Upgrading 2109-M12 Firmware

Upgrading 2109-M12 Firmware Using the CLI

When upgrading a 2109-M12 from Fabric OS v4.0.0d to a later version, both CP blades are automatically upgraded when the firmwaredownload command is entered on the active CP blade. The default behavior of this command in Fabric OS v4.0.0d or later is to upgrade both CP blades and auto-commit the download.

However, if upgrading from a firmware version earlier than v4.0.0d, you must enter the firmwaredownload command on one CP (standby) blade at a time. The following table indicates which upgrade processes support the automatic upgrade of both CP blades.

Warning: 2109-M12 with firmware level v4.0.0d or later, DO NOT download firmware level v4.0.0c or earlier to the switch. Corrupted flash memory may occur.

Table 1 CLI Upgrade Restrictions on the 2109-M12

Current Version	New Version	Procedure
v4.0.0c	v4.0.2+	Run “firmwaredownload ” on each standby CP blade.
v4.0.0d	v4.0.2+	Run “firmwaredownload” on active CP blade to upgrade both CP blades.
v4.0.2	v4.0.2+	Run “firmwaredownload” on active CP blade to upgrade both CP blades.

Upgrading 2109-M12 Firmware Using Web Tools

The following table indicates the upgrades supported by Web Tools.

Table 2 Web Tools Upgrade Restrictions on the 2109-M12

Current Version	New Version	Procedure
v4.0.0c	v4.0.2+	Not supported by Web Tools (use “firmwaredownload” on each standby CP blade).
v4.0.0d	v4.0.2+	Automatic dual CP blades upgrade.
v4.0.2	v4.0.2+	Automatic dual CP blades upgrade.

Upgrading 2109-M12 Firmware

Upgrading firmware using the CLI for 2109-M12 with firmware version v4.0.0c or earlier.

This process is specific to the 2109-M12. The M12 has 4 IP addresses: 1 each for each switch (switch 0 and switch 1) and 1 for each of the 2 CPs (CP0 in slot 5 and CP1 in slot 6). When upgrading the firmware in the 2109-M12 you must load the new firmware into both the Active CP and Standby CP using the following procedure.

Download the latest firmware from the web and unzip to root directory on your workstation, the unzip utility would creates the new directory for the firmware.
For example: C:\v4.0.2b

Make sure the **FTP server** is running in your workstation and two Ethernet cables connected on both CPs to the network.

1. Telnet into the 2109-M12 and execute the hashow command to determine which CP is the Active and which is the Standby.

switch:admin> haShow
Local CP (Slot 5, CP0): Active
Remote CP (Slot 6, CP1): Standby
HA Enabled, Heartbeat Up

Note: In this example the Active CP is CP0, and the Standby CP is CP1.

2. Determine the IP addresses of the Standby CP:

switch:admin> ipaddrshow
Switch number [0 for switch0, 1 for switch1, 2 for CP0, 3 for CP1, 4 for all IP addresses in system]: 3
CP1
Ethernet IP Address: 192.168.174.91
Ethernet Subnetmask: 255.255.255.0
HostName : cp1
Gateway Address: 192.168.174.1

3. Telnet into the **Standby** CP.
Telnet 192.168.174.91

4. Issue the firmwareDownload command to download a new version of the firmware to the Standby CP.

switch:admin> firmwareDownload
Server Name or IP Address: 192.168.174.120 (workstation IP address)
User Name: jsmith (workstation user's name)
File Name: C:/v4.0.2b/release.plist
Password: xxxxxx (workstation password)
Overwrite the whole firmware [N]: y
Do Auto-Commit after Reboot [Y]: y
Reboot system after download [N]: y
Rebooting the CP will cause the telnet session to be **disconnected** from the Standby CP.

5. Make sure the switch is rebooted, you can do this automatically by selecting the Reboot option on the firmwaredownload command or by using the reboot command.

6. Log into either of the logical switches on the 2109-M12.

7. Issue the hashow command to view the status of the Standby CP.

switch:admin> hashow
Local CP (Slot 5, CP0): Active
Remote CP (Slot 6, CP1): Non-Redundant

switch:admin> hashow
Local CP (Slot 5, CP0): Active
Remote CP (Slot 6, CP1): Standby
HA Enabled, Heartbeat Up

Note: In the first example of the hashow command the Standby CP is in the process of rebooting. In the second example it is ready to become the Active CP.

8. From the switch IP address issue the haFailover command. The Standby CP will become the Active CP and the Active CP will reboot and become the Standby CP.

9. You will have to re-telnet into the switch IP address due to the failover. The switch IP address is now controlled by the Active CP with newly upgraded firmware.

10. Issue the hashow command. The Active CP is now CP1 and CP0 with down level firmware is still rebooting.

switch:admin> hashow
Local CP (Slot 6, CP1): Active
Remote CP (Slot 5, CP0): Non-Redundant

switch:admin> hashow
Local CP (Slot 6, CP1): Active
Remote CP (Slot 5, CP0): Standby
HA Enabled, Heartbeat Up

11. Telnet into the Standby CP (now CP0) and upgrade the firmware using the firmwareDownload command.

12. Make sure the switch is rebooted, you can do this automatically by selecting the Reboot option on the firmwaredownload command or by using the reboot command.

13. Each CP has two partitions, a primary and backup. If you did not select the auto-commit option during the firmwaredownload, you must run the firmwareCommit command. This command must be executed on both the Active CP and Standby CP. The firmwarecommit command commits the firmware to both partitions of a CP.

Note: For more information on any of the commands used in this procedure, refer to the Fabric OS Reference for OS 3.0 and 4.0 , which contains detailed information on commands, and command syntax.

Upgrading 2109-M12 Firmware

Upgrading firmware using the CLI for 2109-M12 with firmware version v4.0.0d or later.

Download the latest firmware from the web and unzip to root directory on your workstation, the unzip utility would creates the new directory for the firmware.
For example: C:\v4.0.2b

Make sure the FTP server is running in your workstation and two Ethernet cables connected on both CPs to the network.

1. Telnet to **switch 0** of the 2109-M12

2. Issue the **firmwareDownload** command to download a new version of the firmware to the 2109-M12.

SWITCH:admin> firmwaredownload
This command will upgrade both CPs in the switch. If you what to upgrade a single CP only, please use -s option.

You can run firmwareDownloadStatus from a telnet session (**switch 1**) to get the status of this command.

This command will cause the active CP to reset. This will cause disruption to devices attached to both switch 0 and switch 1 momentarily and will require that existing telnet sessions be restarted.

Do you want to continue [Y]: y
Server Name or IP Address: 9.43.236.106
User Name: goodman
File Name: c:/v4.0.2c/release.plist
Password:
FirmwareDownload has started on Standby CP. It may take up to 10 minutes.
FirmwareDownload has completed successfully on Standby CP.
Standby CP reboots.
Standby CP booted up.
Standby CP booted up with new firmware.

3. Telnet to **switch 1** of the 2109-M12

4. Issue the **firmwaredownloadstatus** command to check status on this command

SWITCH:admin> firmwaredownloadstatus
[0]: Mon Feb 24 16:38:51 2003
cp0: FirmwareDownload has started on Standby CP. It may take up to 10 minutes.

[1]: Mon Feb 24 16:42:11 2003
cp0: FirmwareDownload has completed successfully on Standby CP.

[2]: Mon Feb 24 16:42:14 2003
cp0: Standby CP reboots.

[3]: Mon Feb 24 16:45:33 2003
cp0: Standby CP booted up.

[4]: Mon Feb 24 16:45:34 2003
cp0: Standby CP booted up with new firmware.

[5]: Mon Feb 24 16:48:36 2003
cp1: Active CP forced failover succeeded. Now this CP becomes Active.

[6]: Mon Feb 24 16:48:39 2003
cp1: FirmwareDownload has started on Standby CP. It may take up to 10 minutes.

[7]: Mon Feb 24 16:52:32 2003
cp1: FirmwareDownload has completed successfully on Standby CP.

[8]: Mon Feb 24 16:52:35 2003
cp1: Standby CP reboots.

5. Issue the **firmwaredownloadstatus** command to check status on this command

SWITCH:admin> firmwaredownloadstatus
[0]: Mon Feb 24 16:38:51 2003
cp0: FirmwareDownload has started on Standby CP. It may take up to 10 minutes.

[1]: Mon Feb 24 16:42:11 2003
cp0: FirmwareDownload has completed successfully on Standby CP.

[2]: Mon Feb 24 16:42:14 2003
cp0: Standby CP reboots.

[3]: Mon Feb 24 16:45:33 2003
cp0: Standby CP booted up.

[4]: Mon Feb 24 16:45:34 2003
cp0: Standby CP booted up with new firmware.

[5]: Mon Feb 24 16:48:36 2003
cp1: Active CP forced failover succeeded. Now this CP becomes Active.

[6]: Mon Feb 24 16:48:39 2003
cp1: FirmwareDownload has started on Standby CP. It may take up to 10 minutes.

[7]: Mon Feb 24 16:52:32 2003
cp1: FirmwareDownload has completed successfully on Standby CP.

[8]: Mon Feb 24 16:52:35 2003
cp1: Standby CP reboots.

[9]: Mon Feb 24 16:56:06 2003
cp1: Standby CP booted up with new firmware.

[10]: Mon Feb 24 16:56:09 2003
cp1: Firmwarecommit has started on both Active and Standby CPs.

6. Issue the **hashow** command to view the status of the Standby CP.

```
SWITCH:admin> hashow
Local CP (Slot 6, CP1): Active
Remote CP (Slot 5, CP0): Standby
HA Enabled, Heartbeat Up
```

7. Issue the **firmwareShow** to check the firmware status

```
SWITCH:admin> firmwareshow
Local CP (Slot 6, CP1): Active
      Primary partition:      v4.0.2c
      Secondary Partition:    Version is not available
Remote CP (Slot 5, CP0): Standby
      Primary partition:      v4.0.2c
      Secondary Partition:    Version is not available
```

8. Issue the **firmwareShow** to check the firmware status

```
SWITCH:admin> firmwareshow
Local CP (Slot 6, CP1): Active
      Primary partition:      v4.0.2c
      Secondary Partition:    v4.0.2c
Remote CP (Slot 5, CP0): Standby
      Primary partition:      v4.0.2c
      Secondary Partition:    v4.0.2c
SWITCH:admin>
```