

MDS9000開機載入器提示復原

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簡介

本文說明如何從開機載入器提示和開機模式中復原多層資料中心交換器(MDS)。

為了正常工作，MDS交換機需要有效的未損壞的Kickstart和系統映像才能完全啟動。無效、損壞或缺少Kickstart映像會阻止交換機啟動並在啟動載入程式提示符處停止。具有有效Kickstart映像，但系統映像無效或丟失的交換機最終處於引導模式。

必要條件

需求

思科建議您瞭解以下主題：

- MDS9000 CLI配置命令
- 如何設定與MDS交換機的控制檯連線。
- 如何設定MDS交換機或通過其管理埠將其連線到網路。
- 熟悉TFTP。

採用元件

本檔案中的資訊是根據軟體要求版本6.2(9)和更新版本。

本文檔使用的是支援12到48個線速16 Gbps光纖通道埠的MDS9148S交換機switch name tempest。

本文中的資訊是根據特定實驗室環境內的裝置所建立。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。

交換機啟動順序

BIOS > Loader > Kickstart Image > System Image

1. 基本輸入輸出系統(BIOS)載入載入程式。

2. 載入器將Kickstart映像載入到RAM中，並啟動Kickstart映像。
3. 啟動映像載入並啟動系統映像。
4. 系統映像讀取啟動配置檔案。

交換器提示

Phase	提示	說明
BIOS	不可啟動	BIOS開始加電自檢和記憶體測試。
載入器	載入器>	啟動載入器解壓縮載入的軟體以啟動kickstart映像。 按Ctrl + C (修飾鍵和C鍵) 進入引導載入程式提示。
Kickstart	switch(boot)#	引導載入程式階段結束時，按Ctrl +] (修飾鍵和右括弧鍵) 進入引導模式。
系統	登入:	系統映像載入啟動配置檔案，並將交換機返回登入提示。

復原程式

從交換機控制檯會話。

載入器>

步驟1. 下載交換機的Kickstart和System映像，並將其放入TFTP伺服器目錄中。

在本例中，TFTP伺服器的IP地址為64.104.204.100。

步驟2. 配置交換機管理IP地址及其預設網關。

1. 配置交換機的介面管理IP地址。
loader> net —ip=10.66.78.80
2. 配置交換機的介面管理子網掩碼
loader> net —nm=255.255.255.128
3. 配置交換機的預設網關IP地址。
loader> net —gw=10.66.78.4

在本例中：

- 交換機介面mgmt0 IP地址為10.66.78.80 255.255.255.128
- 交換機預設網關IP地址為10.66.78.4

步驟3. 測試TFTP伺服器和交換機之間的IP連通性。

從TFTP伺服器ping交換機管理IP地址。

```
C:\Users\mpandika> ping 10.66.78.80
```



```
s5ek9-kickstart-mz.8.3.1.bin isanimg= Finalizing device tree... flat tree at 0xdf0140
Ísetup_arch: bootmem
mpc85xx_ds_setup_arch()
arch: exit
```

```
[ 0.060378] Host controller irq 26
[ 0.103390] Assign root port irq 26
[ 0.144046] Host controller irq 24
[ 0.193691] Assign root port irq 24
[ 0.810630] physmap-flash physmap-flash.0: Could not reserve memory region
[ 1.084751] Enabling all PCI devices
INIT: Checking all filesystems..r.r.r.retval=[1]
r done
WARNING: Image sync is going to be disabled after a loader netboot.
Loading system software
No system image is specified
/etc/init.d/functions: li
INIT: Sending processes the KILL signal
Cisco Nexus Operating System (NX-OS) Software
TAC support: http://www.cisco.com/tac
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such license is available at
http://www.opensource.org/licenses/gpl-2.0.php and
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switch(boot)#
```

步驟5.將交換器從開機模式中復原。

1. 配置介面管理IP地址和預設網關IP地址。

```
switch(boot)# config t
Enter configuration commands, one per line. End with CNTL/Z.
switch(boot)(config)# interface mgmt 0
switch(boot)(config-if)# ip address 10.66.78.80 255.255.255.128
switch(boot)(config-if)# no shut
switch(boot)(config-if)# exit
switch(boot)(config)# ip default-gateway 10.66.78.4
switch(boot)(config)# exit
```

2. 將Kickstart和System映像從TFTP伺服器下載到交換機的bootflash。

```
switch(boot)# copy tftp://64.104.204.100/m9100-s5ek9-kickstart-mz.8.3.1.bin bootflash:
```

```
Trying to connect to tftp server.....
Connection to server Established. Copying Started....
TFTP get operation was successful
Copy complete, now saving to disk (please wait)...
switch(boot)#
```

```
switch(boot)#copy tftp://64.104.204.100/m9100-s5ek9-mz.8.3.1.bin bootflash:
```

```
Trying to connect to tftp server.....
Connection to server Established. Copying Started....
TFTP get operation was successful
Copy complete, now saving to disk (please wait)...
```

```
switch(boot)#
```

3. 驗證Kickstart和System映像是否成功下載到交換機的bootflash中。

```
switch(boot)# dir bootflash:
```

```
   4096   Dec 22 2002 01:38:31  .partner/
      297   Nov 09 2017 07:18:54  MDS201711091818530370.lic
      297   Nov 09 2017 07:28:42  MDS201711091828418770.lic
   4096   Jul 23 2018 14:44:25  lost+found/
 26027008 Aug 08 2018 02:55:31  m9100-s5ek9-kickstart-mz.8.3.1.bin
109635731 Aug 08 2018 02:53:38  m9100-s5ek9-mz.8.3.1.bin
   3430222 Feb 01 2000 02:31:30  moonlake.1.f.xsvf
   23467   Jul 30 2018 12:40:56  mts.log
   347607   Jul 28 2017 04:46:31  portchannel
   4096   Dec 22 2002 02:38:54  scripts/
   31812   Jun 30 2018 05:07:27  snmp.pcap
```

```
Usage for bootflash: filesystem
```

```
1264746496 bytes used
2106781696 bytes free
3371528192 bytes total
switch(boot)#
```

4. 載入系統映像。

```
switch(boot)# load bootflash:m9100-s5ek9-mz.8.3.1.bin
Uncompressing system image: bootflash:/m9100-s5ek9-mz.8.3.1.bin
CCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCC
Load plugins that defined in image conf: /isan/plugin_img/img.conf
No Patching support on this platform
Loading plugin 0: core_plugin...
No Patching support on this platform
Enter pboot_chk_compatibility
num srgs 1
0: swid-core-s5ek9m, swid-core-s5ek9m
num srgs 1
0: swid-sup-mini-ks, swid-sup-mini-ks
INIT: Switching to runlevel: 3
INIT: Sending processes the TERM signal
switch(boot)#
INIT:
```

```
2018 Aug 8 03:13:03 %SYSLOG-2-SYSTEM_MSG : Syslogs wont be logged into logflash until logflash
is online
2018 Aug 8 03:13:06 %KERN-0-SYSTEM_MSG: [ 1.084751] Enabling all PCI devices - kernel
2018 Aug 8 03:14:13 switch %CARDCLIENT-2-REG: OK
System is coming up ... Please wait ...
System is coming up ... Please wait ...
2018 Aug 8 03:14:22 switch %ASCII-CFG-2-CONFIG_REPLAY_STATUS: Bootstrap Replay Started.
System is coming up ... Please wait ...
```

```
User Access Verification
10.66.78.80 login: 2018 Aug 8 03:14:41 switch %ASCII-CFG-2-CONFIG_REPLAY_STATUS: Bootstrap
Replay Done.
2018 Aug 8 03:14:44 switch %PMON-SLOT1-2-PMON_CRIT_INFO: Port Monitor Critical Information:
Config download success .
2018 Aug 8 03:14:45 switch %ASCII-CFG-2-CONFIG_REPLAY_STATUS: Ascii Replay Started.
2018 Aug 8 03:14:45 switch %PMON-SLOT1-2-PMON_CRIT_INFO: Port Monitor Critical Information:
```

```
Policy (slowdrain) activation is successfull .
2018 Aug  8 03:14:46 switch %PLATFORM-2-PS_OK: Power supply 1 ok(Serial number QCS18242L8D)
2018 Aug  8 03:14:46 switch %PLATFORM-2-PS_FANOK: Fan in Power supply 1 ok
2018 Aug  8 03:14:46 switch %PLATFORM-2-PS_FAIL: Power supply 2 failed or shut down(Serial
number QCS18242L0H)
2018 Aug  8 03:14:46 switch %PLATFORM-2-FAN_OK: Fan module ok
2018 Aug  8 03:14:46 switch %PLATFORM-2-FAN_OK: Fan module ok
2018 Aug  8 03:14:46 switch %PLATFORM-2-FAN_OK: Fan module ok
2018 Aug  8 03:14:46 switch %PLATFORM-2-FAN_OK: Fan module ok
2018 Aug  8 14:15:35 tempest %ASCII-CFG-2-CONFIG_REPLAY_STATUS: Ascii Replay Done.
User Access Verification
tempest login:
```

附註：交換機以前配置有switchname tempest。

5. 登入交換器。

```
tempest login: admin
Password:
Last login: Wed Aug  8 14:20:01 on pts/0

Cisco Nexus Operating System (NX-OS) Software
TAC support: http://www.cisco.com/tac
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such license is available at
http://www.opensource.org/licenses/gpl-2.0.php and
http://www.opensource.org/licenses/lgpl-2.1.php
tempest#
```

6. 驗證開機變數。

```
tempest# show boot

Current Boot Variables:

kickstart variable = bootflash:/m9100-s5ek9-kickstart-mz.8.1.1.bin
system variable = bootflash:/m9100-s5ek9-mz.8.1.1.bin
Boot POAP Disabled
No module boot variable set

Boot Variables on next reload:

kickstart variable = bootflash:/m9100-s5ek9-kickstart-mz.8.1.1.bin
system variable = bootflash:/m9100-s5ek9-mz.8.1.1.bin
Boot POAP Disabled
No module boot variable set
tempest#
```

7. 將引導變數設定為正確的映像。

```
tempest# show version
Cisco Nexus Operating System (NX-OS) Software
TAC support: http://www.cisco.com/tac
Documents: http://www.cisco.com/en/US/products/ps9372/tsd\_products\_support\_serie
s\_home.html
```

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Software

BIOS: version 2.1.17
loader: version N/A
kickstart: version 8.3(1)
system: version 8.3(1)
BIOS compile time: 01/08/14
system image file is: bootflash:///m9100-s5ek9-mz.8.3.1.bin
system compile time: 7/30/2018 12:00:00 [07/12/2018 19:32:46]

Hardware

cisco MDS 9148S 16G 48 FC (1 Slot) Chassis ("2/4/8/16 Gbps FC/Supervisor")
Motorola, e500v2 with 4088556 kB of memory.
Processor Board ID JAE18250A8C

Device name: tempest
bootflash: 4018896 kB

Kernel uptime is 0 day(s), 0 hour(s), 47 minute(s), 44 second(s)

Last reset at 362296 usecs after Wed Aug 8 13:02:31 2018
Reason: Reset Requested by CLI command reload
System version: 8.1(1)
Service:

plugin

Core Plugin

tempest# config t

Enter configuration commands, one per line. End with CNTL/Z.

tempest(config)# boot kickstart bootflash:m9100-s5ek9-kickstart-mz.8.3.1.bin

Performing image verification and compatibility check, please wait....

tempest(config)# boot system bootflash:m9100-s5ek9-mz.8.3.1.bin

Performing image verification and compatibility check, please wait....

tempest# show boot

Current Boot Variables:

kickstart variable = bootflash:/m9100-s5ek9-kickstart-mz.8.3.1.bin

system variable = bootflash:/m9100-s5ek9-mz.8.3.1.bin

Boot POAP Disabled

No module boot variable set

Boot Variables on next reload:

kickstart variable = bootflash:/m9100-s5ek9-kickstart-mz.8.1.1.bin

system variable = bootflash:/m9100-s5ek9-mz.8.1.1.bin

Boot POAP Disabled

No module boot variable set

8. 儲存交換機的運行配置。

tempest# copy running-config startup-config

[#####] 100%

Copy complete.
tempest#

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）。