

Quad–Sup VSS Supervisor Replacement Procedure



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Contents

Introduction

- Requirements
- Components Used

Configure

- Network Diagram
- Stage the Replacement Supervisor
- Replace the Cabling and Insert the New Supervisor
- Replace Current Cabling and Connect to the Console Port of the Supervisor.
- Verify Boot Behavior of New Supervisor
- Manually Boot the Current Image

Verify

Troubleshoot

Introduction

This document describes the supervisor replacement procedure for Cisco Catalyst 6500 Series switches that run in Virtual Switching System (VSS) mode with Quad–Sup720 or Quad–Sup2T. You can use this document in order to use the bootable image from the old supervisor and boot the new supervisor. This bypasses the need for a spare 6500 chassis in order to stage the replacement supervisor.

Prerequisites

Requirements

Cisco recommends that you have knowledge of these topics:

- Cisco VSS
- VSS Active, Standby, and VSS ICS (In–Chassis Standby)
- Cisco ROM Monitor Mode (ROMmon)

This document should be used in order to replace a single, failed supervisor in the current quad–sup VSS pair when you use either all VS–S2T–10G or all VS–S720–10G supervisors and when a spare chassis is not available in order to stage the new supervisor.

You must have console access to the new supervisor for this procedure. This document assumes that the current VSS is configured in order to boot from an image located on the sup–bootdisk for a Sup720 or on the bootdisk for a Sup2T.

Components Used

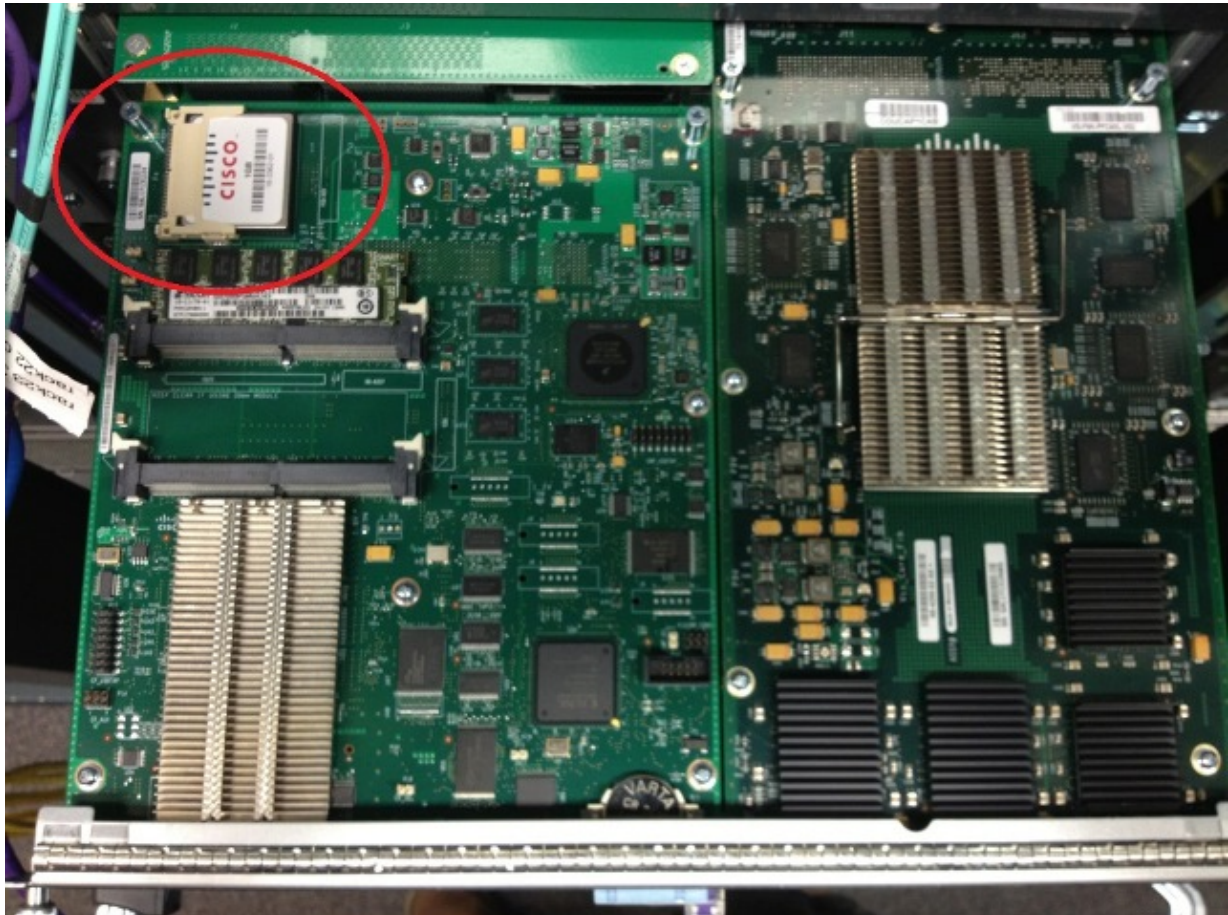
This document is not restricted to specific software and hardware versions.

The information in this document was created from the devices in a specific lab environment. All of the devices used in this document started with a cleared (default) configuration. If your network is live, make sure that you understand the potential impact of any command.

Configure

Note: It is recommended that these steps be performed in a maintenance window if possible.

Network Diagram



Remove the Failed Supervisor

1. Identify and label the current cabling that is connected to the failed supervisor and remove the cabling.
2. Remove the failed supervisor from the VSS and identify the bootdisk. The bootdisk is a small, Compact Flash (CF) card located on top of the module.
3. Remove the CF from the switch when the supervisor is removed. Put the CF card aside.

Stage the Replacement Supervisor

1. Remove the CF card that contains the bootdisk for the replacement supervisor.

2. Insert the CF card from the failed supervisor into the replacement supervisor.
3. Insert the CF card from the replacement supervisor into the failed supervisor and ship the supervisor back and use normal Return Material Authorization (RMA) processes.

Replace the Cabling and Insert the New Supervisor

Caution: Read and understand the steps in the next section before you complete this step in order to avoid any unexpected issues with the switch.

Replace Current Cabling and Connect to the Console Port of the Supervisor.

1. Replace the current cabling and connect to the console port of the supervisor.
2. When cabling and console connections are in place, push the new supervisor completely into the chassis slot and confirm that it boots via the console connection.

Verify Boot Behavior of New Supervisor

Note: The replacement supervisor may attempt to boot the first file system or boot into ROMmon if the previously configured boot image does not exist.

If the system boots an image that is different from what currently runs on the current VSS environment, you must use the break procedure in order to break the system into ROMmon. The most common break procedure is to press **Ctrl + Alt + Pause/Break**. See other break methods here: [Standard break sequences](#).

```

=====
System Bootstrap, Version 12.2(50r)SYS3, RELEASE SOFTWARE (fc1)
Technical Support: http://www.cisco.com/techsupport
Copyright (c) 2012 by Cisco Systems, Inc.
PYRAMID platform with 2097152 Kbytes of main memory

Autoboot: failed, BOOT string is empty
Autoboot executing command: "boot "

bootdisk:%s72044-atafslib-m: Digitally Signed Release Software with key version A

Initializing ATA monitor library...
string is bootdisk:s2t54-adventerprisek9-mz.SPA.150-1.SY4.bin

bootdisk:%s72044-atafslib-m: Digitally Signed Release Software with key version A

Initializing ATA monitor library...

monitor: command "boot" aborted due to user interrupt
=====

```

When you are in ROMmon, identify the correct image on the boot disk from the removed CF card and boot the system with this image.

```

=====
rommon 4 > dir bootdisk:

bootdisk:%s72044-atafslib-m: Digitally Signed Release Software with key version A

Initializing ATA monitor library...
Directory of bootdisk:

3          33554432  -rw-          sea_console.dat

```

```

10217   33554432  -rw-    sea_log.dat
7690    98145752  -rw-    s2t54-advipservicesk9-mz.SPA.151-1.SY1
15754   0          drw-    call-home

```

```
rommon 5 > boot bootdisk:s2t54-advipservicesk9-mz.SPA.151-1.SY1
```

```
bootdisk:%s72044-atafslib-m: Digitally Signed Release Software with key version A
```

```
Initializing ATA monitor library...
```

```
bootdisk:s2t54-advipservicesk9-mz.SPA.151-1.SY1: Digitally Signed Release Software
with key version A=====
```

If the new supervisor boots the correct image, no further action is required. If the supervisor does not boot the correct image, break into ROMmon and proceed to the next step.

If the supervisor attempts to load the incorrect image and does not break into ROMmon, physically reset the supervisor and attempt the break procedure again.

Manually Boot the Current Image

1. Enter the *dir bootdisk:* (*dir sup-bootdisk:* for Sup720) command in order to list the contents of the CF that was moved to this supervisor.
2. When the desired image is identified, boot the system into this image and use the *boot bootdisk: < image >* command. The supervisor will begin to boot and detect the current supervisor in the chassis. When the current supervisor is detected, the appropriate switch number is automatically set and the new supervisor is reset for the new switch number in order to take effect.

```
=====
```

```
*May 8 19:17:39.495: %PFREDUN-6-STANDBY: Initializing as STANDBY processor for this
switch
*May 8 19:17:39.959: %SYS-3-LOGGER_FLUSHED: System was paused for 00:00:00 to ensure
console debugging output.
```

```
*May 8 19:17:39.959: %PFINIT-6-ACTIVE_VS: Active supervisor is in virtual switch mode,
but SWITCH_NUMBER rommon variable not set on the in-chassis standby.
Setting SWITCH_NUMBER variable in rommon and resetting the in-chassis standby.
```

```
Resetting .....
```

```
=====
```

Note: You must be ready to break into the ROMmon again and repeat the process in order to boot the correct image. Only the switch number has synced. The boot variable has not yet synced and the switch might attempt to load an incorrect image again.

Verify

Use this section to confirm that your configuration works properly.

Verify the proper boot variable and configuration registers. When the system boots the original supervisor and syncs all appropriate variables, enter this command in order to confirm that the procedure is complete:

- Show module switch all
- Verify the new supervisor runs the same image and in CSSO
- Show bootvar

When successful, all supervisors should boot and run the same versions of code. Boot variables and switch numbers should be fully synced.

Troubleshoot

This section provides information you can use to troubleshoot your configuration.

If the new image does not boot on the supervisor and the bootdisk is corrupted or there is no bootable image, insert a spare CF card with the desired image into disk0: and repeat the procedure. When the new supervisor runs on the new image, format the bootdisk and copy the desired image from disk0: onto the bootdisk.

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