

En améliorant une ASA ha appareillez sur des appliances de puissance de feu

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Introduction

La procédure de mise à niveau d'un module ASA installé sur les appliances de puissance de feu (FPR4100, FPR9300 etc.) quand la Haute disponibilité (ha) est configurée (A/S ou A/A) est décrite dans le guide de configuration FXOS. Voici l'élément pertinent :

Updating the Image Version for a Logical Device

Before You Begin

Download the application image you want to use for the logical device from [Cisco.com](#) (see [Downloading Images from Cisco.com](#)) and then upload that image to the FXOS chassis (see [Uploading an Image to the Firepower Security Appliance](#)).

If you are upgrading both the Platform Bundle image and one or more Application images, you must upgrade the Platform Bundle first.

Note You cannot directly upgrade a Firepower Threat Defense logical device. To upgrade a Firepower Threat Defense logical device, you must delete the existing device and then create a new one using the updated image.

Procedure

- Step 1** Choose **Logical Devices** to open the Logical Devices page. The Logical Devices page shows a list of configured logical devices on the chassis. If no logical devices have been configured, a message stating so is shown instead.
- Step 2** Click **Update Version** for the logical device that you want to update to open the **Update Image Version** dialog box.
- Step 3** For the **New Version**, choose the software version to which you want to update.
- Step 4** Click **OK**.

Le but de ce document est de fournir un peu plus de vue d'ensemble détaillée du processus de

mise à niveau dans un environnement ha.

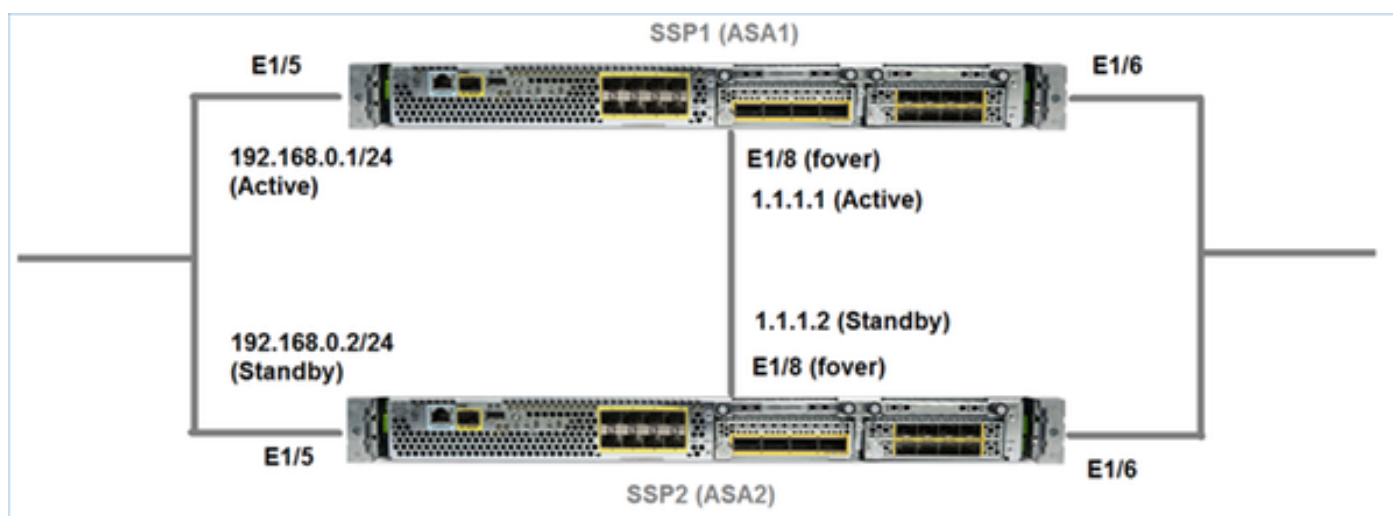
Composants utilisés

- 2 code courant 2.0.1-86 x FP4150
- ASA 9.6.2.1 (mis à jour à 9.6.2.3)

Note – Le document suppose que la version de la cible ASA est compatible avec la version existante FXOS ainsi la mise à jour de paquet FXOS n'est pas nécessaire dans ce scénario.

Vérifiez toujours la matrice de compatibilité FXOS pour confirmer si la version de la cible ASA est compatible avec l'image FXOS. Sinon améliorez alors les images FXOS d'abord comme décrit dans les notes de mise à jour FXOS.

Topologie



ASA1 pendant qu'on le voit dans le gestionnaire de châssis de puissance de feu (FCM) UI :

The screenshot shows the FCM UI for ASA1 (ASA4150-3). The interface is titled "Logical Devices" and shows the configuration for the ASA application. The table below summarizes the configuration details.

Application	Version	Management IP	Gateway	Management Port	Status
ASA	9.6.2.1	10.0.0.50	10.0.0.1	Ethernet1/7	online

Additional information shown in the UI:

- Ports: Ethernet1/5, Ethernet1/6, Ethernet1/8
- Attributes: Cluster Operational Status: not-applicable, Management URL: https://10.0.0.50/, Management IP: 10.0.0.50

ASA2 :

The screenshot shows the FCM UI for ASA2 (ASA4150-4). The interface is titled "Logical Devices" and shows the configuration for the ASA application. The table below summarizes the configuration details.

Application	Version	Management IP	Gateway	Management Port	Status
ASA	9.6.2.1	10.0.0.53	10.0.0.1	Ethernet1/7	online

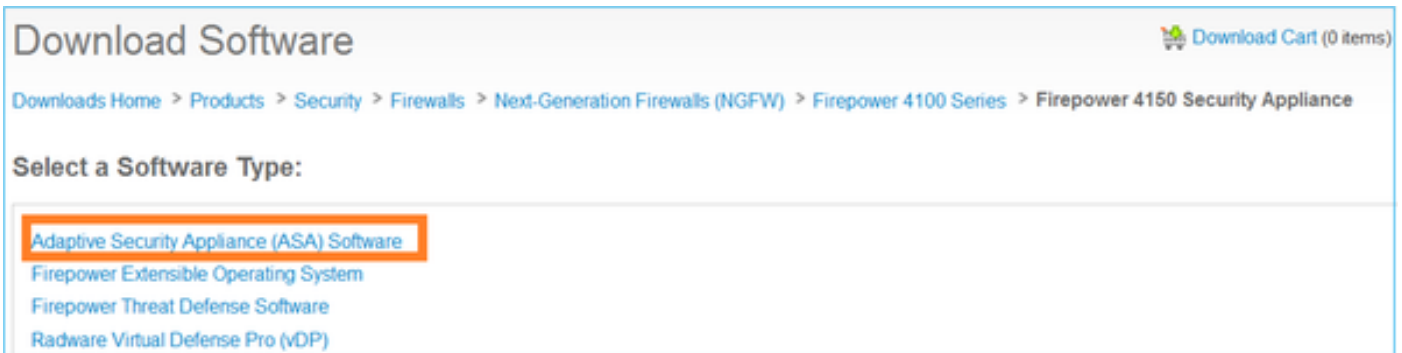
Additional information shown in the UI:

- Ports: Ethernet1/5, Ethernet1/6, Ethernet1/8
- Attributes: Cluster Operational Status: not-applicable, Management URL: https://10.0.0.53/, Management IP: 10.0.0.53

Conditions préalables

Étape 1 - Télécharger les images ASA de la page de Cisco

Naviguez vers des téléchargements à la maison > des Produits > Sécurité > des Pare-feu > les Pare-feu de la deuxième génération (NGFW) et sélectionnez la plate-forme HW (par exemple 4100, 9000 etc.) :

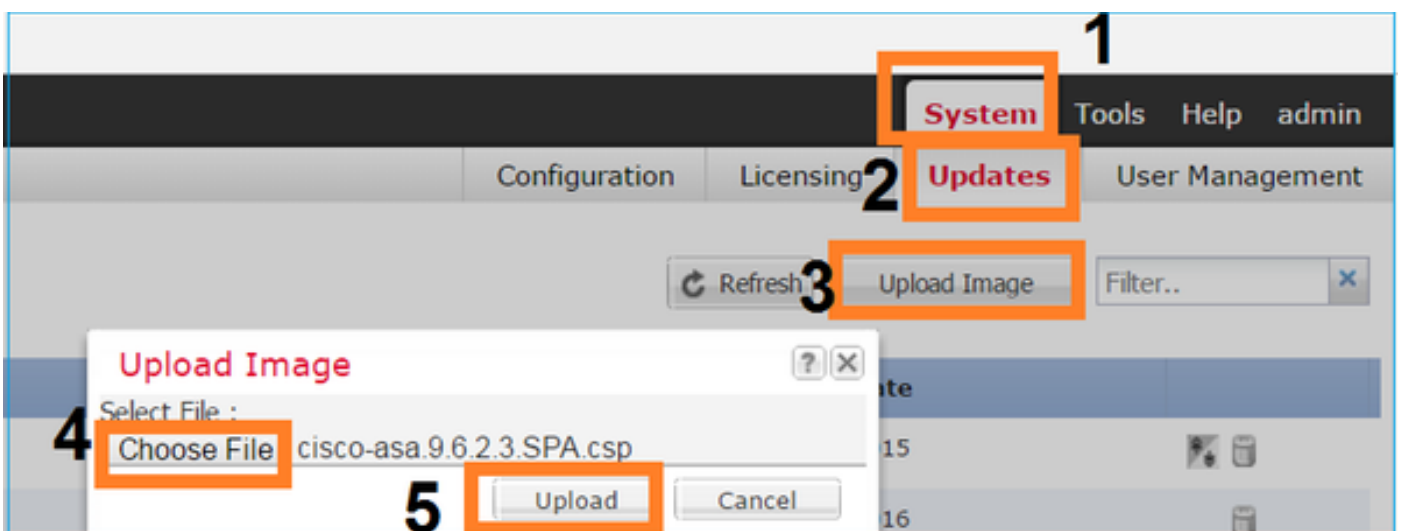


Étape 2 – Télécharger les images ASA au châssis de puissance de feu

Téléchargez les images ASA aux châssis de puissance de feu. Ceci peut être fait du gestionnaire de châssis de puissance de feu (FCM) UI ou FXOS CLI.

Manière 1 – Télécharger les images ASA de FCM UI

Naviguez vers le système > les mises à jour. Cliquez sur en fonction l'image de téléchargement, sélectionnez le nom du fichier et cliquez sur en fonction le téléchargement



Manière 2 – Télécharger les images ASA de FXOS CLI

Vous pouvez télécharger l'image d'un FTP, du SCP, du SFTP ou d'un serveur TFTP. Pour vérifier la Connectivité entre l'interface de gestion de châssis et le serveur distant faites ce qui suit :

```
FPR4100# connect local-mgmt FPR4100(local-mgmt)# ping 10.48.40.70
PING 10.48.40.70 (10.48.40.70) from 10.62.148.88 eth0:56(84) bytes of data.
64 bytes from 10.48.40.70: icmp_seq=1 ttl=61 time=34.4 ms
```

```
64 bytes from 10.48.40.70: icmp_seq=2 ttl=61 time=34.3 ms
64 bytes from 10.48.40.70: icmp_seq=3 ttl=61 time=34.3 ms
```

Pour transférer l'image ASA naviguez vers la portée suivante et utilisez la commande « d'image de téléchargement » :

```
FPR4100# scope ssa FPR4100 /ssa # scope app-software FPR4100 /ssa/app-software # download image
ftp://ftp_username@ 10.48.40.70/cisco-asa.9.6.2.3.SPA.csp
Password:
```

Pour surveiller la progression de transfert d'images :

```
FPR4100 /ssa/app-software # show download-task detail Downloads for Application Software: File
Name: cisco-asa.9.6.2.3.SPA.csp Protocol: Ftp Server: 10.48.40.70 Port: 0 Userid: anonymous
Path: Downloaded Image Size (KB): 94214 Time stamp: 2016-12-08T10:21:56.775 State: Downloading
Transfer Rate (KB/s): 450.784698 Current Task: downloading image cisco-asa.9.6.2.3.SPA.csp from
10.48.40.70(FSM-STAGE:sam:dme:ApplicationDownloaderDownload:Local)
```

Vous pouvez également utiliser les commandes suivantes de vérifier le transfert réussi :

```
FPR4100 /ssa/app-software # show download-task Downloads for Application Software: File Name
Protocol Server Port Userid State -----
----- cisco-asa.9.6.2.2.SPA.csp Ftp 10.48.40.70 0 anonymous Downloaded
```

Pour des détails supplémentaires :

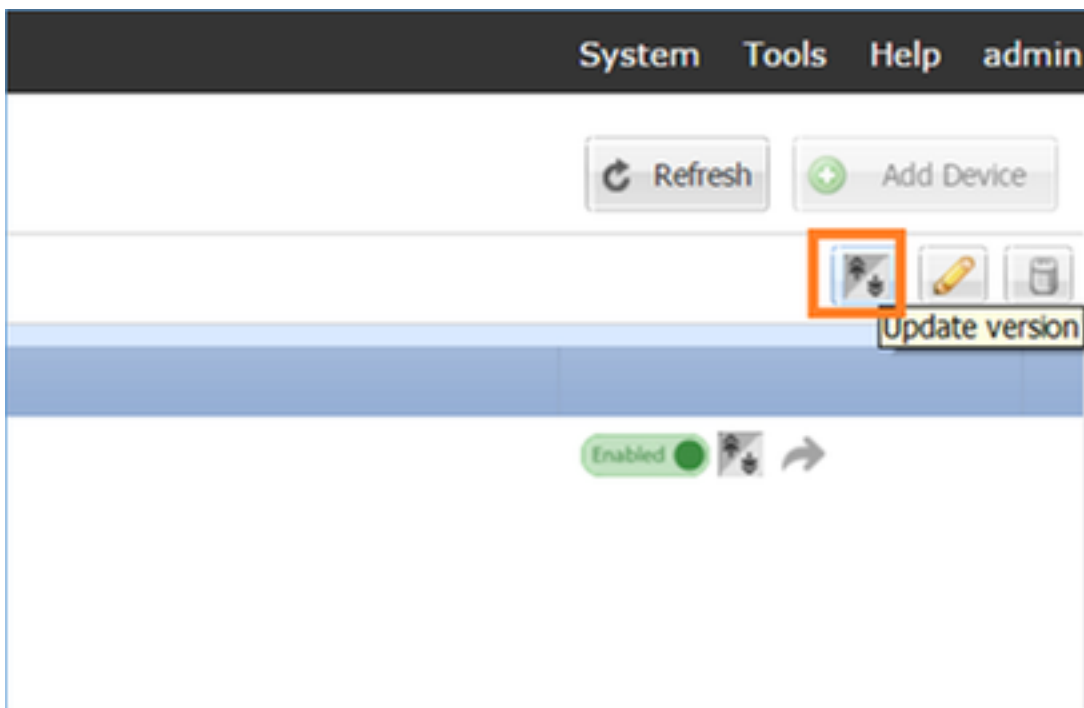
```
FPR4100 /ssa/app-software # show download-task fsm status expand File Name: cisco-
asa.9.6.2.3.SPA.csp FSM Status: Affected Object: sys/app-catalogue/dnld-cisco-
asa.9.6.2.3.SPA.csp/fsm Current FSM: Download Status: Success Completion Time: 2016-12-
08T10:26:52.142 Progress (%): 100 FSM Stage: Order Stage Name Status Try -----
----- 1 DownloadLocal Success 1 2 DownloadUnpackLocal
Success 1
```

L'image est affichée dans le référentiel de châssis :

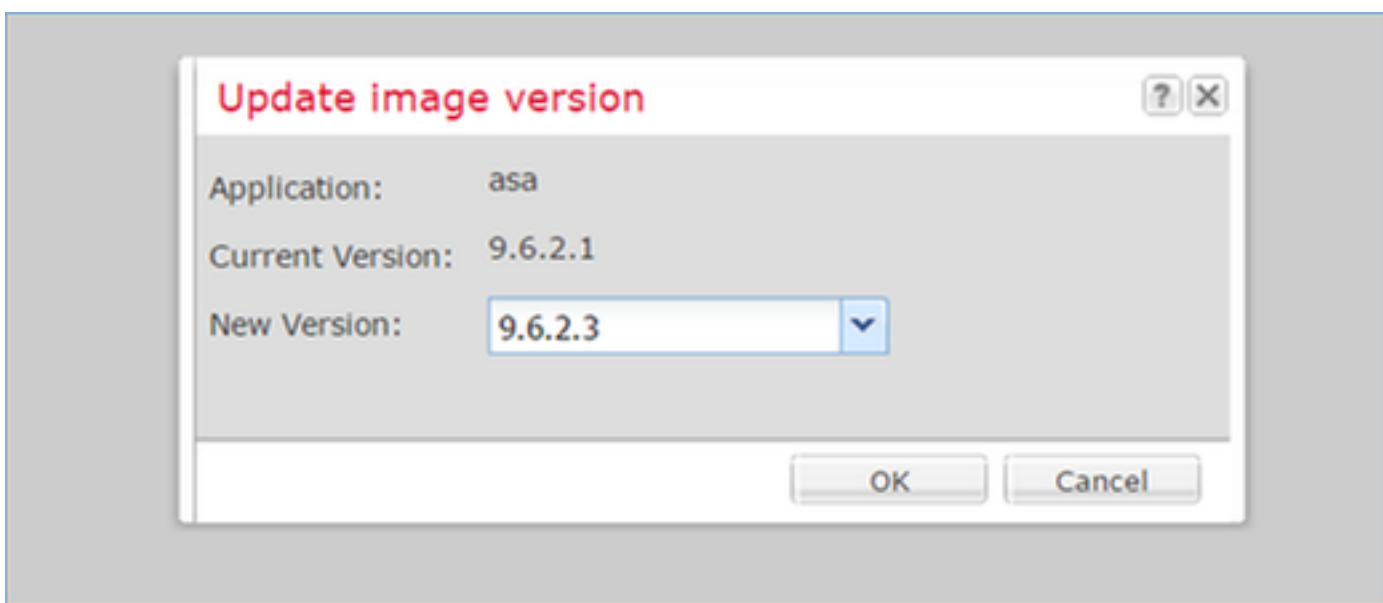
```
FPR4100 /ssa/app-software # exit
FPR4100 /ssa # show app Application: Name Version Description Author Deploy Type CSP Type Is
Default App -----
asa 9.6.2.1 N/A cisco Native Application No asa 9.6.2.3 N/A cisco Native Application No
```

Évolution de la première unité ASA

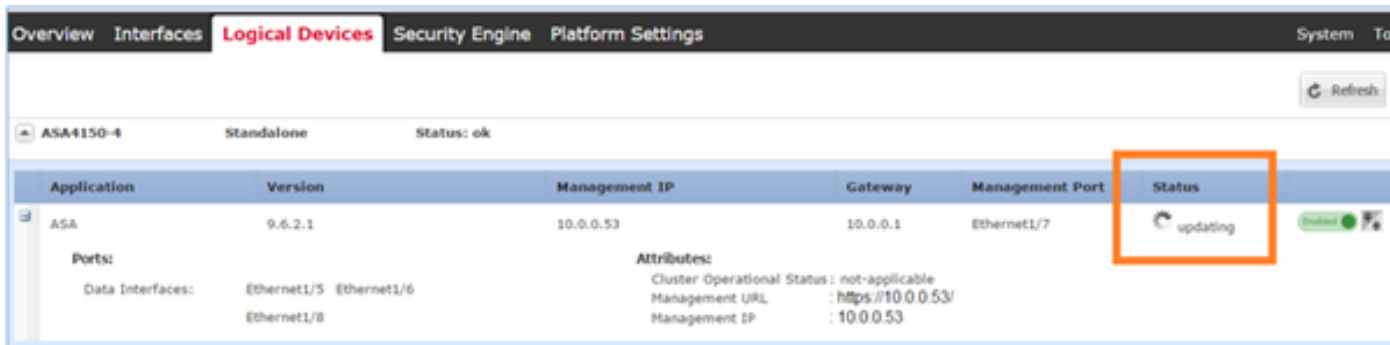
Améliorez l'unité du standby ASA d'abord en cliquant sur sur le bouton de version de mise à jour :



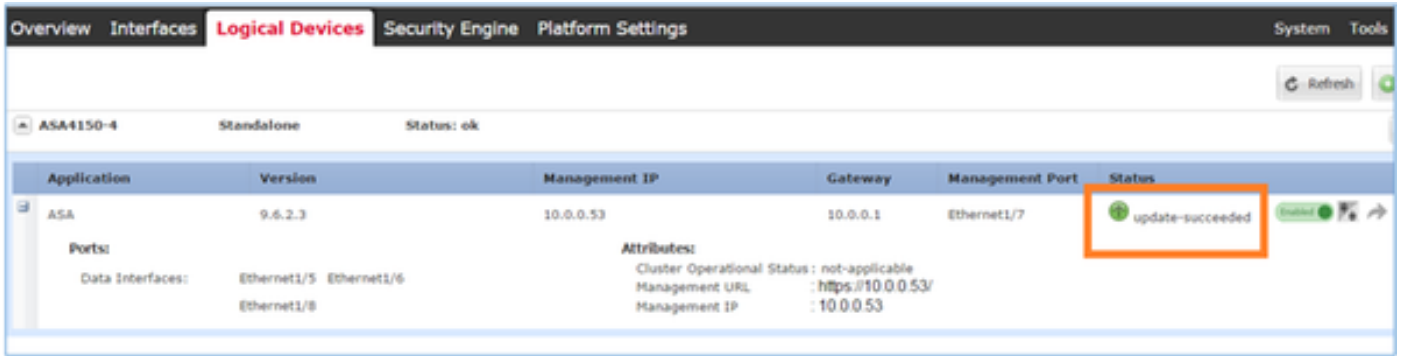
Spécifiez la nouvelle image et cliquez sur OK pour commencer la mise à jour :



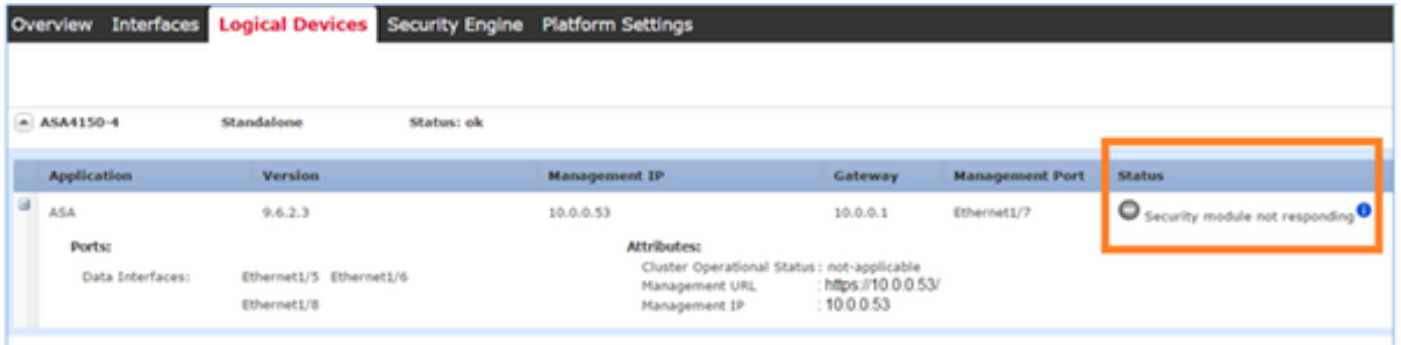
Progression de mise à jour ASA comme on le voit du GUI FCM



Après 1-2 minute les expositions FCM UI :



Tandis que le module ASA recharge :



Processus de mise à niveau ASA comme on le voit du châssis CLI de puissance de feu

Le CLI prouve que les reprises du périphérique logique (ASA). Voici le processus de mise à niveau entier pendant qu'on le voit du démarrage CLI de module :

```
asa/sec/stby(config)#
[screen is terminating] Disconnected from asa console! Firepower-module1> INIT:
SwitchingStopping OpenBSD Secure Shell server: sshdstopped /usr/sbin/sshd (pid 5738) . Stopping
Advanced Configuration and Power Interface daemon: stopped /usr/sbin/acpid (pid 5742) acpid:
exiting acpid. Stopping system message bus: dbus. Stopping ntpd: stopped process in pidfile
'/var/run/ntp.pid' (pid 6186) done Stopping crond: OK Deconfiguring network interfaces... done.
Sending all processes the TERM signal... SIGKILL_ALL will be delayed for 1 + 5 secs Sending all
processes the KILL signal... Deactivating swap... Unmounting local filesystems... Rebooting... [
1679.605561] Restarting system. Cisco Systems, Inc. Configuring and testing memory.. Cisco
Systems, Inc. Configuring and testing memory.. Configuring platform hardware... Bios Version :
FXOSSM1.1.2.1.3.031420161207 Platform ID : FXOSSM1 Processor(s) Intel(R) Xeon(R) CPU E5-2699 v4
@ 2.20GHz Total Memory = 256 GB Effective Memory = 256 GB Memory Operating Speed 2400 Mh Please
wait, preparing to boot..
.....
..... UEFI Interactive Shell v2.0. UEFI v2.40 (American Megatrends, 0x0005000B). Revision
1.02 Mapping table fs0: Alias(s):HD17a65535a1;blk1:
PciRoot(0x0)/Pci(0x1F,0x2)/Sata(0x0,0xFFFF,0x0)/HD(1,MBR,0x000EC692,0x800,0xEE6800) blk0:
Alias(s): PciRoot(0x0)/Pci(0x1F,0x2)/Sata(0x0,0xFFFF,0x0) blk2: Alias(s):
PciRoot(0x0)/Pci(0x1F,0x2)/Sata(0x0,0xFFFF,0x0)/HD(2,MBR,0x000EC692,0xEE7000,0x3BA000) blk3:
Alias(s):
PciRoot(0x0)/Pci(0x1F,0x2)/Sata(0x0,0xFFFF,0x0)/HD(3,MBR,0x000EC692,0x12A1000,0x950000) blk4:
Alias(s):
PciRoot(0x0)/Pci(0x1F,0x2)/Sata(0x0,0xFFFF,0x0)/HD(4,MBR,0x000EC692,0x1BF1000,0x2CD20800) blk5:
Alias(s):
PciRoot(0x0)/Pci(0x1F,0x2)/Sata(0x0,0xFFFF,0x0)/HD(4,MBR,0x000EC692,0x1BF1000,0x2CD20800)/HD(1,M
BR,0x00000000,0x1BF1800,0x5D22000) blk6: Alias(s):
PciRoot(0x0)/Pci(0x1F,0x2)/Sata(0x0,0xFFFF,0x0)/HD(4,MBR,0x000EC692,0x1BF1000,0x2CD20800)/HD(2,M
BR,0x00000000,0x7914000,0x26FFD800) To launch ROMMON. CpuFrequency = 2200002 KHz Cisco FXOSSM1
Blade Rommon 1.2.1.3, Mar 14 2016 12:11:29 Platform: SSPXRU INFO: enic_identify: Enabling Cruz
```

```

driver... INFO: enic_identify: Cruz driver enabled. INFO: init_spi_interface: HSFS_BERASE_4K.
INFO: enic_init: bar[0].vaddr 0xc6e00000. INFO: enic_init: bar[2].vaddr 0xc6e10000. INFO:
enic_init: eNic port MTU is 1500. INFO: enic_init: eNic bsize 1500 ring size 512. INFO:
enic_init: Waiting for Cruz link... INFO: enic_init: Cruz link detected. INFO: nb_eth_app_init:
MAC address for interface 0: 00 15 a5 01 01 00 INFO: nb_eth_app_init: IP address 127.128.1.254
Start communicating with MIO in blade slot 1... INFO: Allocated 1000 bytes of memory for cmd at
0x78a7d018. INFO: Allocated 1000 bytes of memory for status at 0x76d34918. INFO: Allocated
196608 bytes of memory for key file at 0x76d03018. INFO: Status code 1: 'rommon initialize is
completed'. INFO: tftp_open: '/rommon/status_1.txt'@127.128.254.1 via 127.128.254.1 ! INFO:
nb_tftp_upload: 31 bytes sent. tftpget 0x78a7d018 1000 INFO: tftp_open:
'/rommon/command_1.txt'@127.128.254.1 via 127.128.254.1 Received 154 bytes WARNING:
retrieve_mio_cmd_info: Invalid checksum 0x0. tftpget 0x76d03018 196608 INFO: tftp_open:
'/rommon/key_1.bin'@127.128.254.1 via 127.128.254.1 ! Received 131072 bytes INFO: Status code 8:
'rommon succeeds to retrieve key file'. INFO: tftp_open: '/rommon/status_1.txt'@127.128.254.1
via 127.128.254.1 ! INFO: nb_tftp_upload: 31 bytes sent. INFO: Primary keys in flash are up-to-
date. INFO: Backup keys in flash are up-to-date. continue check local image the image file path:
installables/chassis/fxos-lfbff-k8.9.6.2.2.SPA the image file name only: fxos-lfbff-
k8.9.6.2.2.SPA local_image_file: fs0:fxos-lfbff-k8.9.6.2.2.SPA INFO: File 'fs0:fxos-lfbff-
k8.9.6.2.2.SPA' has 104831328 bytes. local_image_file_size 104831328 Found image fs0:fxos-lfbff-
k8.9.6.2.2.SPA in local storage, boot local image. set pboot_image fxos-lfbff-k8.9.6.2.2.SPA
INFO: File 'fs0:fxos-lfbff-k8.9.6.2.2.SPA' has 104831328 bytes. INFO: 'fs0:fxos-lfbff-
k8.9.6.2.2.SPA' has 104831328 bytes INFO: Booting LFBFF image... INFO: Status code 7: 'rommon
about to verify image signature from local disk'. INFO: tftp_open:
'/rommon/status_1.txt'@127.128.254.1 via 127.128.254.1 ! INFO: nb_tftp_upload: 31 bytes sent.
INIT: version 2.88 booting Starting udev Configuring network interfaces... done. Populating dev
cache rw console=ttyS0,38400 loglevel=2 auto kstack=128 reboot=force panic=1
ide_generic.probe_mask=0x1 idel=noprobe pci=nocrs processor.max_cstate=1 iommu=pt
platform=sspxru boot_img=disk0:/fxos-lfbff-k8.9.6.2.2.SPA ciscodmasz=786432 cisconrsvsz=2359296
hugepagesz=lg hugepages=24 ssp_mode=0 No Partitions for HDD2.. Creating partition.. mount:
special device /dev/sdb1 does not exist rw console=ttyS0,38400 loglevel=2 auto kstack=128
reboot=force panic=1 ide_generic.probe_mask=0x1 idel=noprobe pci=nocrs processor.max_cstate=1
iommu=pt platform=sspxru boot_img=disk0:/fxos-lfbff-k8.9.6.2.2.SPA ciscodmasz=786432
cisconrsvsz=2359296 hugepagesz=lg hugepages=24 ssp_mode=0 Create libvirt group Start libvirtd
Service * Starting virtualization library daemon: libvirtd no /usr/bin/dnsmasq found; none
killed 2016-12-07 12:47:24.090+0000: 4373: info : libvirt version: 1.1.2 2016-12-07
12:47:24.090+0000: 4373: warning : virGetHostname:625 : getadd[ ok ]failed for 'ciscoasa': Name
or service not known Disable the default virtual networks Network default destroyed Done with
libvirt initialization rw console=ttyS0,38400 loglevel=2 auto kstack=128 reboot=force panic=1
ide_generic.probe_mask=0x1 idel=noprobe pci=nocrs processor.max_cstate=1 iommu=pt
platform=sspxru boot_img=disk0:/fxos-lfbff-k8.9.6.2.2.SPA ciscodmasz=786432 cisconrsvsz=2359296
hugepagesz=lg hugepages=24 ssp_mode=0 ++++++ BOOT CLI FILES COPIED
+++++ rw console=ttyS0,38400 loglevel=2 auto kstack=128 reboot=force
panic=1 ide_generic.probe_mask=0x1 idel=noprobe pci=nocrs processor.max_cstate=1 iommu=pt
platform=sspxru boot_img=disk0:/fxos-lfbff-k8.9.6.2.2.SPA ciscodmasz=786432 cisconrsvsz=2359296
hugepagesz=lg hugepages=24 ssp_mode=0 Turbo Boost is UNSUPPORTED on this platform. Configuration
Xml found is /opt/cisco/csp/applications/configs/cspCfg_cisco-
asa.9.6.2.3__asa_001_JAD201200C64A93395.xml INIT: Entering runlevel: 3 rw console=ttyS0,38400
loglevel=2 auto kstack=128 reboot=force panic=1 ide_generic.probe_mask=0x1 idel=noprobe
pci=nocrs processor.max_cstate=1 iommu=pt platform=sspxru boot_img=disk0:/fxos-lfbff-
k8.9.6.2.2.SPA ciscodmasz=786432 cisconrsvsz=2359296 hugepagesz=lg hugepages=24 ssp_mode=0
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 crond: OK Cisco Security
Services Platform Type ? for list of commands Firepower-module1> Firepower-module1>show services
status Services currently running: Feature | Instance ID | State | Up Since -----
----- asa | 001_JAD201200C64A93395 | RUNNING | :00:00:20
Firepower-module1>

```

La procédure entière a pris un peu moins de 5 minutes.

Vous pouvez également utiliser la commande d'app-exemple d'exposition du châssis CLI de

vérifier que l'application ASA a été livré « en ligne » :

```
FPR4100# scope ssa FPR4100 /ssa # show app-instance Application Name Slot ID Admin State
Operational State Running Version Startup Version Cluster Oper State -----
----- asa 1
Enabled Online 9.6.2.3 9.6.2.3 Not Applicable
```

Les 2 modules ASA se découvrent :

```
asa/sec/actNoFailover>
*****WARNING****WARNING****WARNING***** Mate version 9.6(2)1
is not identical with ours 9.6(2)3
*****WARNING****WARNING****WARNING***** . Detected an Active
mate Beginning configuration replication from mate. End configuration replication from mate.
asa/sec/stby>
```

Vérification

```
FPR4100# connect module 1 console
Telnet escape character is '~'.
Trying 127.5.1.1...
Connected to 127.5.1.1.
Escape character is '~'.
```

```
CISCO Serial Over LAN:
Close Network Connection to Exit
```

```
Firepower-module1> connect asa
asa> enable
Password:
asa/sec/stby# show failover Failover On Failover unit Secondary Failover LAN Interface: fover
Ethernet1/8 (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
2 of 1041 maximum MAC Address Move Notification Interval not set Version: Ours 9.6(2)3, Mate
9.6(2)1 Serial Number: Ours FLM2006EQFW, Mate FLM2006EN9U Last Failover at: 12:48:23 UTC Dec 7
2016 This host: Secondary - Standby Ready Active time: 0 (sec) slot 0: UCSB-B200-M3-U hw/sw rev
(0.0/9.6(2)3) status (Up Sys) Interface INSIDE (192.168.0.2): Normal (Not-Monitored) Interface
OUTSIDE (192.168.1.2): Normal (Monitored) Interface management (0.0.0.0): Normal (Waiting) Other
host: Primary - Active Active time: 10320 (sec) slot 0: UCSB-B200-M3-U hw/sw rev (0.0/9.6(2)1)
status (Up Sys) Interface INSIDE (192.168.0.1): Normal (Not-Monitored) Interface OUTSIDE
(192.168.1.1): Normal (Monitored) Interface management (10.0.0.50): Normal (Waiting)
...
```

Typiquement, en ce moment il y a le besoin de confirmer l'exécution appropriée de Basculement entre les 2 unités ASA en exécutant certaines commandes supplémentaires comme :

- [show conn count](#)
- compte de show xlate
- [show crypto ipsec sa](#)

Évolution de la deuxième unité ASA

Commutez les pairs de Basculement et améliorez l'ASA primaire :

```
asa/sec/stby# failover active Switching to Active asa/sec/act#
```


[Guide de configuration FXOS](#)

[Guide de compatibilité FXOS-ASA](#)

[Notes de mise à jour FXOS](#)