

# 使用CLI升級堆疊組態中的Catalyst 3750軟體

## 目錄

[簡介](#)

[必要條件](#)

[需求](#)

[採用元件](#)

[慣例](#)

[查詢軟體版本和功能集](#)

[決定使用哪些檔案](#)

[快閃記憶體檔案系統和記憶體要求](#)

[3750系列交換器堆疊Cisco IOS升級 — 自動 \(.tar映像\)](#)

[逐步說明](#)

[3750系列交換器堆疊Cisco IOS升級 — 手動 \(.tar映像\)](#)

[逐步說明](#)

[步驟1 — 下載.tar映像](#)

[步驟2 — 提取.tar映像](#)

[步驟3 — 配置引導變數](#)

[步驟4 — 重新載入和驗證](#)

[3750系列交換器堆疊Cisco IOS升級 — 手動 \(.bin映像\)](#)

[逐步說明](#)

[步驟1 — 下載.bin映像](#)

[第2步 — 檢驗可用記憶體](#)

[步驟3 — 將映像複製到快閃記憶體檔案系統](#)

[步驟4 — 配置引導變數](#)

[步驟5 — 重新載入前進行驗證](#)

[步驟6 — 重新載入和驗證](#)

[驗證](#)

[疑難排解](#)

[從TFTP伺服器傳輸映像失敗或已損壞的Cisco IOS映像](#)

[您收到Error Bad Mzip錯誤訊息](#)

[開啟flash:update/info時出錯 \(沒有此類檔案或目錄\)](#)

[堆疊中的交換器無法開機新映像 \(版本不相符\)](#)

[方法1 - .tar映像](#)

[方法2 - .tar映像](#)

[方法3 - .bin映像](#)

[tftp中有%Tar校驗和錯誤](#)

[使用不同的功能集升級Cisco IOS軟體](#)

[相關資訊](#)

## 簡介

本檔案介紹使用指令行介面(CLI)升級Cisco Catalyst 3750系列交換器上軟體映像的步驟。

# 必要條件

## 需求

下載軟體之前，請參閱[Catalyst 3750、3560和2970交換器\(Cisco IOS®版本12.2\(25\)SEB和更高版本\)的版本說明中的以下各節，瞭解重要資訊：](#)

- [查詢軟體版本和功能集](#)
- [決定使用哪些檔案](#)
- [使用裝置管理器或Network Assistant升級交換機](#)
- [使用CLI升級交換機](#)
- [從軟體故障中恢復](#)

## 採用元件

本檔案中的資訊是根據以下硬體版本：

- WS-C3750G-12S交換機
- WS-C3750G-24TS交換機

註：您可以替換任何堆疊式Catalyst 3750系列交換機。

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。

## 慣例

請參閱[思科技術提示慣例以瞭解更多有關文件慣例的資訊。](#)

## 查詢軟體版本和功能集

具有Cisco IOS®軟體版本名稱的目錄將Cisco IOS映像儲存為bin檔案。該目錄將映像儲存在系統主機板快閃記憶體裝置(flash:)上。子目錄包含您進行Web管理所需的檔案。

您可以使用 `show version` 能看到交換器上執行的軟體版本。顯示屏的第二行顯示版本。

註：雖然 `show version` 輸出總是顯示交換機上運行的軟體映像，此顯示結尾顯示的型號名稱為出廠配置。此映像是IP Base映像(以前稱為標準多層映像(SMI))或IP Services映像(以前稱為增強型多層映像(EMI))。如果升級軟體映像，此名稱不會更改。

您還可以使用 `dir filesystem: privileged EXEC` 指令。此命令顯示已儲存在快閃記憶體中的任何其他軟體映像的目錄名稱。

決定要將交換器升級到的Cisco IOS軟體版本之前，必須執行以下操作：

- 閱讀特定Cisco IOS軟體版本的版本說明。請參閱[Cisco Catalyst 3750系列交換器 — 版本說明](#)。
- 請參閱Bug Toolkit（僅限註冊客戶）和[Cisco Catalyst 3750系列交換器 — 現場通知](#)。

## 尋找Catalyst 3750交換器的優先順序值

優先順序值決定堆疊中的主要交換器。優先順序值可為 1 到 15。預設優先順序值為 1。思科建議將最高的優先順序值指定給您希望當作堆疊主機的交換器。在本範例中，主要交換器的優先順序值是 15。如需詳細資訊，請參閱[建立和管理Catalyst 3750交換器堆疊](#)。

```
3750#show switch detail
```

Switch#	Role	Mac Address	Priority	Current State
1	Slave	000c.30ae.4f00	9	Ready
*2	primary	000d.bd5c.1680	15	Ready

## 決定使用哪些檔案

Catalyst 3750軟體下載中心包含適用於每個功能集和版本的兩組Cisco IOS映像。一組只包含副檔名為.bin的Cisco IOS映像檔案。另一組包含Cisco IOS映像以及副檔名為.tar的基於Web的裝置管理器。

本檔案將說明使用.tar映像以及.bin映像的升級程式。 .tar檔案包含Cisco IOS映像檔案以及嵌入式裝置管理器所需的檔案。您必須使用組合的tar檔案才能透過裝置管理員升級交換器。

Cisco IOS軟體版本12.2(25)SEA和早期版本將提供第2+層功能和基本第3層路由的映像稱為SMI。這些軟體版本將提供完整第3層路由和進階服務的映像稱為EMI。

Cisco IOS軟體版本12.2(25)SEB和更新版本將SMI稱為*IP base*映像，將EMI稱為*IP服務*映像。

表1列出了Cisco IOS軟體版本12.2(25)SEB之前和之後版本的不同檔案命名慣例。

表1: Cisco IOS映像檔案命名約定

Cisco IOS軟體版本12.2(25)SEA及更低版本	Cisco IOS軟體版本12.2(25)SEB及更新版本
c3750-i9-mz(SMI)	c3750-ipbase-mz
c3750-i9k91-mz(SMI)	c3750-ipbasek9-mz
c3750-i5-mz(EMI)	c3750-ipservices-mz
c3750-i5k91-mz(EMI)	c3750-ipservicesk9-mz

表2列出了此軟體版本的檔名。

表2: Cisco IOS軟體映像檔案

### 檔案名稱

c3750-ipbase-tar.122-25.SEB.tar  
c3750-ipservices-tar.122-25.SEB.tar

c3750-ipbasek9-tar.122-25.SEB.tar

c3750-ipservicesk9-tar.122-25.SEB.tar

c3750-advipservicesk9-tar.122-25.SEB.tar

### 說明

Catalyst 3750 IP基礎映像和裝置管理器檔案此映像具有第2層+  
Catalyst 3750 IP服務映像和裝置管理員檔案此映像同時具有第  
Catalyst 3750 IP base加密映像和裝置管理器檔案此映像具有K  
功能。  
Catalyst 3750 IP services加密映像和裝置管理器檔案此映像具  
能。  
Catalyst 3750高級IP服務映像、加密檔案和裝置管理器檔案此映  
的單點傳送路由功能。

<sup>1</sup>SSH =安全殼層

<sup>2</sup>IPv6 = IP第6版

Software Advisor工具有助於確定網路所需功能所需的功能集。

**注意：**只有註冊的思科使用者才能訪問內部思科工具和資訊。

## 快閃記憶體檔案系統和記憶體要求

### Flash檔案系統

3750出廠時在flash：目錄中安裝了基於Web的裝置管理器（.tar檔案）。使用.tar檔案進行的提取過程會建立Cisco IOS映像目錄。映像目錄與Cisco IOS映像（.bin檔案）的名稱相同，但不包含副檔名。此目錄儲存Cisco IOS映像（.bin檔案）以及包含裝置管理器檔案的HTML子目錄。

發出 `dir flash:` 命令以檢視3750快閃記憶體檔案系統。以下是命令輸出範例：

```
3750#dir flash:
Directory of flash:/

 2  -rwx  5684228  Mar 12 1993 08:13:57 +00:00  c3750-ipbase-mz.122-25.SEC2.bin
 3  -rwx    2105   Mar 1 1993 00:02:16 +00:00  config.text
 4  drwx    192   Mar 12 1993 08:11:00 +00:00  c3750-ipbase-mz.122-25.SEB4
 5  -rwx     5    Mar 1 1993 00:02:16 +00:00  private-config.text
 6  -rwx    856   Mar 1 1993 00:04:40 +00:00  vlan.dat
364 -rwx    105   Mar 12 1993 08:11:00 +00:00  info

15998976 bytes total (3201536 bytes free)
```

*!--- Notice the "d" in the permissions statement. !--- It indicates that c3750-ipbase-mz.122-25.SEB4 is a directory. !--- This directory is the location of both the Cisco IOS image (.bin file) !--- and the HTML subdirectory.*

若要使用網路型裝置管理員將3750交換器升級為Cisco IOS軟體版本，請參閱本檔案中的以下各節：

- [3750系列交換器堆疊Cisco IOS升級 — 自動 \(.tar映像\)](#)
- [3750系列交換器堆疊Cisco IOS升級 — 手動 \(.tar映像\)](#)

請參閱[3750系列交換器堆疊Cisco IOS升級 — 手動 \(.bin映像\)](#)一節，以僅使用Cisco IOS軟體版本升級交換器。

### DRAM記憶體

所有型號的3750系列交換機的DRAM配置都是128 MB。在3750上升級軟體之前，沒有要考慮的最低DRAM要求。

### 快閃記憶體

根據Catalyst 3750交換機的型號，3750交換機附帶的內部快閃記憶體為16 MB或32 MB。有關詳細資訊，請參閱[Cisco Catalyst 3750產品手冊](#)。

您可以儲存在快閃記憶體中的映像數是有限的。升級軟體之前，請一律檢查映像大小（位元組）。發出 `dir flash:` 命令，以將此映像的大小與快閃記憶體中的可用空間進行比較。以下是命令輸出範例：

```
3750#dir flash:
Directory of flash:/
```

```
2 -rwx 6221372 Mar 1 1993 00:23:06 +00:00 c3750-ipbase-mz.122-25.SED1.bin
3 -rwx 2105 Mar 1 1993 00:02:16 +00:00 config.text
4 -rwx 5684228 Mar 1 1993 01:17:34 +00:00 c3750-ipbase-mz.122-25.SEC2.bin
5 -rwx 5 Mar 1 1993 00:02:16 +00:00 private-config.text
6 -rwx 856 Mar 1 1993 00:04:40 +00:00 vlan.dat
```

15998976 bytes total (**4087296 bytes free**)  
3750#

如有必要，請發出 `delete flash:file_name` 命令刪除單個Cisco IOS映像（.bin檔案）。或發出 `delete /force /recursive flash:dir_name` 命令刪除目錄和目錄中的所有檔案。

以下是刪除Cisco IOS映像（.bin檔案）的命令輸出範例：

```
3750#delete flash:c3750-ipbase-mz.122-25.SED1.bin
Delete filename [c3750-ipbase-mz.122-25.SED1.bin]?

!--- Press Return or Enter. Delete flash:c3750-ipbase-mz.122-25.SED1.bin? [confirm] !--- Press
Return or Enter. 3750#dir flash:
Directory of flash:/

 3 -rwx      2105   Mar 1 1993 00:02:16 +00:00  config.text
 4 -rwx    5684228   Mar 1 1993 01:17:34 +00:00  c3750-ipbase-mz.122-25.SEC2.bin
 5 -rwx      5     Mar 1 1993 00:02:16 +00:00  private-config.text
 6 -rwx      856   Mar 1 1993 00:04:40 +00:00  vlan.dat
```

15998976 bytes total (**10309120 bytes free**)

以下是使用網路型裝置管理員（目錄）刪除Cisco IOS映像的命令輸出範例：

```
3750#dir flash:
Directory of flash:/

 2 -rwx    5684228   Mar 12 1993 08:13:57 +00:00  c3750-ipbase-mz.122-25.SEC2.bin
 3 -rwx      2105   Mar 1 1993 00:02:16 +00:00  config.text
 4 drwx      192   Mar 12 1993 08:11:00 +00:00  c3750-ipbase-mz.122-25.SEB4
 5 -rwx      5     Mar 1 1993 00:02:16 +00:00  private-config.text
 6 -rwx      856   Mar 1 1993 00:04:40 +00:00  vlan.dat
364 -rwx      105   Mar 12 1993 08:11:00 +00:00  info
```

15998976 bytes total (**3201536 bytes free**)

```
3750#delete /force /recursive flash:c3750-ipbase-mz.122-25.SEB4
Delete filename [c3750-ipbase-mz.122-25.SEB4]?
```

```
!--- Press Return or Enter. 3750#dir flash:
Directory of flash:/
```

```
 2 -rwx    5684228   Mar 12 1993 08:13:57 +00:00  c3750-ipbase-mz.122-25.SEC
2.bin
 3 -rwx      2105   Mar 1 1993 00:02:16 +00:00  config.text
 5 -rwx      5     Mar 1 1993 00:02:16 +00:00  private-config.text
 6 -rwx      856   Mar 1 1993 00:04:40 +00:00  vlan.dat
364 -rwx      105   Mar 12 1993 08:11:00 +00:00  info
```

15998976 bytes total (**10308608 bytes free**)

升級可能需要您釋放更多空間。此要求取決於您在Flash中儲存了多少映像。您可以刪除舊映像/目錄以釋放此空間。

## 3750系列交換器堆疊Cisco IOS升級 — 自動（.tar映像）

本節提供用於設定本文件中所述功能的資訊。

本節中的步驟將合併的tar檔案複製到交換機。您將檔案從TFTP伺服器複製到交換器並擷取檔案。您可以下載映像檔案並替換當前映像，也可以保留當前映像。

**註：**對於交換機堆疊，**archive download-sw** 和**archive upload-sw** 特權EXEC命令只能通過堆疊主目錄使用。下載到堆疊主要成員的軟體映像會自動下載到其餘堆疊成員。因此，您必須登入到主交換機才能執行此升級。

## 逐步說明

若要下載軟體，請完成以下步驟：

### 步驟1

使用本文檔的[「決定使用哪些檔案」](#)一節可識別您要下載的映像型別和功能集。

### 步驟2

若要為Catalyst 3750交換器下載較舊版本的IP Services映像或IP Base映像檔案，請按一下「**Archived Catalyst 3750 Software**」。若要取得授權並下載加密軟體檔案，請按一下「**Catalyst 3750強式加密(3DES)軟體**」。

**註：**低於Cisco IOS軟體版本12.1(19)EA1c的Cisco IOS軟體版本包括引導載入程式升級。首次載入新軟體時，引導載入程式可能需要長達1分鐘的時間進行升級。開機載入器升級時，請勿重新啟動交換器。

### 步驟3

將映像複製到工作站上適當的TFTP目錄，並確保TFTP伺服器具有正確的配置。

如需詳細資訊，請參閱此版本軟體組態指南的附錄B。

### 步驟4

透過主控台連線埠或Telnet作業階段登入交換器，然後進入啟用模式。

### 步驟5

若要檢視目前的版本，請發出 **show version** 指令。

```
3750#show version
Cisco Internetwork Operating System Software
Cisco IOS (tm) C3750 Software (C3750-I5-M), Version 12.1(19)EA1d, RELEASE SOFTWARE (fc1)
Copyright (c) 1986-2004 by cisco Systems, Inc.
Compiled Mon 05-Apr-04 22:06 by antonino
Image text-base: 0x00003000, data-base: 0x009206D8

ROM: Bootstrap program is C3750 boot loader
BOOTLDR: C3750 Boot Loader (C3750-HBOOT-M) Version 12.1(14)EA1, RELEASE SOFTWARE (fc1)
```

```
3750 uptime is 4 days, 19 hours, 43 minutes
System returned to ROM by power-on
System image file is "flash:c3750-i5-mz.121-19.EA1d.bin"
```

```
cisco WS-C3750G-12S (PowerPC405) processor (revision A0) with 118776K/12288K bytes of
memory.
```

```
Processor board ID CAT0732R0JU
```

```
Last reset from power-on
```

```
Bridging software.
```

```
5 Virtual Ethernet/IEEE 802.3 interface(s)
```

```
40 Gigabit Ethernet/IEEE 802.3 interface(s)
```

```
The password-recovery mechanism is enabled.
```

```
512K bytes of flash-simulated non-volatile configuration memory.
```

```
Base ethernet MAC Address      : 00:0D:BD:5C:16:80
```

```
Motherboard assembly number    : 73-8307-06
```

```
Power supply part number       : 341-0048-01
```

```
Motherboard serial number      : CAT073205SU
```

```
Power supply serial number     : DTH073004US
```

```
Model revision number          : A0
```

```
Motherboard revision number    : A0
```

```
Model number                   : WS-C3750G-12S-E
```

```
System serial number           : CAT0732R0JU
```

```
Top Assembly Part Number      : 800-23419-01
```

```
Top Assembly Revision Number  : A0
```

```
Hardware Board Revision Number : 0x06
```

Switch	Ports	Model	SW Version	SW Image
-----	-----	-----	-----	-----
1	28	WS-C3750G-24TS	12.1(19)EA1d	C3750-I5-M
* 2	12	WS-C3750G-12S	12.1(19)EA1d	C3750-I5-M

```
Switch 01
```

## 第6步

發出dir flash:命令，以確認升級所需的可用記憶體量。

以下是命令輸出範例：

```
3750#dir flash:
Directory of flash:/

 2  -rwx      1516   Mar 01 1993 00:01:28  vlan.dat
 3  -rwx     4050902   Mar 01 1993 00:03:32  c3750-i5-mz.121-19.EA1d.bin
 4  -rwx      4273   Mar 05 1993 19:22:44  config.text
84  -rwx         5   Mar 05 1993 19:22:44  private-config.text
```

```
15998976 bytes total (11940352 bytes free)
```

## 第7步

若要驗證與TFTP伺服器的連線，請對其IP位址執行Ping。

```
3750#ping 10.11.11.11
```

```
Type escape sequence to abort.
```

```
Sending 5, 100-byte ICMP Echos to 10.11.11.11, timeout is 2 seconds:
```

```
!!!!
```

```
Success rate is 100 percent (5/5), round-trip min/avg/max = 1/1/1 ms
```

## 第8步





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

examining image...  
extracting info (98 bytes)  
extracting c3750-i5-mz.122-20.SE/info (435 bytes)  
extracting info (98 bytes)

Stacking Version Number: 1.4

System Type: 0x00000000  
Cisco IOS Image File Size: 0x004BA200  
Total Image File Size: 0x00818A00  
Minimum Dram required: 0x04000000  
Image Suffix: i5-122-20.SE  
Image Directory: c3750-i5-mz.122-20.SE  
Image Name: c3750-i5-mz.122-20.SE.bin  
Image Feature: LAYER\_3|MIN\_DRAM\_MEG=64

Old image for switch 1: unknown  
Old image for switch 2: unknown

Extracting images from archive into flash on switch 1...  
c3750-i5-mz.122-20.SE/ (directory)  
c3750-i5-mz.122-20.SE/html/ (directory)  
extracting c3750-i5-mz.122-20.SE/html/cms\_boot.jar (154860 bytes)  
extracting c3750-i5-mz.122-20.SE/html/err.html (152 bytes)  
extracting c3750-i5-mz.122-20.SE/html/cms\_splash.gif (22131 bytes)  
extracting c3750-i5-mz.122-20.SE/html/cms\_13.html (510 bytes)  
extracting c3750-i5-mz.122-20.SE/html/custom cms.html (2441 bytes)  
extracting c3750-i5-mz.122-20.SE/html/not\_supported.html (1392 bytes)  
extracting c3750-i5-mz.122-20.SE/html/cluster.html (2822 bytes)  
extracting c3750-i5-mz.122-20.SE/html/start.html (576 bytes)  
extracting c3750-i5-mz.122-20.SE/html/test.htm (2301 bytes)  
extracting c3750-i5-mz.122-20.SE/html/xhome.htm (25035 bytes)  
extracting c3750-i5-mz.122-20.SE/html/stylesheet.css (3364 bytes)  
extracting c3750-i5-mz.122-20.SE/html/back-exp.htm (182 bytes)  
extracting c3750-i5-mz.122-20.SE/html/sitewide.js (10627 bytes)  
extracting c3750-i5-mz.122-20.SE/html/tools.htm (21818 bytes)  
extracting c3750-i5-mz.122-20.SE/html/appsui.js (3092 bytes)  
extracting c3750-i5-mz.122-20.SE/html/forms.js (11521 bytes)  
extracting c3750-i5-mz.122-20.SE/html/doc.htm (22332 bytes)  
extracting c3750-i5-mz.122-20.SE/html/express-setup.htm (61957 bytes)  
extracting c3750-i5-mz.122-20.SE/html/troubleshooting\_Browser.htm (3704 bytes)  
extracting c3750-i5-mz.122-20.SE/html/troubleshooting\_OS.htm (2851 bytes)  
extracting c3750-i5-mz.122-20.SE/html/net\_report.htm (21107 bytes)

!--- Output suppressed. Installing (renaming): `flash1:update/c3750-i5-mz.122-20.SE' ->  
`flash1:c3750-i5-mz.122-20.SE' New software image

```

installed in flash1:c3750-i5-mz.122-20.SE Installing (renaming): `flash:update/c3750-i5-mz.122-
20.SE' -> `flash:c3750-i5-mz.122-20.SE' New software
image installed in flash:c3750-i5-mz.122-20.SE All software images installed. !--- Installation
of the image and supporting files is now complete
!--- in the flash of all switches in the stack. In this example, installation
!--- is complete in both switches.

```

## 第9步

映像副本已完成，您就可以重新啟動了。若要確認交換器的目前狀態是否為Ready，請發出 `show switch detail` 指令。

以下是範例：

```

3750#show switch detail

```

Switch#	Role	Mac Address	Priority	Current State
1	Slave	000c.30ae.4f00	9	Ready
*2	primary	000d.bd5c.1680	15	Ready

  

Switch#	Stack Port Status		Neighbors	
	Port 1	Port 2	Port 1	Port 2
1	Ok	Ok	2	2
2	Ok	Ok	1	1

## 步驟10

若要確認堆疊成員的快閃記憶體中有新映像，請發出 `dir flash:` 命令和 `dir flash 1:` 指令。在本範例中，有兩個交換器堆疊成員。如果堆疊組態包括堆疊中的其他交換器，請發出 `dir flash#:` 指令用於堆疊中的每台額外交換器。

發出 `show version` 命令，以驗證舊映像是否仍是當前作業系統映像。發出 `show boot` 命令，以確認新映像現在是 `BOOT path-list` 中可在下次交換器重新載入時載入的映像。

```

3750#dir flash:
Directory of flash:/

 2  -rwx      1516  Mar 01 1993 00:01:28  vlan.dat
 3  -rwx     4050902  Mar 01 1993 00:03:32  c3750-i5-mz.121-19.EA1d.bin
 4  -rwx      4273  Mar 05 1993 19:22:44  config.text
 6  drwx       192  Mar 05 1993 19:40:16  c3750-i5-mz.122-20.SE
84  -rwx         5  Mar 05 1993 19:22:44  private-config.text

!--- Notice the "d" in the permissions statement. The "d" indicates a directory. 15998976 bytes
total (3491328 bytes free) 3750#dir flash1:
Directory of flash1:/

 2  -rwx     4050902  Mar 01 1993 00:35:58  c3750-i5-mz.121-19.EA1d.bin
 3  -rwx      1516  Mar 01 1993 00:01:33  vlan.dat
 4  -rwx      4273  Mar 05 1993 19:22:44  config.text
 5  -rwx         5  Mar 05 1993 19:22:44  private-config.text
 7  drwx       192  Mar 05 1993 19:37:40  c3750-i5-mz.122-20.SE

15998976 bytes total (3491328 bytes free)

```

3750#**show version**

Cisco Internetwork Operating System Software  
Cisco IOS (tm) C3750 Software (C3750-I5-M), Version 12.1(19)EA1d, RELEASE SOFTWARE (fc1)  
Copyright (c) 1986-2004 by cisco Systems, Inc.  
Compiled Mon 05-Apr-04 22:06 by antonino  
Image text-base: 0x00003000, data-base: 0x009206D8

ROM: Bootstrap program is C3750 boot loader  
BOOTLDR: C3750 Boot Loader (C3750-HBOOT-M) Version 12.1(14)EA1, RELEASE SOFTWARE (fc1)

3750 uptime is 4 days, 19 hours, 43 minutes  
System returned to ROM by power-on  
System image file is "flash:c3750-i5-mz.121-19.EA1d.bin"

cisco WS-C3750G-12S (PowerPC405) processor (revision A0) with  
118776K/12288K bytes of memory.  
Processor board ID CAT0732R0JU  
Last reset from power-on  
Bridging software.  
5 Virtual Ethernet/IEEE 802.3 interface(s)  
40 Gigabit Ethernet/IEEE 802.3 interface(s)  
The password-recovery mechanism is enabled.  
512K bytes of flash-simulated non-volatile configuration memory.  
Base ethernet MAC Address : 00:0D:BD:5C:16:80  
Motherboard assembly number : 73-8307-06  
Power supply part number : 341-0048-01  
Motherboard serial number : CAT073205SU  
Power supply serial number : DTH073004US  
Model revision number : A0  
Motherboard revision number : A0  
Model number : WS-C3750G-12S-E  
System serial number : CAT0732R0JU  
Top Assembly Part Number : 800-23419-01  
Top Assembly Revision Number : A0  
Hardware Board Revision Number : 0x06

Switch	Ports	Model	SW Version	SW Image
-----	-----	-----	-----	-----
1	28	WS-C3750G-24TS	12.1(19)EA1d	C3750-I5-M
*	2	12 WS-C3750G-12S	12.1(19)EA1d	C3750-I5-M

Switch 01

*!--- When you issue the show boot command, it now reads the new code revision  
!--- that can load at the next reboot.* 3750#**show boot**  
BOOT path-list : flash:c3750-i5-mz.122-20.SE/c3750-i5-mz.122-20.SE.bin  
Config file : flash:/config.text  
Private Config file : flash:/private-config.text  
Enable Break : no  
Manual Boot : no  
HELPER path-list :  
Auto upgrade : yes  
3750#  
3750#

## 步驟11

發出 reload 命令並確認，以便繼續重新載入。堆疊中的所有交換器都必須啟動新的程式碼修訂版，並開始按預期執行。

以下是交換器重新載入的範例輸出：

3750#**reload**

Proceed with reload? [confirm]

4d19h: %SYS-5-RELOAD: Reload requested

Base ethernet MAC Address: 00:0d:bd:5c:16:80

Xmodem file system is available.

The password-recovery mechanism is enabled.

Initializing Flash...

flashfs[0]: 86 files, 4 directories

flashfs[0]: 0 orphaned files, 0 orphaned directories

flashfs[0]: Total bytes: 15998976

flashfs[0]: Bytes used: 12507648

flashfs[0]: Bytes available: 3491328

flashfs[0]: flashfs fsck took 9 seconds.

...done Initializing Flash.

Boot Sector Filesystem (bs) installed, fsid: 3

done.

Loading "flash:c3750-i5-mz.122-20.SE/c3750-i5-mz.122-20.SE.bin"

...@@

File "flash:c3750-i5-mz.122-20.SE/c3750-i5-mz.122-20.SE.bin" uncompressed and installed,  
entry point: 0x3000

executing...

#### 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 Internetwork Operating System Software  
Cisco IOS (tm) C3750 Software (C3750-I5-M), Version 12.2(20)SE, RELEASE SOFTWARE (fc1)  
Copyright (c) 1986-2004 by Cisco Systems, Inc.  
Compiled Wed 19-May-04 11:52 by yenanh  
Image text-base: 0x00003000, data-base: 0x00B53B10

Initializing flashfs...

flashfs[1]: 86 files, 4 directories  
flashfs[1]: 0 orphaned files, 0 orphaned directories  
flashfs[1]: Total bytes: 15998976  
flashfs[1]: Bytes used: 12507648  
flashfs[1]: Bytes available: 3491328  
flashfs[1]: flashfs fsck took 9 seconds.  
flashfs[1]: Initialization complete....done Initializing flashfs.

POST: CPU MIC register Tests : Begin  
POST: CPU MIC register Tests : End, Status Passed

POST: PortASIC Memory Tests : Begin  
POST: PortASIC Memory Tests : End, Status Passed

POST: CPU MIC PortASIC interface Loopback Tests : Begin  
POST: CPU MIC PortASIC interface Loopback Tests : End, Status Passed

POST: PortASIC RingLoopback Tests : Begin  
POST: PortASIC RingLoopback Tests : End, Status Passed

Waiting for Stack primary Election (around 20 seconds)...  
POST: PortASIC CAM Subsystem Tests : Begin  
POST: PortASIC CAM Subsystem Tests : End, Status Passed

POST: PortASIC Stack Port Loopback Tests : Begin  
POST: PortASIC Stack Port Loopback Tests : End, Status Passed

POST: PortASIC Port Loopback Tests : Begin  
POST: PortASIC Port Loopback Tests : End, Status Passed

Election Complete  
Switch 2 booting as primary  
Waiting for Port download...Complete

cisco WS-C3750G-12S (PowerPC405) processor (revision A0) with 118784K/12280K bytes of memory.

Processor board ID CAT0732R0JU

Last reset from power-on

Bridging software.

1 Virtual Ethernet/IEEE 802.3 interface(s)

40 Gigabit Ethernet/IEEE 802.3 interface(s)

The password-recovery mechanism is enabled.

512K bytes of flash-simulated non-volatile configuration memory.

Base ethernet MAC Address : 00:0D:BD:5C:16:80

Motherboard assembly number : 73-8307-06

Power supply part number : 341-0048-01

Motherboard serial number : CAT073205SU

Power supply serial number : DTH073004US

Model revision number : A0

Motherboard revision number : A0

Model number : WS-C3750G-12S-E

System serial number : CAT0732R0JU

Top Assembly Part Number : 800-23419-01

Top Assembly Revision Number : A0

Hardware Board Revision Number : 0x06

Switch	Ports	Model	SW Version	SW Image
-----	-----	-----	-----	-----
* 2	12	WS-C3750G-12S	12.2(20)SE	C3750-I5-M

Press RETURN to get started!

```
00:00:57: %STACKMGR-6-SWITCH_ADDED: Switch 1 has been ADDED to the stack
00:00:57: %STACKMGR-6-SWITCH_ADDED: Switch 2 has been ADDED to the stack
00:01:27: %LINEPROTO-5-UPDOWN: Line protocol on Interface Vlan1, changed state to down
00:01:27: %SPANTREE-5-EXTENDED_SYSID: Extended SysId enabled for type vlan
00:01:30: %SYS-5-CONFIG_I: Configured from memory by console
00:01:30: %STACKMGR-6-SWITCH_READY: Switch 2 is READY
00:01:30: %STACKMGR-6-STACK_LINK_CHANGE: Stack Port 1 Switch 2 has changed to st
3750>
3750>ate UP
00:01:30: %STACKMGR-6-STACK_LINK_CHANGE: Stack Port 2 Switch 2 has changed to state UP
00:01:30: %STACKMGR-6-primary_READY: primary Switch 2 is READY
00:01:31: %SYS-5-RESTART: System restarted --
Cisco Internetwork Operating System Software
Cisco IOS (tm) C3750 Software (C3750-I5-M), Version 12.2(20)SE, RELEASE SOFTWARE (fc1)
Copyright (c) 1986-2004 by cisco Systems, Inc.
Compiled Wed 19-May-04 11:52 by yenanh
00:01:32: %LINK-5-CHANGED: Interface GigabitEthernet2/0/1,
changed state to administratively
down
00:01:32: %LINK-5-CHANGED: Interface Vlan1, changed state to administratively down
00:01:32: %LINK-5-CHANGED: Interface Vlan2, changed state to administratively down
00:01:35: %STACKMGR-6-SWITCH_READY: Switch 1 is READY
00:01:35: %STACKMGR-6-STACK_LINK_CHANGE: Stack Port 1 Switch 1 has changed to state UP
00:01:35: %STACKMGR-6-STACK_LINK_CHANGE: Stack Port 2 Switch 1 has changed to state UP
00:01:25: %STACKMGR-6-SWITCH_ADDED: Switch 1 has been ADDED to the stack (3750-1)
00:01:25: %STACKMGR-6-SWITCH_ADDED: Switch 2 has been ADDED to the stack (3750-1)
00:01:32: %SPANTREE-5-EXTENDED_SYSID: Extended SysId enabled for type vlan (3750-1)
00:01:35: %SYS-5-CONFIG_I: Configured from memory by console (3750-1)
00:01:35: %STACKMGR-6-SWITCH_READY: Switch 2 is READY (3750-1)
00:01:35: %STACKMGR-6-primary_READY: primary Switch 2 is READY (3750-1)
00:01:35: %STACKMGR-6-SWITCH_READY: Switch 1 is READY (3750-1)
00:01:36: %SYS-5-RESTART: System restarted -- (3750-1)
Cisco Internetwork Operating System
3750>
3750>Software (3750-1)
Cisco IOS (tm) C3750 Software (C3750-I5-M), Version 12.2(20)SE, RELEASE SOFTWARE
(fc1) (3750-1)
Copyright (c) 1986-2004 by Cisco Systems, Inc. (3750-1)
Compiled Wed 19-May-04 11:52 by yenanh (3750-1)
00:01:37: %LINK-3-UPDOWN: Interface GigabitEthernet1/0/2, changed state to up
00:01:37: %LINK-3-UPDOWN: Interface GigabitEthernet1/0/3, changed state to up
00:01:37: %LINK-3-UPDOWN: Interface GigabitEthernet1/0/4, changed state to up
00:01:38: %LINK-3-UPDOWN: Interface GigabitEthernet2/0/2, changed state to up
00:01:38: %LINEPROTO-5-UPDOWN: Line protocol on Interface GigabitEthernet1/0/2, changed
state to up
00:01:38: %LINEPROTO-5-UPDOWN: Line protocol on Interface GigabitEthernet1/0/3, changed
state to up
00:01:38: %LINEPROTO-5-UPDOWN: Line protocol on Interface GigabitEthernet1/0/4, changed
state to up
00:01:39: %LINEPROTO-5-UPDOWN: Line protocol on Interface GigabitEthernet2/0/2, changed
state to up
3750>
```

## 3750系列交換器堆疊Cisco IOS升級 — 手動 (.tar映像)

本文的前一節說明如何使用 `archive download-sw` 指令。您也可以手動逐個交換器升級Cisco IOS，且無需斷開堆疊纜線。該方法主要分為三個步驟：

1. 將.tar映像從TFTP伺服器複製到主交換器。
2. 將.tar映像解壓到交換機的所有Flash檔案系統中。
3. 配置引導變數。

其 `archive download-sw` 命令執行Cisco IOS自動升級過程中的所有三個步驟。您也可以在手動Cisco IOS升級中執行以下三個步驟。逐步部分顯示如何升級到Cisco IOS軟體版本12.2(25)SEE1的示例。此範例中的交換器堆疊包含三台交換器。交換機1是主交換機，交換機2和3是成員交換機。

## 逐步說明

### 步驟1 — 下載.tar映像

您需要確保主交換機的快閃記憶體中有足夠的可用空間。主交換機的空間量必須是.tar映像檔案大小的兩倍。要儲存.tar檔案，以及儲存您下一步在步驟2中抽取的.tar檔案的內容，需要此空間。例如，如果.tar映像大小為10 Mb，則至少需要20 Mb的可用空間。

```
3750-stack#copy tftp: flash:
Address or name of remote host []? 10.10.10.10
Source filename []? c3750-advipservicesk9-tar.122-25.SEE1.tar
Destination filename [c3750-advipservicesk9-tar.122-25.SEE1.tar]?
Accessing tftp://10.10.10.10/c3750-advipservicesk9-tar.122-25.SEE1.tar...
Loading c3750-advipservicesk9-tar.122-25.SEE1.tar from 10.10.10.10 (via Vlan10):
!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!
!--- Output is suppressed.
```

### 步驟2 — 提取.tar映像

將.tar映像解壓到快閃記憶體檔案系統中的所有交換機。其 `archive tar /xtract` 命令建立一個目錄，並在新建立的目錄下提取檔案。

以下是命令語法的範例：

```
3750-stack#archive tar /xtract
```

請完成以下子步驟：

1. 將.tar檔案擷取到switch1的快閃記憶體中。

```
3750-stack#archive tar /xtract c3750-advipservicesk9-tar.122-25.SEE1.tar flash1:
```

```
extracting c3750-advipservicesk9-mz.122-25.SEE1/html/images/grn_vertlines_bott.gif (957
bytes)
```

```
extracting c3750-advipservicesk9-mz.122-25.SEE1/html/images/red.gif (147 bytes)
extracting c3750-advipservicesk9-mz.122-25.SEE1/html/images/print.gif (625 bytes)
```

```
!--- Output is suppressed.
```

## 2. 將.tar檔案擷取到switch2的快閃記憶體中。

```
3750-stack#archive tar /xtract c3750-advipservicesk9-tar.122-25.SEE1.tar flash2:
```

```
extracting c3750-advipservicesk9-mz.122-25.SEE1/html/images/grn_vertlines_bott.gif (957 bytes)
```

```
extracting c3750-advipservicesk9-mz.122-25.SEE1/html/images/red.gif (147 bytes)
```

```
extracting c3750-advipservicesk9-mz.122-25.SEE1/html/images/print.gif (625 bytes)
```

```
!--- Output is suppressed.
```

## 3. 將.tar檔案擷取到switch3的快閃記憶體中。

```
3750-stack#archive tar /xtract c3750-advipservicesk9-tar.122-25.SEE1.tar flash3:
```

```
extracting c3750-advipservicesk9-mz.122-25.SEE1/html/images/grn_vertlines_bott.gif (957 bytes)
```

```
extracting c3750-advipservicesk9-mz.122-25.SEE1/html/images/red.gif (147 bytes)
```

```
extracting c3750-advipservicesk9-mz.122-25.SEE1/html/images/print.gif (625 bytes)
```

```
!--- Output is suppressed.
```

## 步驟3 — 配置引導變數

將.tar檔案擷取到快閃記憶體後，需要設定開機變數以指向新的Cisco IOS。您需要尋找擷取.bin檔案的路徑。

```
3750-stack#dir
```

```
Directory of flash:/
```

```
2 drwx192 Mar 11 1993 00:31:05 +00:00 c3750-advipservicesk9-mz.122-25.SEE1
```

```
!--- The archive tar /xtract command created this directory. 455 -rwx 114 Mar 11 1993 00:31:05 +00:00 info 457 -rwx 9433 Mar 1 1993 01:40:11 +00:00 config.text 458 -rwx 796 Mar 1 1993 00:02:39 +00:00 vlan.dat 459 -rwx 24 Mar 1 1993 01:40:11 +00:00 private-config.text 15998976 bytes total (5613056 bytes free) 3750-stack#dir flash:c3750-advipservicesk9-mz.122-25.SEE1
```

```
Directory of flash:/c3750-advipservicesk9-mz.122-25.SEE1/
```

```
3 -rwx 8169055 Mar 11 1993 00:29:52 +00:00 c3750-advipservicesk9-mz.122-25.SEE1.bin
```

```
4 drwx 4160 Mar 11 1993 00:30:29 +00:00 html
```

```
454 -rwx 709 Mar 11 1993 00:31:05 +00:00 info
```

```
15998976 bytes total (5613056 bytes free)
```

```
3750-stack#
```

其 **boot system switch all** 命令用於更改引導變數。

```
3750-stack(config)#boot system switch all flash:/c3750-advipservicesk9-mz.122-25.SEE1/c3750-advipservicesk9-mz.122-25.SEE1.bin
```

```
3750-stack(config)#exit
```

```
3750-stack#write memory
```

## 步驟4 — 重新載入和驗證

重新載入交換器，並驗證重新載入後交換器是否執行新的Cisco IOS軟體版本：



```
!--- Reload the switch. Switch#reload
Proceed with reload? [confirm]
```

```
!--- Verify the Cisco IOS software release of the switch after the reload. 3750-stack#show
version
Cisco IOS Software, C3750 Software (C3750-ADVIPSERVICESK9-M), Version 12.2(25)S
E1, RELEASE SOFTWARE (fc1)
Copyright (c) 1986-2006 by Cisco Systems, Inc.
Compiled Mon 22-May-06 08:52 by yenanh
Image text-base: 0x00003000, data-base: 0x01255B58
```

```
!--- Output is suppressed. Switch Ports Model SW Version SW Image -----
----- * 1 28 WS-C3750G-24PS 12.2(25)SEE1 C3750-ADVIPSERVICESK 2 52 WS-C3750G-48TS
12.2(25)SEE1 C3750-ADVIPSERVICESK 3 26 WS-C3750-24TS 12.2(25)SEE1 C3750-ADVIPSERVICESK !---
Verify the switch primary and member state: 3750-stack#show switch
```

Switch#	Role	Mac Address	Priority	Current State
*1	primary	0015.63f6.b700	5	Ready
2	Member	0015.c6c1.3000	2	Ready
3	Member	000f.f794.3d00	5	Ready

## 3750系列交換器堆疊Cisco IOS升級 — 手動 (.bin映像)

3750交換器堆疊可以通過Web裝置管理員或CLI進行管理。如果使用CLI管理交換器，則不需要.tar映像。本節介紹使用.bin映像進行Cisco IOS升級。假設您已使用Cisco IOS映像設定3750交換器堆疊。本節介紹如何在3750交換器堆疊中複製和升級新的Cisco IOS。

**註：**命令 `archive download-sw` 和 `archive upload-sw` 僅適用於.tar映像檔案，而不適用於.bin映像檔案。

此範例說明在Catalyst 3750交換器堆疊上升級到Cisco IOS軟體版本12.2(25)SEE2的逐步程式。Catalyst 3750交換器堆疊中有兩台交換器，而Cisco IOS映像位於TFTP伺服器172.22.1.165上。此輸出會顯示此堆疊中的堆疊成員和主要成員：

```
Switch#show switch
```

Switch#	Role	Mac Address	Priority	Current State
1	Member	0015.63f6.b700	5	Ready
*2	primary	0015.c6c1.3000	10	Ready

### 逐步說明

#### 步驟1 — 下載.bin映像

請參閱[軟體下載 — Cisco Catalyst 3750軟體](#)，並找到您要下載的映像。Catalyst 3750的軟體下載中心包含每套功能集和版本的兩組Cisco IOS映像。一組只包含副檔名為.bin的Cisco IOS映像檔案。另一組包含Cisco IOS映像以及副檔名為.tar的基於Web的裝置管理器。

#### 第2步 — 檢驗可用記憶體



!!

!--- Output is truncated. [OK - 8172194 bytes] 8172194 bytes copied in 186.655 secs (43782 bytes/sec)

### 步驟4 — 配置引導變數

設定開機變數以使用新複製的Cisco IOS來開機交換器：

```
Switch(config)#boot system switch all flash:/c3750-advipservicesk9-mz.122-25.SEE2.bin
Switch(config)#exit
Switch#write memory
```

### 步驟5 — 重新載入前進行驗證

驗證開機變數：

```
Switch#show boot
BOOT path-list      : flash:/c3750-advipservicesk9-mz.122-25.SEE2.bin

!--- Primary switch. Config file : flash:/config.text Private Config file : flash:/private-
config.text Enable Break : no Manual Boot : no HELPER path-list : Auto upgrade : yes -----
----- Switch 1 !--- Member switch. ----- BOOT path-list : flash:/c3750-
advipservicesk9-mz.122-25.SEE2.bin
Config file         : flash:/config.text
Private Config file : flash:/private-config.text
Enable Break        : no
Manual Boot         : no
HELPER path-list    :

Auto upgrade        : no
```

驗證新的Cisco IOS檔案是否存在於快閃記憶體中：

```
Switch#dir flash1:
Directory of flash1:/

 2 -rwx      24   Mar 3 1993 22:02:44 +00:00 private-config.text
 3 -rwx    623744 Jan 1 1970 00:12:28 +00:00 stardust0923
 4 -rwx      796   Mar 1 1993 00:02:48 +00:00 vlan.dat
 5 -rwx    623744 Jan 1 1970 00:32:09 +00:00 diag
 6 -rwx    8169055 Mar 1 1993 00:43:34 +00:00 c3750-advipservicesk9-mz.1
22-25.SEE1.bin
 7 -rwx    8172194 Mar 3 1993 22:31:35 +00:00 c3750-advipservicesk9-mz.1
22-25.SEE2.bin
 8 -rwx      10192 Mar 3 1993 22:02:44 +00:00 config.text
462 -rwx      114   Mar 1 1993 00:32:19 +00:00 info
367 drwx      192   Mar 1 1993 00:32:19 +00:00 c3750-advipservicesk9-mz.1
22-25.SEE1

32514048 bytes total (4582400 bytes free)
```

```
Switch#dir flash: or dir flash2:
Directory of flash2:/

 2 -rwx    4207104 Jan 1 1970 00:14:06 +00:00 c3750-i9-mz.122-20.SE4
```

```
3 -rwx      623744   Jan 1 1970 00:17:20 +00:00  stardust0923
4 -rwx      4207104   Jan 1 1970 00:19:44 +00:00  ios 5 -rwx 623744 Jan 1 1970 00:20:47
+00:00 diag 6 -rwx 8169055 Mar 21 1993 23:29:36 +00:00  c3750-advipservicesk9-mz.1 22-25.SEE1.bin
7 -rwx 796 Mar 1 1993 00:02:54 +00:00  vlan.dat 8 -rwx 24 Mar 3 1993 22:02:44 +00:00  private-
config.text 9 -rwx 8172194 Mar 3 1993 22:42:06 +00:00  c3750-advipservicesk9-mz.1 22-25.SEE2.bin
10 -rwx 10192 Mar 3 1993 22:02:44 +00:00  config.text 11 drwx 128 Mar 21 1993 23:25:53 +00:00
c3750-ipservicesk9-mz.122- 25.SEB1 32514048 bytes total (4898816 bytes free)
```

## 步驟6 — 重新載入和驗證

重新載入交換器，並在重新載入後驗證交換器是否執行新的Cisco IOS軟體版本：

```
!--- Reload the switch. Switch#reload
Proceed with reload? [confirm]

!--- Verify the Cisco IOS software version of the switch after the reload. Switch#show version
Cisco IOS Software, C3750 Software (C3750-ADVIPSERVICESK9-M), Version 12.2(25)SE
E2, RELEASE SOFTWARE (fc1)
Copyright (c) 1986-2006 by Cisco Systems, Inc.
Compiled Fri 28-Jul-06 12:55 by yenanh
Image text-base: 0x00003000, data-base: 0x01256754

ROM: Bootstrap program is C3750 boot loader
BOOTLDR: C3750 Boot Loader (C3750-HBOOT-M), Version 12.2 [bkeene-flo_dsbu2 100]

Switch uptime is 33 minutes
System returned to ROM by power-on
System image file is "flash:/c3750-advipservicesk9-mz.122-25.SEE2.bin"

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 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.

cisco WS-C3750G-48TS (PowerPC405) processor (revision 01) with 118784K/12280K by
tes of memory.
Processor board ID FOC0941U2SK
Last reset from power-on
3 Virtual Ethernet interfaces
132 Gigabit Ethernet interfaces
The password-recovery mechanism is enabled.

512K bytes of flash-simulated non-volatile configuration memory.
Base ethernet MAC Address      : 00:15:C6:C1:30:00

!--- primary switch information. Motherboard assembly number : 73-10218-04 Power supply part
number : 341-0107-01 Motherboard serial number : FOC09400W9S Power supply serial number :
AZS093905HN Model revision number : 01 Motherboard revision number : 02 Model number : WS-
C3750G-48TS-S System serial number : FOC0941U2SK Top Assembly Part Number : 800-26857-01 Top
Assembly Revision Number : 06 Version ID : V03 Hardware Board Revision Number : 0x03 !--- Verify
```

```

that all the switches run the new Cisco IOS software version: Switch Ports Model SW Version SW
Image ----- 1 28 WS-C3750G-24PS 12.2(25)SEE2 C3750-
ADVIPSERVICESK
* 2 52 WS-C3750G-48TS 12.2(25)SEE2 C3750-ADVIPSERVICESK

```

Switch 01

```

!--- Member switch information. ----- Switch Uptime : 33 minutes Base ethernet MAC Address :
00:15:63:F6:B7:00 Motherboard assembly number : 73-10217-03 Power supply part number : 341-0108-
02 Motherboard serial number : FOC09382V48 Power supply serial number : DCA09330W5E Model
revision number : 01 Motherboard revision number : 04 Model number : WS-C3750G-24PS-E System
serial number : FOC0939U17V Top assembly part number : 800-27482-01 Top assembly revision number
: 01 Version ID : V03 Configuration register is 0xF !--- Verify the switch primary and member
state: Switch#show switch

```

Switch#	Role	Mac Address	Priority	Current State
1	Member	0015.63f6.b700	5	Ready
*2	primary	0015.c6c1.3000	10	Ready

## 驗證

本節幫助您確認您的組態是否正常運作。

某些 [show cisco CLI Analyzer](#) 支援的 [命令](#) 允許您檢視分析 show 命令輸出。

**注意：** 只有註冊的思科使用者才能訪問內部思科工具和資訊。

- **show switch detail** — 驗證所有交換機是否都已就緒。
- **show version< /strong>** — 驗證堆疊中的所有交換機均未運行到新的代碼版本。

3750#show switch detail

Switch#	Role	Mac Address	Priority	Current State
1	Slave	000c.30ae.4f00	9	Ready
*2	primary	000d.bd5c.1680	15	Ready

Switch#	Stack Port Status		Neighbors	
	Port 1	Port 2	Port 1	Port 2
1	Ok	Ok	2	2
2	Ok	Ok	1	1

```

!--- The show version command now reflects the new code revision, as expected. 3750#show version
Cisco Internetwork Operating System Software
Cisco IOS (tm) C3750 Software (C3750-I5-M), Version 12.2(20)SE, RELEASE SOFTWARE (fc1)
Copyright (c) 1986-2004 by cisco Systems, Inc.
Compiled Wed 19-May-04 11:52 by yenanh
Image text-base: 0x00003000, data-base: 0x00B53B10

```

ROM: Bootstrap program is C3750 boot loader

BOOTLDR: C3750 Boot Loader (C3750-HBOOT-M) Version 12.1(14)EA1, RELEASE SOFTWARE (fc1)

3750 uptime is 2 minutes  
System returned to ROM by power-on  
System image file is "flash:c3750-i5-mz.122-20.SE/c3750-i5-mz.122-20.SE.bin"

cisco WS-C3750G-12S (PowerPC405) processor (revision A0) with 118784K/12280K bytes of memory.

Processor board ID CAT0732R0JU

Last reset from power-on

Bridging software.

5 Virtual Ethernet/IEEE 802.3 interface(s)

40 Gigabit Ethernet/IEEE 802.3 interface(s)

The password-recovery mechanism is enabled.

512K bytes of flash-simulated non-volatile configuration memory.

Base ethernet MAC Address : 00:0D:BD:5C:16:80

Motherboard assembly number : 73-8307-06

Power supply part number : 341-0048-01

Motherboard serial number : CAT073205SU

Power supply serial number : DTH073004US

Model revision number : A0

Motherboard revision number : A0

Model number : WS-C3750G-12S-E

System serial number : CAT0732R0JU

Top Assembly Part Number : 800-23419-01

Top Assembly Revision Number : A0

Hardware Board Revision Number : 0x06

Switch	Ports	Model	SW Version	SW Image
-----	-----	-----	-----	-----
1	28	WS-C3750G-24TS	12.2(20)SE	C3750-I5-M
*	2	12 WS-C3750G-12S	12.2(20)SE	C3750-I5-M

Switch 01

-----

Switch Uptime : 2 minutes

Base ethernet MAC Address : 00:0C:30:AE:4F:00

Motherboard assembly number : 73-7058-07

Power supply part number : 341-0045-01

Motherboard serial number : CSJ0708020N

Power supply serial number : LIT07050027

Model revision number : 01

Motherboard revision number : 03

Model number : WS-C3750G-24TS-E

System serial number : CSJ0711U03G

Configuration register is 0xF

## 疑難排解

本節提供的資訊可用於對組態進行疑難排解。

### 從TFTP伺服器傳輸映像失敗或已損壞的Cisco IOS映像

如果您發現從TFTP伺服器進行的映像傳輸連續失敗，請參閱[解決常見映像安裝問題](#)。本文提供TFTP伺服器已知問題的解決方案。

### 您收到Error\_Bad\_Mzip錯誤訊息

Cisco IOS映像損毀或.tar檔案透過Xmodem上傳時會顯示此錯誤。為了解決問題，請完成以下步驟：

1. 透過Xmodem將.bin檔案上傳到交換器。
2. 將啟動路徑設定為正確的檔名。
3. 重新載入交換器。
4. 檢查影像檔案大小是否正確。如果映像檔案大小不正確，請嘗試再次下載映像檔案。

請參閱這些檔案以檢查復原程式：

- 從損毀映像復原Catalyst固定組態交換器的逐步復原程式 [一節](#)
- [Catalyst 3750、3560和2970交換器\(Cisco IOS版本12.2\(25\)SEB和更高版本\)的版本說明中「從軟體失敗中復原」一節](#)

## 開啟flash:update/info時出錯 ( 沒有此類檔案或目錄 )

交換器在軟體升級過程中報告以下錯誤訊息：

```
Stack_Switch1#archive download-sw
tftp://10.1.1.2/c3750-advipservicesk9-tar.122-25.SEE1.tar
Could not buffer tarfile...using multiple downloads
examining image...
%Error opening tftp://10.1.1.2/c3750-advipservicesk9-tar.122-25.SEE1.tar (Timed out)
%Error opening flash:update/info (No such file or directory)
ERROR: Image is not a valid Cisco IOS image archive
```

完成以下步驟以識別並解決此問題：

1. 確保能夠從交換機ping TFTP伺服器IP地址。
2. 驗證您的TFTP伺服器是否正常工作，如果可能，請嘗試其他TFTP伺服器。
3. 如果快閃記憶體中有任何舊資訊目錄，則將其刪除。
4. 如果錯誤訊息繼續顯示，請格式化快閃記憶體並重新載入交換器。格式化後，交換機可引導至ROMMON模式。如果交換機啟動到ROMMON模式，則使用Xmodem恢復交換機。

## 堆疊中的交換器無法開機新映像 ( 版本不相符 )

Cisco IOS升級後，任何一台或多台交換機都不會使用新映像啟動。或者，將交換器新增至目前堆疊時，且新增的交換器的Cisco IOS軟體版本與當前交換器堆疊不同，則新交換器將不能使用。3750交換器堆疊具有自動升級功能，該功能預設啟用。此功能可讓交換器堆疊自動升級新增交換器上的Cisco IOS。有時，此自動升級無法升級新增交換器的Cisco IOS。將交換器新增至目前堆疊時，會顯示以下訊息序列。

```
1w2d: %IMAGEMGR-6-AUTO_COPY_SW_INITIATED: Auto-copy-software process initiated
for switch number(s) 3
1w2d: %IMAGEMGR-6-AUTO_COPY_SW:
1w2d: %IMAGEMGR-6-AUTO_COPY_SW: Searching for stack member to act
1w2d: %IMAGEMGR-6-AUTO_COPY_SW: as software donor...
1w2d: %IMAGEMGR-6-AUTO_COPY_SW: Found donor (system #1) for
1w2d: %IMAGEMGR-6-AUTO_COPY_SW: member(s) 3
1w2d: %IMAGEMGR-6-AUTO_COPY_SW: System software to be uploaded:
1w2d: %IMAGEMGR-6-AUTO_COPY_SW: System Type:                0x00000000
1w2d: %IMAGEMGR-6-AUTO_COPY_SW: Warning: Unable to determine image running
1w2d: %IMAGEMGR-6-AUTO_COPY_SW: Software could not be copied to
```

```

1w2d: %IMAGEMGR-6-AUTO_COPY_SW: system(s) 3
1w2d: %IMAGEMGR-6-AUTO_COPY_SW: Software was not copied
1w2d: %IMAGEMGR-6-AUTO_ADVISE_SW_INITIATED: Auto-advise-software process initiated for switch number(s) 3
1w2d: %IMAGEMGR-6-AUTO_ADVISE_SW:
1w2d: %IMAGEMGR-6-AUTO_ADVISE_SW:
1w2d: %IMAGEMGR-6-AUTO_ADVISE_SW: Systems with incompatible software
1w2d: %IMAGEMGR-6-AUTO_ADVISE_SW: have been added to the stack. The
1w2d: %IMAGEMGR-6-AUTO_ADVISE_SW: software running on all of the stack
1w2d: %IMAGEMGR-6-AUTO_ADVISE_SW: members has been scanned, and it has
1w2d: %IMAGEMGR-6-AUTO_ADVISE_SW: been determined that the stack can be
1w2d: %IMAGEMGR-6-AUTO_ADVISE_SW: repaired by issuing the following
1w2d: %IMAGEMGR-6-AUTO_ADVISE_SW: command(s):
1w2d: %IMAGEMGR-6-AUTO_ADVISE_SW:      archive copy-sw /force-reload /overwrite /
dest 3 1
1w2d: %IMAGEMGR-6-AUTO_ADVISE_SW:

```

```
3750-stack#show switch
```

Switch#	Role	Mac Address	Priority	Current State
*1	primary	0015.63f6.b700	5	Ready
2	Member	0015.c6c1.3000	2	Ready
3	Member	000f.f794.3d00	5	<b>Version Mismatch</b>

**注意：**必須啟用自動升級功能，才能在版本不匹配(VM)模式下升級交換機。預設情況下，自動升級已啟用。您可以檢視自動升級的狀態，網址為 `show boot` 顯示中的特權執行命令和自動升級行。您可以通過以下方式禁用自動升級：[no boot auto-copy-sw](#) 堆疊主交換器上的全域組態指令。如需詳細資訊，請參閱[瞭解自動升級和自動建議](#)。

有三種不同的方法可以解決版本不相符的問題：

- [方法1](#)
- [方法2](#)
- [方法3](#)

### 方法1 - .tar映像

升級軟體映像與 `archive copy-sw` 特權EXEC命令。此指令將軟體映像從目前的堆疊成員複製到具有不相容軟體的堆疊成員。受影響的交換器會自動重新載入，並將堆疊作為功能完整的成員加入。

此輸出顯示 `archive copy-sw` 指令：

```
3750_Stack#archive copy-sw ?
```

```

/destination-system  specify destination system to receive software
/force-reload       Unconditionally reload system after successful sw
                    upgrade
/leave-old-sw       Leave old sw installed after successful sw upgrade
/no-set-boot        do not update BOOT setting on systems after installing
                    sw
/overwrite          OK to overwrite an existing image
/reload             Reload system (if no unsaved config changes) after
                    successful sw upgrade
/safe               Always load before deleting old version

```



```

1          copy software from system 1
2          copy software from system 2
3          copy software from system 3

```

- 在/destination-system destination-stack-member-number中，指定運行映像檔案的源需要複製到的堆疊成員編號。如果不指定堆疊成員編號，則預設情況下會將執行中的映像檔複製到所有堆疊成員。
- 指定 /force-reload 可在成功下載軟體映像後無條件強制系統重新載入。如果不希望使用/force-reload，請使用reload slot switch\_member\_number 手動重設更新的堆疊成員，以使此組態變更生效。
- 針對source-stack-member-number，指定複製執行中映像檔案的堆疊成員編號。堆疊成員編號的範圍為1到9。
- 如果在重新載入期間收到超訂用系統日誌消息，則發出archive copy-sw /overwrite /destination-system 命令以使用下載的軟體映像覆蓋快閃記憶體中的軟體映像。

以下是 archive copy-sw 指令：

1. 此 archive copy-sw 指令將目前執行的Cisco IOS映像從交換器1複製到3750交換器堆疊上的交換器3。

```
archive copy-sw /overwrite /destination-system 3 1
```

2. 重新載入交換器成員3。

```
reload slot 3
```

## 方法2 - .tar映像

如果您使用裝置管理器來管理交換器堆疊，則可以使用此方法。將.tar映像擷取到新增交換器的快閃檔案系統中。假設交換器上已具有.tar映像。如果沒有提供，您可以從頁面下載Cisco Catalyst 3750軟體，並使用TFTP複製到交換器。軟體下載網站。

**注意：**只有註冊思科使用者才能訪問內部思科工具和資訊。

```
3750-stack#show switch
```

Switch#	Role	Mac Address	Priority	Current State
*1	primary	0015.63f6.b700	5	Ready
2	Member	0015.c6c1.3000	2	Ready
3	Member	000f.f794.3d00	5	<b>Version Mismatch</b>

```
!--- Switch 3 is displayed as a version mismatch.
```

```
!--- You need to extract the .tar image to flash3: 3750-stack#archive tar /xtract c3750-advipservicesk9-tar.122-25.SEE1.tar flash3:
```

```
extracting c3750-advipservicesk9-mz.122-25.SEE1/html/images/grn_vertlines_bott.gif (957 bytes)
extracting c3750-advipservicesk9-mz.122-25.SEE1/html/images/red.gif (147 bytes)
extracting c3750-advipservicesk9-mz.122-25.SEE1/html/images/print.gif (625 bytes)
```

```
!--- Output is suppressed.
```

在新交換機上配置引導變數。此步驟不是強制的。但是，如果以後從堆疊中斷開此交換器的連線，交換器就無法啟動正確的Cisco IOS。

```
3750-stack#configure terminal
```

```
3750-stack(config)#boot system switch 3 flash:/c3750-advipservicesk9-mz.122-25.SEE1/c3750-
```



```
!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!
!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!
!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!
[OK - 5683384 bytes]
```

```
examining image...
%Tar checksum error in tftp://10.1.1.1/c3750-ipbase-mz.122-25.SEC.bin
%Error opening flash:update/info (No such file or directory)
ERROR: Image is not a valid Cisco IOS image archive.
```

此錯誤消息的原因是 `archive` 命令用於 `.tar` 檔案，不能與 `.bin` 檔案一起使用。若要使用 `.bin` 檔案升級，請使用 `copy` 指令。

## 使用不同的功能集升級Cisco IOS軟體

預設情況下，Cisco Catalyst 3750系列允許您在升級至較新Cisco IOS版本時變更功能集。

```
Error: The image in the archive which would be used to upgrade
Error: system number [dec] does not support the same feature set.
```

為了克服此問題，請使用標誌 `allow-feature-upgrade` 當您執行 `archive-download-sw` 指令。

```
archive-download-sw /allow-feature-upgrade
只有Cisco IOS版本12.2(35)SE或更高版本支援此選項。
```

## 相關資訊

- [使用指令行介面升級Catalyst 3550系列交換器上的軟體映像](#)
- [交換器產品支援](#)
- [技術支援與文件 - Cisco Systems](#)

## 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）。