

Using PowerChute™ Network Shutdown to protect a NETGEAR® ReadyNAS®



Abstract

PowerChute™ Network Shutdown software works in conjunction with a UPS Network Management Card to provide graceful, unattended shutdown of multiple computer systems over a network. This Application Note explains how PowerChute Network Shutdown integrates with NETGEAR® ReadyNAS® to ensure safe shutdown of your network-attached storage device in the event of an extended power outage.

Introduction

NETGEAR® is a leading network-attached storage vendor who offers a range of premium NAS devices under the product name ReadyNAS®. ReadyNAS storage is the ideal solution for data backup, disaster recovery, file sharing and virtualization applications in mid-sized IT environments allowing businesses to reduce server and storage costs while simplifying infrastructure management and flexibility. Implementing a ReadyNAS with a virtualization solution can eliminate dedicated file servers.

APC and NETGEAR have worked together to provide integration between PowerChute Network Shutdown and NETGEAR ReadyNAS storage devices. This integration provides the necessary communication to allow for graceful shutdown of the ReadyNAS in the event of an extended power outage.

Why network-attached storage?

Network-attached storage (NAS) systems provide file-based data storage services and remove the responsibility of file serving from other servers on the network. NAS devices are gaining popularity as a convenient method of sharing files among multiple computers for faster data access, easier administration and simpler configuration when compared to file servers.

Using advanced virtualization features such as moving a running virtual machine (VM) from one host to another typically means investing in an expensive Fiber Channel SAN (FC SAN). However, several virtualization platforms also support using NAS devices, which can provide a worthy, cost-effective alternative.

The most important link between server virtualization and storage is application mobility. In server virtualization, customers can ultimately move applications from system-to-system much easier than ever before. If customers have to maintain links to storage as they move their applications around, it makes sense for virtualized environments to leverage networked storage - maintaining the links through the network.

Why PowerChute Network Shutdown?

With over 20 million units sold, APC UPS's are the most popular UPS's in the world for servers, storage and network protection and are trusted to protect critical data and equipment from power problems by supplying clean and reliable network-grade power.

A UPS Network Management Card connects your UPS to the network to enhance manageability while the included PowerChute Network Shutdown software provides graceful, unattended shutdown of protected servers in the event of an extended power outage, always keeping business information safe.

PowerChute Network Shutdown installs directly on to the supported ReadyNAS device, and works with your UPS to provide safe shutdowns in case of power problems. PowerChute protection against data corruption minimizes time to recovery and ensures business continuity after power interruptions or severe power outages.

PowerChute Network Shutdown for NETGEAR ReadyNAS

PowerChute Network Shutdown works on Intel-based ReadyNAS devices and does not work on Sparc-based systems. The Compatibility Chart listing supported operating systems is available at <http://www.apc.com/wp/?um=200>.

To locate PowerChute Network Shutdown, you have the following options:

Option 1:

- Log on to your Netgear ReadyNAS UI using the URL: https://<NAS_IP_Address>/admin
- Your Netgear help documentation will have information on how to obtain the IP address. In some cases, it will display on the front of your ReadyNAS device.
- On the left pane of the ReadyNAS screen under 'Home', click on the Add-ons option and then on 'Add New'.
- At this point, the Netgear URL <http://www.readynas.com/addons> should display on the ReadyNAS screen.
- Download and extract the PowerChuteNetworkShutdown_n.n.n.bin file from the website package (where n.n.n represents the PowerChute Network Shutdown version you are installing).

- On the ReadyNAS screen, click 'Choose File' and enter the path to PowerChuteNetworkShutdown_n.n.n.bin.

Option 2:

- Log onto www.apc.com and under 'Products and Services' navigate to the 'UPS' – 'UPS Management' – 'PowerChute Network Shutdown' section.
- On this product page, you can select the PowerChute Network Shutdown for Netgear download.
- You can download the file free of charge directly from here.

Option 3:

- PowerChute Network Shutdown is included on your UPS Network Management Card CD.
- The installation file (.bin) can be located on a CD containing PowerChute Network Shutdown v3.0.1 or above.

Please refer to the PowerChute Network Shutdown Installation Guide for detailed installation instructions.

Conclusion

As organizations of all sizes continue to generate increasing amounts of data, a means for safely storing that data is necessary, and many organizations are turning to Network Attached Storage (NAS) devices to fill this role. The NAS device, however, is only as reliable as the AC power it receives, which is why UPS's are required to provide clean power to the NAS and provide battery power when there is a power outage, allowing the NAS to stay up and running during brief power outages.

PowerChute Network Shutdown will work in conjunction with your UPS to ensure your business critical data is protected at all times. In the case of an extended power outage, when the UPS battery will become exhausted, communication between the UPS and the NAS is essential in order to prevent a "hard" shutdown of the NAS, and the resulting potential data loss or corruption. While your NETGEAR ReadyNAS allows your business to securely share, store and protect your business-critical data across the network, installing PowerChute Network Shutdown ensures your data is protected against data corruption in the event of an extended power outage or other power problems.

About the Author:

Sarah Jane Hannon is Product Line Manager for the PowerChute UPS Management software range. Prior to joining APC in November 2007, she worked for over five years in Product Management and Strategic Planning in the Telecommunications industry. Sarah Jane holds a Bachelor's degree in Business and French from the University of Limerick and a Masters in Marketing Management from University College Dublin.