

# MDS 9000 boot loader-prompt herstel

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## Inleiding

Dit document beschrijft hoe u een meerlaagse Datacenter Switch (MDS) kunt herstellen van de Boot Loader Prompt en Boot Mode.

Om goed te kunnen functioneren, hebben MDS-switches een geldig, niet-beschadigd Kickstart- en systeembeeld nodig om volledig op te starten. Ongeldige, beschadigde of ontbrekende Kickstart-afbeeldingen voorkomen dat een switch opstart en stopt bij de Boot Loader Prompt. Een switch met een geldig Kickstart-beeld, maar een ongeldig of ontbrekend systeembeeld komt in Boot Mode terecht.

## Voorwaarden

### Vereisten

Cisco raadt u aan deze onderwerpen te kennen:

- MDS 9000 CLI-configuratieopdrachten
- Hoe een consoleverbinding met MDS switch op te zetten.
- MDS-switch instellen of aansluiten op een netwerk via de beheerpoort.
- Bekendheid met TFTP.

### Gebruikte componenten

De informatie in dit document is gebaseerd op softwarevereiste release 6.2(9) en hoger.

Dit document maakt gebruik van een MDS9148S switch, switchname **tempest** die 12 tot 48 16 Gbps Fibre Channel-poorten met lijnsnelheid ondersteunt.

De informatie in dit document is gebaseerd op de apparaten in een specifieke laboratoriumomgeving. Als uw netwerk live is, moet u zorgen dat u de potentiële impact van elke opdracht begrijpt.

## Switch Boot Up-reeks

## BIOS > Loader > Kickstart Image > System Image

1. Het Basic Input Output System (BIOS) laadt de lader.
2. De Loader laadt de Kickstart Image in RAM en start de Kickstart Image.
3. Het Kickstart-beeld wordt geladen en de systeemaafbeelding wordt gestart.
4. De systeemaafbeelding leest het opstartconfiguratiebestand.

## Switch

Fase		Beschrijving
BIOS	niet opstartbaar	BIOS start de power on self test en geheugentest.
lader	lader>	Boot loader uncompress geladen software om een kickstart-afbeelding op te starten. Ctrl + C (Control-toets en C-toets) om de prompt voor opstartlader in te voeren.
Kickstart	switch (boot)#	Wanneer de fase van de laarslader is verlopen, drukt u op Ctrl + ] (Control-toets en toets Rechts-beugel) om de opstartmodus in te voeren.
Systeem	login:	Het systeembeeld laadt het opstartconfiguratiebestand en geeft een switch terug naar de melding.

## Invorderingsprocedure

Van switch-console sessie.

**lader>**

Stap 1. Download de Kickstart- en systeemaafbeeldingen van de switch en zet ze in de TFTP-servermap.

In dit voorbeeld is IP-adres van TFTP-server 64.104.204.100.

Stap 2. Configureer het IP-adres voor switch-beheer en de standaardgateway.

1. Configureer het IP-adres voor interfacebeheer van de switch.  
lader> netto —ip=10.66.78.80
2. Het subnetmasker voor interfacebeheer van de switch configureren  
lader> netto —nm=255.255.255.128
3. Configureer het IP-adres van de standaardgateway van de switch.  
lader> netto —gw=10.66.78.4

In dit voorbeeld :

- Het switch-interfacemanagement0 IP-adres is 10.66.78.80 255.255.255.128

- Het switch standaard gateway IP adres is 10.6.78.4

Stap 3. Test de IP-verbinding tussen de TFTP-server en de switch.

Het IP-adres voor switch-beheer pingen vanaf de TFTP-server.

```

C:\Users\mpandika> ping 10.66.78.80

Pinging 10.66.78.80 with 32 bytes of data:
Reply from 10.66.78.80: bytes=32 time=2ms TTL=60
Reply from 10.66.78.80: bytes=32 time=3ms TTL=60
Reply from 10.66.78.80: bytes=32 time=3ms TTL=60
Reply from 10.66.78.80: bytes=32 time=3ms TTL=60

Ping statistics for 10.66.78.80:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
    Approximate round trip times in milli-seconds:
        Minimum = 2ms, Maximum = 3ms, Average = 2ms

C:\Users\mpandika>
  
```

Stap 4. Start het Kickstart-beeld op dat zich in de TFTP-servermap bevindt, om de switch naar de opstartmodus te brengen.

```

loader> boot tftp://64.104.204.100/ m9100-s5ek9-kickstart-mz.8.3.1.bin
eTSEC2: Speed 1000, full duplex
Using eTSEC2 device
TFTP from server 64.104.204.100; our IP address is 10.66.78.80; sending through gateway
10.66.78.4
Filename 'm9100-s5ek9-kickstart-mz.8.3.1.bin'.
Load address: 0x8000000
Loading:  *#####
#####
#####
#####
#####
#####
#####
#####
#####
#####
#####
#####
#####
#####
#####
#####
#####
#####
#####
#####
#####
#####
#####
#####
#####
#####
#####
#####
#####
#####

done
Bytes transferred = 26027008 (18d2400 hex)
  NBI at 08000000 size 26027008
  
```

```

Bootimg image at addr 0x00800000 ...
Memory <- <0x0 0x0 0x1 0x0> (4096MB)
ethernet0: local-mac-address <- 10:05:ca:b6:c5:a0
ethernet1: local-mac-address <- 00:e0:0c:00:01:fd
  
```

```

ethernet2: local-mac-address <- 00:e0:0c:00:02:fd
CPU clock-frequency <- 0x3f941f80 (1067MHz)
CPU timebase-frequency <- 0x3f941f8 (67MHz)
CPU bus-frequency <- 0x1fca0fc0 (533MHz)

zImage starting: loaded at 0x00800000 (sp: 0x7fedc620)
Allocating 0x620d88 bytes for kernel ...
gunzipping (0x00000000 <- 0x00817000:0x00de3838)...done 0x5bc060 bytes
Using loader supplied ramdisk at 0x2800000-0x3de8e00
initrd head: 0x1f8b0808

Linux/PowerPC load: rw root=/dev/ram0 rdbase=0x7000000 card_index=9046 maxcpus=2 ip=off
ramdisk_size=262144 noquiet obfl_type_ide=1 kgdboc=ttyS0,9600,B console=ttyS0,9600n8nn
loader_ver="02.01.17" card_index=9046 quiet bootdev=mgmt0 server_ip=64.104.204.100 ksimg=m9100-
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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switch(boot)#

```

## Stap 5. Herstel de switch van de laarswijze.

1. Configureer het IP-adres van interfacebeheer en stel het IP-adres van de standaardgateway in.

```

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. Download de Kickstart- en systeembeelden van de TFTP-server naar de bootflash van de switch.

```
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. Controleer of de Kickstart- en systeembeelden met succes zijn gedownload naar de bootflash van de switch.

```
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. Laad de systeemaafbeelding.

```
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:
```

**Opmerking: Switch is eerder geconfigureerd met switchname tempest.**

## 5. Meld u aan bij de switch.

```
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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http://www.opensource.org/licenses/gpl-2.0.php and
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```

```
tempest#
```

## 6. Controleer de opstartvariabelen.

```
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. Stel de opstartvariabelen in op de juiste afbeelding.

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\\_series\\_home.html](http://www.cisco.com/en/US/products/ps9372/tsd_products_support_series_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. Sla het in werking stellen-configureren van de switch op.

```
tempest# copy running-config startup-config
```

```
[#####] 100%
```

```
Copy complete.
```

```
tempest#
```



## Over deze vertaling

Cisco heeft dit document vertaald via een combinatie van machine- en menselijke technologie om onze gebruikers wereldwijd ondersteuningscontent te bieden in hun eigen taal. Houd er rekening mee dat zelfs de beste machinevertaling niet net zo nauwkeurig is als die van een professionele vertaler. Cisco Systems, Inc. is niet aansprakelijk voor de nauwkeurigheid van deze vertalingen en raadt aan altijd het oorspronkelijke Engelstalige document ([link](#)) te raadplegen.