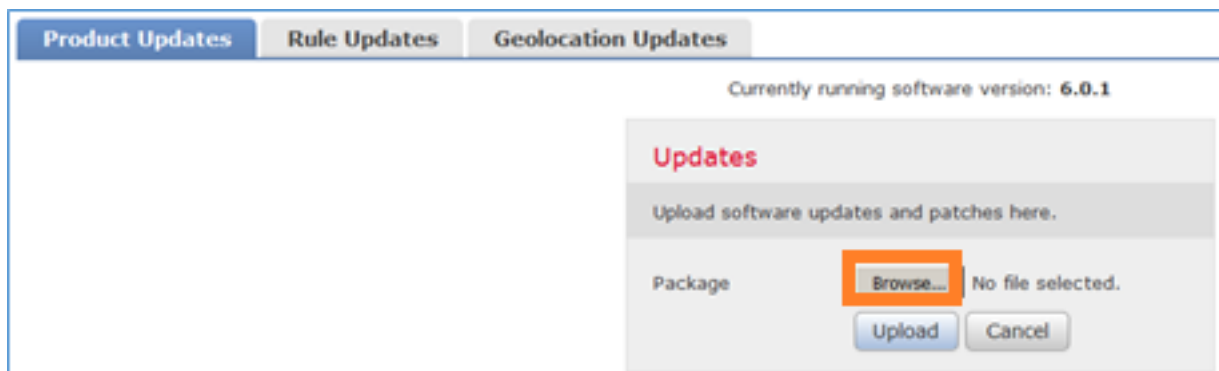
## 任務6.升級FTD

在本任務中，將FTD從6.0.0升級到6.0.1。

	版本	檔案名稱
初始FTD映像	版本6.0.0 ( 內部版本1005 )	ftd-6.0.0-1005.pkg
目標FTD映像	版本6.0.1 ( 內部版本1213 )	Cisco_FTD_Upgrade-6.0.1-1213.sh

## 解決方案

步驟1. 將FTD映像上傳到FMC:



步驟2. 安裝FTD映像：

Overview Analysis Policies Devices Objects AMP Deploy System Help admin

Configuration Users Domains Integration Updates Licenses Health Monitoring Tools

Product Updates Rule Updates Geolocation Updates Upload Update

**Task Notification**

Message\_Center\_Tasks\_Tab Your task Installing Sourcefire Geolocation Database Update version: GeoDB-2016-03-05-001 (Local Install) succeeded at Wed Mar 23 11:52:57 2016

Successfully installed the Geolocation Database

**Success**

Upload succeeded

Currently running software version: 6.0.1

**Updates**

Type	Version	Date	Release Notes	Reboot
Cisco FTD Upgrade	6.0.1-1213	Sat Mar 19 01:41:15 UTC 2016		Yes

Overview Analysis Policies Devices Objects AMP Deploy System Help admin

Configuration Users Domains Integration Updates Licenses Health Monitoring Tools

Product Updates Rule Updates Geolocation Updates

Currently running software version: 6.0.1

**Selected Update**

Type: Cisco FTD Upgrade  
Version: 6.0.1-1213  
Date: Sat Mar 19 01:41:15 UTC 2016  
Release Notes  
Reboot: Yes

By Group

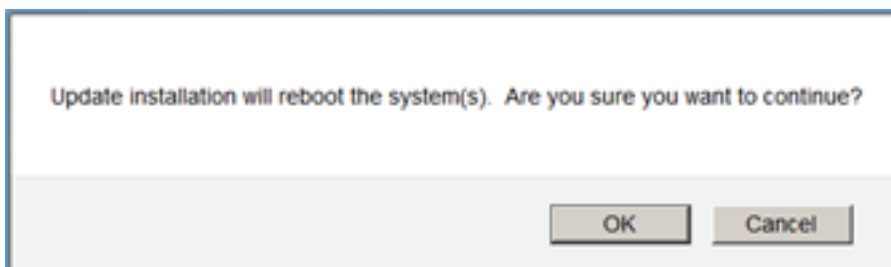
Ungrouped (1 total)

**1**  FTD5508  
10.62.148.29 - Cisco ASA5508-X Threat Defense v6.0.0

Health Policy: None

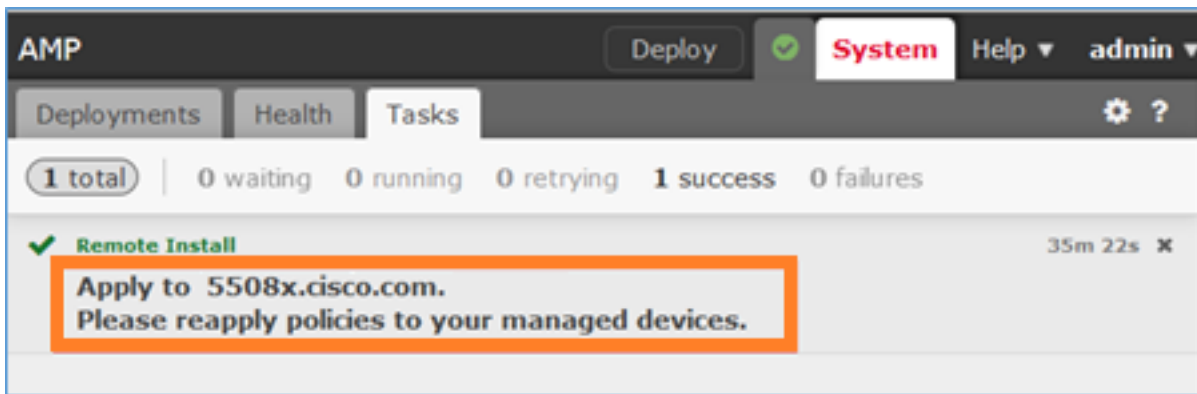
**2**

系統會顯示有關FTD重新載入的警告：

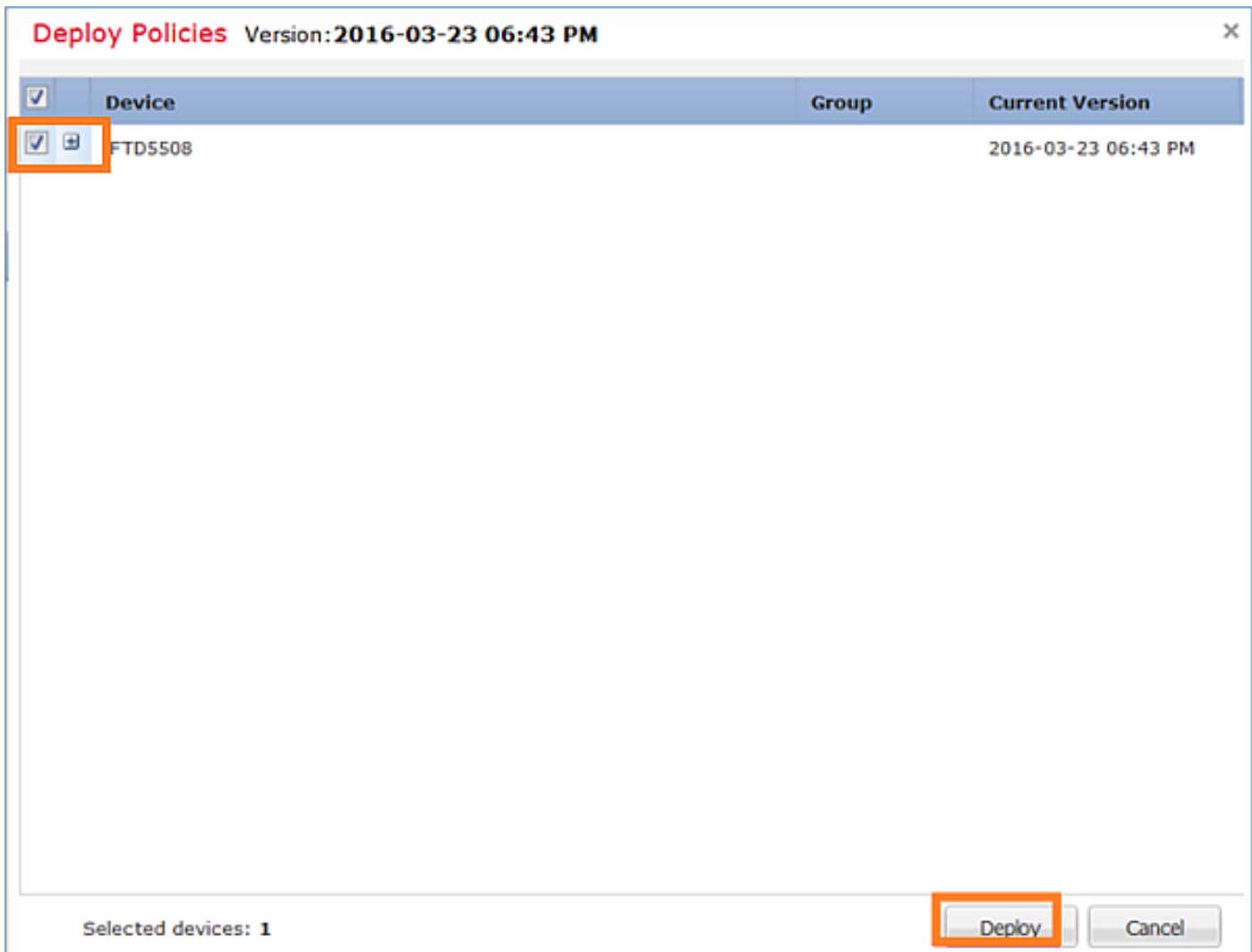


此案例中的升級耗時約35分鐘。如下圖所示，需要重新應用策略：





部署策略：



驗證

FTD升級後：

```
> show version
-----[ FTD5508 ]-----
Model           : Cisco ASA5508-X Threat Defense (75) Version 6.0.1 (Build 1213)
UUID            : 53b44806-f0f4-11e5-88cc-c72c24d24877
Rules update version : 2016-03-04-001-vrt
VDB version     : 259
-----
```

>

## 任務7.從LINA引擎CLI模式連線和分離

進入LINA CLI模式，然後與其斷開連線。

### 解決方案

在FTD CLISH模式下，鍵入以下命令：

```
> system support diagnostic-cli
Attaching to ASA console ... Press 'Ctrl+a then d' to detach.
Type help or '?' for a list of available commands.
```

```
firepower>
firepower> enable
Password: <-- by default empty (null)
firepower#
```

如以上訊息所述，若要從FTD LINA主控台斷開（分離），請輸入CTRL + a，然後按d:

```
firepower# <- 'Ctrl+a then d' Console connection detached.
admin@FTD5508:~$
```

## 任務8.重新映像現有的FTD安裝

### 需求

重新映像現有FTD映像並安裝版本6.1.0-330

### 解決方案

此任務假設存在運行代碼6.0.1.x的FTD裝置，並且出於任何原因需要對其進行重新映像（例如，不可恢復的資料庫損壞、不允許軟體升級的災難性缺陷等）。

### 步驟摘要

1. 相容性檢查。
2. 從FMC註銷FTD。
3. 重新載入FTD裝置並輸入BootCLI。
4. 運行安裝嚮導。
5. 安裝FTD系統映像。

## 6. 在FMC中註冊FTD。

### 詳細步驟

步驟1.檢查Firepower版本說明，並確保要使用的FTD映像與FMC相容。如果不先升級FMC。

步驟2.從FMC中註銷（刪除）FTD。此步驟是必需的，因為FTD重新映像其UUID更改後，無法再次註冊，但必須從頭新增。

步驟3.重新載入FTD裝置並輸入BootCLI。由於已安裝現有的FTD映像，因此可以跳過FTD開機映像安裝：

```
> reboot
```

```
This command will reboot the system. Continue?
```

```
Please enter 'YES' or 'NO': YES
```

```
Broadcast messagStopping Cisco ASA5506-X Threat Defense.....ok
```

```
Shutting down sfidf... [ OK ]
```

```
Clearing static routes
```

```
Unconfiguring default route [ OK ]
```

```
Unconfiguring address on br1 [ OK ]
```

```
Unconfiguring IPv6 [ OK ]
```

```
Downing interface [ OK ]
```

```
Stopping nscd... [ OK ]
```

```
Stopping system log daemon... [ OK ]
```

```
Stopping Threat Defense ...
```

```
cp: cannot stat '/etc/ssh': No such file or directory
```

```
Stopping system message bus: dbus.
```

```
rmdir: failed to remove directory '/etc': Directory not empty [ OK ]
```

```
Un-mounting disk partitions ...
```

```
...
```

```
Device root is still in use.
```

```
mdadm: Cannot get exclusive access to /dev/md0:Perhaps a running process, mounted filesystem or active volume group?
```

```
Stopping OpenBSD Secure Shell server: sshdstopped /usr/sbin/sshd (pid 4209)
```

```
.
```

```
Stopping Advanced Configuration and Power Interface daemon: stopped /usr/sbin/acpid (pid 4213)
```

```
acpid: exiting
```

```
acpid.
```

```
Stopping system message bus: dbus.
```

```
Deconfiguring network interfaces... ifdown: interface br1 not configured
```

```
done.
```

```
Sending all processes the TERM signal...
```

```
Sending all processes the KILL signal...
```

```
Deactivating swap...
```

Unmounting local filesystems...

Rebooting... Ÿ

Rom image verified correctly

Cisco Systems ROMMON, Version 1.1.8, RELEASE SOFTWARE  
Copyright (c) 1994-2015 by Cisco Systems, Inc.  
Compiled Thu 06/18/2015 12:15:56.43 by builders

Current image running: Boot ROM0  
Last reset cause: PowerCycleRequest  
DIMM Slot 0 : Present

Platform ASA5506 with 4096 Mbytes of main memory  
MAC Address: 84:3d:c6:1a:cf:39

Use BREAK or ESC to interrupt boot.  
Use SPACE to begin boot immediately.

Located '.boot\_string' @ cluster 260275.

#  
Attempt autoboot: "boot disk0:"  
Located 'os.img' @ cluster 235457.

#####  
#####  
#####  
#####  
#####  
#####  
#####  
#####  
#####  
#####  
#####  
#####  
#####  
#####  
#####  
#####  
#####  
#####  
#####

LFBBFF signature verified.  
INIT: version 2.88 booting  
Starting udev  
Configuring network interfaces... done.  
Populating dev cache  
Detected PID ASA5506.  
Found device serial number JAD2034008E.  
Found USB flash drive /dev/sdb  
Found hard drive(s): /dev/sda  
fsck from util-linux 2.23.2  
dosfsck 2.11, 12 Mar 2005, FAT32, LFN  
/dev/sdb1: 42 files, 24805/1798467 clusters

=====  
**Use ESC to interrupt boot and launch boot CLI.**  
**Use SPACE to launch Cisco FTD immediately.**  
**Cisco FTD launch in 23 seconds ...** < Press ESC to enter BootCLI  
Launching boot CLI ...  
Configuring network interface using DHCP  
Bringing up network interface.  
Depending on your network, this might take a couple of minutes when using DHCP...  
ifup: interface lo already configured  
Using IPv6 address: fe80::863d:c6ff:fe1a:cf38  
IPv4 address not assigned. Run 'setup' before installation.

```
INIT: Starting system message bus: dbus.
Starting OpenBSD Secure Shell server: sshd
    generating ssh RSA key...
    generating ssh ECDSA key...
    generating ssh DSA key...
done.
Starting Advanced Configuration and Power Interface daemon: acpid.
acpid: starting up

acpid: 1 rule loaded

acpid: waiting for events: event logging is off

Starting ntpd: done
Starting syslog-ng:[2017-01-14T11:20:33.699619] Connection failed; fd='15',
server='AF_INET(127.128.254.1:514)', local='AF_INET(0.0.0.0:0)', error='Network is unreachable
(101)'
[2017-01-14T11:20:33.699704] Initiating connection failed, reconnecting; time_reopen='60'
.
Starting crond: OK
```

```
        Cisco FTD Boot 6.0.0 (9.6.2.)
          Type ? for list of commands
firepower-boot>
```

#### 步驟4.運行安裝嚮導並設定基本網路引數：

```
firepower-boot>setup
```

```
        Welcome to Cisco FTD Setup
          [hit Ctrl-C to abort]
        Default values are inside []
```

```
Enter a hostname [firepower]: FTD5506
Do you want to configure IPv4 address on management interface?(y/n) [Y]: Y
Do you want to enable DHCP for IPv4 address assignment on management interface?(y/n) [Y]: n
Enter an IPv4 address: 10.48.66.83
Enter the netmask: 255.255.255.128
Enter the gateway: 10.48.66.1
Do you want to configure static IPv6 address on management interface?(y/n) [N]: N
Stateless autoconfiguration will be enabled for IPv6 addresses.
Enter the primary DNS server IP address: 192.168.0.1
Do you want to configure Secondary DNS Server? (y/n) [n]: n
Do you want to configure Local Domain Name? (y/n) [n]: n
Do you want to configure Search domains? (y/n) [n]: n
Do you want to enable the NTP service? [Y]: n
Please review the final configuration:
Hostname:                FTD5506
Management Interface Configuration

IPv4 Configuration:      static
    IP Address:          10.48.66.83
    Netmask:              255.255.255.128
    Gateway:              10.48.66.1

IPv6 Configuration:      Stateless autoconfiguration
```

```
DNS Configuration:
    DNS Server:      192.168.0.1
```

```
NTP configuration:      Disabled
```

**CAUTION:**

You have selected IPv6 stateless autoconfiguration, which assigns a global address based on network prefix and a device identifier. Although this address is unlikely to change, if it does change, the system will stop functioning correctly. We suggest you use static addressing instead.

```
Apply the changes?(y,n) [Y]:      y
```

```
Configuration saved successfully!
```

```
Applying...
```

```
Restarting network services...
```

```
Done.
```

```
Press ENTER to continue...
```

```
firepower-boot>
```

## 步驟5.驗證與包含FTD系統映像的伺服器 ( FTP、HTTP等 ) 的連線，並開始安裝：

```
firepower-boot>ping 10.48.40.70
```

```
PING 10.48.40.70 (10.48.40.70) 56(84) bytes of data.
```

```
64 bytes from 10.48.40.70: icmp_seq=1 ttl=64 time=555 ms
```

```
64 bytes from 10.48.40.70: icmp_seq=2 ttl=64 time=0.465 ms
```

```
64 bytes from 10.48.40.70: icmp_seq=3 ttl=64 time=0.511 ms
```

```
--- 10.48.40.70 ping statistics ---
```

```
3 packets transmitted, 3 received, 0% packet loss, time 2000ms
```

```
rtt min/avg/max/mdev = 0.465/185.466/555.424/261.599 ms
```

```
firepower-boot > system install noconfirm ftp://anonymous:cisco@10.48.40.70/ftd-6. 1.0-330.pkg
```

```
##### WARNING #####
# The content of disk0: will be erased during installation! #
#####
```

```
Do you want to continue? [y/N] y
```

```
Erasing disk0 ...
```

```
Verifying
```

```
Downloading
```

```
Extracting
```

```
Package Detail
```

```
    Description:          Cisco ASA-FTD 6.1.0-330 System Install
```

```
    Requires reboot:      Yes
```

```
Warning: Please do not interrupt the process or turn off the system.
```

```
Doing so might leave system in unusable state.
```

```
Starting upgrade process ...
```

```
Populating new system image
```

```
... output omitted ...
```

```
Firstboot detected, executing scripts
```

```
Executing S01reset_failopen_if [ OK ]
```

```
Executing S01virtual-machine-reconfigure [ OK ]
```

```
Executing S02aws-pull-cfg [ OK ]
```

```
Executing S02configure_onbox [ OK ]
```

```
Executing S04fix-httpd.sh [ OK ]
Executing S05set-mgmt-port [ OK ]
Executing S06addusers [ OK ]
Executing S07uuid-init [ OK ]
Executing S08configure_mysql [ OK ]
```

\*\*\*\*\* Attention \*\*\*\*\*

Initializing the configuration database. Depending on available system resources (CPU, memory, and disk), this may take 30 minutes or more to complete.

\*\*\*\*\* Attention \*\*\*\*\*

```
Executing S09database-init [ OK ]
Executing S11database-populate [ OK ]
Executing S12install_infodb [ OK ]
Executing S15set-locale.sh [ OK ]
Executing S16update-sensor.pl [ OK ]
Executing S19cert-tun-init [ OK ]
Executing S20cert-init [ OK ]
Executing S21disable_estreamer [ OK ]
Executing S25create_default_des.pl [ OK ]
Executing S30init_lights_out_mgmt.pl [ OK ]
Executing S40install_default_filters.pl [ OK ]
Executing S42install_default_dashboards.pl [ OK ]
Executing S43install_default_report_templates.pl [ OK ]
Executing S44install_default_app_filters.pl [ OK ]
Executing S45install_default_realms.pl [ OK ]
Executing S47install_default_sandbox_EO.pl [ OK ]
Executing S50install-remediation-modules [ OK ]
Executing S51install_health_policy.pl [ OK ]
Executing S52install_system_policy.pl [ OK ]
Executing S53change_reconciliation_baseline.pl [ OK ]
Executing S70remove_casuser.pl [ OK ]
Executing S70update_sensor_objects.sh [ OK ]
Executing S85patch_history-init [ OK ]
Executing S90banner-init [ OK ]
Executing S95copy-crontab [ OK ]
Executing S96grow_var.sh [ OK ]
Executing S96install_vmware_tools.pl [ OK ]
```

\*\*\*\*\* Attention \*\*\*\*\*

Initializing the system's localization settings. Depending on available system resources (CPU, memory, and disk), this may take 10 minutes or more to complete.

\*\*\*\*\* Attention \*\*\*\*\*

```
Executing S96localize-templates [ OK ]
Executing S96ovf-data.pl [ OK ]
Executing S97compress-client-resources [ OK ]
Executing S97create_platinum_forms.pl [ OK ]
Executing S97install_cas [ OK ]
Executing S97install_cloud_support.pl [ OK ]
Executing S97install_geolocation.pl [ OK ]
Executing S97install_ssl_inspection.pl [ OK ]
Executing S97update_modprobe.pl [ OK ]
Executing S98check-db-integrity.sh [ OK ]
Executing S98htaccess-init [ OK ]
Executing S98is-sru-finished.sh [ OK ]
Executing S99correct_ipmi.pl [ OK ]
Executing S99start-system [ OK ]
Executing S99z_db_restore [ OK ]
```

```
Executing S99_z_cc-integrity.sh [ OK ]
Firstboot scripts finished.
Configuring NTP... [ OK ]
fatattr: can't open '/mnt/disk0/.private2': No such file or directory
fatattr: can't open '/mnt/disk0/.ngfw': No such file or directory
Model reconfigure detected, executing scripts
Pinging mysql
Found mysql is running
Executing 45update-sensor.pl [ OK ]
Executing 55recalculate_arc.pl [ OK ]
Starting xinetd:
Sat Jan 14 12:07:35 UTC 2017
Starting MySQL...
Pinging mysql
Pinging mysql, try 1
Pinging mysql, try 2
Found mysql is running
Running initializeObjects...
Stopping MySQL...
Killing mysqld with pid 22354
Wait for mysqld to exit\c
done
Sat Jan 14 12:07:57 UTC 2017
Starting sfid... [ OK ]
Starting Cisco ASA5506-X Threat Defense, please wait...No PM running!
...started.
... output omitted ...
firepower login: admin
Password: < Admin123
You must accept the EULA to continue.
Press <ENTER> to display the EULA:
END USER LICENSE AGREEMENT

...

Please enter 'YES' or press <ENTER> to AGREE to the EULA:

System initialization in progress. Please stand by.
You must change the password for 'admin' to continue.
Enter new password:
Confirm new password:
You must configure the network to continue.
You must configure at least one of IPv4 or IPv6.
Do you want to configure IPv4? (y/n) [y]:
Do you want to configure IPv6? (y/n) [n]:
Configure IPv4 via DHCP or manually? (dhcp/manual) [manual]:
Enter an IPv4 address for the management interface [192.168.45.45]: 10.48.66.83
Enter an IPv4 netmask for the management interface [255.255.255.0]: 255.255.255.128
Enter the IPv4 default gateway for the management interface [192.168.45.1]: 10.48.66.1
Enter a fully qualified hostname for this system [firepower]: FTD5506
Enter a comma-separated list of DNS servers or 'none' []: 192.168.0.1
Enter a comma-separated list of search domains or 'none' []:
If your networking information has changed, you will need to reconnect.
For HTTP Proxy configuration, run 'configure network http-proxy'

Manage the device locally? (yes/no) [yes]: no
Configure firewall mode? (routed/transparent) [routed]:
Configuring firewall mode ...

Update policy deployment information
- add device configuration
- add network discovery
- add system policy
```



You can register the sensor to a Firepower Management Center and use the Firepower Management Center to manage it. Note that registering the sensor to a Firepower Management Center disables on-sensor Firepower Services management capabilities.

When registering the sensor to a Firepower Management Center, a unique alphanumeric registration key is always required. In most cases, to register a sensor to a Firepower Management Center, you must provide the hostname or the IP address along with the registration key.

```
'configure manager add [hostname | ip address ] [registration key ]'
```

However, if the sensor and the Firepower Management Center are separated by a NAT device, you must enter a unique NAT ID, along with the unique registration key.

```
'configure manager add DONTRESOLVE [registration key ] [ NAT ID ]'
```

Later, using the web interface on the Firepower Management Center, you must use the same registration key and, if necessary, the same NAT ID when you add this sensor to the Firepower Management Center.

## 步驟6.在FMC中註冊FTD

```
> configure manager add 10.62.148.50 cisco
```

```
Manager successfully configured.
```

```
Please make note of reg_key as this will be required while adding Device in FMC.
```

```
> show managers
```

```
Host : 10.62.148.50
Registration Key : ****
Registration : pending
RPC Status :
```

在FMC上，導覽至**Devices > Device Management**，以便新增FTD裝置。

將FTD新增到FMC後，您需要：

- 重新配置介面和路由等裝置設定
- 重新配置VPN和QoS等策略
- 重新應用以前應用的策略和設定，如訪問控制策略、NAT和平台設定

## 相關資訊

- [特色指南](#)
- [重新安裝 Cisco ASA 或 Firepower 威脅防禦裝置映像檔](#)
- [技術支援與文件 - Cisco Systems](#)