



ATTO Technology, Inc.

ATTO FibreConnect™ Fibre Channel Switch Getting Started Guide

1600 Series

16Gb Fibre Channel Switch

8300 Series

8Gb Fibre Channel Switch

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1.0 Installation

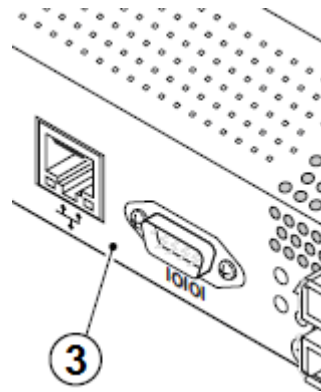
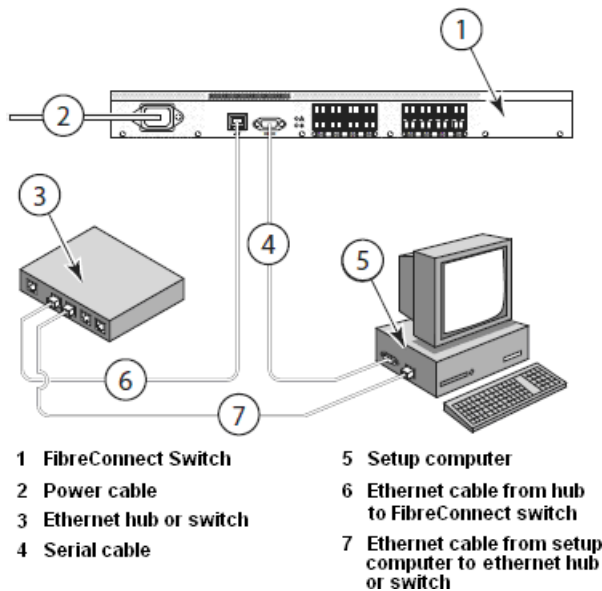
Use the following instructions for installation of the FibreConnect 1600 (16Gb/s) Series or 8300 (8Gb/s) Series Switch.

Unpack the box; verify contents

- The FibreConnect switch
- Power cord (FibreConnect 1612 - optional second cord)
- Rack mount kit - "L" brackets (8300), Fixed rails (1612/1648)
- SFP modules
- Serial cable

Hardware Installation

- 1 Install the FibreConnect switch into a standard rack (with included rack mount kit) or place it on a desktop.
- 2 Connect the power cord to the FibreConnect 1612/1648 or 8300 switch and plug in the power source.
- 3 Connect the serial cable from the FibreConnect switch to your computers serial port. If your machine does not have a serial port, please use the included USB to serial adapter.



- 4 Connect an RJ45 Ethernet cable to the device then plug into a switch, within your network, on the same subnet as the computer you will use to configure the switch.

Connecting to the Switch

Mac OS X

- 1 Begin by connecting the included USB to serial adapter to an available USB port on your Mac.



- 2 Connect the included serial cable from the adapter to the FibreConnect 1600 Series or 8300 Series switch serial port
- 3 Insert the included USB Serial Adapter CD into your optical drive.
- 4 Locate the driver and copy the dmg file to the desktop:
 - a. On the CD : /Driver/Mac/iMac 10.1 & 10.4or later/PL2303_1.2.1r2.dmg
 - b. Or find the latest driver on-line:
<http://plugable.com/drivers/prolific/>
 - c. Detailed installation instructions can be found here:
<http://plugable.com/category/product/pl2303-db9/>
- 5 Double click the dmg file to install the driver.
- 6 Reboot your machine.
- 7 Then use the Terminal program in OS X and connect to the switch console:

- a. Open Terminal (/Applications/Utilities)
 - b. Type **screen /dev/tty.usbserial 9600**
 - c. Hit **enter**
 - d. Hit **enter** again – You should see the Fabric OS console login prompt.
 - e. Login to the device with the default username **admin** and password **password**
- 8 You are now logged into the switch, proceed to [Logging into Web Tools](#) on page 3

Windows

- 1 Connect the included serial cable from the FibreConnect 1600 Series or 8300 Series switch to the serial port on your PC. Use the included USB to serial adapter, if necessary.
- 2 Using a terminal program on the setup computer, connect to the switch using an application such as the shareware application TeraTerm.
 - Download, unzip, and install TeraTerm Pro (shareware).
 - Open TeraTerm.
 - Under setup select Serial Port.
 - Create a new serial connection to the COM serial port using the following settings:
 - Bits per second: 9600*
 - Parity: None*
 - Stop bits: 1*
 - Flow control: None*
- 3 Enter the default username: **admin** and password: **password** at the login prompt.
- 4 You are now logged into the switch, proceed to [Logging into Web Tools](#) on page 3

Linux (Red Hat and SUSE)

- 1 Connect the included serial cable from the FibreConnect 1600 Series or 8300 Series switch to the serial port on your machine. Use the included USB to serial adapter, if necessary.
- 2 Using Terminal, connect to the device by completing the following:

- a. Open Terminal.
 - b. Type **screen /dev/ttyS0 9600**
 - c. Press **enter**.
 - d. Login to the device with username: **admin** and password: **password**
- 3 You are now logged into the switch, proceed to logging into Web Tools.

Logging into Web Tools



Note

Should you choose to use a different terminal application, use the following COM port settings:

- Bits per second: 9600
- Parity: None
- Stop bits: 1
- Flow control: None

- 1 Now discover the IP address of the FibreConnect Switch in the Terminal application:
 - a. Type **ipaddrshow**
 - b. Hit **enter**
- 2 You may now connect to Web Tools (GUI) which allows you to log into the switch and begin configuring the device. Do this by completing the following:
 - a. Open a browser



Note

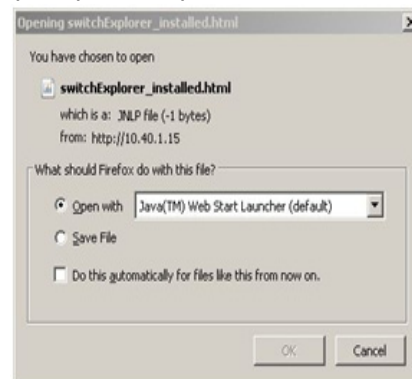
Internet Explorer in Windows works without exception. Skip to (g) in this section.

Safari and Firefox are supported – follow the instructions below to use Safari or Firefox on Mac or Windows.

Google Chrome is not currently supported.

- b. Type the IP address, obtained in step 9, into the address bar example:
`http://192.168.100.43/`
- c. Hit **enter**
- d. The URL will change to
`http://192.168.100.43/switchExplorer.html`

- e. Change the URL to the following :
`http://192.168.100.43/switchExplorer_installed.html`
- f. This will download the java tool. You will be prompted to open with Java.



- g. This will load the java based web tools GUI and prompt you for a username and password:

Default username: admin

Default password: password



- h. You will then be presented with the Web Tools Screen

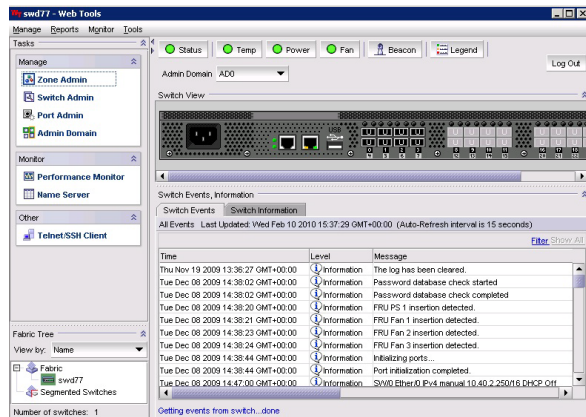
Connecting devices

- 1 Remove any optical protector plugs from the SFP transceivers that you intend to use.
- 2 Position and insert each SFP transceiver until it is firmly seated in the opening of the switch. Close the locking latch.
- 3 Make the physical connections to your host and storage devices.
- 4 Finished - You have successfully completed initial configuration of your ATTO FibreConnect switch and can continue onto setup and zoning.

Included Tools

Web Tools

Web tools is a GUI (Graphical User Interface) which allows you to configure, manage and monitor the switch from your web browser. It enables you to see devices, manage zoning, port aliases, switch health, and other administrative functions.



System Requirements:

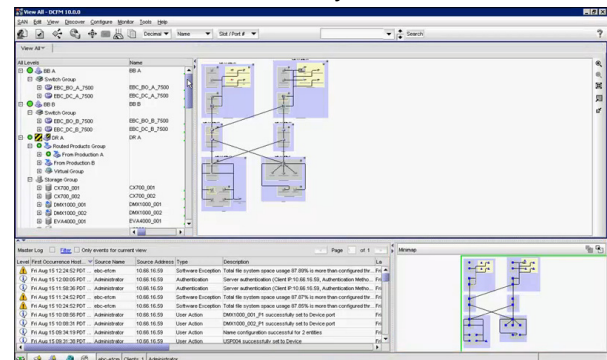
- Microsoft Windows (10, 8, or 7)
- Microsoft Windows Server (2016, 2012, 2008, or 2003)
- Red Hat Linux
- Mac
- SUSE Linux

Browser Requirements:

- Internet Explorer™ 7.x+
- Mozilla Firefox™ 3.x+
- OS X Safari
- Java™ Plug-in 1.4.2+ on Windows and Linux

DCFM Pro (Data Center Fabric Manager)

DCFM Pro is an advanced desktop application that allows you to manage the FibreConnect switch and access advanced functionality.



Supported Operating Systems:

- Microsoft Windows (10, 8, or 7)
- Microsoft Windows Server (2016, 2012, 2008, or 2003)
- Red Hat Linux
- SUSE Linux
- VMware ESX Server™



Note

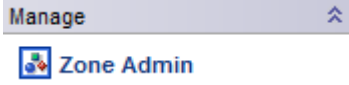
DCFM Pro is not supported in Mac OS X; please refer to the Web Tools section.

Some of the advanced features supported, using DCFM Pro, are as follows:

- Fabric summary reporting
- Print zone database summary
- Viewing zone configuration
- Device accessibility matrix

2.0 Zoning

Zoning is the partitioning of a Fibre Channel fabric into smaller subsets to restrict device access and simplify management. Zoning can be used to separate devices or segregate bandwidth across the fabric. The following is a basic overview of how to configure zoning. For more information please refer to Chapter 9: Administrative Advanced Zoning, in the Fabric OS Administrator's Guide, that can be found at <https://www.atto.com/>

- 1 Connect an FC initiator or target into an open port on the FibreConnect switch.
- 2 Use the link indicator on the switch port to verify that the connection is good.
- 3 Login to the WebTools GUI interface using the Ethernet connection on the switch.
You will need Java enabled on your browser.
- 4 Check the FibreConnect switch Port.
 - a. On the visual depiction of the switch, click on the port where you plugged in the FC connector.
 - b. The **Port Administration Services** screen should pop up.
You will need to enable the pop-up in your browser.
 - c. Verify that the Port Status is **Online**. Note the port number.
 - d. Close the **Port Administration Services** screen.
- 5 Find the WWN of your new device.
 - a. Navigate back to the front GUI page.
 - b. Select **Zone Admin**, an icon on the top left of the screen.
The screenshot shows a 'Manage' dropdown menu with an upward-pointing arrow. Below the menu, the 'Zone Admin' option is highlighted in blue with a small icon to its left.
 - c. Expand the **Ports & Attaching Devices** under the **Member Selection List**.
 - d. Expand the appropriate port number. Note the attached WWN.
- 6 Create a new alias for this device.
 - a. Click **New Alias** button.
 - b. Follow the menu instructions and name the device.
- 7 Add the appropriate WWN to the alias.
 - a. Select your new device name from the **Name** drop down menu.
 - b. Expand the WWNs under **Member Selection List**.
 - c. Highlight the appropriate WWN.
 - d. Select **Add Member**.
- 8 Add the alias to the appropriate zone.
 - a. Select the **Zone** tab.
 - b. Select the appropriate zone from the **Name** drop down menu.
 - c. Select the appropriate alias from the **Member Selection List**.
 - d. Click **Add Member**.
- 9 Ensure that the zone is in **Zone Config** in the **Zone Config** tab.
- 10 Save your changes by selecting **ZoningActions -> Enable Config**
- 11 Log back in to the server to verify. It should now see the storage devices.

3.0 Update Firmware

Your FibreConnect 1600 Series or 8300 Series switch requires the use of an FTP or SCP to upgrade your firmware.

Setting up an FTP Server

The following instructions apply for setting up an FTP Server and Upgrading Firmware on Windows/Mac OS X/Linux Operating Systems.

- 1 Setup and install an FTP server either using native functionality in Windows/Mac OS X/Linux, or utilize a freeware application such as FtpGoServer.



Note

Java will need to be installed for FtpGoServer to run.

FtpGoServer is a simple, fast and very small (10K) Java FTP server that can be used on your PC, Mac or Linux machine to allow remote FTP access to a selected part of a computer's file system. Download and install the application.

Upgrading Firmware via Command Line Interface/Telnet (Recommended)

Use the following procedure to upgrade your ATTO FibreConnect 1600 Series or 8300 Series switch to the latest firmware through a Telnet/Command Line Interface (CLI).



Note

ATTO recommends that before upgrading the switch firmware, a copy of the switch configuration file should be saved to the FTP server using the `configupload` command. Refer to Section 5.0 of this guide for instructions on how to do this.

- 1 Create a directory for the firmware files and download the firmware from the hp website into a UNIX or Windows machine as explained above in FTP setup.
- 2 Verify the FTP service is running on a Windows, Mac, or Linux machine.

- 3 Telnet to the switch through the terminal application you used in the above steps to initially find the IP of the switch.
- 4 At the login prompt, type **admin**
- 5 Type the password.
- 6 At the prompt type **firmwareDownload**
- 7 Follow the on-screen prompts, as shown below:
 - Server Name or IP Address: 192.168.xxx.xxx (Enter the IP address of the FTP server that contains the firmware file you received from ATTO Support.)
 - User Name: (access to the FTP root)
 - File Name: /v6.x.x/ (the location of the unzipped firmware folder)
 - Password: xxxx (password to access FTP server)
 - FirmwareDownload has started.
 - Start to install packages.....

The firmware files begin to download.

This takes approximately 5 to 10 minutes.

Upon completion of a successful download, you will see the following prompts:

- Verification SUCCEEDED
 - FirmwareDownload has completed successfully.
 - Connection to host lost.
- 8 The switch is now running firmware v6.x.x
 - 9 Re-telnet to the switch, and type **firmwareshow**

You should see the following example:

```
swd77:admin> firmwareshow
Appl  Primary/Secondary Versions
-----
FOS   v6.x.x
      v6.x.x
```

Upgrading Firmware via Web Tools



Note

ATTO recommends that before upgrading the switch firmware, a copy of the switch configuration file should be saved to the FTP server using the configupload command. Refer to Section 5.0 of this guide for instructions on how to do this.

- 1 Verify the FTP service is running on a local network machine with proper access privilege.
- 2 From a web browser, access the FibreConnect web tools GUI by typing in the switch IP address and logging in.
- 3 Select **Switch Admin** in the upper left corner of web tools.
- 4 Select the **Firmware Download** tab.
- 5 Enter the following information:
 - **Host Name** or **IP** (Enter the IP address of the FTP server that contains the firmware file you received from ATTO Support.)
 - **User Name** (access to the FTP root)

- Password (no password is required if username anonymous is used)
- **Protocol Type** (FTP)
- Specify **Firmware Path** (this is the actual folder location of the unzipped firmware directory)

- 6 Click **Download**.



CAUTION

The process will take roughly 15 minutes. The ATTO FibreConnect switch has two partitions of non-volatile storage areas, a primary and a secondary, to store two firmware images. Firmware download always loads the new image into the secondary partition and swaps the secondary partition to be the primary. It then reboots the CP and activates the new image. In this way, the switch will continue to operate during a firmware download. The LEDs on the switch may turn off but the switch will continue to pass data during the firmware download. Configuration, including zoning, will not be affected by the upgrade.

4.0 Saving Configurations

The FibreConnect switch allows you to create a backup of your switches configuration, as well as the ability to restore a previous configuration.

ConfigUpload/Download allows you to save/load:

- Zoning configurations
- SNMP attributes
- Domain IDs
- Switch names
- Network IDs

ConfigUpload into the switch.

- 1 Type **configUpload** and then press **enter**.
- 2 Specify protocol (most likely ftp)
- 3 Enter username (to access ftp)
- 4 Specify path to file and name for file.
- 5 Specify what you are backing up.
- 6 Enter password (of ftp access)
- 7 Press **enter**. The process will be very quick.

Commands shown here:

```
swd77:admin> configUpload
Protocol (scp, ftp, local) [ftp]: ftp
Server Name or IP Address [host]: 192.168.xxx.xxx
User Name [user]: xxxx
Path/Filename [<home dir>/config.txt]:
(folder)/filename.txt
Section (all|chassis|switch [all]): all
Password: xxxx
```

configUpload complete: All selected config parameters are uploaded

```
swd77:admin>
```

ConfigDownload (restore)

- 1 Telnet into the switch.
- 2 Type **configDownload** and then press **enter**.
- 3 Specify protocol (most likely ftp)
- 4 Enter username (to access ftp)
- 5 Specify path to file and name of file.
- 6 Read and agree to caution statement.
- 7 Press **Y** and then **enter**.

Commands shown here:

```
swd77:admin> configDownload
Protocol (scp, ftp, local) [ftp]: ftp
Server Name or IP Address [host]: 192.168.xxx.xxx
Path/Filename [<home dir>/config.txt]:
(folder)/filename.txt
```



CAUTION

This command is used to download a backed-up configuration for a specific switch. If using a file from a different switch, this file's configuration settings will override any current switch settings. Downloading a configuration file, which was uploaded from a different type of switch, may cause this switch to fail. A switch reboot might be required for some parameter changes to take effect.

configDownload operation may take several minutes to complete for large files.

Do you want to continue [y/n]: