

# Upgrading the Catalyst 6500 Content Switch Module Software

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## Introduction

This document describes each of the three possible methods for upgrading the Content Switching Module (CSM), including the following:

- Upgrading from the Supervisor Engine Bootflash
- Upgrading from a PCMCIA Card
- Upgrading the CSM from an External TFTP Server

## Prerequisites

### Requirements

There are no specific requirements for this document.

### Components Used

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

### Conventions

Refer to Cisco Technical Tips Conventions for more information on document conventions.

## Before Upgrading

1. All commands are entered on a console connected to the Supervisor.
2. When performing the upgrade procedures, enter one configuration command per line.
3. After completing the upgrade procedure, enter **Exit** to return to the Supervisor prompt.

When upgrading to a new software release, you must upgrade the CSM image before upgrading the Cisco IOS® software image. Failure to do so will cause the Supervisor Engine to not recognize the CSM. In this case, you would have to downgrade the Cisco IOS image, upgrade the CSM image, and then upgrade the

Cisco IOS image.

When you establish a session with the CSM as part of the upgrade procedure, you must enter **Exit** to terminate the session. If you do not terminate the session and remove the CSM from the Cat6k, you will be unable to issue IP SLB commands to configure the CSM. To recover from this problem, you must reset the Supervisor.

## Upgrading from the Supervisor Engine Bootflash

This procedure describes how to perform the upgrade from the Supervisor's boot flash.

Refer to the Catalyst 6500 Series Supervisor Engine Flash PC Card Installation Note for instructions on loading images into bootflash.

Once the CSM image is in the Supervisor's bootflash, the procedure below describes how to load the CSM image from bootflash into the CSM.

1. Enable the TFTP server to supply the image from bootflash by issuing the **tftp-server sup-bootflash: filename** command.

```
cat#conf t
cat(config)#tftp-server sup-bootflash:c6slb-apc.2-1-0.bin
cat(config)#
```

2. Establish a session between the Supervisor Engine and the CSM. Issue the **show module** command to determine the correct slot.

```
cat#show module
Mod Ports Card Type Model Serial No
-----
1 2 Cat 6k sup 1 Enhanced QoS (Active) WS-X6K-SUP1A-2GE SAD05020E
2 48 48 port 10/100 mb RJ45 WS-X6348-RJ-45 SAL05073T
3 0 SLB Application Processor Complex WS-X6066-SLB-APC SAD051102
```

3. Since the previous command displayed the SLB module in slot 3, open a session into that module.

```
cat#session slot 3 processor 0
The default escape character is Ctrl-^, then x.
You can also type 'exit' at the remote prompt to end the session
Trying 127.0.0.30 ... Open
```

```
www.C o n t e n t w
www.S w i t c h i n g w
www.M o d u l e w
www
```

4. Load the image from the Supervisor Engine to the CSM by issuing the **upgrade ipaddress filename** command.

```
CSM>
CSM> upgrade 127.0.0.12 c6slb-apc.2-1-0.bin

127.0.0.12 = 12 if the supervisor engine is installed
in chassis slot 1
127.0.0.22 = 22 if the supervisor engine is installed
in chassis slot 2

Upgrading System Image 0
Laminar ExImage Apr 13 2001
R|W\ Reading:lam_ppc.bin..DONE Writing:lam_ppc.bin..DONE
Read 13 files in download image. (9,0,0)
Saving image state for image 0...done.
```

```
CSM> exit
Good Bye.
```

```
[Connection to 127.0.0.30 closed by foreign host]
cat#
```

5. Reboot the CSM by power cycling the CSM or by issuing the **power cycle module 3** command on the Supervisor Engine console.

```
cat(config)#power cycle module 3
```

## Upgrading from a PCMCIA Card

This procedure describes how to perform the CSM upgrade from a removable Flash (PCMCIA) card inserted in the Supervisor Engine.

1. Enable the TFTP server to supply the image from the removable Flash card by issuing the **tftp-server slot0: filename** command.

```
cat#conf t
cat(config)#tftp-server slot0:c6slb-apc.2-1-0.bin
```

2. Establish a session between the Supervisor Engine and the CSM.

```
cat#session slot 3 processor 0
```

3. Load the image from the Supervisor Engine to the CSM by issuing the **upgrade slot: filename** command.

```
CSM> upgrade slot:c6slb-apc.2-1-0.bin
```

4. Reboot the CSM by power cycling the CSM or by issuing the **power cycle module 3** command on the Supervisor Engine console.

```
cat(config)#power cycle module 3
```

## Upgrade the CSM from an External TFTP Server

This procedure describes how to perform the CSM upgrade from an external TFTP server.

1. Create a VLAN on the Supervisor Engine for the TFTP CSM image download. It is possible to use an existing VLAN.

```
cat(config)#inter vlan 100
cat(config-if)#ip address 172.17.63.180 255.255.255.192
```

2. Add the interface to the VLAN.

```
cat(config)#interface fastEthernet 2/4
cat(config-if)#switchport
cat(config-if)#switchport access vlan 200
cat(config-if)#no shut
```

3. Configure the IP SLB VLAN client and gateway.

```
cat(config)#ip slb vlan 100 client
cat(config-slb-vlan-client)#ip address 172.17.63.217 255.255.255.192
cat(config-slb-vlan-client)# gateway 172.17.63.193
```

4. Set up a session between the Supervisor Engine and the CSM.

```
cat#session slot 3 processor 0
```

5. Upgrade the image by issuing the **upgrade ipaddress filename** command.

```
CSM> upgrade 171.70.32.109 c6slb-apc.2-1-0.bin
Upgrading System Image 1
Laminar ExImage Apr 13 2001
R|W| Reading:lam_ppc.bin..DONE Writing:lam_ppc.bin..DONE
Read 13 files in download image. (9,0,0)
Saving image state for image 1...done.
CSM>
```

## Troubleshooting

If you are seeing a version mismatch followed by a trace back message, similar to that of the following, your Cisco IOS version is incorrect and you would need to upgrade.

```
d18h: %SNMP-5-MODULETRAP: Module 3 [Up] Trap
4d18h: %CSM_SLB-3-VERMISMATCH: Image version mismatch:
4d18h: %OIR-SP-6-INSCARD: Card inserted in slot 3, interfaces are now online
4d18h: %ALIGN-3-SPURIOUS: Spurious memory access made at 0x60183E0C reading 0x3
4d18h: %ALIGN-3-TRACE: -Traceback= 60183E0C 60182D84 60176864 60176BF0 60176E984
4d18h: %ALIGN-3-TRACE: -Traceback= 60183F5C 60182D84 60176864 60176BF0 60176E984
4d18h: %ALIGN-3-TRACE: -Traceback= 60183E0C 60182CE8 60C101AC 60176EF0 6056D0800
4d18h: %ALIGN-3-TRACE: -Traceback= 60183F5C 60182CE8 60C101AC 60176EF0 6056D0800
cat#
```

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## Related Information

- [Catalyst 6000 Family Content Switching Module Installation and Configuration Note](#)
- [Content Switching Module Support](#)
- [Content Switching Module Software Download Page \(registered customers only\)](#)
- [Technical Support & Documentation – Cisco Systems](#)

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