Configuring Windows® Firewall to Work With Dell™ PowerVault™ NAS Systems

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How do I configure Windows® Firewall to work with my Dell™ PowerVault™ NAS system?

One of the most significant features of Windows Server® 2003 Service Pack 1 is the improved Windows Firewall. With a carefully planned configuration and a few simple steps you can easily configure the Firewall to work with your Dell PowerVault NAS system. For example, if Windows® Firewall is enabled, it may be blocking incoming network traffic on Transmission Control Protocol (TCP) port 445. To connect to a NAS system remotely, that remote system must allow incoming network traffic on TCP port 445. This document will tell you how to configure Windows® Firewall for the most commonly used ports on Dell PowerVault NAS systems.

NOTE: Open firewall ports can be a security vulnerability. You should carefully plan and test any such configuration change before it is implemented.

- To continue using the **NAS Manager** with Windows Firewall enabled the Administrator, when configuring the firewall, must
    - add TCP Port 1279 to the Exceptions list to access the WebUI Admin site
    - add TCP Port 80 to the Exceptions list to access the WebUI Shares site
    - add TCP Port 1311 to the Exceptions list to access the Dell Open Manage Server Administrator site

- To continue using the **File Transport Protocol** (FTP) protocol with the Windows Firewall enabled
    - add TCP Port 21 to the list of exceptions.

- To continue using **NetBIOS Name Resolution** with the Windows Firewall enabled
    - add UDP Port 137 to the list of exceptions.

- The following ports must be open for **Services for Unix** (SFU) to work correctly with the Windows® Firewall enabled:
    - PortMapper: TCP, UDP 111
    - Status: TCP, UDP 1039
    - Nlockmgr: TCP, UDP 1047
    - Mountd: TCP, UDP 1048
    - NFS Server: TCP, UDP 2049

- To continue using the **Windows Time Service** with the Windows Firewall enabled
   - add UDP Port 123 to the list of exceptions.

NOTE: When the PowerVault NAS system is joined to a domain from the default NASGroup group all Firewall settings will be reset. You will need to re-enable Remote Desktop, re-enter all exceptions, and enable port 445 under File and Printer Sharing.

**Enabling and disabling ports on the firewall using the Command Line**

Using the current example we will use the command line to open port 445. Click **Start**, point to **Programs**, point to **Accessories**, and click **Command Prompt**. At the command prompt, type **netsh firewall set portopening TCP 445 ENABLE** then press **ENTER**.

Enabling and disabling ports on the firewall using the Windows Firewall Configuration Tool

Using the current example we will use the Windows Firewall configuration tool to open port 445. Click **Start**, select **Control Panel**, and double click **Windows Firewall**. You will be prompted to start the Windows Firewall/Internet Connection Sharing (ICS) service. If you plan on enabling the firewall this service must be started.
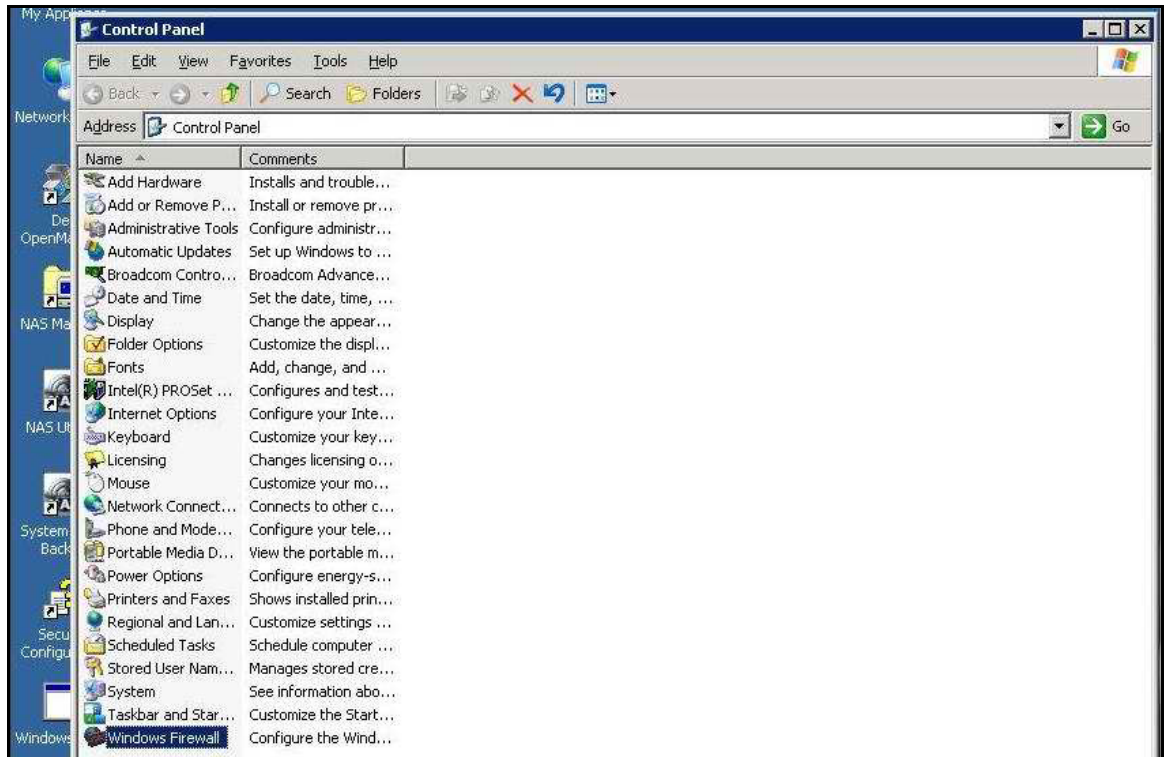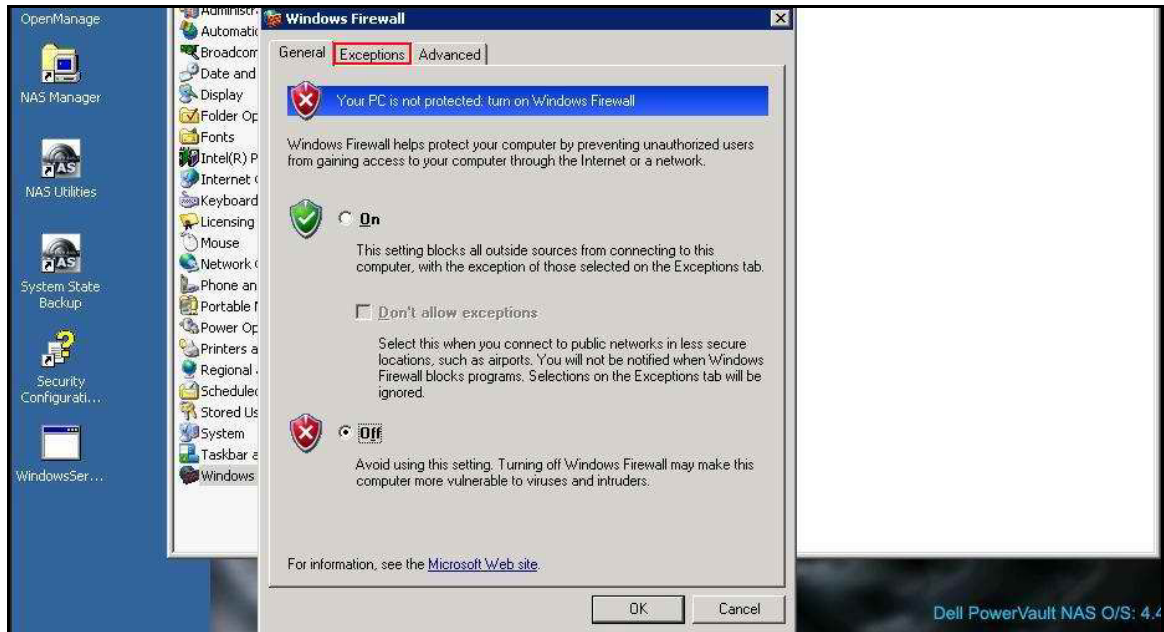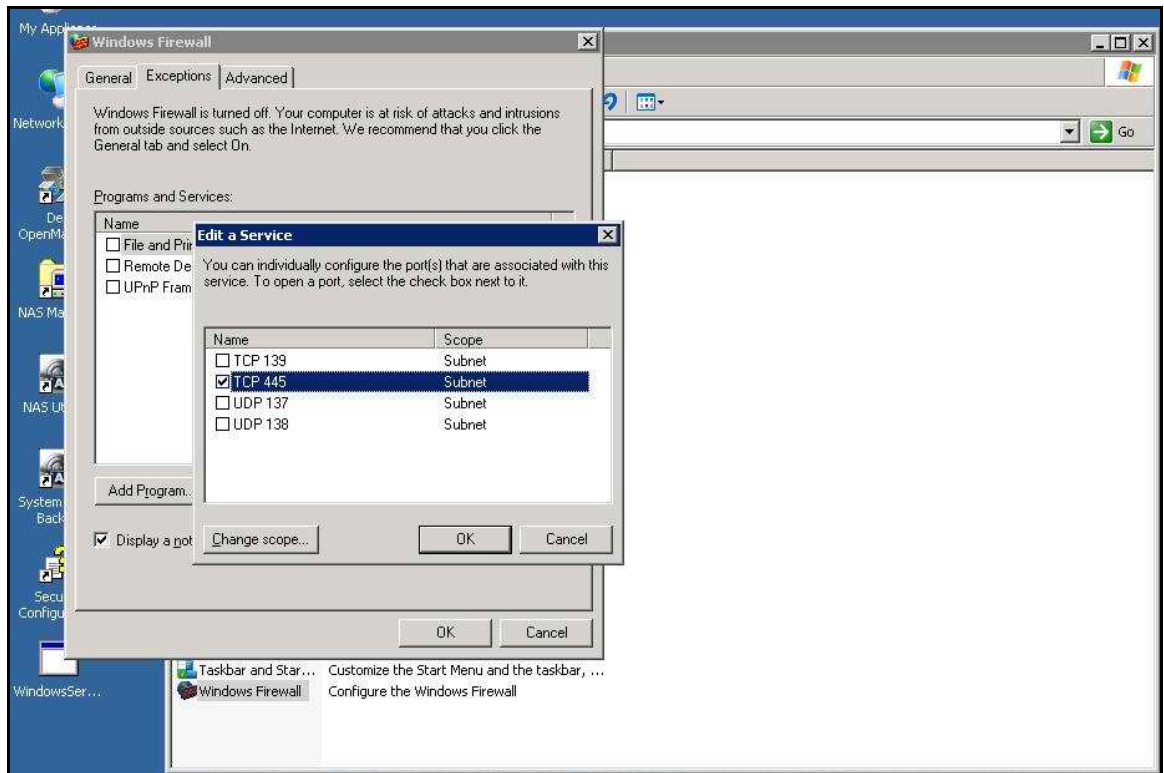
- Figure 1 Windows Firewall
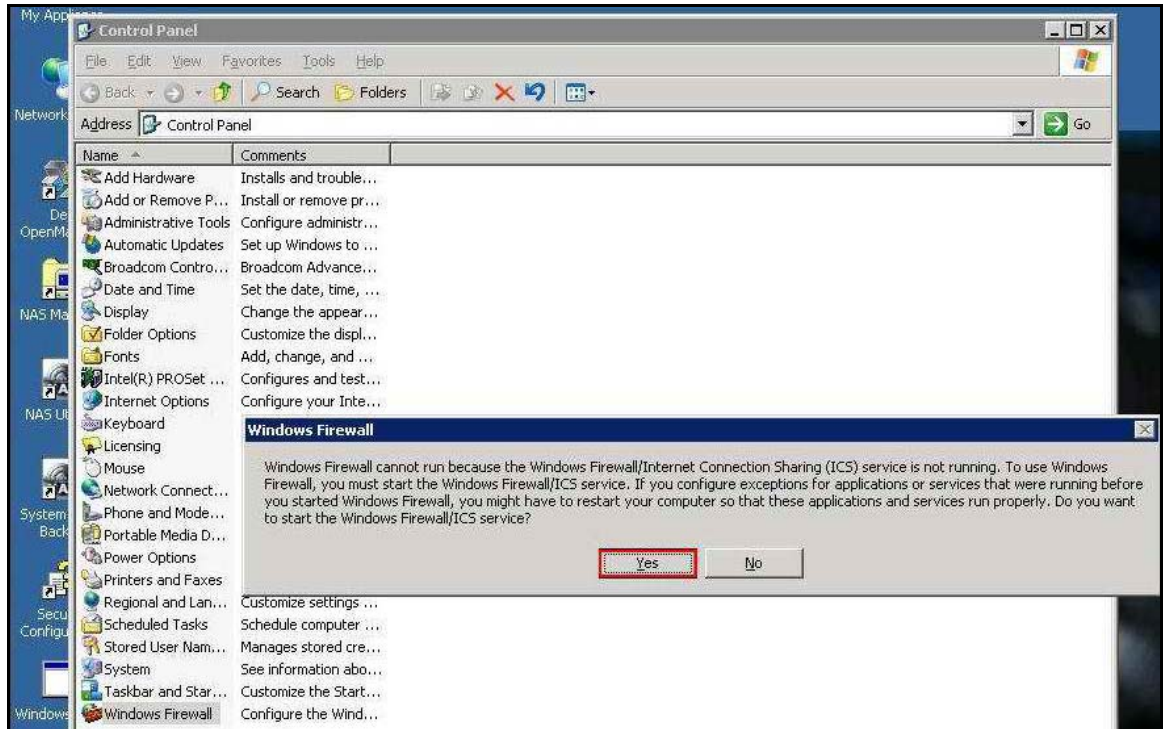
- Figure 2 Start the Windows Firewall Service

Go to the **Exceptions** tab, highlight **File and Printer Sharing** and select **Edit.** Select the box next to **TCP 445** and select **OK**. Select **OK** to save your Firewall changes.
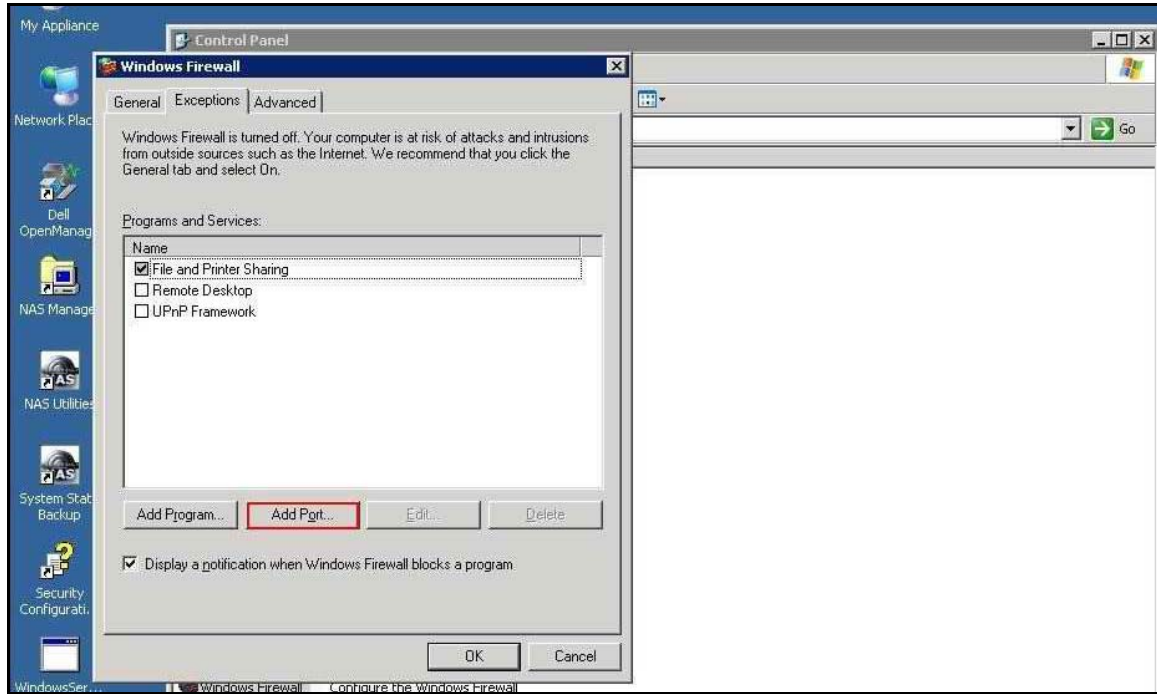
- Figure 3 Firewall Exceptions


- Figure 4 Enable Port 445

Continuing from the exceptions tab, create new exceptions for the NAS Manager Admin site, the NAS Manager Shares site and the Dell Open Manage Server Administrator site.

Select **Add Port**, in the Edit a Port window type **WebUI Admin Site** in the Name field, in the Port number field enter **1279** then select the **TCP** protocol.
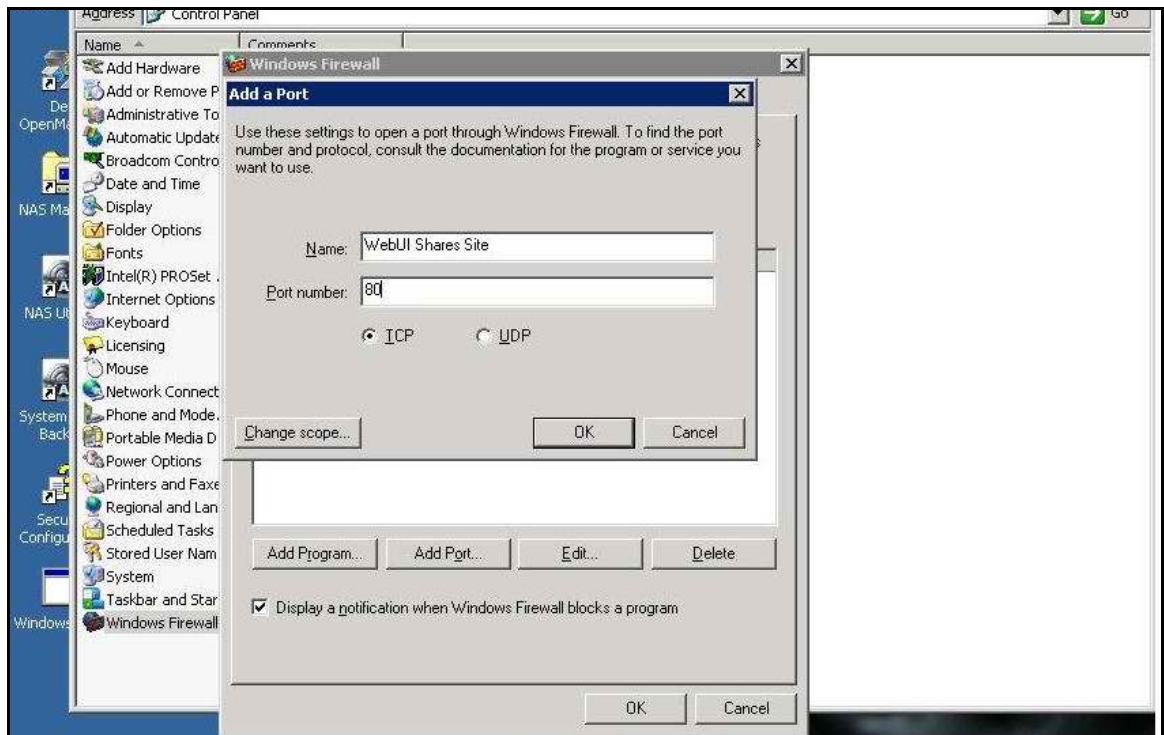
Repeat these steps for the remaining ports, return to the **General** tab turn the firewall **ON** then click **OK**.
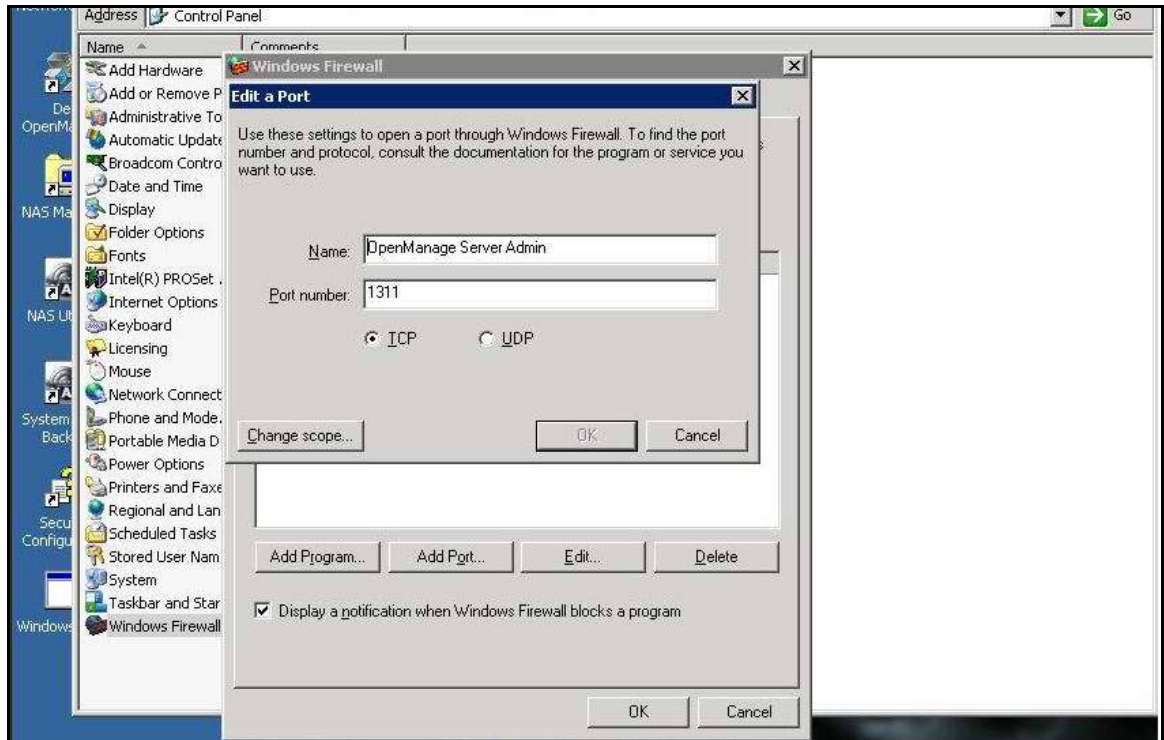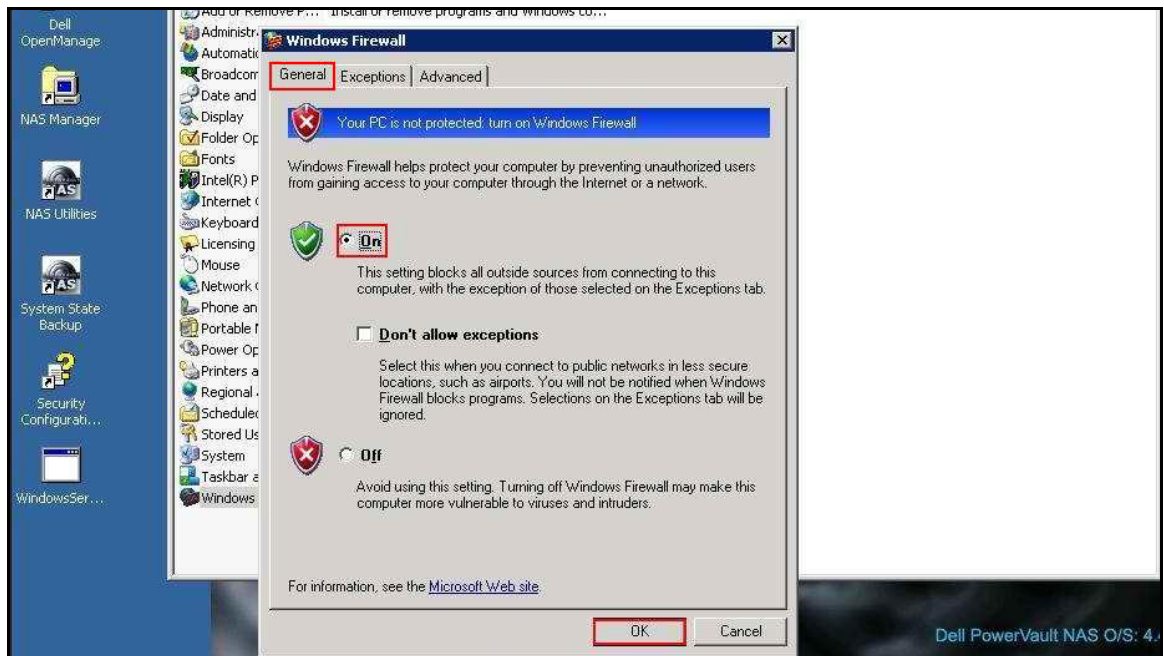

• Figure 5 Add Port
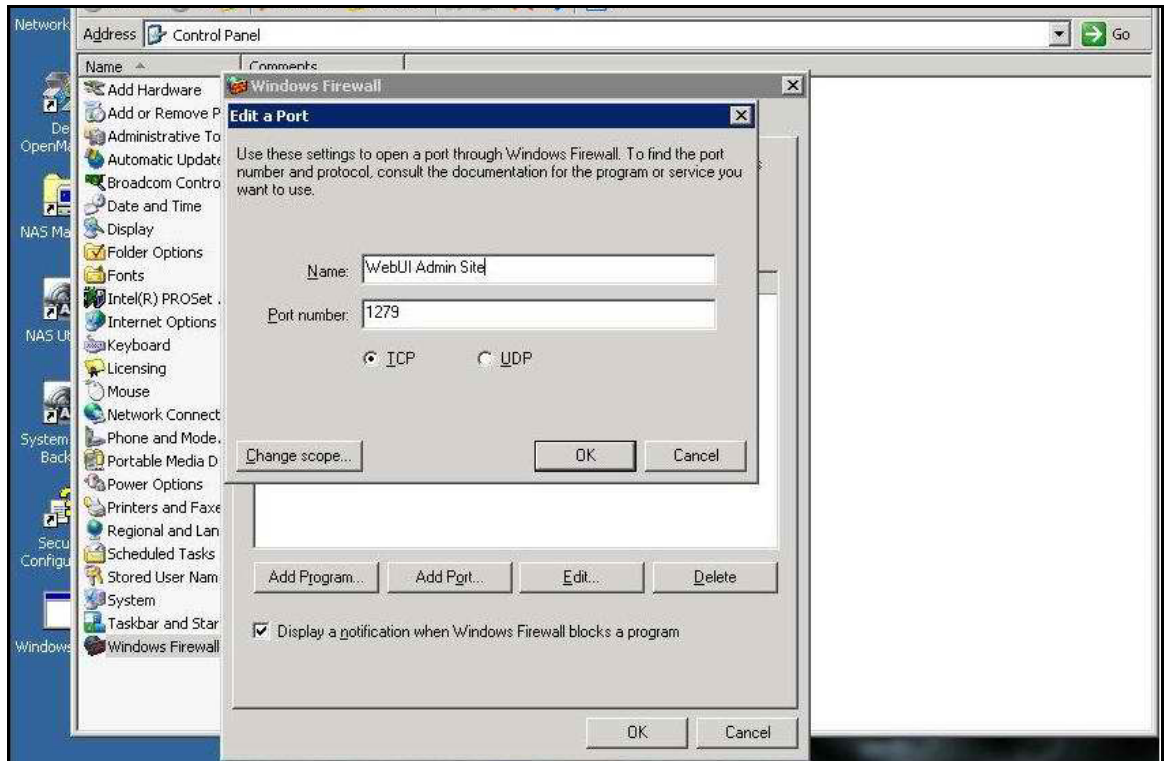
- Figure 6 Create Exception for WebUI Admin Site

- Figure 7 Create Exception for WebUI Shares Site

• Figure 8 Create Exception for Server Admin Site

• Figure 9 Turn on Firewall

Additional information about Microsoft® Windows Server 2003 Service Pack 1 and associated files can be found at:

- Dell and Microsoft Alliance Page
- Dell Power Solutions
- The latest driver, firmware, and BIOS for your system can be downloaded from Support.Dell.Com.
- Microsoft Windows Server 2003 home page.
- Technical Overview of Windows Server 2003 Service Pack 1 from Microsoft TechNet.