2. Remove the cover bracket from a PCIe slot. PCIe slots and adapters vary in the number of connectors present, depending on the data lanes being supported.
3. Insert the adapter in an available, compatible PCIe slot. Push the adapter into the slot until the adapter is firmly seated. The adapter can be installed in a x8 or x16 mechanical PCIe slot.

⚠️ CAUTION ⚠️ Some PCIe adapters may have a short connector. Excessive force could break the connector. Use caution when pressing the board in the slot.

4. Repeat steps 2 through 3 for each adapter you want to install.
5. Replace the server cover and plug in the power cord.
6. Turn the power on.

Create RAID Group

⚠️ Note ⚠️ The instructions below refer only to creating RAID groups using the RAID Group Creation Wizard for ExpressSAS RAID adapters. For instructions on creating RAID groups using Power Center Pro onboard RAID for ExpressSAS HBAs or for more advanced RAID group settings, refer to the ATTO Utilities manual.

The ATTO ConfigTool RAID Group Creation Wizard automates the RAID group creation process. Start the wizard by selecting New Group in the RAID Management menu, selection the Groups tab in the bottom panel, right-clicking within the panel and selecting New Group, or it will start automatically when the RAID tab is selected and there are no RAID groups present.

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ExpressSAS® Adapter Getting Started Guide

Thank you for purchasing the ATTO ExpressSAS Adapter. This guide gives you the basics for installing and configuring your adapter. For more information, please visit our website at www.atto.com

Overview

This guide covers hardware and software installation, setup procedures, and troubleshooting tips for ATTO ExpressSAS adapters. Ensure you have the equipment and software you need for the installation:

- ExpressSAS adapter
- A computer with an available PCIe, PCIe 2.0, PCIe 3.0 or PCIe 4.0 expansion slot
- Storage, cables, and connectors
- ATTO ConfigTool™ Configuration and Management Utility

System Requirements

Before installing the ATTO ExpressSAS Adapter, please check your system for the following minimum configuration requirements:

Supported Operating Systems

- Microsoft Windows®
- Microsoft Windows Server®
- macOS®
- Linux
- VMware®
- FreeBSD (not supported on 6Gb ExpressSAS SAS/SATA HBAs)
- illumos (not supported on 6Gb ExpressSAS SAS/SATA HBAs)

⚠️ Note ⚠️ Please visit https://www.atto.com/support/interoperability for details on specific supported operating systems.

Installing Drivers

Configure your system to recognize and use your ExpressSAS HBA by installing drivers for your operating system.
**Windows**

1. Power on your system and log in as the administrator or a user with proper administrative privileges.
3. Register or log in if previously registered.
4. Click on **SAS/SATA HBAs and RAID Adapters** in the left dialog.
5. Navigate to your HBA model/family in the right dialog and click on it.
6. Scroll down and select the desired driver depending on the operating system.
7. A download window appears. Choose **Save File**.
8. Double-click the downloaded file to extract and launch the driver setup program.
9. Follow the on-screen instructions to complete the driver installation.

**macOS**

1. Power on your system and log in as the administrator or a user with proper administrative privileges.
3. Register or log in if previously registered.
4. Click on **SAS/SATA HBAs and RAID Adapters** in the left dialog.
5. Navigate to your HBA model/family in the right dialog and click on it.
6. Scroll down and select the desired driver depending on the operating system.
7. A download window appears. Choose **Save File**.
8. Double-click the downloaded file to extract and launch the driver setup program.
9. Follow the on-screen instructions to complete the driver installation.

**Linux**

*Note:* These steps assume a basic knowledge of Linux terminal commands. You must also have the correct kernel source files for the appropriate kernel already installed.

1. Power on your system and log in as the administrator or a user with proper administrative privileges.
3. Register or log in if previously registered.
4. Click on **SAS/SATA HBAs and RAID Adapters** in the left dialog.
5. Navigate to your HBA model/family in the right dialog and click on it.
6. Scroll down and click the desired driver depending on the operating system.
7. A download window appears. Choose **Save File**.
8. After the download has completed, open the Celerity volume on the desktop.
9. Open the **Linux** folder.
10. Open the **Drivers** folder.
11. Copy the .tgz file to a temporary folder.
12. Open a terminal window and change to the location of the copied .tgz.
13. Extract the file using the command `tar -xfz<filename.tgz`
14. Change to the directory created above and run the installer script `/install.sh`

**VMware (HBAs only)**

1. Power on your system and log in as the administrator or a user with proper administrative privileges.
3. Register or log in if previously registered.
4. Click on **SAS/SATA HBAs and RAID Adapters** in the left dialog.
5. Navigate to your HBA model/family in the right dialog and click on it.
6. Scroll down and select the desired driver depending on the operating system.
7. A download window appears. Choose **Save File**.
8. Within the bundle, unzip the Driver VIB file (.vib) for your ATTO adapter.
9. Use the Datastore Browser in the vSphere Client to upload the VIB file to your ESXi host.
10. Log in to the ESXi host on the Local Tech Support Console (ESXi), or through a SSH client.
11. Install the VIB using the following command on the ESXi host: # esxcli software vib install -v <full path to VIB file>
12. Once the VIB is installed, reboot the ESXi host.

**FreeBSD and illumos (12Gb ExpressSAS SAS/SATA HBAs only)**

*Note:* Refer to the ExpressSAS Installation and Operation Manual for instructions on installing FreeBSD drivers and illumos drivers.

**ATTO ConfigTool Configuration and Management Utility**

The ATTO ConfigTool is a utility program available for macOS, Windows, and Linux that displays information about installed storage adapters, drivers and devices and provides a mechanism to configure installed storage adapters in local and remote hosts. The ATTO ConfigTool is used to manage all ATTO host based products including HBAs, RAID adapters and ThunderLink Adapters. Refer to the ATTO Utilities manual for specific operating system installation and setup instructions.

**Hardware Installation**

*Note:* If you are replacing an existing adapter with a new adapter, you must reinstall the driver.

**Insert a PCIe Adapter in the Server**

1. Turn off the server and unplug the power cord, then remove the server’s cover.

*CAUTION:* Turn off and unplug the server before removing the server’s cover. Failure to do so could endanger you and may damage the adapter or server.