

HP Media Vault

Version January 17, 2008

Copyright

The information contained herein is subject to change without notice. The only warranties for HP products and services are set forth in the express warranty statements accompanying such products and services. Nothing herein should be construed as constituting an additional warranty. HP shall not be liable for technical or editorial errors or omissions contained herein.

This document contains proprietary information that is protected by copyright. No part of this document may be photocopied, reproduced, or translated to another language without the prior written consent of HP.

Hewlett-Packard Company

P.O. Box 4010

Cupertino, CA 95015-4010 USA

Copyright © 2006-2008 Hewlett-Packard Development Company, L.P.

Microsoft and Windows are U.S. registered trademarks of Microsoft Corporation.

HP supports lawful use of technology and does not endorse or encourage the use of its products for purposes other than those permitted by copyright law.

The information in this document is subject to change without notice.

Contents

Chapter 1: Installing

- Before Starting 1
 - HP Media Vault Location 2
 - Network Requirements 2
 - Supported Operating Systems 3
 - Wireless Support 4
- Connecting the HP Media Vault 5
- Powering on 5
- Checking the HP Media Vault Status 6
- Updating Your Firewall's Trusted Program List 7
- Installing the Software 8
- Installing the Software on Additional Network Computers 13
- Installing Two or More HP Media Vaults 14
- Getting to Know the HP Media Vault 14
- Shutting Down and Restarting 18

Chapter 2: Configuring System Settings

- Viewing System Information 21
- Viewing the Alert Log 23
- Viewing System Settings 24
- Editing System Settings 26
- Changing the Date and Time 27
- Changing Firmware Update Options 29
- What do you want to do next? 31

Chapter 3: Photo Webshare

- Before You Begin 33
- Logging on to HP Photo Webshare 34

Webshare Home Page	35
Managing Webshare User Accounts	36
About the Types of Webshare User Accounts	36
Managing Visitors	37
Managing Groups	41
Creating an Album to Share	43
Naming your Album	43
Adding Photos to Your Album	44
Sharing an album	47
Notifying Visitors by Email	48
Viewing and Saving Photos	49
Viewing photos	49
Saving Photos	51
Presenting Slideshows	52
Changing a Visitor's Password	52
Frequently Asked Questions	53

Chapter 4: Managing Users

Creating a User	55
Editing a User	56
Changing a User's Folder Privileges	57
Deleting a User	59
Changing a Password	59
Viewing User Information	60
Enabling Remote Access	60

Chapter 5: Managing Shared Folders

Viewing Shared Folders	61
Creating a Shared folder	63
Editing a Shared Folder	65
Deleting a Shared Folder	67
Enhance Security on your Shared Folders	68

Chapter 6: Organizing and Browsing Folders

- Organizing Folders 71
- Mapping Drive Letters to Shared Folders 73
- Browsing Folders 75
- Transferring Files from Computer to Computer 78
- Connecting to the Media Vault from a Linux System 83
- Connecting to the Media Vault from a Macintosh 86

Chapter 7: Networking

- Viewing Network Settings 87
- Editing Network Settings 89
- Securing Your Media Vault from Intruders 91

Chapter 8: Streaming Media

- Before You Begin Media Streaming 94
- Streaming Media to your Entertainment Center 94
 - Enabling Media Streaming for a Folder 95
 - Disabling Media Streaming for a Folder 96
 - Resetting Media Streaming 97
 - UPnP A/V Streaming 97
- Setting up iTunes on the Media Vault and the computer 98

Chapter 9: Remote Access

- Enabling Remote Access 99
 - Creating a Personal Web Address 100
 - Setting up your Router 103
 - Testing Remote Access 106
- Renewing Your Personal Domain 107
- Accessing Your Media Vault Remotely 108
- Browsing Files Remotely 109

Chapter 10: Managing Storage Space

- Viewing Disk Settings 113
- Adding an Internal Hard Drive 116

- Removing an Internal Hard Drive 122
- Creating Mirrored Disks 126
- Adding and Removing an External USB Device 128
- Formatting an External USB Device 129
- Replacing the system drive 130
 - Removing the system drive 131
 - Re-installing the new system drive 133

Chapter 11: Back up and Restore

- Backing up Important Files on this Computer 137
- Backing up an Entire Hard Drive (on HP Media Vault Pro models only) 142
- Restoring a Drive Backup (on HP Media Vault Pro models only) 146
- Backing up the HP Media Vault to a USB Device 150
- Backing up Files and Folders to an Online Service 151

Chapter 12: Troubleshooting

- HP Media Vault Troubleshooting tips 153
 - Your network cannot find the HP Media Vault 153
 - You receive Microsoft Vista permission messages 155
 - Restoring a Mirrored Volume 155
 - Power-on indicator is off 156
 - What to do if the HP Media Vault is unresponsive 156
 - Why is the hard drive light-bar purple? 157
 - Why is the hard drive light-bar red? 157
 - Why does my HP Media Vault shut down by itself? 158
 - Computer Recovery (this option is only available on the HP Media Vault Pro) 158
 - Router 158
 - My HP Media Vault loses its router settings 159
 - What are the minimum browser requirement needed by the online User's Guide? 161
- Network connection troubleshooting tips 163
 - Network connection issues 163
 - No available port on network router 167

Why did URL not work? 167

You receive firewall blocking messages 167

You prefer to set static IP Addresses 168

Webshare troubleshooting tips 169

Why can't I share my album? 170

How to add photos from your photos shared folder to your Webshare. 170

Unable to upload images. 171

How do you make Webshare work in the home? 171

Why am I getting a certificate error? 171

Upload Photos requires ActiveX control to be loaded? 172

Clicking on photo Webshare on Control Center Does Not Open. 172

Webshare administrator cannot delete Visitor account. 172

Visitor can create a photo album and add pictures but the album doesn't display. 172

Visitor cannot download pictures and sees a message telling them that they cannot download pictures. 172

Visitor cannot add pictures and sees a message telling them that they can't add pictures. 172

Visitor has created an album (or albums) and wants to delete the album but cannot. 172

Visitor has changed their password, now they can't log into Webshare. 173

Selecting URL from address field in web browser loads "page that opens cannot be closed without closing the entire application". 173

Webshare user is unable to log out of Webshare. 173

Trouble uploading large files to Webshare. 173

Clicking on Photo Webshare on Control Center causes command error. 173

Browser cannot display the page when accessing through URL. 173

iTunes troubleshooting tips 174

iTunes aggregator does not appear to be working. 174

Song selection from the server is not updating with new additions. 174

Podcasts not showing in playlist. 175

Email Troubleshooting tips	175
Why do I need email address for visitors and Home Server users?	175
Why do I need to set-up Webshare notifications?	175
File doesn't appear.	175
Emailed link not opening.	175
Email is not received.	176
Media Streaming Troubleshooting tips	176
You're unable to stream media to your entertainment center	176
Why can I play and stream DRM content on my home computer but I can not stream it from my HP Media Vault?	177
If your DMA does not display your files are found by the DMA.	178
If some of your files (e.g., files newly copied to the server) are not found by the DMA.	178

Chapter 13: Product Information

Product Specifications	179
Regulatory Statements	183
Limited Warranty and Technical Support Statement	185

Chapter 14: Feedback about this Guide

1 Installing

What's in this chapter

- » [Before Starting](#)
 - » [Connecting the HP Media Vault](#)
 - » [Powering on](#)
 - » [Checking the HP Media Vault Status](#)
 - » [Updating Your Firewall's Trusted Program List](#)
 - » [Installing the Software](#)
 - » [Installing the Software on Additional Network Computers](#)
 - » [Installing Two or More HP Media Vaults](#)
 - » [Getting to Know the HP Media Vault](#)
 - » [Shutting Down and Restarting](#)
-

The HP Media Vault stores and protects your digital content such as photos, music, videos, and documents. The Media Vault connects to your Local Area Network (LAN) so that this information can be shared by everyone on your network.

This chapter walks you through connecting the Media Vault to your network and powering it on. Once the Media Vault is connected, install the software on each network computer so it can access information on the Media Vault.

Before Starting

Important information about locating and using the HP Media Vault.

- [HP Media Vault Location](#)
 - [Network Requirements](#)
 - [Supported Operating Systems](#)
 - [Wireless Support](#)
 - [Additional Software](#)
-

HP Media Vault Location

Find a suitable place to locate the HP Media Vault before installing the software on your computers. The location you choose must have either an available wired network connection to your broadband [router](#) or a switch connected to your broadband router.

The Media Vault also requires adequate ventilation to ensure it does not get too hot:

- Do not locate the Media Vault in an unventilated space.
- Make sure that the Media Vault's front and back panels are not blocked.
- Check that the location of the Media Vault is not too hot. Maximum environmental temperature for operating the Media Vault is 40° C (104° F).

Network Requirements

To successfully use the HP Media Vault, your network should meet the following requirements:

Table 1: Network Requirements

Requirement	Recommended
Media Vault connection	10 Mbps to 1000 Mbps (Gigabit Ethernet) wired connection
Network computers	One or more computers running a supported operating system with a wired or wireless network connection. For a list of supported operating systems, see Supported Operating Systems on page 1-3 .
Internet connection	Broadband connection, such as DSL or cable, required for remote access functionality.

Table 1: Network Requirements

Requirement	Recommended
Router	An external Internet broadband router with 10 Mbps (or faster) Ethernet connection to the Media Vault for remote access functionality and wired or wireless connections to the computers on the network. Additionally, your router must have Dynamic Host Configuration Protocol (DHCP) enabled to provide an automatic IP address to the Media Vault.

Supported Operating Systems

The following operating systems are supported to work with the HP Media Vault.

File Backup

Table 2: Supported operating systems

Windows Vista	Windows XP
Windows Vista Home Basic	Windows XP Home with Service Pack 2 (SP2)
Windows Vista Home N (European Union only)	Windows XP Professional with SP2
Windows Vista Home Premium	Windows XP Media Center Edition 2005 with SP2 and Rollup 2
Windows Vista Business	Windows XP Media Center Edition 2005 with SP2
Windows Vista Business N (European Union only)	Windows XP Media Center Edition 2004 with SP2
Windows Vista Enterprise	Windows XP Tablet Edition with SP2
Windows Vista Ultimate	

File Sharing

The HP Media Vault supports all of the above operating systems for file sharing. Additionally, the Media Vault can share files to Mac OSX and Linux computers.

Wireless Support

You must connect the HP Media Vault to your [router](#) (or switch) with an Ethernet cable. The Media Vault does not support wireless connection to your router. However, computers connected wirelessly to a wireless access point or router are supported.

Additional Software

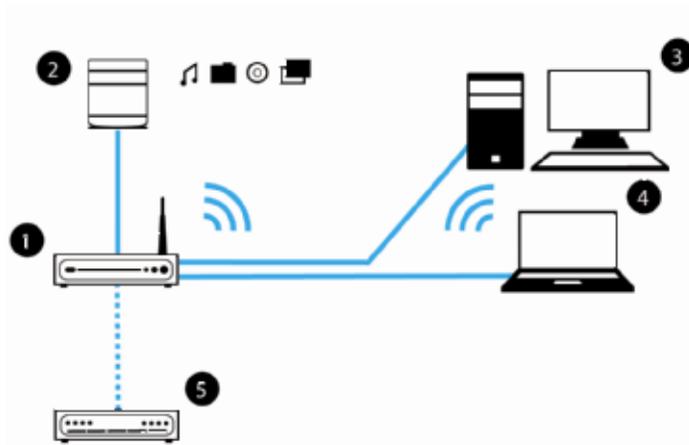
Internet Explorer 6.0 or later is required to run the HP Media Vault software. Download Internet Explorer from <http://www.microsoft.com/downloads>.

iTunes 7.1 or later is required for combining household music libraries and streaming music with iTunes. Download iTunes from <http://www.apple.com/itunes/download>.

Connecting the HP Media Vault

How you connect the HP Media Vault to your network depends on the network configuration.

Figure 1: Connecting the HP Media Vault to the network



This example shows a broadband [router \(1\)](#) connecting the following:

- HP Media Vault **(2)**
- Desktop PC **(3)**
- Notebook computer with a wireless adapter **(4)**
- Broadband Modem **(5)**

The Media Vault uses a [Dynamic Host Configuration Protocol \(DHCP\)](#)-enabled router to get its [IP address](#). By default, most routers include a DHCP server. For more information, check your router documentation.

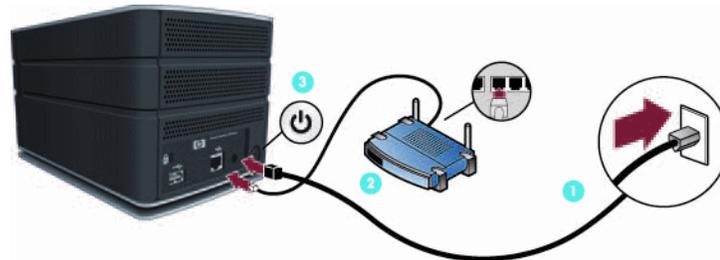


Caution: If you have wireless functionality on your network, be sure to enable your router's security settings, such as [Wi-Fi Protected Access \(WPA\)](#) or [Wired Equivalent Privacy \(WEP\)](#), to protect your network. See the documentation that came with your router.

Powering on

Once the HP Media Vault is connected to the network, you are ready to power it on.

Figure 2: Powering on the HP Media Vault



To power on the HP Media Vault

- 1 Plug one end of the power cable into the AC adaptor and the other end into an electrical outlet.
- 2 Plug the AC adaptor into the HP Media Vault.
- 3 Connect one end of the Ethernet cable to the Media Vault and the other end to an available Ethernet port on your router.
- 4 Press the **Power** button on the back of the Media Vault.

The indicator lights blink throughout the startup process. Once the Media Vault is initialized and ready, the lights are solid blue.

Checking the HP Media Vault Status

The lights on the front of the HP Media Vault give you information about the status and health of your hard drives, power supply, network connection, and overall Media Vault health. In addition to the Media Vault indicator lights, the system tray and alert log provide information about the health of the system. For additional information, see [Viewing the Alert Log on page 2-23](#).



After the HP Media Vault startup completes and prior to the first software installation, the indicator lights show:

- **Hard drive**—off if you do not have a second drive, or solid purple  if you do have a second drive. After installing the software, add the second drive to storage as either mirrored or non-mirrored space. For additional information, see [To add a hard drive to total storage on page 10-121](#).
- **System drive**—solid blue 
- **Power**—solid blue 
- **Network**—solid blue 
- **Health**—solid purple 

After you complete the software installation, all lights should be solid blue.

If the lights are not solid blue, see [Troubleshooting on page 12-153](#).

Updating Your Firewall's Trusted Program List

The HP Media Vault Software Installation Disc installs several programs that enable your computer to communicate with the HP Media Vault over your network. Software firewalls installed on your computer can block this communication and prevent the computer from locating the HP Media Vault

on your network. The following steps are recommended before installing the HP Media Vault software:

- Launch your firewall and anti-virus software and update the trusted programs list.
- Verify that your firewall and anti-virus software are set to "Learn" new programs. After the HP Media Vault software is installed, the firewall should prompt you to allow the installed programs to communicate with the Media Vault.
- If you are using a firewall or anti-virus program that cannot automatically update its trusted software list, please contact the firewall or anti-virus software vendor to find out how to manually add software to the trusted software list. Then, visit <http://www.hp.com/go/support> for a list of software to add.

Sidebar: Hubs and Network Health Light

Some network hubs, as opposed to switches or routers, may reduce performance between your computer and the HP Media Vault, or the hub may prevent your computer from communicating with the Media Vault. If this is a problem, the network health indicator light on the front of the server will be off. Replacing the hub with a switch may improve the network performance or restore connectivity.

Installing the Software

Use the Software Installation Disc to install the HP Media Vault software on each computer on your network.

The software installation consists of the following:

- HP Update (if not already installed)
- Windows components—Windows Installer 3.1 and .NET 2.0 or later software. (Installed only if they are not already on the computer)
- HP Media Vault software

Checking for Administrative Privileges

You must have administrative privileges on your home computer to install the software. Complete the following instructions for Windows Vista or Windows XP to view or change user account settings.

- In Windows Vista, click **Start**, **Control Panel**, and then **User Accounts and Family Safety**.
- In Windows XP, click **Start**, click **Control Panel**, and then double-click **User Accounts**.

Inserting the Software Installation Disc

The Software Installation Disc installs the HP Media Vault software and necessary components on your computer.



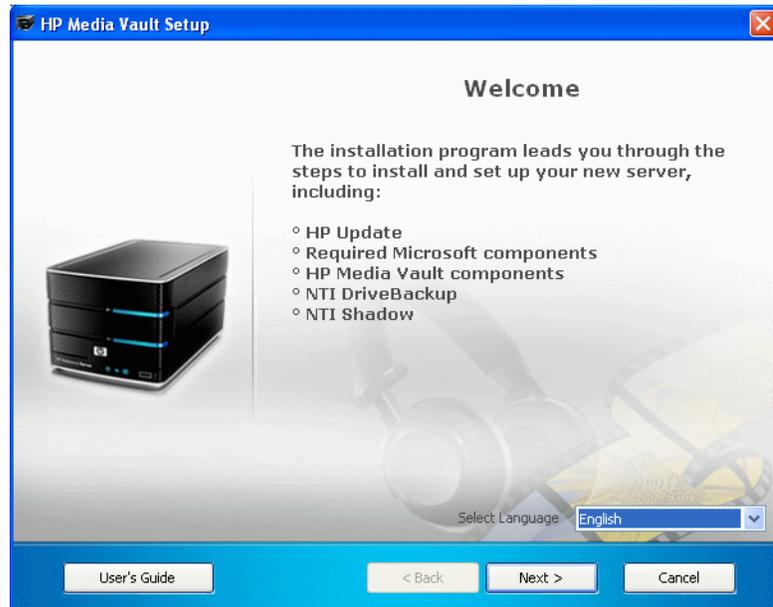
- 1** Insert the Software Installation Disc into a computer connected to your network. The installation starts.
- 2** Follow the instructions on each installation page. The remainder of this chapter describes important parts of the installation; not every step is described.

Note: Computers running Windows Vista may display User Account Control messages, such as “A program needs your permission to Continue.” Click **Continue**.

Welcome to the HP Media Vault Installation Program

The first installation page is the Welcome dialog. Click **Next** to display and accept the end user license agreement. Click **Next** to proceed to the **Ready to install HP Media Vault** dialog.

Figure 3: HP Media Vault Setup Welcome dialog



Note: If autorun is disabled in Windows XP, start the installation by selecting the Windows **Start** menu and clicking **Run**. Type <drive letter>:\setup.exe and click **OK**. For example, type d:\setup.exe. In Windows Vista and Windows XP, you can display the **Run** dialog by pressing **Windows Key + R** on most keyboards.

Starting the Installation

Click **Install** on the **Ready to install HP Media Vault** dialog.

Figure 4: Ready to Install HP Media Vault dialog



Installing the Software Components

The following components are installed. Some of the Windows components may already be installed on your computer. If they are already installed, they will not be installed again. This installation may restart your computer and take several minutes.

- Microsoft .Net Framework 2.0
- HP Update
- NTI DriveBackup! (Available on the HP Media Vault Pro only)
- NTI Shadow
- HP Media Vault software

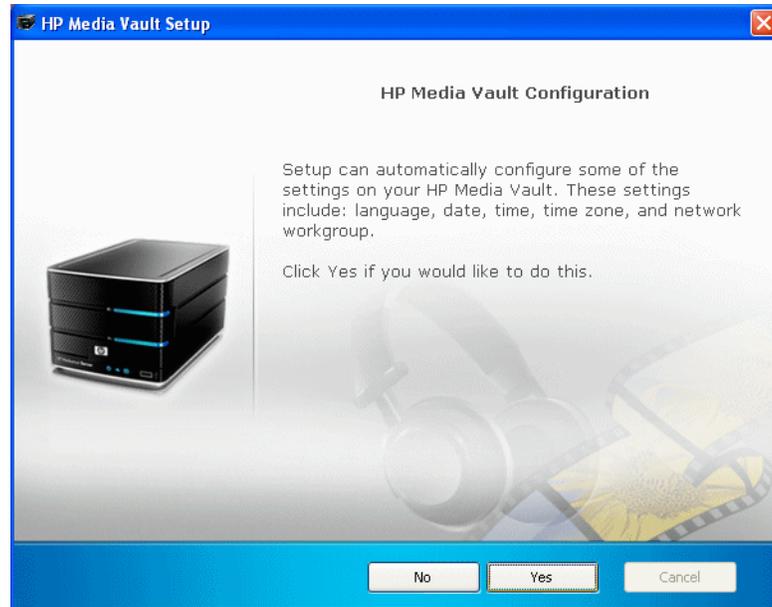
Figure 5: Installing the HP Media Vault Software Components



The HP Media Vault software automatically installs after the components.

Configuring the HP Media Vault

Click **Yes** to configure the Media Vault's language, date, time, time zone, and network workgroup based on your computer settings.



Note: If you have two disks in your Media Vault the light for the second disk is solid purple . After installing the software, add the second drive to storage as either mirrored or non-mirrored space.

For additional information, see [To add a hard drive to total storage on page 10-121](#).

Getting Started

After the installation completes, click View Getting Started for assistance in setting up your HP Media Vault and to get an overview of some of the key features.

Installing the Software on Additional Network Computers

If you want to access information on the Media Vault from a computer or include a computer in backups to the Media Vault, the HP Media Vault software must be installed on that computer.

After completing the setup, use the Software Installation Disc to install the HP Media Vault software on the other computers on the network. Install the software on one computer at time.

Installing Two or More HP Media Vaults

If you add additional HP Media Vaults to your network, run the software installation disk on one network computer for each Media Vault that you added. You do not need to complete multiple installations of the software on all of the network computers, just one.

If you have more than one Media Vault, the second is called HPMediaVault1, the third is called HPMediaVault2, and so on.

Getting to Know the HP Media Vault

The HP Media Vault has lots of features that enable you to manage and share your documents, music, photos, and videos.

Starting the HP Media Vault Software

Double-click the HP Media Vault desktop shortcut  to open the HP Media Vault Control Center. Alternatively, click **Start, All Programs, HP Media Vault**, and then **Control Center** to open the Control Center from the Start menu in Windows XP or Vista.

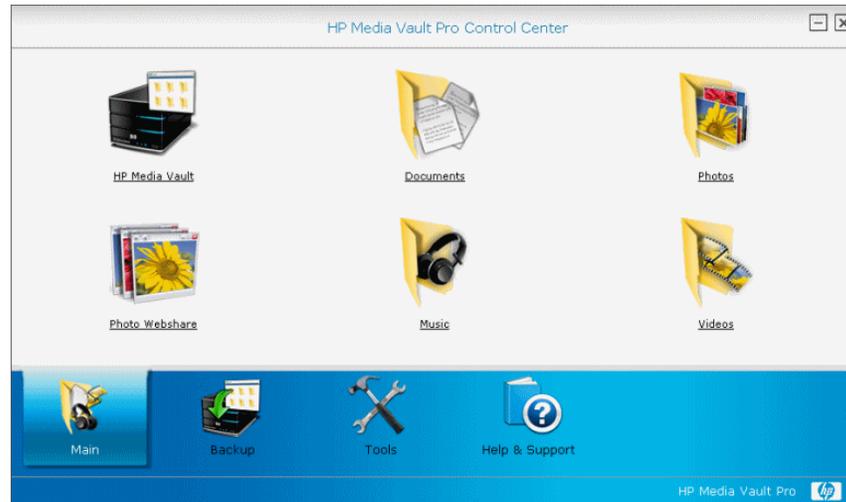
The Control Center has several tabs. Each tab and the features on it are discussed below.

- [Main Tab on page 1-14](#)
- [Backup Tab on page 1-15](#)
- [Tools Tab on page 1-16](#)
- [Help & Support Tab on page 1-17](#)

Main Tab

The main tab has buttons for browsing folders on the HP Media Vault and for opening the HP Photo Webshare.

Figure 6: Main tab of the HP Media Vault Control Center



- **HP Media Vault**—Browse the shared folders on your HP Media Vault.
- **Documents**—Browse the Documents shared folder on your HP Media Vault.
- **Photos**—Browse the Photos shared folder on your HP Media Vault.
- **Photo Webshare**—Open the Photo Webshare on your HP Media Vault.
- **Music**—Browse the Music shared folder on your HP Media Vault.
- **Videos**—Browse the Videos shared folder on your HP Media Vault.

Related Information

[Photo Webshare on page 3-33](#)

Backup Tab

Protect your documents, photos, music, and videos by backing them up regularly.

Figure 7: Backup tab of the HP Media Vault Control Center



- **Back up Important Files**—Opens an application to start an immediate backup or schedule regular backups of specific files or folders on the network computer that you are currently using. Backed up files are stored on the HP Media Vault.
- **Back up Entire Hard Drive**—Opens an application to back up the hard drive of the computer you are currently using. This feature is only available on the HP Media Vault Pro.
- **Back up HP Media Vault**—Opens the HP Media Vault Administration Console. The Backup tab has features for backing up files on the Media Vault to an external USB device.
- **Online Backup**—Links to a web site for purchasing an online service for backing up computer files and folders.

Related Information

[Back up and Restore on page 11-137](#)

Tools Tab

The Tools tab contains features for managing and configuring your HP Media Vault.

Figure 8: Tools tab of the HP Media Vault Control Center



- **Customize HP Media Vault**—Manage and configure your HP Media Vault’s system settings.
- **Map Drive Letter**—Start an application that maps drive letters on your computer to shared folders on your HP Media Vault.
- **Settings for iTunes**—Set up this computer to automatically copy your iTunes music library to the HP Media Vault for sharing.
- **HP Update**—Check for any HP software updates.

Help & Support Tab

Documentation for the HP Media Vault is available in a variety of formats and locations. This section tells you where you can get help for using the HP Media Vault.

Figure 9: Help & Support tab of the HP Media Vault Control Center



- **User's Guide**—Contains helpful information for setting up and using the HP Media Vault.
- **Online Support**—Additional support and informational articles are available at <http://www.hp.com/support>.
- **Need Accessories?**—Open a browser to the HP online store.

In addition to features on the Help & Support tab, **help buttons** provide additional information for the page or dialog they are on.

Additionally, question marks  appear next to some fields on the Media Vault configuration pages. Click the question marks to get detailed information on specific fields.

Information associated with help buttons and questions marks can also be found in the User's Guide.

Shutting Down and Restarting

Follow these instructions to turn off or restart your Media Vault.

To turn off the HP Media Vault

Momentarily press the power button on the back of the HP Media Vault to turn it off or complete the following steps.

- 1 At the computer, click **Start, All Programs, HP Media Vault**, and then **Control Center**.
- 2 On the **Tools** tab, click **Customize HP Media Vault**.
You are prompted for an administrator name and password if you set one up. For additional information, see [Editing System Settings on page 2-26](#).
- 3 On the **System** tab, click **Shutdown**.

To restart the HP Media Vault

- 1 At the computer, click **Start, All Programs, HP Media Vault**, and then **Control Center**.
- 2 On the **Tools** tab, click **Customize HP Media Vault**.
You are prompted for an administrator name and password if you set one up. For additional information, see [Editing System Settings on page 2-26](#).
- 3 On the **System** tab, click **Restart**.
Restarting the Media Vault turns it off and on—as if you unplugged and plugged it back in. None of your current settings or files are lost.

2 Configuring System Settings

What's in this chapter

- » [Viewing System Information](#)
 - » [Viewing the Alert Log](#)
 - » [Viewing System Settings](#)
 - » [Editing System Settings](#)
 - » [Changing the Date and Time](#)
 - » [Changing Firmware Update Options](#)
 - » [What do you want to do next?](#)
-

You are ready to configure the HP Media Vault system settings after the software is installed on at least one computer. This chapter describes how to set up your system settings.

After configuring the system, you are ready to start using the Media Vault. Refer to the section of the User's Guide for the functionality you want to use. Whether you want to consolidate files on the Media Vault, share photos and videos across the Internet using Webshare, integrate iTunes music libraries, or explore other Media Vault features, each section of User's Guide describes how to set up and start using that feature.

Viewing System Information

The Status tab of the Administrative Console summarizes information about the health and configuration of the HP Media Vault.

To view system information

- 1** At the computer, click **Start, All Programs, HP Media Vault**, and then **Control Center**.
- 2** On the **Tools** tab, click **Customize HP Media Vault**.
You are prompted for an administrator name and password if you set one up. For additional information, see [Editing System Settings on page 2-26](#).

The following information displays on the Status tab of the Administrative Console.

- **System Status**

The system status shows whether there are alerts or not. Click **View Log** to see a list of HP Media Vault activities. The date and time, description, and importance level are associated with each activity.

- **Serial Number**

The serial number is also printed on a sticker on the HP Media Vault. You may be asked to provide the serial number if you call HP customer support.

- **Firmware Version**

Hewlett-Packard occasionally offers upgrades to the HP Media Vault firmware. The firmware version number identifies the installed firmware release.

- **New Firmware Available**

Click to download and install the latest HP Media Vault firmware. Installing updates ensures that you experience the full functionality and performance of the HP Media Vault.

- **Date and Time**

This field displays the Media Vault's current date and time. Files created on the Media Vault and all date and time stamped activities use this information.

- **Remote Access**

Remote access is either enabled or disabled. If it is disabled, enable it by clicking **Setup** and then **Set Up Web Address** to create a personal domain and set up remote access.

- **Last Backup**

Date of the last backup of the shared folders on the HP Media Vault to a USB device.

- **Language**

Select a language from the drop down list.

- **Disk Usage**

- **Total Storage**

Total Storage is the sum of the storage space on your HP Media Vault's disk drive 1 and disk drive 2, if you have one. It does not include storage space on any devices connected directly to the Media Vault or over the network, such as a USB drive or another computer.

- **Available Storage**

Available Storage is the amount of free space on your HP Media Vault.

Related Information

- [Changing the Date and Time on page 2-27](#)
- [Enabling Remote Access on page 9-99](#)

Viewing the Alert Log

Alerts are listed at the top of the page and vary in their importance level. Mounting a new hard drive results in a relatively minor alert status, but a hard drive failure is given a critical alert.

A list of HP Media Vault activities are recorded in the **Alert Log History**. The date, time, and description are associated with each activity.

To view the alert log

- 1** At the computer, click **Start, All Programs, HP Media Vault**, and then **Control Center**.
- 2** On the **Tools** tab, click **Customize HP Media Vault**.
You are prompted for an administrator name and password if you set one up. For additional information, see [Editing System Settings on page 2-26](#).
- 3** Click **View Log** next to **System Status** to open the alert log.
 - Read the log. Click **Acknowledge** to clear the alert notification on the Media Vault home page and in the system tray on network computers.
 - Click **Delete Log** to clear the log.

Viewing System Settings

The System tab displays configuration information for the HP Media Vault. The Media Vault administrator can edit these settings.

To view system settings

- 1 At the computer, click **Start, All Programs, HP Media Vault**, and then **Control Center**.
- 2 On the **Tools** tab, click **Customize HP Media Vault**.
You are prompted for an administrator name and password if you set one up. For additional information, see [Editing System Settings on page 2-26](#).
- 3 Click the **System** tab.

The following information can be viewed from the Systems Settings tab.

- **System Name**

You can change the name of the HP Media Vault. This is useful if you have more than one Media Vault on the same network. The default network name is HPMediaVault.

Keep in mind that renaming a Media Vault forces all your network computers to remap their shared network resources, such as mapped drives. It is best to only change the Media Vault name during the initial setup.

Do not include spaces in the name. Only 15 alphanumeric characters are allowed.

- **Admin User Name**

The HP Media Vault's administrator user name. There is only one administrator for the Media Vault.

The administrator user name and password are used to access and make changes to the HP Media Vault Administration console. The administrator does not have access to other HP Media Vault features. To create a user for remote access features such as Internet file browsing and HP Photo Webshare, see [To create a user on page 4-55](#).

- **Password**

The HP Media Vault does not come pre-set with an administrator user name or password, which means that anyone on your network can work as an administrator. This simplifies getting started, but not having an

administrator user name and password also gives every network user access to the Media Vault's configuration screens. Furthermore, if remote access is enabled, anyone with your personal web address can open the configuration pages for your HP Media Vault.

To secure the configuration options on your Media Vault, assign a Media Vault administrator user name and password. Once they are set, they are required to log on to the Media Vault configuration pages.

- **LED Brightness**

Determines the brightness of the lights on your Media Vault. LED brightness can be On, Dim, or Off.

- **Turn Off Hard Disks After**

The HP Media Vault comes with a power-saving feature. After one-hour of inactivity, the Media Vault's internal hard disks spin down. When activity on your network again accesses the Media Vault's hard drive, the hard disks automatically spin up.

Power-saving mode lowers power consumption, and your Media Vault's internal hard drives experience less wear and tear.

- **Date and Time**

The Media Vault's current date and time.

- **Firmware Version**

Hewlett-Packard occasionally offers upgrades to the HP Media Vault firmware. The firmware version number identifies the installed firmware release.

- **New Firmware Available**

Indicates if there is new firmware available.

- **Reset Media Server**

Stops the UPnP media server and the iTunes server, deletes their internal databases, then re-starts them.

- **Shutdown**

Turns the Media Vault off.

- **Restart**

Turns the Media Vault off and back on.

Related Information

[Viewing the Alert Log](#)

Editing System Settings

System settings define preferences for your Media Vault. Information such as your Media Vault's name, administrators user name and password, the date and time, and alerts for firmware updates are found here.

To edit system settings

- 1 At the computer, click **Start, All Programs, HP Media Vault**, and then **Control Center**.
- 2 On the **Tools** tab, click **Customize HP Media Vault**.
You are prompted for an administrator name and password if you set one up.
- 3 On the **System** tab, click **Edit**.
- 4 Type the **System Name**.

You can change the name of the HP Media Vault. This is useful if you have more than one Media Vault on the same network. The default network name is HPMediaVault.

Keep in mind that renaming a Media Vault forces all your network computers to remap their shared network resources, such as mapped drives. It is best to only change the Media Vault name during the initial setup.

Do not include spaces in the name. Only 15 alphanumeric characters are allowed.

- 5 Type the **Admin User Name**.
The administrator user name and password are used to access and make changes to the HP Media Vault Administration console. The administrator does not have access to other HP Media Vault features. To create a user for remote access features such as Internet file browsing and HP Photo Webshare, see [To create a user on page 4-55](#).
- 6 Type and confirm the administrator's **Password**.
The HP Media Vault does not come pre-set with an administrator user name or password, which means that anyone on your network can work

as an administrator. This simplifies getting started, but not having an administrator user name and password also gives every network user access to the Media Vault's configuration screens. Furthermore, if remote access is enabled, anyone with your personal web address can open the configuration pages for your HP Media Vault.

To secure the configuration options on your Media Vault, assign a Media Vault administrator user name and password. Once they are set, they are required to log on to the Media Vault configuration pages.

7 Select the **LED Brightness**.

Select **On** for full brightness, **Dim** to reduce the brightness, or **Off** to turn the LEDs off completely. The power light remains on.

8 Select a time from the **Turn Off Hard Disks After** drop down list.

The HP Media Vault comes with a power-saving feature. After one-hour of inactivity, the Media Vault's internal hard disks spin down. When activity on your network again accesses the Media Vault's hard drive, the hard disks automatically spin up.

Power-saving mode lowers power consumption, and your Media Vault's internal hard drives experience less wear and tear.

9 Click **Edit** to change the **Date and Time**.

10 Click **Firmware Options** to change firmware settings or install updates.

Installing firmware updates ensures that you experience the full functionality and performance of the Media Vault.

11 Click **Save**.

Related Information

- [Changing the Date and Time](#)
- [Changing Firmware Update Options](#)

Changing the Date and Time

There are four options for setting the date and time on your Media Vault.

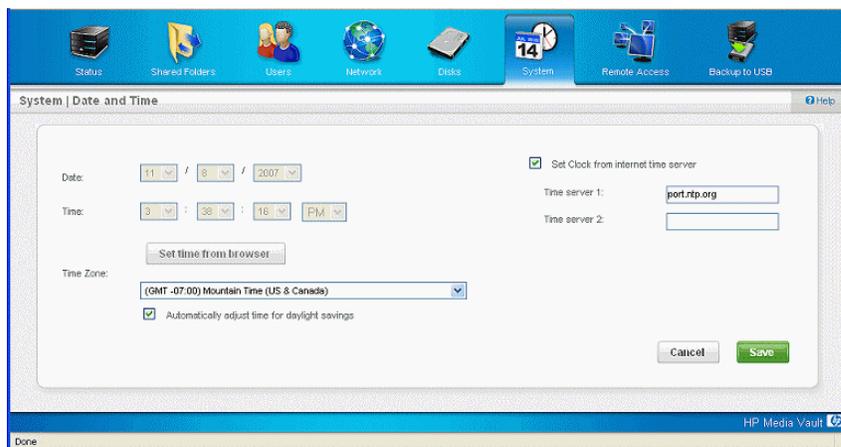
One option is to click **Yes** on the HP Media Vault Configuration dialog at the end of the installation to use your computer settings for the language, date, time, time zone, and network workgroup.

The factory default method for maintaining the date and time after the initial installation is to synchronize the Media Vault with an Internet Network Time Protocol (NTP) server. This feature is called **Set Clock from Internet time server** and it periodically checks the date and time using the Internet.

If you do not want to set your clock using the Internet time server, you can type the date and time or click **Set time from browser**. Both of these options are a one-time change. Neither of them check the date and time on an ongoing basis to make sure they are accurate.

See the instructions below for changing the date and time after the software installation.

Figure 10: Default date and time settings



To set the clock from Internet time server

- 1 At the computer, click **Start, All Programs, HP Media Vault**, and then **Control Center**.
- 2 On the **Tools** tab, click **Customize HP Media Vault**.
You are prompted for an administrator name and password if you set one up. For additional information, see [Editing System Settings on page 2-26](#).
- 3 On the **System** tab, click **Edit**.
- 4 Click **Edit** next to **Date and Time**.
- 5 Select the **Set Clock from internet time server** check box.
- 6 Type the NTP server IP address or name in **Time server 1**.

Type an optional NTP server IP address or name in **Time server 2**.

- 7 Select your **Time Zone**.
- 8 Check **Automatically adjust daylight savings**, if applicable.
- 9 Click **Save**.

To set the clock manually or from browser

- 1 At the computer, click **Start, All Programs, HP Media Vault**, and then **Control Center**.
- 2 On the **Tools** tab, click **Customize HP Media Vault**.
You are prompted for an administrator name and password if you set one up. For additional information, see [Editing System Settings on page 2-26](#).
- 3 On the **System** tab, click **Edit**.
- 4 Click **Edit** next to **Date and Time**.
- 5 Clear the **Set Clock from internet time server** check box.
- 6 Enter the **Date** and **Time** or click **Set time from browser**.
- 7 Select your **Time Zone**.
- 8 Check **Automatically adjust daylight savings**, if applicable.
- 9 Click **Save**.

Changing Firmware Update Options

You can choose between simple and advanced firmware settings.

When firmware updates are available, go to the simple settings page to install them directly from the Internet. Use the advanced firmware settings page to download updates to a network computer and install them to the Media Vault.

To change firmware update options

- 1 At the computer, click **Start, All Programs, HP Media Vault**, and then **Control Center**.
- 2 On the **Tools** tab, click **Customize HP Media Vault**.
You are prompted for an administrator name and password if you set one up. For additional information, see [Editing System Settings on page 2-26](#).
- 3 On the **System** tab, click **Edit**.

- 4 Click **Firmware Options**.
The **Simple Settings** page displays.
- 5 If you want your Media Vault to automatically check for and install firmware updates, check **Automatically check for new firmware**.
- 6 Check **Raise alert when new firmware is available** to display a message box on your network computer when new firmware is downloaded and ready to install.
- 7 Select the frequency for checking for updates from the **Check for new firmware every** drop down list.
- 8 Click **Save**.

To install firmware updates immediately

There are two ways that the HP Media Vault notifies you of firmware updates. One is on the **HP Media Vault** tab of the **Administration Console**. If there is a **Yes** next to **New Firmware Available**, click **Install**. The Firmware Options Simple Settings page opens. Click **Install Firmware** to start the installation. The Media Vault automatically reboots when the install is complete.

The other way the Media Vault notifies you of a firmware updates is by an alert on your network computer. Click **OK** to close the alert. Open the **Administration Console** and follow the above steps to install the update immediately.

To save firmware updates to a computer and install

If your HP Media Vault does not have an Internet connection or if you want to control when firmware updates are installed, clear the **Automatically check for new firmware** check box. It is recommended that you periodically check for firmware updates on the HP support web site.

- 1 From a network computer, go to www.hp.com/support and download the firmware update.
- 2 Specify a location on the network computer for saving the file.
- 3 Once the file is downloaded, go to the **HP Media Vault Administration Console** as described in **To change firmware update options** above.
- 4 Click the **System** tab and then click **Edit**.

- 5 Click **Firmware Options** and then click **Advanced Settings**.
- 6 Browse to the download location and click **Install Firmware**.
The update installs on the Media Vault. The Media Vault automatically reboots when the install is complete.

What do you want to do next?

Share Photos over the Web

See, [Photo Webshare on page 3-33](#)

Consolidate Media Files on the Media Vault

See, [Organizing and Browsing Folders on page 6-71](#)

Stream Media to your Entertainment Center

See, [Streaming Media on page 8-93](#)

Access Media Files Remotely

See, [Remote Access on page 9-99](#)

Configure Media Vault Backups

See, [Back up and Restore on page 11-137](#)

Secure your Media Vault

See, [Securing Your Media Vault from Intruders on page 7-91](#)

3 Photo Webshare

What's in this chapter

- » [Before You Begin](#)
 - » [Logging on to HP Photo Webshare](#)
 - » [Webshare Home Page](#)
 - » [Managing Webshare User Accounts](#)
 - » [Creating an Album to Share](#)
 - » [Notifying Visitors by Email](#)
 - » [Viewing and Saving Photos](#)
 - » [Changing a Visitor's Password](#)
 - » [Frequently Asked Questions](#)
-

Securely share your photos and video clips with friends and family directly from your HP Media Vault Server using HP Photo Webshare.

- Set up a secure, personal web address to be used for remote access and by visitors to your HP Photo Webshare.
- Set up groups for sharing the different photo albums, such as family, ski club, and soccer team.
- Give specific visitors permission to add their own photos for sharing.

Before You Begin

Some set up is required before logging on to the HP Photo Webshare for the first time. Check that the following configuration steps are complete.

[Select at least one user account to be a Photo Webshare Manager](#)

Select at least one user account to be a Photo Webshare Manager

- 1 At the computer, double-click the HP Media Vault Monitor icon  in the system tray.
- 2 Click the **Tools** Tab.
- 3 Click on **Customize HP Media Vault** to access the Control Center.
- 4 On the **Users** Tab click the **Create User** link in the upper right.
- 5 Enter a **User Name** and **Password**. Ensure the check box for **Photo Webshare Manager** is checked.

Set up remote access

For information on setting up Remote Access see [Remote Access on page 9-99](#)

Logging on to HP Photo Webshare

Note: Remote Access must be externally verified before logging into HP Photo Webshare

- 1 At the computer, click **Start, All Programs**, and then select **HP Media Vault Server**.
The HP Media Vault Server—Control Center opens.
- 2 On the **Main** tab, click **Photo Webshare**.
- 3 Type your **User name** and **Password** (Created during initial install and setup for the Media Vault Server) and click **Logon**.

You are connected to the HP Photo Webshare where you can create and share albums over the Web with friends and family.

User names are not case sensitive. However, passwords are case sensitive.

Note: You are automatically logged out of Photo Webshare if there is no activity after 30 minutes.

Forgot Your Password?

Note: This is only used for Visitor account (accounts from outside the home network). Type your email address into the log on page and a message is sent to you with your user name and instructions for changing your password.

Webshare Home Page

The HP Photo Webshare home page displays icons for each of your photo albums. Albums can be sorted by **Modification Date** or **Name**. Click **Create new album** to create and share photos and videos with friends and family. The following features are available on this page.

To view the HP Photo Webshare home page

- 1 Log on to the HP Photo Webshare.
For more information, see [Logging on to HP Photo Webshare on page 3-34](#).
- 2 View the following album information on the Webshare home page.
 - **My Webshare**—click **My Webshare** in the upper left corner of the page to return to the Webshare home page at any time.
 - **Visitors**—opens the **Manage Visitors** page for adding, deleting, and editing visitors. This is also where you setup email notifications for server users.
 - **Groups**—opens the **Manage Groups** page for adding, deleting, and editing groups.
 - **My Server**—click **My Server** in the title bar to go to the HP Media Vault Server home page.
 - **Help**—opens the **HP Media Vault Server User's Guide**.
 - **Sort by:**
 - **Modification date**—sorts photo albums ascending or descending by the last date they were modified. When you open Webshare, albums are sorted descending by modification date so the most recently changed albums are at the top.
 - **Name**—sorts albums alphabetically ascending or descending by album name.
 - **Create new album**—creates a new album.

- **Album Picture or Name**—hover over the album picture to display the album title, creation date, creator name, and description. Click the **album picture** or **name** to add more photos, save photos to your computer, or view photos in a slideshow. Click **My Webshare** in the title bar to return to the home page.
- **Manage**—adds, deletes, rotates, and reorders photos. After making changes to the album, click **Next** to share and notify friends and family of the updates or **Finish** to return to the HP Photo Webshare home page. The Manage link displays for Webshare Managers and visitors that have permission to add photos to albums.
- **Delete**—Webshare Managers can delete albums.
- **Shared Album**— albums with this icon are shared with one or more visitors. Visitors can view, add, or print photos depending on their permissions. Albums without this icon have not been shared and cannot be viewed by people other than the Webshare managers and the person that created the album.
- **Photos to approve**— albums with this icon have unapproved photos from visitors or server users. Once approved, the new photos or videos are available to view by everyone that has access to that album.

Managing Webshare User Accounts

Webshare user accounts are required for each person that you want to share your albums with. User accounts are also required for each person that you want to give permission for creating albums or for managing Webshare features.

This section includes the following topics

- [About the Types of Webshare User Accounts](#)
- [Managing Visitors](#)
- [Managing Groups](#)

About the Types of Webshare User Accounts

There are three types of Webshare user accounts: Visitors and Webshare Managers. Each one is described below.

- [Visitors](#)

- [User Accounts](#)
- [Webshare Managers](#)

Visitors

HP Photo Webshare albums can be shared with people outside your local network, called visitors. If you use the HP Media Vault Server for personal use, visitors may be family or friends such as Grandma or Aunt Karen. If you use the Server for business, visitors may be your customers or business partners.

Visitors can have different levels of access to albums. At a basic level, visitors can view photos in the albums you choose to share with them. If you select to give visitors additional permissions, they can add photos to albums or save photos to their computers.

Visitors can be assigned to one or more groups. When you share albums, you select individual visitors or groups of visitors to notify that there is a new album available to view.

User Accounts

Server user accounts are different from visitors. Server users can also use HP Photo Webshare. For more information, see [Creating a User on page 4-55](#).

Webshare Managers

Webshare Managers have access to all HP Photo Webshare features, including viewing and managing content in all albums, sharing albums with people outside the home network, and approving album content added by people that share the album. At least one Webshare Manager user account should be created before you can log on to the HP Photo Webshare. For more information, see [Before You Begin on page 3-33](#).

Managing Visitors

Visitors are managed from within the HP Photo Webshare. This section provides steps for

- [To view visitors](#)
- [To create or edit visitors](#)

To View Visitors

The Manage Visitors page lists all Webshare user accounts and summaries their permissions.

- 1 Log on to the HP Photo Webshare.

For more information, see [Logging on to HP Photo Webshare on page 3-34](#).

- 2 Click **Visitors** in the upper right corner of the HP Photo Webshare to view a list of visitors and the following information.

The Visitor link is visible for Webshare Managers only. Visitors do not see the Visitor link when they log on to Webshare.

- **User name**—unique identifier for each visitor. User names can only be used once. Initially the user name is their users email address.
- **First name**—the visitor’s first name.
- **Last name**—the visitor’s surname.
- **Add photos**—gives visitors the ability to add photos to an album. Visitors with add photos permission must logon to the Webshare with a user name and password. If the visitor also has auto-approve ability, there are no limitations on the size or quantity of files that the visitor can add.

If the visitor does not have auto-approve ability, a Webshare Manager must approve added photos and videos before other visitors can see them. Visitors without auto-approve ability have a limited amount of disk space that they can use for uploading photos and video before they are approved by a Webshare Manager.

- **Save photos**—gives visitors the ability to select, size, and save photos from the HP Photo Webshare to their computer. For more information, see [Saving Photos on page 3-51](#).
- **Auto-approve**—automatically approves photos added to an album by this visitor. Use caution when giving visitors this permission. Auto-approved photos and videos are immediately viewable by all visitors with access to that album.

For additional information, see [Adding Photos to Your Album on page 3-44](#).

- **Email**—enables the visitor to be notified of new or changed albums. The visitor must have an email address to receive notifications. For additional information on notifications, see [Sharing an album on page 3-47](#).

Note: In the footer of the email notification there is an option for visitors to unsubscribe if they do not want to receive future notifications. When visitors unsubscribe, the check mark is cleared from this option.

- **Delete**—click the trash can to remove the visitor.

Note: Webshare Managers user accounts cannot be deleted from within HP Photo Webshare.

- **Edit**—click to change visitor information. All visitor information can be changed except for the user name.

If you need to change the user name, you must delete the visitor and create them again. Be sure to add the visitor back to the appropriate groups after they are re-created.

To Create or Edit Visitors

This page allows you to add a new visitor or change the information for an existing visitor.

- 1 Log on to the HP Photo Webshare.
For more information, see [Logging on to HP Photo Webshare on page 3-34](#).
- 2 Webshare Managers click **Visitors** in the upper right corner of the HP Photo Webshare.
- 3 Click **Create Visitor** or click **Edit** next to an existing visitor.
If adding a visitor, the first field is the email address. The email address becomes the user name when the visitor is saved. If editing a visitor, the first field shows the user name.
- 4 Type the **Email Address** for the new visitor. If you are editing an existing visitor, the email address is the **User Name** and it cannot be changed.

Use only the following characters when typing the **Email Address**:

- Uppercase letters—A, B, C, and so on.

- Lowercase letters—a, b, c, and so on.
- Numbers—0, 1, 2, 3, 4, 5, 6, 7, 8, 9
- Symbols—use only: dash - underscore _ period . space []

Note: After creating a visitor, the user name cannot be edited. If you need to change the **User Name**, you must delete the visitor and create a new one. Be sure to add the visitor back to the appropriate groups, as needed.

5 Type or change the remaining information for the visitor.

For detailed descriptions of each of the fields on this page, see [To view visitors on page 3-38](#).

Note: Passwords for Webshare Managers cannot be managed from within Webshare.

For more information, see [Creating a User on page 4-55](#).

6 Select visitor permissions.

- **Add Photos: These visitors can add photos**

Check to give visitors the ability to add photos to an album. Visitors with the add photos permission must logon to the Photo Webshare with a user name and password.

If the visitor does not have auto-approve ability, a Webshare Manager must approve added photos before other visitors can see them.

Note: Visitors with Add Photos checked must also have passwords.

- **Save Photos: These visitors can save photos**

Check to give visitors the ability to select, size, and save photos from the HP Photo Webshare to their computer. For more information, see [Saving Photos on page 3-51](#).

Note: Visitors with Save Photos checked must also have passwords.

- **Auto-approve: These visitors can add photos without your approval.**

Check to automatically approve photos added to an album by this visitor. Use caution when giving visitors this permission. Auto-approved photos and videos are immediately viewable by all visitors with access to that album. Once logged on, there are no limitations on the size or

quantity of files that the visitor can add. For additional information, see [Adding Photos to Your Album on page 3-44](#).

- **Email: These visitors can receive email notifications and can unsubscribe.**

Check to enable the visitor to receive notifications of new or changed albums. The visitor must have an email address saved to their user account to receive notifications. For additional information on notifications, see [Sharing an album on page 3-47](#).

In the footer of the email notification there is an option for visitors to unsubscribe if they do not want to receive notifications in the future.

When visitors unsubscribe, the check mark is cleared from this option.

- 7 Albums to View**—select the albums this group can view. Click **Select All** to select all albums. Clicking a second time, deselects the albums. You can also check individual albums to select them. For additional information, see [Creating an Album to Share on page 3-43](#).

- 8** Select the **Groups** that this visitor is a member.

For example, Friends, Family, Soccer Team. For more information, see [Creating or editing groups on page 3-42](#).

Did you know?

You can share albums with friends and family without requiring them to log on to the HP Photo Webshare. To do this, create a visitor with only **Email** and **Save Photos** checked. When that visitor receives an email notification with a link to an album, they can go directly to the HP Photo Webshare home page using a single click of the email notification link.

Managing Groups

This section has steps for

- [Viewing groups](#)
- [Creating or editing groups](#)

Viewing Groups

When you are ready to share albums, the HP Photo Webshare gives you the opportunity to select and notify one or more groups that there is an album

ready for viewing. For additional information, see [Sharing an album on page 3-47](#).

To view groups

- 1 Log on to the HP Photo Webshare.
For more information, see [Logging on to HP Photo Webshare on page 3-34](#).
- 2 Click **Groups** in the upper right corner of the HP Photo Webshare to view a list of groups and the following information.
The Groups link is visible for Webshare Managers only. Visitors do not see the Groups link when they log on to Webshare.
 - **Groups**—visitors can be members of one or more groups. Groups allow Webshare Managers to share albums with a collection of visitors quickly and easily.
 - **Delete**—click the trash can to remove the group. Members of deleted groups do not have the ability to view any previously shared albums or new albums.
 - **Edit**—click to change group information.

Creating or Editing Groups

This page allows you to add a new group or change the information for an existing group.

To create or edit groups

- 1 Log on to the HP Photo Webshare.
For more information, see [Logging on to HP Photo Webshare on page 3-34](#).
- 2 Click **Groups** in the upper right corner of the HP Photo Webshare.
The Groups link is visible for Webshare Managers only. Visitors do not see the Groups link when they log on to Webshare.
- 3 Click **Create Group** or click **Edit** next to an existing group.
The following information displays for groups.
 - **Group**—type a unique name for the group. Group names can only be used once.

The group name cannot be edited. If you need to change the group name, you must delete the group and create a new one. Be sure to add the appropriate visitors back to the group.

- **Members**—members include visitors and network users with HP Photo Webshare accounts. Click **Select All** to select all members. Clicking a second time, deselects the members. You can also check individual names to select them. For additional information, see [To create or edit visitors on page 3-39](#) or [Creating a User on page 4-55](#).

Creating an Album to Share

To create an album to share over the Web

- 1 Log on to the HP Photo Webshare.
For more information, see [Logging on to HP Photo Webshare on page 3-34](#).

- 2 Click **Create New Album**.

The wizard walks you through the process of:

- [Naming your Album](#)
- [Adding Photos to Your Album](#)
- [Sharing an album](#)

Webshare Managers or visitors with permission to add photos can create new albums and add photos to existing albums.

Naming your Album

Give your album a name and description that are recognized by family and friends.

To name your album

- 1 Log on to the HP Photo Webshare.
For more information, see [Logging on to HP Photo Webshare on page 3-34](#).

- 2 Click **Create New Album**.

Type the following information.

- **Name**—the title of the album
 - **Description**—type a caption for your album. Optional.
- 3 Click **Next** to go to the next step in creating albums, adding photos and videos.

Adding Photos to Your Album

Add and arrange photos and videos on this page.

The Photos page is one of the tabs in the **Create New Album** wizard. Once an album is created, you can return to the Photos page by clicking **Manage** under each album on the HP Photo Webshare home page.

Supported photo and video files

Photo Webshare supports the following file types:

- **Photos:** .jpg | .jpeg | .gif | .bmp | .png | .tif
- **Videos:** .mpg | .mpeg | .avi | .mov | .wmv

Note: Thumbnail and Preview images for .bmp and .tif have been converted to .jpg

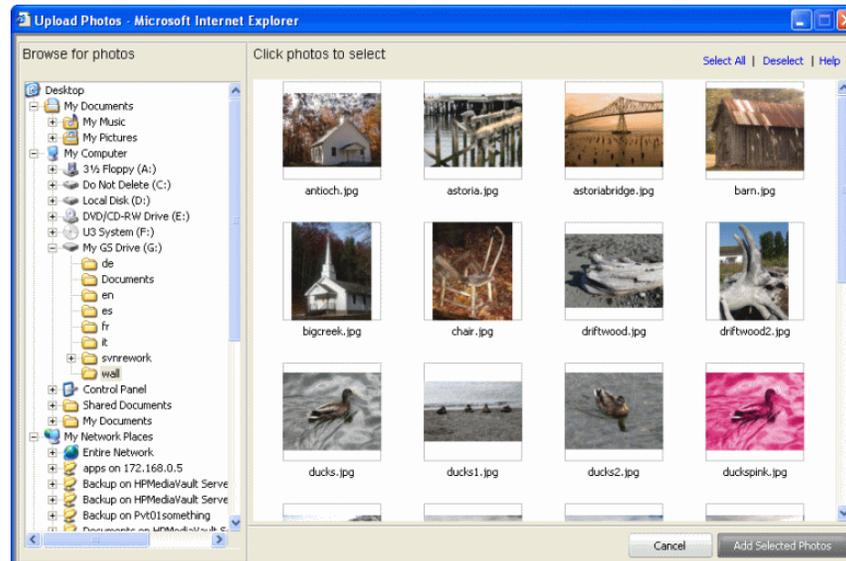
To add photos and videos using Internet Explorer

- 1 Log on to the HP Photo Webshare.
For more information, see [Logging on to HP Photo Webshare on page 3-34](#).
- 2 Click **Create New Album**.
- 3 Click **Add Photos**.

When using Internet Explorer, you are prompted to install an ActiveX control the first time you add photos. Once installed, the **Upload Photos** dialog displays.

The alternate **Add photos to your album** page displays if you choose to not install the ActiveX control. This page is also used if Firefox is your browser. For additional information, see [To add photos using Firefox \(or without the IE ActiveX control\) on page 3-45](#).

Figure 11: Upload photos

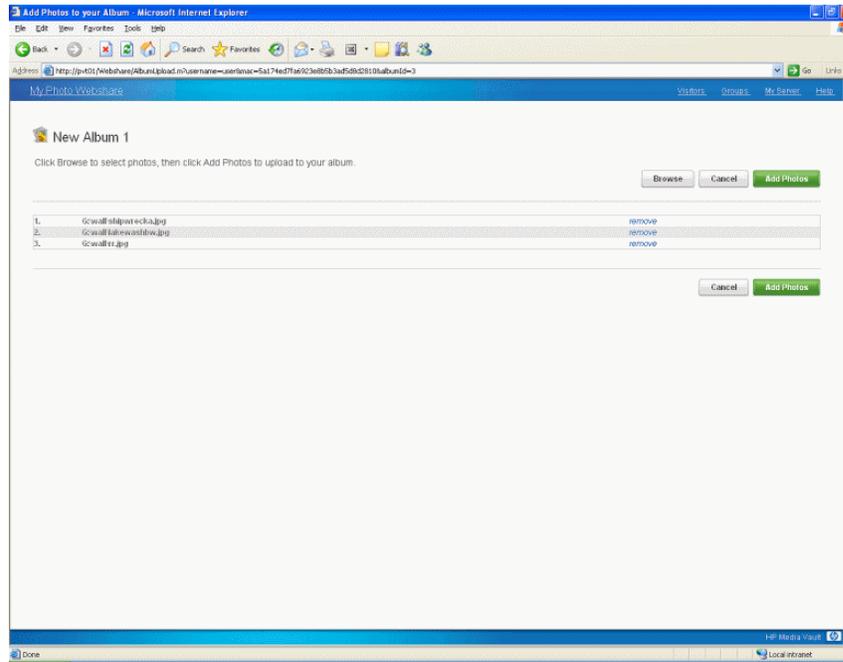


- 4 Locate the folder that contains the photos or videos you want to add. Click **Select All** to select all the photos or videos in the folder. Clicking **Select All** a second time, deselects the files. You can also select or deselect individual files by clicking directly on each thumbnail. A check mark appears next to each selected photo or video. Use the rotate controls on each thumbnail to turn them clockwise or counterclockwise. Unsupported file types are not displayed.
- 5 Click **Add Selected Photos**.
You are returned to the **Photos** tab of the **Create New Album** wizard. Repeat these steps as many times as you like to add photos or videos to your album.

To add photos using Firefox (or without the IE ActiveX control)

- 1 Click **Add Photos**.
The **Add photos to your album** page displays.

Figure 12: Add photos to your album page



2 Click **Browse** to navigate to each folder and select files until all of the photos or videos are selected.

3 Click **Add Photos**.

You are returned to the **Photos** tab of the **Create New Album** wizard. Repeat these steps as many times as you like to add photos or videos to your album.

To organize photos and videos

The Photos page displays all of the photos and videos in the album. You can make the changes below to photos or videos from this page. Click **Next** to share the album or **Finish** to return to the HP Photo Webshare home page when you are done making changes.

- **Reorder**—drag and drop pictures to reorder them.

Note: Files are added to the beginning of the album and may need to be reordered.

For additional information, see [To create or edit visitors on page 3-39](#).

- **Rotate**—select the photos to rotate. A check mark appears in the lower left corner of the selected pictures. Click a button to rotate photos 90° clockwise  or counterclockwise .
- **Delete**—select the photos to delete. A check mark appears in the lower left corner of the selected pictures. Click the trash can  to delete the pictures.
- **Add captions**—click **Caption** below a photo or video and type a title or description. Press **Enter** or click outside the caption to save it. Click the text again to change the caption.
- **Add Photos**—opens a page for selecting and inserting more photos or videos into the album.

If visitors have permission, they may add photos or videos to the album after it has been shared. Files added by visitors with auto-approve permission are placed at the beginning of the album and may need to be reordered.

Files added by visitors without auto-approve permissions are placed in a section at the bottom of the Add Photos page. They remain there and cannot be viewed by other visitors until a Webshare Manager approves them. For additional information on visitor permissions or approving photos, see [To create or edit visitors on page 3-39](#).

Sharing an album

Albums are shared with visitors. Check the visitors with whom you want to share the album. Click **Select All** to share the album with all visitors. Click **Select All** a second time to deselect all visitors. Check a group to share the album with a set of visitors.

The Sharing page is one of the tabs in the **Create New Album** wizard. Once an album is created, you can return to the Sharing page by clicking **Manage** under each album on the HP Photo Webshare home page. The Photos page opens. Click **Next** to advance to the Sharing page or click the **Share** tab.

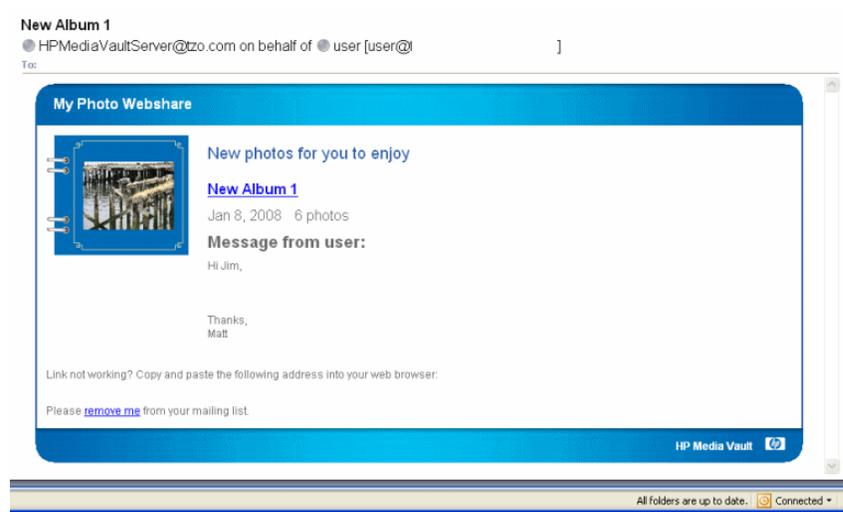
Albums are shared with visitors. If no visitors are listed, a Webshare Manager must add them. For additional information, see [To create or edit visitors on page 3-39](#).

Notifying Visitors by Email

Sends an email notification to visitors to let them know a new album has been created. If you make changes to an album later, you can come back to this page and send another notification.

The Notify page is one of the tabs in the Create New Album wizard. Once an album is created, you can return to the Notify page by clicking **Manage** under each album on the HP Photo Webshare home page. The Photos page opens. Click **Next** until you advance to the Notify page or click the **Notify** tab.

Figure 13: Sample email notification



- **Groups**— Check the groups with whom you want to share the album. Click **Select All** to share the album with all groups. Click **Select All** a second time to deselect all groups. Click the arrow next to each group to expand the group and see the visitors in that group. Select or deselect individual visitors with whom to share the album.
- **To**—You can directly type in email addresses to share with users who are not already visitors, and you will be prompted to setup a new visitor account. If you would like to notify existing visitors, ensure they are selected at the left for sharing and then select them from the drop down list.

- **Subject**—type a subject line for the email notification. HP Photo Webshare puts the name of the album in the subject line if you do not type one.
- **Message**—type a message for the email notification. By default, this field is the album description.

Viewing and Saving Photos

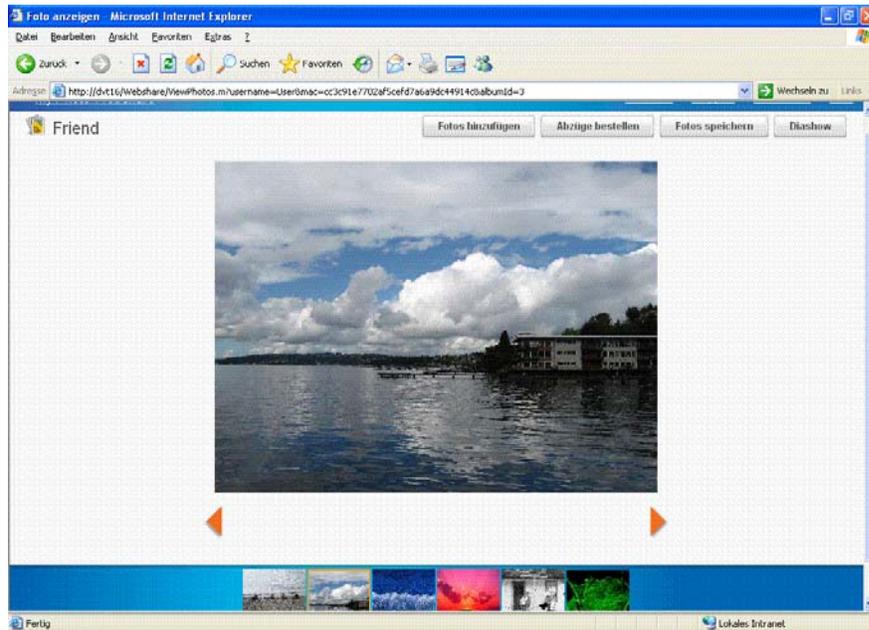
Click an album picture or name on the HP Photo Webshare home page to access features for:

- [Viewing photos](#)
- [Saving Photos](#)
- [Presenting Slideshows](#)

Viewing photos

When you click an album picture or name in the HP Photo Webshare, a page displays for viewing the album's photos.

Figure 14: View photos page



To view photos

- 1 Log on to the HP Photo Webshare.
For more information, see [Logging on to HP Photo Webshare on page 3-34](#).
- 2 Click an **album picture** or **name** on the HP Photo Webshare home page.
A page displays for viewing the album's photos.
 - **Add Photos**—inserts more photos or videos into the album. For more information, see [Adding Photos to Your Album on page 3-44](#).
 - **Save Photos**—opens the Save Photos page where you can select and save photos to the computer from the HP Media Vault Server. This feature enables visitors and remote users to save pictures to their location. For more information, see [Saving Photos on page 3-51](#).
 - **Slideshow**—enjoy viewing photos as full-screen images. Automatically or manually advance through the photos in your album,

making them a great way to show pictures to family and friends. For more information, see [Presenting Slideshows on page 3-52](#).

- **View**—click the left  or right  arrow to move the preview to the previous or next image.
- **Filmstrip**—displays a set of images from the album. Click the left  or right  arrow to page backward or forward through the photos.

Saving Photos

Select, size, and save photos from the HP Media Vault Server to your computer. This is especially useful for visitors and remote users who want a copy of the photo on their computer to view or manipulate.

To save photos

- 1 Log on to the HP Photo Webshare.
For more information, see [Logging on to HP Photo Webshare on page 3-34](#).

- 2 Click an **album picture** or **name** on the HP Photo Webshare home page.

A page displays for viewing the album's photos.

- 3 Click **Save Photos**.

The Save Photos page displays with the following options.

- **Select All**—selects all the photos in the album. Clicking a second time, deselects the photos. You can also select or deselect individual photos by clicking directly on each thumbnail. A check mark appears next to each selected photo.
- **Preview Size**—reduces photos to at most 960 pixels on a side. If the original photo was smaller, then the original size and preview size are the same.

Note: Tif and Bmp previews are stored as jpg files

- **Original size**—does not change the size of the photo. Saves the photo at the same size it was added to Webshare.
- **Save**—saves the selected photos to the computer from the HP Media Vault Server. This feature enables visitors and remote users to save pictures to their location. If a single photo is selected, you can open or

save the graphic file. If multiple photos are selected, Webshare puts them in a zip file that you can open or save to your computer.

- **Cancel**—clears the selection and returns to the view photo page.

Presenting Slideshows

Slideshows automatically or manually advance through the photos in your album, making them a great way to show pictures to family and friends.

To present slideshows

- 1 Log on to the HP Photo Webshare.
For more information, see [Logging on to HP Photo Webshare on page 3-34](#).
- 2 Click an **album picture** or **name** on the HP Photo Webshare home page.
A page displays for viewing the album's photos.
- 3 Click **Sideshow**.

The Slideshow page displays with the following options.

- **Play**—advances each photo based on the speed you selected. The **Play** button toggles to **Pause** when it is clicked.
- **Pause**—stops the automatic advancement of photos. The **Pause** button toggles to **Play** when it is clicked.
- **Previous/Next**—click left  or right  to move the slideshow to the previous or next image.
- **Beginning/End**—click left  or right  to move the slideshow to the first or last image.
- **Speed**—determines the number of seconds each photo displays before advancing to the next one during **Play** mode. Click a time to change the speed.

Changing a Visitor's Password

When logged on as a visitor account, there is a change password link at the top left. Once logged in, visitors can change (or remove) their password as they wish.

Frequently Asked Questions

- Where are my Webshare photos and videos stored on my HP Media Vault Server?

The files and photos for Webshare are stored in a separate location on the server. This location is not available through network shares to help ensure that the correct file management aspects are enforced.

- When I'm browsing to a location on my computer to add photos and videos to a Webshare album, I can't see all of my files. Where are they?

Only photo and video file formats are visible when browsing to add files to albums. Other file types, such as documents or spreadsheets, are not displayed for selecting.

- What do I do if I forgot my Webshare user name or password?

For visitor accounts: Open the Webshare logon page. Type your email address in the **Forgot your user name or password?** box and click **Send**.

For Server accounts: Use the Server user management tool(s) to reset / change passwords for user accounts.

- What happens to the albums / files for accounts when they are deleted?

When an account is deleted, all of the content remains and is the responsibility of the Webshare manager to either keep the remaining albums and photos and manage the sharing, or delete these items.

4 Managing Users

What's in this chapter

- » [Creating a User](#)
 - » [Editing a User](#)
 - » [Changing a User's Folder Privileges](#)
 - » [Deleting a User](#)
 - » [Changing a Password](#)
 - » [Viewing User Information](#)
 - » [Enabling Remote Access](#)
-

This chapter explains how to create and manage network user accounts.

User accounts are required to access private shared folders. User accounts increase security on private shared folders by requiring passwords and setting read/write permissions for each user. User accounts are also required to log on to the HP Photo Webshare.

Creating a User

To create a user

- 1** At the computer, click **Start, All Programs, HP Media Vault,** and then **Control Center**.
- 2** On the **Tools** tab, click **Customize HP Media Vault**.
You are prompted for an administrator name and password if you set one up. For additional information, see [Editing System Settings on page 2-26](#).
- 3** On the **Users** tab, click **Create User**.
- 4** Type the **User Name**.
If the user already has an account on a network computer, use the same user name and password for the HP Media Vault. Using consistent login

information ensures users have immediate access to the Media Vault without having to log in to the network and then again to the Media Vault. If they are the same, their network login will automatically pass through to the Media Vault.

User names can only contain letters, numbers, or underscores. Spaces and other special characters are not permitted.

5 Type and confirm the **Password**.

The user uses this password whenever they access private shared folders or the Photo Webshare on the Media Vault.

6 Check **Photo Webshare Manager** to give the user the ability to manage webshare visitors and approve photos submitted by users.

If you do not check this box, the user can log on to Photo Webshare to:

- view photos or videos,
- save photos to their computer, or
- view slideshows of photo albums.

Additional options can be turned on for users that do not have the **Photo Webshare Manager** box checked. These options must be turned on from within Photo Webshare. For additional information, see [To create or edit visitors on page 3-39](#).

7 Select the **Folder Access** level for each private shared folder.

User's do not have access to new or existing folders by default.

- **Full Access** - The user can open, change, and create files and sub-folders.
- **Read Only** - The user can open files or folders but they cannot create, rename, or change them.
- **None** - The user cannot see the shared folder or access it in any way.

8 Click **Save**.

Editing a User

Media Vault administrators can change user information at any time. Edit information when a user forgets their password or when you need to change access privileges to a shared folder.

To edit a user

- 1 At the computer, click **Start, All Programs, HP Media Vault**, and then **Control Center**.
- 2 On the **Tools** tab, click **Customize HP Media Vault**.
You are prompted for an administrator name and password if you set one up. For additional information, see [Editing System Settings on page 2-26](#).
- 3 On the **Users** tab, locate the user you want to modify.
- 4 Click **Edit**.
- 5 The **User Name** cannot be edited.
To change a user's name, delete the current user and create a new one.
- 6 Type and confirm the **Password**.
The user uses this password whenever they access private shared folders or the Photo Webshare on the Media Vault.
- 7 Check **Photo Webshare Manager** to give the user the ability to manage webshare visitors and approve photos submitted by users.
- 8 Select the **Folder Access** level for each private shared folder.
User's do not have access to new or existing folders by default.
 - **Full Access** - The user can open, change, create, and delete files and sub-folders.
 - **Read Only** - The user can open files or folders but they cannot create, rename, change, or delete them.
 - **None** - The user cannot see the folder or access it in any way.
- 9 Click **Save**.

Changing a User's Folder Privileges

User's have access privileges for each private shared folder on your HP Media Vault. Initially, users do not have access to existing shared folders or any new folders you create. You must grant folder permissions to users before they can see the folder or its contents.

To change privileges for multiple users on a single folder

- 1 At the computer, click **Start, All Programs, HP Media Vault**, and then **Control Center**.
- 2 On the **Tools** tab, click **Customize HP Media Vault**.
You are prompted for an administrator name and password if you set one up. For additional information, see [Editing System Settings on page 2-26](#).
- 3 On the **Shared Folders** tab, locate the folder you want to modify.
- 4 Click **Edit**.

Note: The **Folder Access** must be set to **Private** in order to set sharing privileges for individual users. If you choose to set the **Folder Access** to **Public**, you can set one password that all users share and choose who you tell the password to.

- 5 Select the **Folder Access** level for each shared folder.
Only private folders show in this list. User's do not have access to new or existing folders by default.
 - **Full Access** - The user can open, change, and create files and sub-folders.
 - **Read Only** - The user can open files or folders but they cannot create, rename, or change them.
 - **None** - The user cannot see the folder or access it in any way.
- 6 Click **Save**.

To change privileges for a single user across multiple folders

- 1 At the computer, click **Start, All Programs, HP Media Vault**, and then **Control Center**.
- 2 On the **Tools** tab, click **Customize HP Media Vault**.
You are prompted for an administrator name and password if you set one up. For additional information, see [Editing System Settings on page 2-26](#).
- 3 On the **Users** tab, locate the user you want to modify.
- 4 Click **Edit**.
- 5 Select the **Folder Access** level for each shared folder.
User's do not have access to new or existing folders by default.

- **Full Access** - The user can open, change, and create files and sub-folders.
 - **Read Only** - The user can open files or folders but they cannot create, rename, or change them.
 - **None** - The user cannot see the folder or access it in any way.
- 6 Click **Save**.

Deleting a User

Users must have an account to access private shared folders or to access Photo Webshare as a visitor or Photo Webshare Manager. Once a user is deleted, they lose these permissions.

To delete a user

- 1 At the computer, click **Start, All Programs, HP Media Vault**, and then **Control Center**.
- 2 On the **Tools** tab, click **Customize HP Media Vault**.
You are prompted for an administrator name and password if you set one up. For additional information, see [Editing System Settings on page 2-26](#).
- 3 On the **Users** tab, locate the user you want to delete.
- 4 Click **Delete**.
- 5 Type the user name in the dialog to confirm the deletion and click **OK**.
If the dialog does not display, check to see if your browser pop-up blocker is on.

Changing a Password

Users require individual passwords to access private shared folders. Media Vault administrators can change user passwords if the user forgets the password or if the password is no longer secure.

To change a password

- 1 At the computer, click **Start, All Programs, HP Media Vault**, and then **Control Center**.
- 2 On the **Tools** tab, click **Customize HP Media Vault**.

You are prompted for an administrator name and password if you set one up. For additional information, see [Editing System Settings on page 2-26](#).

- 3 On the **Users** tab, locate the user you want to modify.
- 4 Click **Edit**.
- 5 Type and confirm the new **Password**.
- 6 Click **Save**.

Viewing User Information

Viewing Users

- 1 The following information displays for users.
 - **User Name**
A unique user name. It may be the same as a network computer user name.
 - **Photo Webshare Manager**
Webshare managers have the ability to manage webshare visitors and approve photos submitted by users.
 - **Actions**
Select to **Edit** or **Delete** a user name.
- 2 Create, edit or delete user names from this page.

Enabling Remote Access

Home users can be set up to access the Administration Console, HP Photo Webshare, and Shared Folders while away from home. See, [Remote Access on page 9-99](#) for information on setting up and using remote access.

5 Managing Shared Folders

What's in this chapter

- » [Viewing Shared Folders](#)
 - » [Creating a Shared folder](#)
 - » [Editing a Shared Folder](#)
 - » [Deleting a Shared Folder](#)
 - » [Enhance Security on your Shared Folders](#)
-

Shared folders are the HP Media Vault's primary resources shared on your network. Similar to folders on your computer, you can set up shared folders to store and share files or to restrict access to certain network users.

Viewing Shared Folders

The following instructions tell you how to view information about shared folders.

To view shared folders

- 1** At the computer, click **Start, All Programs, HP Media Vault**, and then **Control Center**.
- 2** On the **Tools** tab, click **Customize HP Media Vault**.
You are prompted for an administrator name and password if you set one up. For additional information, see [Editing System Settings on page 2-26](#).
- 3** Click the **Shared Folders** tab.
The first time you enter the configuration screens and before you've created other shared folders, there are the five pre-configured folders: Backup, Documents, Music, Photos, and Videos.

The following shared folder information displays.

- **Folder Name**

The Media Vault comes with five shared folders already created: Backup, Documents, Music, Photos, and Videos. These initial folders cannot be deleted or renamed.

- **Type**
- **Mirrored** - A mirrored share automatically stores an exact copy of files on a second hard drive. Using a mirrored share reduces the chance of you losing critical files if one hard drive fails.
- **Non-mirrored** - A non-mirrored share is stored on a single hard drive. The HP Media Vault does not automatically maintain a copy of these files on a second hard drive.
- **USB** - You can add external USB storage devices to any of the HP Media Vault's USB ports. Small USB devices, such as key disks and jump drives, can be attached. Likewise, portable devices, such as cameras and phones, can be attached if the Media Vault detects those devices as USB storage devices. If you have any questions, check with the USB manufacturer to verify that the device is classified as a USB storage device.
- **Access**
 - **Public** - Public folders give everyone on your network equal access. However, you can check **Protect Shared Folder** and create a shared folder password to add some security. With password protection enabled, all network users enter the same password to access the shared folder.

To browse shared folders from an Internet browser on a computer within your home network or remotely, the public shared folders must be password enabled or the folder must be set to private (see below). For additional information, see [To use network addressing to browse on page 6-76](#). For instance, if you registered MyFamily.hpshare.net for your HP Media Vault, you would use this address to connect to your server using remote access.
 - **Private** - Private shared folders are the default. They are more secure since you create network users on the Users tab and you define "access privileges" for each user for each shared folder. It is recommended that you use private shared folders if you are using remote access since each user is assigned a password, increasing the

security level of your Media Vault. For additional information, see [Creating a User on page 4-55](#).

- **Media Streaming**

Media streaming sends media—music, photos and video files—from the Media Vault to DMA-enabled devices, such as your TV or stereo, that can play the media. Music in media streaming-enabled folders can also be listened to in iTunes.

Note: DRM-protected music cannot be shared from the Media Vault with iTunes or streamed to DMA-enabled devices.

- **Actions**

- **Edit** - Change features associated with the shared folder.
- **Delete** - Deleting a shared folder automatically deletes all of the sub-folders and files stored in that shared folder.

Note: The Backup, Documents, Music, Photos, and Videos shared folders cannot be renamed or deleted.

Creating a Shared Folder

Create shared folders to organize content on your HP Media Vault. Folders can have public or private permissions. Private folders have more security and require a user name and password to log on.

To create a shared folder

- 1 At the computer, click **Start, All Programs, HP Media Vault**, and then **Control Center**.
- 2 On the **Tools** tab, click **Customize HP Media Vault**.
You are prompted for an administrator name and password if you set one up. For additional information, see [Editing System Settings on page 2-26](#).
- 3 On the **Shared Folders** tab, click **Create Shared Folder**.
- 4 In the **Folder Name** box, type a descriptive name.
Typing a **Comment** is optional.
- 5 Select **Public** or **Private Folder Access**.
 - **Public** - Public folders give everyone on your network equal access. However, you can check **Protect Shared Folder** and create a shared

folder password to add some security. With password protection enabled, all network users enter the same password to access the shared folder.

To browse shared folders from an Internet browser on a computer within your home network or remotely, the public shared folders must be password enabled or the folder must be set to private (see below). For additional information, see [To use network addressing to browse on page 76](#). For instance, if you registered MyFamily.hpshare.net for your HP Media Vault, you would use this address to connect to your server using remote access.

- **Private** - Private shared folders are the default. They are more secure since you create network users on the Users tab and you define "access privileges" for each user for each shared folder. It is recommended that you use private shared folders if you are using remote access since each user is assigned a password, increasing the security level of your Media Vault. For additional information, see [Creating a User on page 55](#).

6 Select where you want the shared folder to reside.

The options available to you depend on how your Media Vault is setup. The HP Media Vault is initially set up with one non-mirrored drive.

- **Mirrored** - A mirrored share automatically stores an exact copy of files on a second hard drive. Using a mirrored share reduces the chance of you losing critical files if one hard drive fails.
- **Non-mirrored** - A non-mirrored share is stored on a single hard drive. The HP Media Vault does not automatically maintain a copy of these files on a second hard drive.
- **USB** - You can add external USB storage devices to any of the HP Media Vault's USB ports. Small USB devices, such as key disks and jump drives, can be attached. Likewise, portable devices, such as cameras and phones, can be attached if the Media Vault detects those devices as USB storage devices. If you have any questions, check with the USB manufacturer to verify that the device is classified as a USB storage device.

Note: USB devices only appear on this page if they were formatted using the HP Media Vault Administration Console.

For additional information, see [Formatting an External USB Device on page 10-129](#).

- 7 Check **Enable Media Streaming** to share the folder's contents with a DMA-enabled device or iTunes.

Streaming to DMA-enabled Devices. Check this box if you have a Digital Media Adaptor (DMA) and want to stream photos, music, or videos in this folder to your television or stereo. Media streaming looks for files of a certain type—photos, music, or videos—within the specified folder. Therefore, music must be placed in the music folder or a sub-folder of the music folder. Photos must be within the Photos folder. Videos must be in the videos folder.

For example, if a .jpg (a photo file format) is placed in the music folder it will not be streamed as a photo. It is ignored since it is not in the photos folder.

Streaming to iTunes. You can also check **Enable Media Streaming** if you are placing music in this folder and want to listen to it using iTunes. Only music files that are not DRM-protected can be streamed to iTunes. Music purchased from the iTunes store or some other online stores cannot be streamed to iTunes from the Media Vault. Likewise, photos or videos cannot be streamed to iTunes, just music files.

- 8 Click **Save**.

Related Information

- [Creating a User on page 4-55](#)
- [Streaming Media to your Entertainment Center on page 8-94](#)

Editing a Shared Folder

Edit a folder to change how information is shared or stored.

To edit a shared folder

- 1 At the computer, click **Start, All Programs, HP Media Vault**, and then **Control Center**.
- 2 On the **Tools** tab, click **Customize HP Media Vault**.
You are prompted for an administrator name and password if you set one up. For additional information, see [Editing System Settings on page 2-26](#).
- 3 On the **Shared Folders** tab, locate the folder you want to modify and click **Edit**.

4 The **Folder Name** cannot be edited.

To change a folder name, delete the current folder and create a new one. Deleting a shared folder, deletes that folder and all of the files and subfolders within it.

Typing a **Comment** is optional.

5 Select **Public** or **Private Folder Access**.

- **Public** - Public folders give everyone on your network equal access. However, you can check **Protect Shared Folder** and create a shared folder password to add some security. With password protection enabled, all network users enter the same password to access the shared folder.

To browse shared folders from an Internet browser on a computer within your home network or remotely, the public shared folders must be password enabled or the folder must be set to private (see below). For additional information, see [To use network addressing to browse on page 76](#). For instance, if you registered MyFamily.hpshare.net for your HP Media Vault, you would use this address to connect to your server using remote access.

- **Private** - Private shared folders are the default. They are more secure since you create network users on the Users tab and you define "access privileges" for each user for each shared folder. It is recommended that you use private shared folders if you are using remote access since each user is assigned a password, increasing the security level of your Media Vault. For additional information, see [Creating a User on page 55](#).

Note: If you add a mirrored drive to your HP Media Vault and it is the same size as the system drive, you do not have the option to create non-mirrored shared folders. All folders are mirrored.

If the mirrored drive is larger than the system drive, the additional storage space is non-mirrored and can contain non-mirrored shared folders. Once a shared folder is created in the mirrored or non-mirrored disk space, it cannot be moved. The HP Media Vault default shared folders, Backup, Documents, Music, Photos, and Videos, always exist in mirrored disk space on a Media Vault with mirrored drives.

6 Check **Enable Media Streaming** to share the folder's contents with a DMA-enabled device or iTunes.

Streaming to DMA-enabled Devices. Check this box if you have a Digital Media Adaptor (DMA) and want to stream photos, music, or videos in this folder to your television or stereo. Media streaming looks for files of a certain type—photos, music, or videos—within the specified folder. Therefore, music must be placed in the music folder or a sub-folder of the music folder. Photos must be within the Photos folder. Videos must be in the videos folder.

For example, if a .jpg (a photo file format) is placed in the music folder it will not be streamed as a photo. It is ignored since it is not in the photos folder.

Streaming to iTunes. You can also check **Enable Media Streaming** if you are placing music in this folder and want to listen to it using iTunes. Only music files that are not DRM-protected can be streamed to iTunes. Music purchased from the iTunes store or some other online stores cannot be streamed to iTunes from the Media Vault. Likewise, photos or videos cannot be streamed to iTunes, just music files.

- 7 Click **Save**.

Deleting a Shared Folder

You may want to backup the information in the shared folder before you delete it. Once the shared folder is deleted, all of the sub-folders and files within it are removed from your Media Vault.

Note: The Media Vault comes with five shared folders already created: Backup, Documents, Music, Photos, and Videos. These initial folders cannot be deleted.

To delete a shared folder

- 1 At the computer, click **Start, All Programs, HP Media Vault**, and then **Control Center**.
- 2 On the **Tools** tab, click **Customize HP Media Vault**.
You are prompted for an administrator name and password if you set one up. For additional information, see [Editing System Settings on page 2-26](#).
- 3 On the **Shared Folders** tab, locate the folder you want to delete.
- 4 Click **Delete**.
- 5 Type the folder name in the dialog to confirm the deletion and click **OK**.

Enhance Security on your Shared Folders

The HP Media Vault comes with different options for securing folders and files saved to the server. You can permit everyone on your network access to all your server's files, or you can set the access levels on individual folders that contain sensitive information so that only you have access to those files.

The server's two security options for shared folders are:

- Private
- Public

Public Shared Folders

Public shared folders have the lowest level of security. In public shared folders, everyone on your network has equal access to all your folders. However, you can add one level of security to public shared folders by password protecting them. With password protection enabled, network users must enter the name of the shared folder as the user name and the appropriate password before gaining access to the folder.

Private Shared Folders

Private shared folders are the default. They have a more restrictive security level because you grant "access privileges" for each defined network user on each shared folder.

Let's say you store all your financial files on the server. All your network users store their music files to the server so that they can download songs only once from the Internet. But you don't want all your network users to have access to your financial files. In this case, you would create separate user names for each user giving them "Full access" to the shared folders containing music. You would then assign "No access" to these users on shared folders that contain financial files.

Note: Private shared folders require a more thorough understanding of the server's networking features, and occasional maintenance of changes. Before deciding to enable private shared folders, make sure that you understand the configuration screens.

To select private mode

- 1 At the computer, click **Start, All Programs, HP Media Vault**, and then **Control Center**.
- 2 On the **Tools** tab, click **Customize HP Media Vault**.
You are prompted for an administrator name and password if you set one up. For additional information, see [Editing System Settings on page 2-26](#).
- 3 On the **Shared Folders** tab, locate the folder you want to change.
- 4 Click **Edit**.
- 5 Click **Private** mode.
- 6 Select permissions for each user.

As administrator, you must create user names for each user. You must also assign one of the following three privilege levels for every user, for every shared folder on the server:

- Full access
- Read-only access
- No access

Note: If users are not created, you can assign their folder privileges as you create each user.

For additional information, see [Creating a User on page 4-55](#).

- 7 Click **Save**.

6 Organizing and Browsing Folders

What's in this chapter

- » [Organizing Folders](#)
 - » [Mapping Drive Letters to Shared Folders](#)
 - » [Browsing Folders](#)
 - » [Transferring Files from Computer to Computer](#)
 - » [Connecting to the Media Vault from a Linux System](#)
 - » [Connecting to the Media Vault from a Macintosh](#)
-

On your computer, you browse your file system to find, open, and save files to your hard drive. You can also use your computer to browse to the shared folders on your HP Media Vault. After browsing to your server's shared folders, you can save folders and files to them.

You can use several methods to browse to and access your server's shared folders.

Organizing Folders

The HP Media Vault comes pre-configured with five top-level shared folders: Backup, Documents, Music, Photos, and Videos. These folders are pre-named to help you get started saving and organizing your files.

Additionally, the top-level shared folders are designed for specific purposes. For instance, the backup application that comes with the Media Vault places backup files in the backup folder. Streaming media features rely on music being in the music folder, photos being in the photos folder, and videos being in the videos folder.

Consider creating sub-folders within the top-level folders to organize your content and reduce the time it takes to find information on your Media Vault.

You can not rename or delete Backup, Documents, Music, Photos, and Videos folders. Before doing so, please read the recommendations in the following table:

Table 3: Recommendation for using default folders

Shared Folders	Recommended Files
Documents	Use this folder to store any important files that you want to share across your network.
Music	HP configured these folders for media streaming to home entertainment centers and to iTunes.
Photos	iTunes aggregator puts files into the Music folder.
Videos	Media streaming looks for files of a certain type—photos, music, or videos—within the specified folder. Therefore, music must be placed in the music folder or a sub-folder of the music folder. Photos must be within the Photos folder. Videos must be in the videos folder. For example, if a .jpg (a photo file format) is placed in the music folder it will not be streamed as a photo. It is ignored since it is not in the photos folder.
Backup	NTI's DriveBackup! defaults to this shared folder to store computer system backup files. These are large files containing all of your hard drive's data. In addition, NTI Shadow simple backups also default to this shared folder to store folder and file backups.

To create sub-folders

Creating sub-folders on your computer and saving them to the Media Vault folder on your server provides an easy way to organize your media files. Follow the example below to learn how to create sub-folders and save them to the Media Vault.

In this example, you create sub-folders in the Music folder for storing categories of music.

- 1 On your computer, browse to the shared **Music** folder.
For information on how to browse to the Music folder, see [Browsing Folders on page 6-75](#).
- 2 Do one of the following:

- **Windows XP:** Click the **File** menu, click **New, Folder**, and then name the sub-folder **Jazz**. Click somewhere else to clear the highlight.
- **Windows Vista:** Click the **Organize** menu, click **New Folder**, and then enter **Blues** in the highlighted box. Click somewhere else to clear the highlight.

Mapping Drive Letters to Shared Folders

Mapping drive letters means assigning "letters" to the names of shared folders. Mapping drive letters is one of the easiest ways to manage files because you can save files and folders to mapped drive letters just as you can to other drive letters on your computer, such as the C: and D: drives.

You can map letters by using one of the following methods.

- [To map a drive letter using HP software](#)
- [To map a drive letter using Windows XP](#)
- [To disconnect a drive letter using Windows XP](#)
- [To map a drive letter using Windows Vista](#)

To map a drive letter using HP software

- 1** At the computer, click **Start, All Programs, HP Media Vault**, and then **Control Center**.
- 2** On the **Tools** tab, click **Map Drive Letter**.
The **HP Media Vault Drive Mapper** opens.
- 3** Click a shared folder in the Select shared folder box.
- 4** Select a drive letter from the Select Drive Letter drop-down list.
Mapping drives usually defaults to the letter Z:, but you can select any drive letter.
- 5** Click **Map Drive**.
- 6** Click **Close** when you are finished mapping drive letters to shared folders.

To map a drive letter using Windows XP

- 1 Click **Start, All Programs, Accessories, Windows Explorer, My Computer**.
- 2 Click the **Tools** menu, **Map Network Drive...**
- 3 Select a letter from the **Drive** drop-down list.
- 4 In the Folder box, browse to your shared folder or type the Uniform Naming Convention (UNC).
For example: enter \\HPMediaVault\Documents (HPMediaVault is the device name; Documents is the name of the shared folder.)
- 5 Check **Reconnect at logon**.
- 6 Click **Finish**.

Note: Special considerations when mapping drive letters:

- If you changed the name of your server, enter the new name instead of HPMediaVault in step 4 above.
- When mapping drive letters to shared folders that are password protected, you must complete an additional step: enter the shared folder's user name and password when prompted. Use the shared folder's name as the user name. The password is the one you created. For additional information, see [Creating a Shared folder on page 5-63](#).
- If your server is configured for security and you map drive letters to shared folders, you might have to enter a user name and password. You do not have to enter a user name and password if you already logged onto your Windows computer with the same user name/password.

To disconnect a drive letter using Windows XP

- 1 Click **Start, All Programs, Accessories, Windows Explorer, My Computer**.
- 2 Right-click on the icon for the mapped drive.
- 3 Click **Disconnect**.
This removes the drive letter; you can still access the resource from **My Network Places**.

To map a drive letter using Windows Vista

Before taking the following steps be sure that Network discovery is turned on.

- 1 Click **Start** menu, **Computer**.
- 2 In the tool bar, click **Map Network Drive**.
- 3 Mapping drives usually defaults to the letter Z:, but you can select another drive letter by following the next two steps:
- 4 In the Folder box, browse to your shared folder or type the Uniform Naming Convention (UNC).
For example: enter \\HPMediaVault\Documents (HPMediaVault is the device name; Documents is the name of the shared folder.)
- 5 Check **Reconnect at logon**.
- 6 Click **Finish**.

Browsing Folders

There are several ways to browse folders on the HP Media Vault. This section describes the following options.

- [To browse folders from the Control Center](#)
- [To use My Network Places in Windows XP to browse](#)
- [To use Network in Windows Vista to browse](#)
- [To use network addressing to browse](#)
- [To use Windows Explorer to browse](#)
- [To use Windows Vista Explorer to browse](#)

To browse folders from the Control Center

- 1 At the computer, click **Start**, **All Programs**, **HP Media Vault**, and then **Control Center**.
- 2 On the **Status** tab, click one of the following icons.
 - **Server**—click to browse all shared folders on the HP Media Vault
 - **Documents**—click to browse the Documents folder
 - **Photos**—click to browse the Photos folder
 - **Music**—click to browse the Music folder
 - **Videos**—click to browse the Videos folder

A browser window opens showing you a list of your shared folders.

- 3 Double-click the name of a shared folder to browse its contents.
If you haven't saved any files to the shared folder, the folder is empty.

To use My Network Places in Windows XP to browse

You must map your network drives before completing this procedure.

- 1 At the computer, click **Start, My Computer, My Network Places**.
- 2 In the Name column, locate the shared folder you want to open.
For example, if opening the **Documents** shared folder, My Network Places lists the name as **Documents on HPMediaVault**.
- 3 Click **Documents on HPMediaVault** to open the **Documents** shared folder and browse its contents.

The network address displays in the address bar and should be \\HPMediaVault\Documents.

To use Network in Windows Vista to browse

- 1 At the computer, click **Start** menu, **Network**.
If network discovery is turned off, a message displays in the notification bar. Click the notification bar, and then click Turn on network discovery and file sharing.
- 2 Double-click the name of your server. For example: HPMediaVault
Note: The Network window may also display the name of the HP Media Vault. Click the server, not the media server.
- 3 Double-click the name of a shared folder.
- 4 Click Documents to open Documents and see the files stored in this folder.
(If you haven't saved any files to Documents, the window is empty; otherwise you see a list of saved files.)
- 5 After opening Documents, look at the Windows Address bar to see the network path of your server.

To use network addressing to browse

Network addressing means that you can access resources on your network by entering their "addresses" in a browser's Address bar.

- 1 Open a standard browser window, such as Internet Explorer, Netscape, or Firefox.
- 2 Delete everything in the Address bar.
- 3 In the Address bar, enter `\\HPMediaVault\Documents`, and then press Enter.

For example: enter `\\HPMediaVault\Documents` (HPMediaVault is the device name; Documents is the name of the shared folder.)

Note: In Windows Vista, you can use this method from any window containing an Address bar.

Network addressing uses the Uniform Naming Convention (UNC) format. This format looks like the following:

`\\device name\share name`. In this example, HPMediaVault is the device name, and Documents is the shared folder or "share name." (For those more familiar with networking terms, the word "Share" is often used instead of "shared folder.")

Note: The server comes pre-configured with the name: HPMediaVault. To change the name of your server, see [Change the name of your HP Media Vault](#).

To use Windows Explorer to browse

If you mapped drive letters to shared folders, you can browse to those folders using Windows Explorer.

- 1 Click **Start, All Programs, Accessories, Windows Explorer, My Computer**.
- 2 Double-click the name of the shared folder you want to open. The drive letter is located at the end of the name.

To use Windows Vista Explorer to browse

If you mapped drive letters to the Backup, Documents, Music, Photos, and Videos folders, you can browse to those folders using Windows Explorer.

- 1 Click **Start, Computer**.
- 2 Double-click the name of the shared folder you want to open. The drive letter is located at the end of the name.

Transferring Files from Computer to Computer

Your HP Media Vault can help you simplify transferring files and settings from an old computer to a new computer.

Using a feature found in the Windows XP operating system called the **Files and Settings Transfer Wizard**, you can transfer files, folders, and settings for Internet Explorer and Outlook Express in addition to desktop and display settings, dial-up connections, and other types of settings to a file on your server. On the new computer, you access this file stored on your server and transfer the settings and files to your new computer. The **Windows Files and Settings Transfer Wizard** must be available on the Windows operating system on both your old and new computers.

Steps for Windows XP

On your old computer

- 1 Click **Start, All Programs, Accessories, System Tools, Files & Settings Transfer Wizard**.

The Wizard's first dialog box appears.

- 2 Click **Next**.

- 3 Click **Old Computer**.

- 4 Click **Next**.

- 5 Click **Other**.

- 6 Either Browse to a folder on your server, or use the Uniform Naming Convention (UNC) to type in the path.

For example, to save your settings to Documents, type in the Folder or drive: box: \\HPMediaVault\Documents.

- 7 Click **Next**.

- 8 Click one of the following:

- Settings only
- Files only
- Both files and settings
- Let me select a custom list of files and settings when I click Next (for advanced users.) If you click on this option, you are asked to select specific Settings, Folders, Files and File Types that you wish to transfer.

- 9 Click **Next**.
- 10 Click **Next** after reading any messages that appear on this screen.
Wait while the wizard collects your files and settings. Depending on the size and type of the files you're saving, this could take several minutes.
- 11 Click **Finish**.

On your new computer

- 1 Follow steps 1-2 above to run the **Files & Settings Transfer Wizard** on your new computer.
- 2 Click **New Computer**.
- 3 Click **I don't need the Wizard Disk**, I have already collected my files and settings from my old computer.
- 4 Click **Next**.
- 5 Click **Other**.
- 6 Browse to or type in the path that you entered in step 6 above.
This path directs the new computer to the shared folder on your server where you stored your files, folders and settings. If you used the example above, the path is the same: \\HPMediaVault\Documents.
- 7 Click **Next**.
Wait while the wizard transfers your files and settings to your new computer. Depending on the size and type of the files you're transferring, this could take several minutes.
- 8 Click **Finish**.

Steps for Windows Vista

Windows Easy transfer can use one of the following methods to migrate files and settings:

- Use a Easy Transfer Cable, a special USB cable that can connect two computers
- Network Connection
- CD, DVD, or other Removable Media

Note: If you are running any other programs, you will be prompted to close these programs. You can save your work in each program, and then close the

programs individually. You can also click **Close All** in Windows Easy Transfer to close these programs immediately.

On the old computer

Method 1: Use an Easy Transfer Cable.

- 1** Click **Start, All Programs, Accessories, System Tools, Windows Easy Transfer**.

If a "User Account Control" dialog box opens, click **Next**.

- 2** A dialog box appears detailing what can be moved and 2 links:
 - Which versions of Windows work with Windows Easy Transfer?
 - Go online to learn how to improve you transfer experience.
- 3** Click **Next**.
- 4** Click **Start a new transfer**.
- 5** Click **This is my old computer**.
- 6** The next dialog box appears giving the three choices for accomplishing the transfer; choose **Use an Easy Transfer Cable**.
- 7** A dialog box appears showing how to connect the cable.
- 8** Install a USB cable that can connect the two computers, and install the any drivers that are appropriate for your situation.
- 9** Start Windows Easy Transfer to transfer files and settings to the destination computer.

Method 2: Use a network drive to migrate files and settings.

- 1** Click **Start, All Programs, Accessories, System Tools, Windows Easy Transfer**.

If a "User Account Control" dialog box opens, click **Next**.

- 2** A dialog box appears detailing what can be moved and 2 links:
 - Which versions of Windows work with Windows Easy Transfer?
 - Go online to learn how to improve you transfer experience.
- 3** Click **Next**.
- 4** Click **Start a new transfer**.
- 5** Click **This is my old computer**.

- 6 The next dialog box appears giving the three choices for accomplishing the transfer; choose **Transfer directly using a network connection**.
- 7 Click **Next**.
- 8 Click **Through a network**.
- 9 Click **Connect directly via network to start the migration**.
Note: Click Save to network location if you want to store the files and the settings in a file that will be loaded later. If you want to store the files and the settings on a network drive, you will be prompted to provide the path where you want to store the files and the settings.
- 10 Click **Everything** - all user accounts, files, and program settings (recommended) to migrate all the files and the settings. If you want to determine exactly which files and settings that you want to migrate, click **Only my user account, files, and program settings**, or click **Custom**.
- 11 Review the list that contains the files and the settings that you want to migrate, and then click **Start**. To add or to remove files or settings from the list, click **Customize**.
- 12 Click **Close after Windows Easy Transfer has completed the migration of files and settings to the destination computer**.

Method 3: Use CD, DVD or removable media to migrate files and settings.

- 1 Click **Start, All Programs, Accessories, System Tools, Windows Easy Transfer**.
If a "User Account Control" dialog box opens, click **Next**.
- 2 A dialog box appears detailing what can be moved and 2 links:
 - Which versions of Windows work with Windows Easy Transfer?
 - Go online to learn how to improve you transfer experience.
- 3 Click **Next**.
- 4 Click **Start a new transfer**.
- 5 Click **This is my old computer**.
- 6 Click **Next**.

- 7 Determine the appropriate removable transfer media, and then click **On a CD or other removable media, such as a flash drive**.
- 8 Click **To a network drive to save the files and the settings to a folder that is on the removable drive**.
- 9 In **Where do you want to save your files**, type the path to a folder on the removable drive, and then click **Next**.
- 10 Click **Everything** - all user accounts, files, and program settings (recommended) to migrate all the files and the settings. If you want to determine exactly which files and settings that you want to migrate, click **Only my user account, files, and program settings**, or click **Custom**.
- 11 Review the list that contains the files and the settings that you want to migrate, and then click **Start**. To add or to remove files or settings from the list, click **Customize**.
- 12 Click **Close after Windows Easy Transfer has completed migrating files and settings**.
- 13 Connect the removable media to the destination computer.
- 14 Start **Windows Easy Transfer**, and then click **Next**.
- 15 Click **Continue a transfer in progress**.
- 16 In **Where did you copy your files**, click **Removable media**. If the Removable media option is unavailable, click **Network Drive**, and then click **Next**.
- 17 In **Locate your saved files**, type the path where you saved the files and the settings. You can also click **Browse** to locate the files and the settings. Click **Next** after you have located the files and the settings.
- 18 Select the user names on the destination computer that match the user names on the source computer. If there is not any user account that is created on the destination computer, you may have to create new accounts. To create an account on the local computer, directly type a user name. To create a profile or a domain user, type a user name in the following format: domain\user.
- 19 In **Choose the drives for files on your new computer**, select the destination drive for each source drive.

- 20 Review the list that contains the files and the settings that you want to migrate, and then click **Start**. To add or remove files or settings from the list, click **Customize**.
- 21 Click **Close after Windows Easy Transfer has completed migrating files and settings**.

Connecting to the Media Vault from a Linux System

This topic provides general guidelines and instructions on how to access the shared folders and configuration screens on the HP Media Vault from a Linux system. The particular steps needed to configure a Linux system for connection to the server may vary depending on the particular Linux installation.

Connecting to HP Media Vault using Samba

Samba provides a simple and secure way of connecting a Linux computer to the server using the SMB (server Message Block) and CIFS (Common Internet File System) protocols. The SMB network protocol is the native file-sharing protocol for Windows. CIFS defines a standard remote file-system access protocol for use over a network.

To use Samba, the Linux system must have Samba installed. For information about how to install Samba, see the documentation or main pages included with the Linux distribution.

Using a Linux graphical interface to connect

Linux distributions have numerous versions and graphical interfaces. Consequently, it is not possible to provide specific steps when using a graphical interface to connect a Linux system to the server. General steps for connection include using a network browser to find the server.

Note: If a firewall is running, turn it off or configure the system to allow Samba to connect to the SMB Shares.

The path to the server is as follows:

- Domain - default, Windows Network
- Workgroup - default, WORKGROUP
- Machines - default, HPMediaVault

If any of these default names have changed, use the new name.

Using an IP Address or NetBIOS name to access the HP Media Vault

Connecting to the server requires either the server's IP address or NetBIOS name. NetBIOS is an acronym for Network Basic Input/Output System. The advantage of using the NetBIOS name is that even if the server's IP address changes, the Linux system can find the server. The following two sections describe each method.

Obtaining the HP Media Vault's IP address

The IP address for the server can be found on the router's configuration screens, usually under DHCP Client Table or Show Connected Devices.

Using the NetBIOS name instead of the IP address

Some Linux installations, such as Ubuntu, may not be able to find the server by name without additional configuration. The default NetBIOS name for the HP Media Vault is HPMediaVault. To use the NetBIOS name, take the following steps:

- 1** First, check if the Linux system can already resolve the NetBIOS name of the server.
 - a** Open a terminal session.
 - b** Type ping HPMediaVault.
- 2** If pinging fails, edit the nsswitch.conf file, as follows:
 - a** Become root.
 - b** In a terminal session, edit the /etc/nsswitch.conf file.
 - c** In the nsswitch.conf file, add wins to the following line:
hosts: files dns
so it reads
hosts: wins files dns
- 3** Install winbind, which provides Name Service Switch capability.
- 4** To ensure that the installation works, ping the server:
ping HPMediaVault

It is now much easier to mount volumes or access configuration screens because the IP address does not have to be known.

Connecting to HP Media Vault using Samba command lines

The method described here is not persistent. To have the Linux system automatically connect to the server every time it is rebooted, see the documentation or main pages for the Linux distribution.

Take the following steps to connect a Linux system to the server:

- 1 Open a Terminal session.
- 2 Become root.
- 3 If necessary install the Samba plug-in.
- 4 Create a directory for the shared files.
Example: `mkdir /mnt/sharefiles`
- 5 Mount the server shared folder to the Linux computer, using the following syntax:

```
mount -t smbfs //HPMediaVault/sharename /mountpoint/sharedirectory
```

```
NetBIOS name example: mount -t smbfs //HPMediaVault/Documents /mnt/sharefiles
```

```
IP address example: mount -t smbfs //192.168.1.102/Documents /mnt/sharefiles
```

Note: Documents is one of the default shared folders on the server.

Accessing the HP Media Vault's Administration Console

To access the server's configuration screen, use a browser such as FireFox or Konqueror.

- 1 Open the web browser.
- 2 In the Location box, enter the IP address or name of the server.

```
IP address example: http://192.168.1.100
```

```
NetBIOS name example: http://HPMediaVault
```

Note: If the web browser cannot find the server with the NetBIOS name, the firewall may be blocking the request. If the Linux system has just been configured to use the NetBIOS name, the web browser may require restarting.

The web browser displays The Welcome Page of the Administration Console.

Connecting to the Media Vault from a Macintosh

You can configure a Macintosh computer to access the shared folders and configuration screens on the HP Media Vault. These instructions apply only to computers with the latest Macintosh OS X operating system.

To map shared folders from a Macintosh

- 1 In the **Finder**, click **Go, Connect to server**.
- 2 In the **Connect to server** dialog box, click **Browse**.
- 3 In the **Network** window, click WORKGROUP, HPMediaVault.
Note: WORKGROUP is the default name of the workgroup. If this name has been changed, use the new name.
- 4 In the panel that shows the available shares, click **Connect**.
- 5 In the drop-down list on the **Shared Volume** window, select a shared volume, then click **OK**.
- 6 In the **SMB/CIFS File System Authentication** window, enter the password if it is required, and click **OK**.
- 7 Repeat steps 5 and 6 for each shared folder.

To access the HP Media Vault's configuration screens

- 1 Open a web browser, such as Safari or Firefox.
- 2 In the Location box, enter the IP address or name of the server.
- 3 IP address example: http://192.168.1.101
- 4 Name example: http://HPMediaVault
Note: The IP address for the server can be found on your router's configuration screens, usually under **DHCP Client Table** or **Show Connected Devices**.

The web browser displays either The Welcome Page of the Administration Console.

7 Networking

What's in this chapter

- » [Viewing Network Settings](#)
 - » [Editing Network Settings](#)
 - » [Securing Your Media Vault from Intruders](#)
-

Viewing Network Settings

Displays information for how your HP Media Vault connects to the network.

To view network settings

- 1** At the computer, click **Start, All Programs, HP Media Vault,** and then **Control Center**.
- 2** On the **Tools** tab, click **Customize HP Media Vault**.
You are prompted for an administrator name and password if you set one up. For additional information, see [Editing System Settings on page 2-26](#).
- 3** Click the **Network** tab to view settings.

The following network settings information displays.

- **Workgroup name**
The name of the Windows workgroup that all of your computers belong to.
 - **Secure HTTP**
Remote access to shared folders or Webshare on the HP Media Vault is faster using HTTP. However, some Internet service providers require secure HTTP. If secure HTTP is enabled on your Media Vault, you must type HTTPS:\\servername when accessing the Media Vault remotely.
 - **IP Settings**, either automatically or manually assigned
 - **Automatically assign IP settings (DHCP)**
-

This is the default setting for the Media Vault. When this option is selected:

- The Media Vault automatically acquires its IP address and other settings from the DHCP (Dynamic Host Configuration Protocol) server on your network.
- The values of the IP Address, Gateway server, Subnet Mask, Domain Extension, DNS servers, and WINS servers set by the DHCP server are displayed.

- **Manually assign IP settings**

If you use a static IP address, you may want to manually configure the IP settings on the Media Vault. This should be done only by experienced network administrators.

- **IP Address**

A number that uniquely identifies devices, such as computers, on a network.

- **Gateway**

The IP address for the default gateway. This is the address of a local IP router on the same network as this computer that is used to forward traffic to destinations beyond the local network.

- **Subnet Mask**

Identifies the portion of the network IP address that can be used for subnetworks.

- **Domain Ext**

A domain extension is an optional part of a network name used to **logically** divide a large network into smaller networks.

- **DNS Server 1**

The primary server that associates network names with IP addresses.

- **DNS Server 2**

The alternate or secondary server that associates network names with IP addresses.

Note: Entering two DNS servers is recommended for stability.

- **WINS Server 1**

WINS (Windows Internet Naming Service) is a server that converts NetBIOS network names to IP addresses.

- **WINS Server 2**

WINS (Windows Internet Naming Service) is a server that converts NetBIOS network names to IP addresses.

Editing Network Settings

Change information for how your HP Media Vault connects to the network.

To edit network settings

- 1** At the computer, click **Start, All Programs, HP Media Vault**, and then **Control Center**.
- 2** On the **Tools** tab, click **Customize HP Media Vault**.
You are prompted for an administrator name and password if you set one up. For additional information, see [Editing System Settings on page 2-26](#).
- 3** Click the **Network** tab to view settings. Click **Edit** to make changes.
- 4** Make changes to the following network settings as necessary.
 - **Workgroup name**
The name of the Windows workgroup that all of your computers belong to. If you clicked Yes on the HP Media Vault Configuration dialog at the end of the software installation, the Workgroup name was entered for you. For additional information, see [Installing the Software on page 1-8](#).
 - **Set Secure HTTP**
Remote access to shared folders or Webshare on the HP Media Vault is faster using HTTP. However, some Internet service providers require secure HTTP. If secure HTTP is enabled, you must type HTTPS:\\servername when accessing the Media Vault remotely.
 - **Automatically assign IP settings (DHCP)**
This is the default setting for the Media Vault. When this option is selected:
 - The Media Vault automatically acquires its IP address and other settings from the DHCP (Dynamic Host Configuration Protocol) server on your network.

- The values of the IP Address, Gateway server, Subnet Mask, Domain Extension, DNS servers, and WINS servers set by the DHCP server are displayed.

- **Manually assign IP settings**

If you use a static IP address, you may want to manually configure the IP settings on the Media Vault. This should be done only by experienced network administrators.

- **IP Address**

A number that uniquely identifies devices, such as computers, on a network.

- **Gateway**

Type the IP address for the default gateway. This is the address of a local IP router on the same network as this computer that is used to forward traffic to destinations beyond the local network.

- **Subnet Mask**

Identifies the portion of the network IP address that can be used for subnetworks.

- **Domain Ext**

A domain extension is an optional part of a network name used to **logically** divide a large network into smaller networks.

- **DNS Server 1**

The primary server that associates network names with IP addresses.

- **DNS Server 2**

The alternate or secondary server that associates network names with IP addresses.

Note: Entering two DNS servers is recommended for stability.

- **WINS Server 1**

WINS (Windows Internet Naming Service) is a server that converts NetBIOS network names to IP addresses.

- **WINS Server 2**

WINS (Windows Internet Naming Service) is a server that converts NetBIOS network names to IP addresses.

- 5 Click **Save** if you made changes to any of the settings.

Securing Your Media Vault from Intruders

The HP Media Vault is designed as an "always on" device, which comes in handy for accessing files any time your network users need or want them. But a network device that is set up for file sharing also presents certain security risks. Because the server can be used on a network that has both wireless and wired functionality, you'll want to ensure that unauthorized users can't access your server and your files stored on it.

If your network comes with wireless capability, it has a piece of equipment called a Wireless Access Point (WAP). A WAP can come within an all-in-one-gateway, router, or as a standalone unit. In many cases, a WAP's security settings are toggled off by default and you must manually turn on the security settings. If the security settings are toggled off, anyone can get into your server as well as any computer or other devices on your network. Firewalls and anti-virus software do not keep intruders out of wireless networks.

Most wireless networking equipment supports two forms of data encryption as security features: Wired Equivalent Privacy or WEP and, Wi-Fi Protected Access or WPA. For more information on how to configure the security for your wireless network, see the user's guide that came with your networking equipment.

Anti-virus software

You should install anti-virus software on one or more computers on your network, and configure the software to scan all the shared folders on your server. You might be required to assign (map) drive letters to all your shared folders to enable the anti-virus software to scan the HP Media Vault.

Note: Remember to keep your anti-virus definitions up-to-date.

Establishing an administrator user name and password

Setting up an administrator user name and password is one way to safeguard your folders and files. If you do set up a user name and password, you are prompted to enter this information each time you enter the Configuration screens.



Important: It is strongly recommended that you create an administrator user name and password if you enable remote access.

For additional information, see [Remote Access on page 9-99](#).

Securing the HP Media Vault's shared folders on your LAN

The server offers additional security options for your network users and specific shared folders. For additional information, see [Enhance Security on your Shared Folders on page 5-68](#).

8

Streaming Media

What's in this chapter

- » [Before You Begin Media Streaming](#)
 - » [Streaming Media to your Entertainment Center](#)
 - » [Setting up iTunes on the Media Vault and the Computer](#)
-

Multiple computers in your home often means photos, music, videos and files are scattered all over the place and difficult to locate. The HP Media Vault provides a centralized location for all of your media files for easy access from any computer in your home. Additionally, if you have a Digital Media Adapter (DMA) attached to your television or stereo, you can stream media files from the server to your stereo or television.

Music

Consolidate your digital music in one location. It's as simple as dragging and dropping your music files into the Music folder on your HP Media Vault.

If you use iTunes, you can consolidate your iTunes libraries and playlists from multiple computers on your network to the Media Vault.

Once music files are consolidated on the Media Vault, you can avoid unsightly cables and wirelessly stream music to your stereo if your DMA supports wireless media streaming.

Photos

Before owning an HP Media Vault, you probably stored most of your digital photos on your personal computer. This is great but you ideally want to show the photos on your large-screen TV so the entire family can gather around and see.

With the HP Media Vault, you can save your photos to your server once and watch them from any computer or DMA enabled TV in your home without creating copies, transferring files, burning DVDs, or rewiring cables.

Videos

Store digital home movies and downloaded or digitally recorded movies and TV shows on your Media Vault. The large storage space enables you to store lots of shows before running out of storage space. The media streaming capabilities make it possible for you to store movies in one location and watch them on any DMA-enabled device in your home.

Before You Begin Media Streaming

There are a couple of things you need to do before you are ready to start media streaming.

- Media streaming looks for files of a certain type—photos, music, or videos—within the specified folder. Therefore, music must be placed in the music folder or a sub-folder of the music folder. Photos must be within the Photos folder. Videos must be in the Videos folder.

For example, if a .jpg (a photo file format) is placed in the music folder it will not be streamed as a photo. It is ignored since it is not in the photos folder.

- Make sure the shared folders are enabled for media streaming. For additional information, see [Viewing Shared Folders on page 5-61](#) or [Enabling Media Streaming for a Folder on page 8-95](#).

Streaming Media to your Entertainment Center

If you have a Digital Media Adapter (DMA) attached to your television and/or stereo, you can play the media files stored on your server on these entertainment devices. The DMA accesses your stored media files and coordinates the streaming process between your server and the entertainment device. The Media Vault's

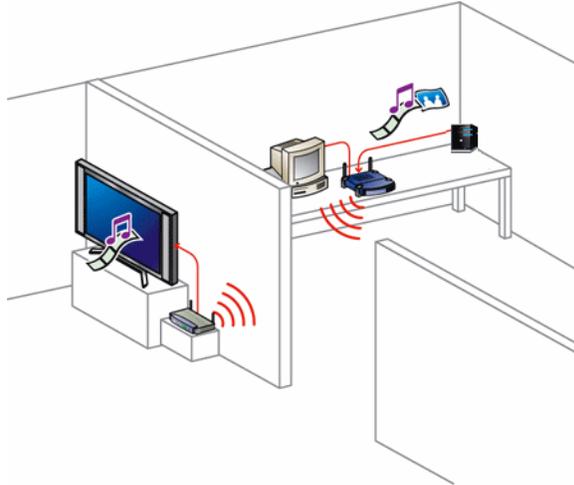
media server works with both wired or wireless DMAs. Your network must have wireless functionality to use a wireless DMA.

Two conditions are required for media streaming with the server:

- 1 Your DMA must use Universal Plug and Play (UPnP) A/V streaming.
- 2 Only media files are available for media streaming. The types of files that are considered "media" are: photographs, music (audio), and video. Non-media files, such as Microsoft Word documents, are not available for streaming.

The following figure shows a possible layout for media streaming.

Figure 15: Media streaming layout



Enabling Media Streaming for a Folder

Streaming to DMA-enabled Devices. Enable media streaming if you have a Digital Media Adaptor (DMA) and want to stream photos, music, or videos in a folder to your television or stereo. Media streaming looks for files of a certain type—photos, music, or videos—within the specified folder. Therefore, music must be placed in the music folder or a sub-folder of the music folder. Photos must be within the Photos folder. Videos must be in the Videos folder.

For example, if a .jpg (a photo file format) is placed in the music folder it will not be streamed as a photo. It is ignored since it is not in the photos folder.

Streaming to iTunes. You can also enable media streaming if you are placing music files in a folder and want to listen to them using iTunes. Only music files that are not DRM-protected can be streamed to iTunes. Music purchased from the iTunes store or some other online stores cannot be streamed to iTunes from the Media Vault. Likewise, photos or videos cannot be streamed to iTunes, just music files.

To enable media streaming for a folder

- 1 At the computer, click **Start, All Programs, HP Media Vault**, and then **Control Center**.
- 2 On the **Tools** tab, click **Customize HP Media Vault**.
You are prompted for an administrator name and password if you set one up. For additional information, see [Editing System Settings on page 2-26](#).
- 3 On the **Shared Folders** tab, click **Edit** next to the shared folder with media files that you want to stream.
- 4 Check **Enable Media Streaming**.
- 5 Click **Save**.

You are returned to the shared folders list and "Enabled" appears next to the folder. The shared folder and all of its subfolders are available for streaming.

Note: It can take a long period of time for files that you copy to a shared folder to appear on your DMA even if the shared folder has been enabled for media streaming.

Note: USB devices attached to the HP Media Vault have media streaming enabled automatically. If the USB device was formatted using the HP Media Vault Administration Console, you can enable or disable media streaming for the USB device.

Disabling Media Streaming for a Folder

Follow these steps if you want to turn off media streaming for a shared folder.

To disable media streaming for a folder

- 1 At the computer, click **Start, All Programs, HP Media Vault**, and then **Control Center**.
- 2 On the **Tools** tab, click **Customize HP Media Vault**.
You are prompted for an administrator name and password if you set one up. For additional information, see [Editing System Settings on page 2-26](#).
- 3 On the **Shared Folders** tab, click **Edit** next to the shared folder with media files that you want to disable from media streaming.
- 4 Clear **Enable Media Streaming**.
- 5 Click **Save**.

You are returned to the shared folders list and "Disabled" appears next to the folder. The shared folder and all of its subfolders are disabled for streaming.

Note: USB devices attached to the HP Media Vault have media streaming enabled automatically. If the USB device was formatted using the HP Media Vault Administration Console, you can enable or disable media streaming for the USB device.

Resetting Media Streaming

The HP Media Vault's media server scans your stored media files to gather information, such as artist names, song titles, video names, and so on, to create a database. The **Reset Media Server** button deletes this database and rebuilds it. (Your data is not deleted.) Resetting may take a long time depending on the number of multimedia files.

To reset media streaming

- 1 At the computer, click **Start, All Programs, HP Media Vault**, and then **Control Center**.
- 2 On the **Tools** tab, click **Customize HP Media Vault**.
You are prompted for an administrator name and password if you set one up. For additional information, see [Editing System Settings on page 2-26](#).
- 3 On the **System** tab, click **Reset Media Server**.

UPnP A/V Streaming

UPnP is a set of network protocols that allow networked devices to communicate seamlessly in a home networking environment. The UPnP A/V streaming method supports streaming of unprotected media files. Some files may be protected by a Digital Rights Management system, which may prevent the streaming of those files. Media files purchased and downloaded from an online Internet store are most likely protected.

Setting up iTunes on the Media Vault and the Computer

The HP Media Vault provides the ability to copy your iTunes music library and playlists to the server. This feature allows you to centralize your iTunes library for playback on any computer or notebook running iTunes on your home network.

To setup copying your iTunes library to the server

The HP Media Vault is enabled for iTunes by default.

- 1 At the computer, click **Start, All Programs, HP Media Vault**, and then **Control Center**.
- 2 On the **Tools** tab, click **Settings for iTunes**.
- 3 In the **Settings for iTunes** page, set up the following:
 - **Status**—enable or disable.
 - **Check interval**—how often to check for music that has been added to the shared Music folder on the server.
- 4 Click **Done** to finish.

9

Remote Access

What's in this chapter

- » [Enabling Remote Access](#)
 - » [Renewing Your Personal Domain](#)
 - » [Accessing Your Media Vault Remotely](#)
 - » [Browsing Files Remotely](#)
-

Remote access enables you to access photos, music, movies or other files on your HP Media Vault when you are away from home. For instance, you are at a party and have the ideal music on your server. You could log in remotely to download the music and burn it to a CD to share with all of your friends.

Likewise, remote access makes it possible for family and friends outside of your home network to access your HP Photo Webshare from a web browser. Family or friends outside of your home network can also view or upload photos or videos to Webshare once remote access is enabled and Webshare visitor accounts are created. For additional information on setting up Webshare, see [Photo Webshare on page 3-33](#).

Enabling Remote Access

There are a few things to consider before enabling remote access. The first is the security of your HP Media Vault. It is strongly recommended that you create an administrator user name and password for your HP Media Vault Administration Console. Otherwise, anyone with your personal domain can access your Administration Console and change system settings for your Media Vault. For additional information, see [Editing System Settings on page 2-26](#).

Another consideration before enabling remote access is the security level of your shared folders. **Public** shared folders must be password protected before they can be accessed remotely. Public shared folders have a lower level of security since they are password protected at the folder level. **Private** shared folders are more secure since they require each user to have a

password. For additional information, see [Editing a Shared Folder on page 5-65](#).

This section guides you through:

- [Creating a Personal Web Address](#)
- [Setting up your Router](#)
- [Testing Remote Access](#)

Return to this page at any time to update information or troubleshoot remote access.

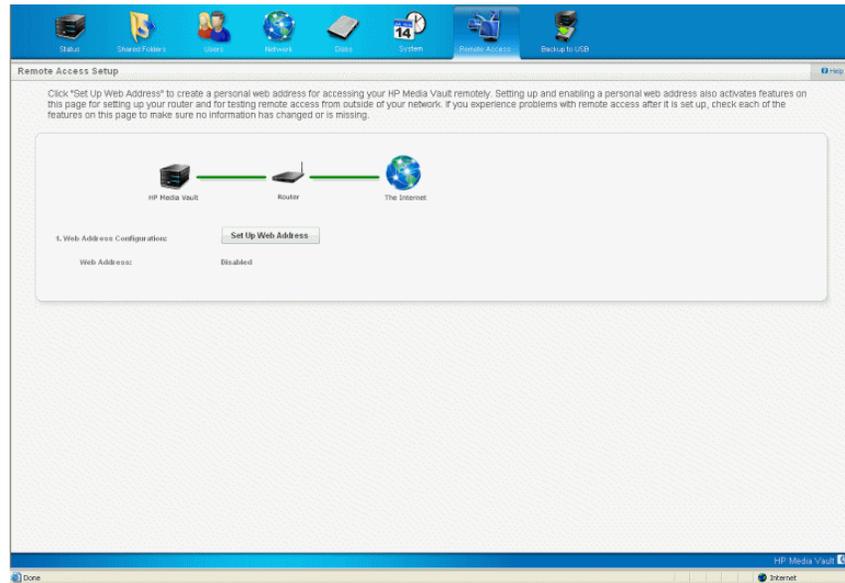
Creating a Personal Web Address

A personal web address is what you will use to access your HP Media Vault from a web browser. For instance, if you register MyFamily.hpshare.net as your personal web address, you will type this address in a web browser to remotely access your HP Media Vault.

To create a personal web address

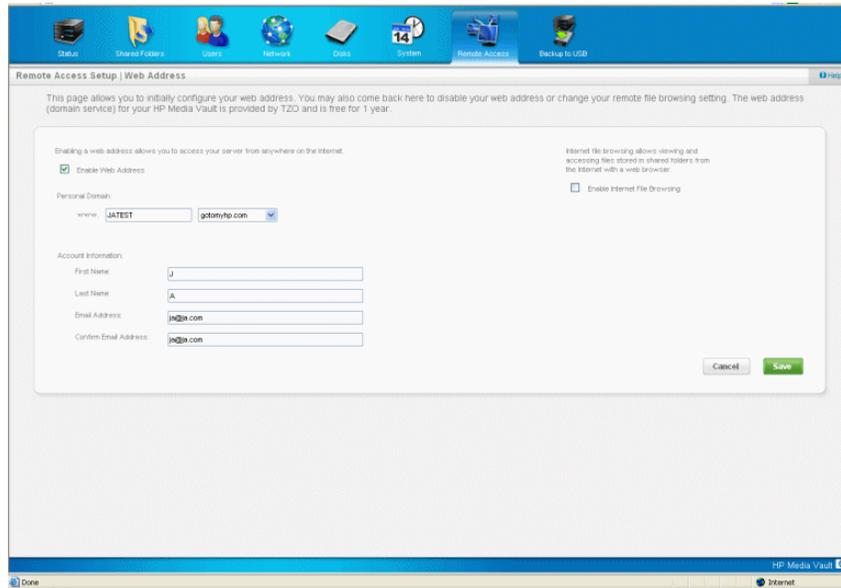
- 1** At the computer, click **Start, All Programs, HP Media Vault**, and then **Control Center**.
- 2** On the **Tools** tab, click **Customize HP Media Vault**.
You are prompted for an administrator name and password if you set one up. For additional information, see [Editing System Settings on page 2-26](#).
- 3** Click the **Remote Access** tab.
Remote access is currently disabled.

Figure 16: Remote Access home page before your personal web address is enabled.



- 4 Click **Set up Web Address**.
The **Remote Access Setup | Web Address** page opens.

Figure 17: The Remote Access Setup | Web Address page.



5 Check Enable Web Address.

Checking this box gives remote users access to the HP Media Vault Administration Center that you are currently in and to the HP Photo Webshare.



Caution: To increase security on the HP Media Vault Administration Center, create an administrator password. See, [Editing System Settings on page 2-26](#).

6 Create a Personal Domain.

Type a unique name for your personal domain and select a domain extension from the drop down list. The personal domain is free for one year.

A personal domain is a Web address. It allows you to access your HP Media Vault and HP Photo Webshare from the Internet. For instance, if you registered `MyFamily.hpshare.net` for your HP Media Vault, you would use this address to connect to your server using remote access. Additionally, this address is part of the URL for accessing an album on your Photo Webshare.

7 Type your First Name and Last Name.

- 8 Type and confirm your **Password**.
- 9 Check **Enable Internet File Browsing**.
Check this box if you also want to be able to browse shared folders remotely.
- 10 Click **Save**.
The server connects to the Internet to check if your personal domain is available. If it is already in use, you are provided with alternate suggestions for your personal domain. Otherwise, you are returned to the **Remote Access Setup** page.

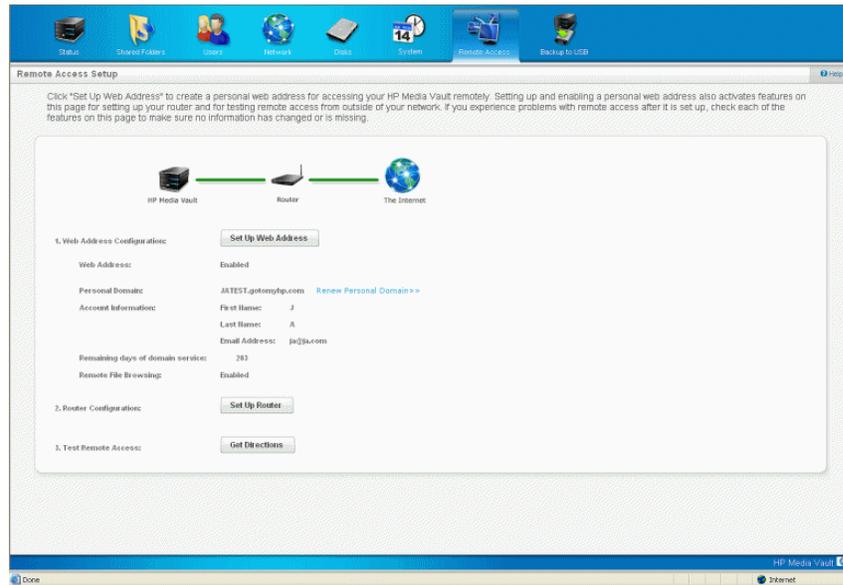
Setting up your Router

Setting up a personal web address is one requirement for enabling remote access. You also need to set up your router to pass remote access requests to your Media Vault. This is known as port forwarding.

To setup your router

- 1 At the computer, click **Start, All Programs, HP Media Vault**, and then **Control Center**.
- 2 On the **Tools** tab, click **Customize HP Media Vault**.
You are prompted for an administrator name and password if you set one up. For additional information, see [Editing System Settings on page 2-26](#).
- 3 Click the **Remote Access** tab.
If you already created a personal address, the Remote Access Setup page has several options enabled. If you do not see all of the options below, see [Creating a Personal Web Address on page 9-100](#).

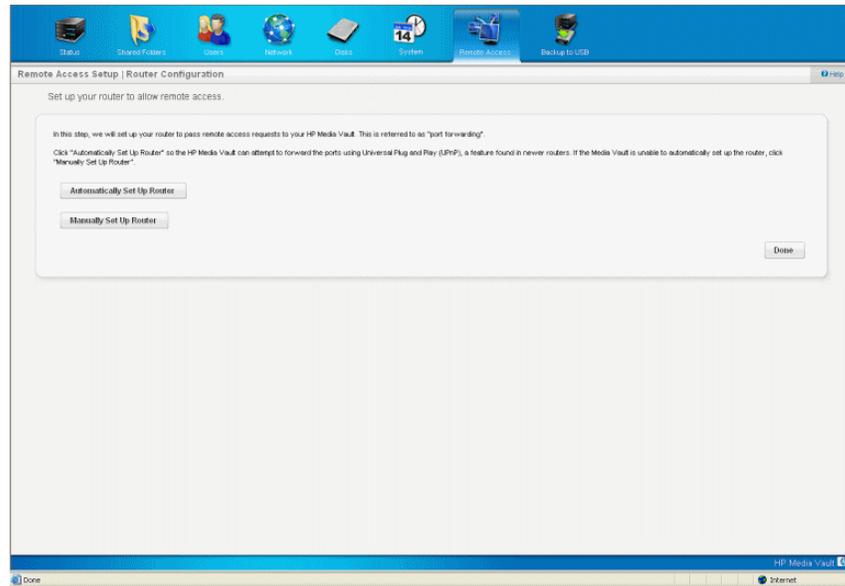
Figure 18: The Remote Access Setup page after a personal web address is created.



4 Click **Set up Router**.

The **Remote Access Setup | Router Configuration** page displays.

Figure 19: The Remote Access Setup | Router Configuration page.



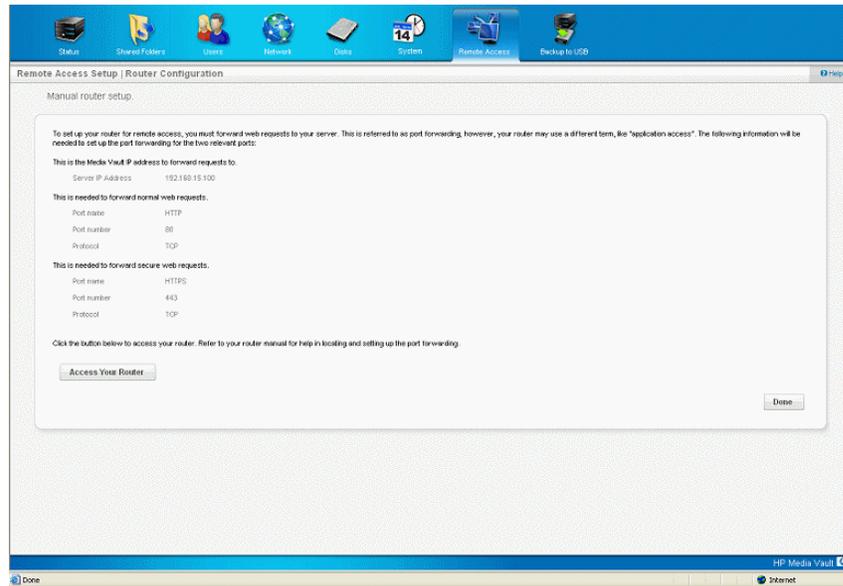
5 Click **Automatically Setup Router**.

The HP Media Vault attempts to configure your router for port forwarding. A message displays letting you know if the Media Vault was successful at configuring your router or not.

6 If the Media Vault was not able to automatically configure your router, click **Manually Set up Router**.

The **Manual Router Setup** page displays with information that will be required to manually set up your router.

Figure 20: The Manual Router Setup page.



7 Click **Access your router**.

The HP Media Vault attempts to open your router configuration page. The page that displays is unique to your router. If you have questions about configuring your router for port forwarding, see the documentation that came with the router.

8 Click **Done** on the HP Media Vault Remote Access Setup | Router Confirmation page when you are finished setting up your router.

Testing Remote Access

After you create a personal web address and set up your router for port forwarding, you are ready to test remote access.

To test remote access

1 At the computer, click **Start, All Programs, HP Media Vault**, and then **Control Center**.

2 On the **Tools** tab, click **Customize HP Media Vault**.

You are prompted for an administrator name and password if you set one up. For additional information, see [Editing System Settings on page 2-26](#).

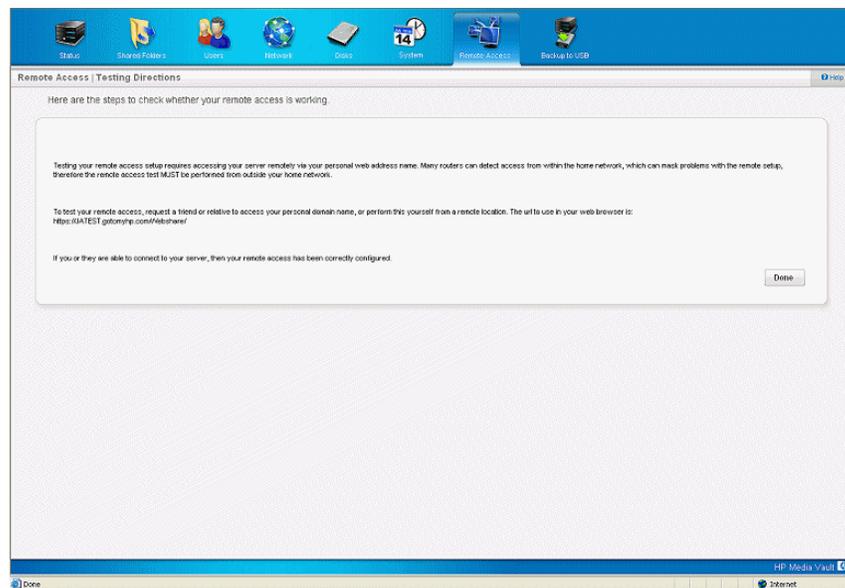
- 3 Click the **Remote Access** tab.

You should see several options on this page if you created a personal web address and set up your router. If the only option you see is Set up Web Address, see [Creating a Personal Web Address on page 9-100](#) for more information.

- 4 Click **Get Directions**.

The **Remote Access | Testing Directions** page displays.

Figure 21: The Remote Access | Testing Directions page.



- 5 Follow the instructions on the **Remote Access | Testing Directions** page.
- 6 Click **Done**.

Renewing Your Personal Domain

The first year you have a personal domain is free. There is a fee for each year after that. Complete the following steps to continue your subscription.

To renew your personal domain

- 1 At the computer, click **Start, All Programs, HP Media Vault,** and then **Control Center**.
- 2 On the **Tools** tab, click **Customize HP Media Vault**.
You are prompted for an administrator name and password if you set one up. For additional information, see [Editing System Settings on page 2-26](#).
- 3 On the **Remote Access** tab, click **Renew Personal Domain**.
You are directed to the TZO website to renew your personal domain.

Accessing Your Media Vault Remotely

Remote access is a great way to get to photos, music, videos and other files on your server while you are away from home. Before you can use remote access, you must create a vanity URL or a personal URL and give users remote access permission.

To access your server remotely

- 1 Start any browser application.
Internet Explorer 7.0 or higher or Firefox 2.0 or higher are preferred.
- 2 Type your personal domain in the address box.
For instance, if you registered `MyFamily.hpshare.net` for your HP Media Vault, you would use this address to connect to your server using remote access. You are directed to the HP Media Vault home page.
- 3 Click an icon.
 - **Configure**—If you created an administrator name and password, type them when prompted. The HP Media Vault Administration Console opens for managing and configuring your HP Media Vault's system settings. For additional information, see [Editing System Settings on page 2-26](#).
 - **Photo Webshare**—Type your personal user name and password when prompted. The HP Photo Webshare opens. For additional information, see [Editing a User on page 4-56](#). If the **Photo Webshare Manager** box is checked on your user account, you are set up as a Webshare Administrator and can see all of the Webshare

functionality. If this box is not checked, you have limited Webshare functionality.

If you are not a member of the home network, your user account was probably set up as a Webshare visitor. Type your personal user name and password to open Webshare. For additional information on Webshare visitor accounts, see [To Create or Edit Visitors on page 3-39](#). Contact your Webshare administrator if you have problems logging on.

- **Browse Files**—You are prompted for a user name and password. If you are browsing public shared folders, type your personal user name and password. If you are browsing private shared folders, type the name of the private shared folder for the user name and the password for the folder. If you are using a combination of public and private shared folders, be careful to type the correct user name and password for the shared folders you want to browse. For additional information, see [Editing a Shared Folder on page 5-65](#).

Browsing Files Remotely

Logging In

- 1 Open a browser and type your personal web address.
For instance, if you registered `MyFamily.hpshare.net` for your HP Media Vault, you would use this address to connect to your server using remote access. You are directed to the HP Media Vault home page.
- 2 Log in with your user name and password.
 - Private shared folders—Type your user name and password that were set up in the HP Media Vault. For additional information, see [Creating a User on page 4-55](#) or [Editing a User on page 4-56](#).
 - Public shared folders with passwords—Type the shared folder name as the user name and the shared folder password that was set up in the HP Media Vault. For additional information, see [Creating a Shared Folder on page 5-63](#) or [Editing a Shared Folder on page 5-65](#).

Security

Shared folders that are configured for Public access and are not password protected are not available for remote file and folder browsing. Only shared folders that are set to Private access or Public access with a password are available for remote file and folder browsing.

Browse Your Files and Folders

Click the name of the shared folder to browse the files on your HP Media Vault.

The contents of the shared folder display on the right side of the screen if you have permission to access the shared folder.

Download Files

Downloading a file sends the file from the HP Media Vault to the computer that you are browsing from.

Click the file that you want to download. The file is highlighted and a small box with an arrow displays. Click the arrow to open the file menu. Select **Download** from the menu to start your download. You may continue to browse files and folders while you download a file.

Note: The HP Media Vault supports the following characters when uploading or downloading files remotely using a browser.

ABCDEFGHIJKLMNOPQRSTUVWXYZ
abcdefghijklmnopqrstuvwxyz
1234567890

You can upload and download files that contain other letters or special characters in the files names. Those letters or characters are changed to squares during the upload or download process. Once the files are where you want them, you can open them or make changes.

If the files were uploaded to the Media Vault, you can rename them from a computer within your network using a method other than remote file browsing. For additional information, see [Browsing Folders on page 6-75](#).

If the files were downloaded to your computer, you can rename them after the download completes.

Upload Files

Uploading a file sends the file from the computer that you are browsing from to the HP Media Vault.

Click the folder where you want the uploaded file to be stored. The folder is highlighted and a small box with an arrow displays. Click the arrow to open the folder menu. Select **Upload** from the menu. A file selection window appears. Use the **Browse** button to select the file to upload. After you select your file and click **Upload File** your upload begins. You may continue to browse files and folders while you upload a file. The upload window informs you when the file transfer is complete.

Note: The HP Media Vault supports the following characters when uploading or downloading files remotely using a browser.

ABCDEFGHIJKLMNOPQRSTUVWXYZ
abcdefghijklmnopqrstuvwxyz
1234567890

You can upload and download files that contain other letters or special characters in the files names. Those letters or characters are changed to squares during the upload or download process. Once the files are where you want them, you can open them or make changes.

If the files were uploaded to the Media Vault, you can rename them from a computer within your network using a method other than remote file browsing. For additional information, see [Browsing Folders on page 6-75](#).

If the files were downloaded to your computer, you can rename them after the download completes.

Logging Out

When you are done browsing files and folders on your HP Media Vault, you can log out by clicking on the red **X** in the upper right-hand corner.

If you want to browse a different shared folder that is set to Public access mode (with a password), you will need to log out, and log back in using the desired shared folder name as the user name.

10 Managing Storage Space

What's in this chapter

- » [Viewing Disk Settings](#)
 - » [Adding an Internal Hard Drive](#)
 - » [Removing an Internal Hard Drive](#)
 - » [Creating Mirrored Disks](#)
 - » [Adding and Removing an External USB Device](#)
 - » [Formatting an External USB Device](#)
 - » [Replacing the system drive](#)
-

You can expand storage in the HP Media Vault in a couple of ways:

- Add a [Serial ATA \(SATA\)](#) hard drive to the Media Vault's internal expansion bay (Integrated Drive Electronics (IDE) drives are not supported.). Use this option to add permanent storage space to your Media Vault.
- Add up to two USB disk drives to the Media Vault's USB ports. Use this option to back up to an external storage device or to add temporary storage space to your Media Vault.

Viewing Disk Settings

Displays information for internal and USB disks.

To open the disk settings tab

- 1** At the computer, click **Start, All Programs, HP Media Vault,** and then **Control Center**.
- 2** On the **Tools** tab, click **Customize HP Media Vault**.
You are prompted for an administrator name and password if you set one up. For additional information, see [Editing System Settings on page 2-26](#).
- 3** Click the **Disks** tab.

To view internal disk information

- **Refresh**

Click **Refresh** to update the information on this page without changing tabs. Clicking the browser's refresh button returns you to the Status tab.

- **Disk Name**

The name of the internal disk.

- **Unavailable**

No disk is detected in the expansion slot.

- **Actions**

- **Add**

You must tell the Media Vault how you want new storage space allocated. When you click **Add**, you have the option to increase your storage space or to make the storage redundant or mirrored.

- **Safely Remove**

Click **Safely Remove** prior to physically removing an internal or external disk.

- **Type**

- **Mirrored**

A mirrored share automatically stores an exact copy of files on a second hard drive. Using a mirrored share reduces the chance of you losing critical files if one hard drive fails.

- **Non-Mirrored**

A non-mirrored share is stored on a single hard drive. The HP Media Vault does not automatically maintain a copy of these files on a second hard drive. If a non-mirrored drive fails, the files stored on it are lost.

- **Status**

- **Healthy**

The drive is functioning properly.

- **Building**

After an internal mirrored disk is added, it must create the redundant files. The building status indicates that this is taking place. The percent complete and estimated time are provided.

- **Degraded**

The degraded status only applies to mirrored drives. It indicates that one drive failed. The system is operational, but the files stored on the HP Media Vault are no longer redundant. The light bar for the failed drive on the HP Media Vault box is red. For additional information on replacing the failed drive, see [Removing an Internal Hard Drive on page 10-122](#) and [Adding an Internal Hard Drive on page 10-116](#).

- **Failed**

The failed status only applies to non-mirrored drives. It indicates that one drive failed. The system is not operational until the drive is replaced. The light bar for the failed drive on the HP Media Vault is red. For additional information on replacing the failed drive, see [Removing an Internal Hard Drive on page 10-122](#) and [Adding an Internal Hard Drive on page 10-116](#).

- **Size**

The total storage space on the disk.

- **Free**

The amount of space available on the disk.

To view USB disk information

- **Disk Name**

The name of the USB disk. You can change the name when you format the disk.

- **Actions**

- **Format**

Deletes all data from the USB disk and prepares it for use in the Media Vault.

- **Remove**

Click **Remove** prior to physically removing a USB disk.

- **Format**

- **Linux (ext3)**

This option formats the disk into a proprietary Linux file system (ext3). Formatting the disk using this file system does not allow the disk to be disconnected from the Media Vault and used on another computer. The disk will be dedicated for permanent use on the Media Vault. This format is suggested for best performance.

- **Windows (FAT32)**

This option formats the disk using the FAT32 file system. Formatting the disk using this file system enables you to disconnect the hard drive from the Media Vault and use it on another computer.

- **Status - Healthy**

The drive is functioning properly.

- **Size**

The total storage space on the disk.

- **Free**

The amount of space available on the disk.

Adding an Internal Hard Drive

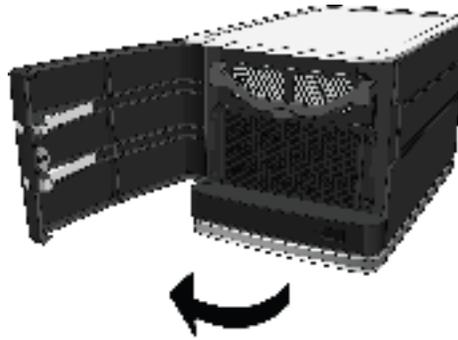
The HP Media Vault's primary system hard disk uses the Serial ATA (SATA) interface. The internal expansion bay accommodates a second SATA disk. (The server does not support adding Integrated Drive Electronics (IDE) disks.)

Note: You should **not** remove or add a hard disk to the server while it is powered on and running.

To add a hard drive to an expansion bay

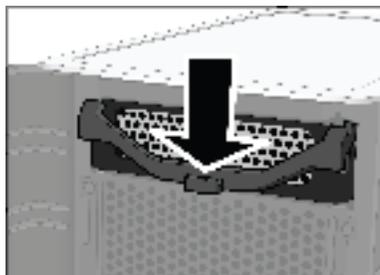
- 1 Press the power button on the back of the Media Vault for about five seconds and release it to turn off the server.
- 2 Open the door on the front of the Media Vault.

Figure 22: Opening the door



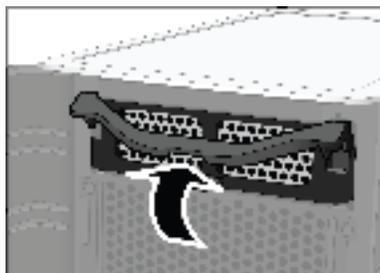
- 3 Press the lever to unlock the handle.

Figure 23: Unlocking the hard-drive tray



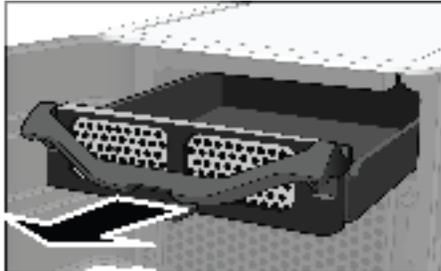
- 4 Lift the handle all the way up.

Figure 24: Lifting the handle



- 5 Gently pull the hard-drive tray from the expansion bay.

Figure 25: Removing the hard-drive tray



- 6 Fold down the flap near the back of the hard-drive tray.

Figure 26: Folding down the flap



Note: This flap improves air flow through the server. If you remove a drive, be sure to fold this flap back up.

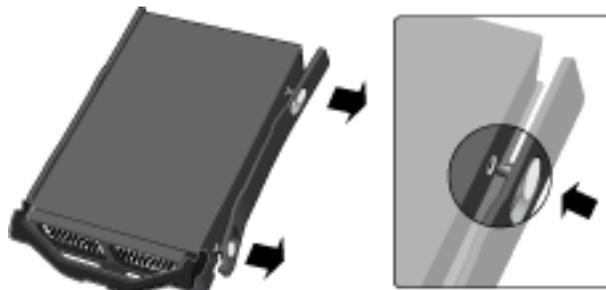
- 7 Insert the new drive into the left side of the hard-drive tray, making sure that the pins go into the hard drive's mounting holes.

Figure 27: Putting the new drive in the hard-drive tray—left side



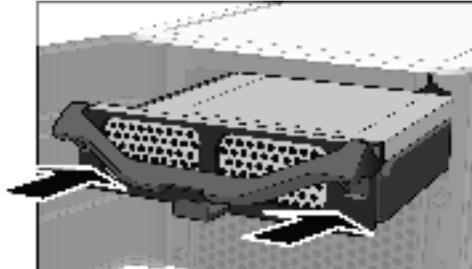
- 8 Flex the right side-rail, and then insert the pins into the hard drive's mounting holes.

Figure 28: Putting the new drive in the hard-drive tray—right side



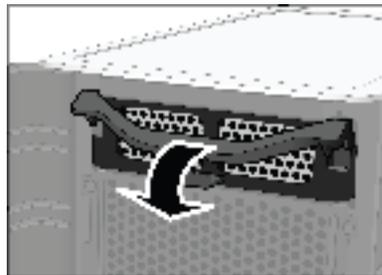
- 9 With the handle up, slide the hard-drive tray and drive into the expansion bay.

Figure 29: Inserting the drive tray into the expansion bay



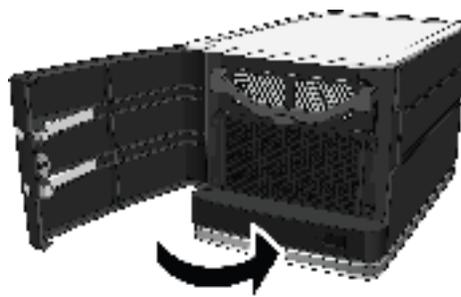
- 10 Press down on the handle on the hard-drive tray until it locks.

Figure 30: Closing the handle



- 11 Close the door on the front of the server.

Figure 31: Closing the door



- 12 Press the power button on the back of the Media Vault to turn it on.
- 13 Notice that within a few seconds the light-bar for the new hard drive turns purple .

This indicates that the hard drive has been installed, but has not been initialized.

To add a hard drive to total storage

- 1 At the computer, click **Start, All Programs, HP Media Vault**, and then **Control Center**.
- 2 On the **Tools** tab, click **Customize HP Media Vault**.
You are prompted for an administrator name and password if you set one up. For additional information, see [Editing System Settings on page 2-26](#).
- 3 On the **Disks** tab, locate the internal disk you want to add.
- 4 Click **Add**.
- 5 Select an option for allocating the disk space.



Caution: It is important to select the storage space allocation option with care. Changing how the storage space is allocated later may require you to transfer all of the files to a separate device and reformat the drives.

- **Allocate disk to make current storage mirrored (protects current storage, RAID 1)** - adds the internal drive as mirrored storage space.

The type of mirroring supported on the Media Vault is called Redundant Array of Independent Disks (RAID) RAID-1.

In RAID-1 mirroring, an identical copy of data written to one hard disk is written to a second hard disk. Mirroring disks reduces your total hard disk storage capacity by half. The advantage is that if one hard disk fails, you have a copy of your data on the second hard disk.

- **Allocate disk to expand current storage (increases current storage)** - combines the available space from the system drive and the internal hard drive to make one large logical disk. The drive space is not mirrored. If a non-mirrored drive fails, the files stored on the failed drive are lost. If a drive is removed from the HP Media Vault, the system is not operational until the drive is replaced.

- 6 Click **Accept**.

Removing an Internal Hard Drive

Hard drives can be removed from the HP Media Vault. However, hot swapping is not supported. The Media Vault must be powered down prior to removing the drive.

To remove a hard drive from total storage

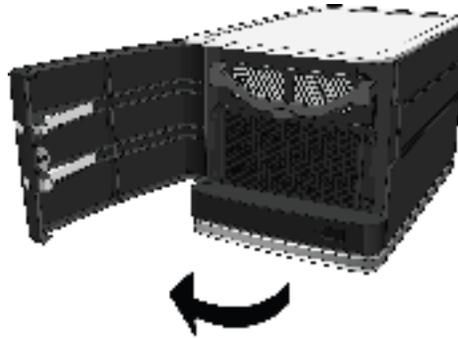
- 1 At the computer, click **Start, All Programs, HP Media Vault**, and then **Control Center**.
- 2 On the **Tools** tab, click **Customize HP Media Vault**.
You are prompted for an administrator name and password if you set one up. For additional information, see [Editing System Settings on page 2-26](#).
- 3 On the **Disks** tab, locate the internal disk you want to remove.
- 4 Click **Safely Remove**.
When the server is ready, you receive a message telling you that it's okay to remove the drive from the server.
- 5 Click **OK**.
- 6 Be sure that the light-bar for the hard drive is purple . This indicates that the drive has been properly removed from the server's total storage.
- 7 Power down the server by pressing the power button on the back of the server and wait until it completely shuts off.

Note: Removing non-mirrored hard disks can cause undesirable behaviors. In a non-mirrored system, files may span multiple disks and removing one disk makes the entire HP Media Vault non-operational (at least until the disk is reconnected). If you remove a non-mirrored disk and change your mind, replace the drive. Click **Fix** under the disks **Actions** to add the drive back to the total storage space.

To remove a hard drive from an expansion bay

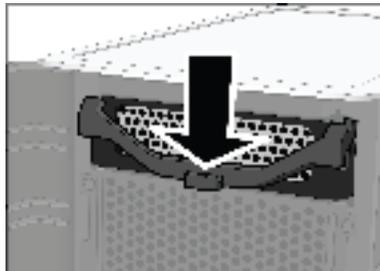
- 1 Open the door on the front of the HP Media Vault.

Figure 32: Opening the door



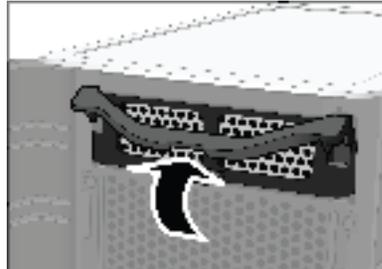
- 2 Press the lever to unlock the handle.

Figure 33: Unlocking the hard-drive tray



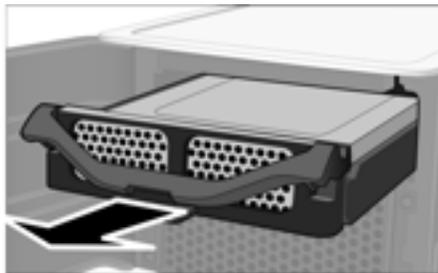
- 3 Lift the handle of the hard-drive tray all the way up.

Figure 34: Lifting the handle



- 4 Gently pull the hard-drive tray from the expansion bay.

Figure 35: Removing the system-drive tray



- 5 Flex the back of the right side-rail, and then withdraw the back pin from the hard drive by gently pulling the side-rail down and away.

Figure 36: Removing the right side-rail



- 6 Flex the front of the right side-rail, and then withdraw the front pin from the hard drive by gently pulling the side-rail down and away.
- 7 Remove the drive from the hard-drive tray.

Figure 37: Removing the drive



- 8 Fold up the flap near the back of the hard-drive tray.

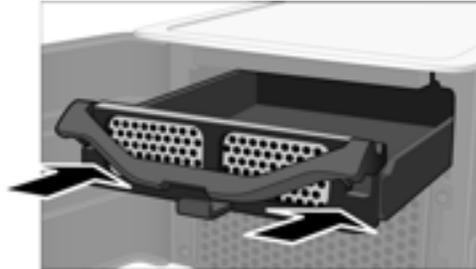
Figure 38: Folding up the flap



Note: Folding up the flap improves air flow and helps keep the server cool.

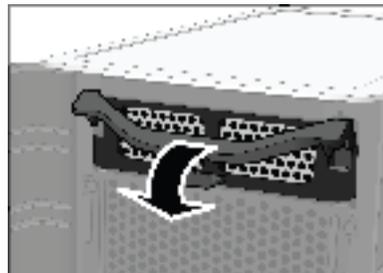
- 9 With the handle up, slide the hard-drive tray back into the system bay.

Figure 39: Inserting the hard-drive tray into the system bay



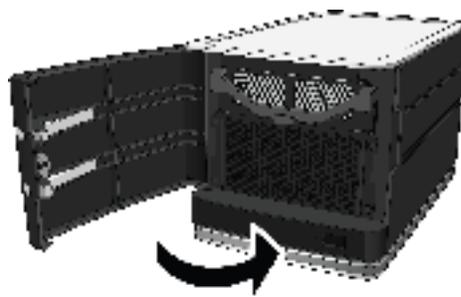
- 10 Close the handle on the hard-drive tray until it locks.

Figure 40: Closing the handle



- 11 Close the door on the front of the server.

Figure 41: Closing the door



Creating Mirrored Disks

This option creates a mirror or duplication of an existing disk on the HP Media Vault.

When you save files to a mirrored disk, your files are saved to both hard disks. The end result is that half the total amount of space is available to store your files. For example, two 200GB drives mirrored together result in total storage space of 200GB, not 400GB.

Note: When creating a mirror, you must use a blank hard disk that is the same size or larger than the source disk you want to mirror.

Data on a mirrored disk is safe unless both disks fail at the same time. If one hard disk fails, the server administers a warning. The failed hard disk should be replaced immediately.

To create a mirror

You must insert a new internal disk that is the same size or larger than the existing disk into your HP Media Vault prior to completing this procedure.

- 1** At the computer, click **Start, All Programs, HP Media Vault**, and then **Control Center**.
- 2** On the **Tools** tab, click **Customize HP Media Vault**.
You are prompted for an administrator name and password if you set one up. For additional information, see [Editing System Settings on page 2-26](#).
- 3** On the **Disks** tab, locate the disk you want to mirror.
- 4** Click **Add**.
A message displays giving you the option to expand the current storage space or to make the storage space redundant.
- 5** Click **Allocate disk to make current storage mirrored (protects current storage, RAID 1)**.
- 6** Click **Accept**.

This process may take several hours before the disk is completely mirrored. You can continue to use the server during this time.

Note: If the expansion disk does not have enough space, the option to create a mirror is grayed out.

Note: The server does not automatically show the progress of the mirroring. To view the progress, click **Refresh**. The progress status is indicated under **Status** on the **Disk Settings** page.

Adding and Removing an External USB Device

You can add external USB disks to either of the HP Media Vault's two USB ports (one on the back and one on the front). Small USB disks, such as key disks and jump drives, can also be attached. Portable devices, such as cameras and phones, can be attached if your system detects those devices as USB storage devices. If you have any questions, check with the USB manufacturer to verify that the device is classified as a USB storage device.

The contents of the USB device are made available for media streaming once the device is plugged into the Media Vault.

To connect an external USB drive

Plug the USB device into one of the USB ports on your server. If you have questions, see the documentation that came with your USB device. If you use a USB disk drive, it is recommended that you use a drive that conforms to USB 2.0 or later.

A shared folder is automatically created for the USB device when it is plugged into the USB port. For additional information, see [Browsing Folders on page 6-75](#). Additionally, the USB device contents are available for media streaming. For additional information, see [Streaming Media on page 8-93](#).

Note: The addition of multiple USB devices through an external USB hub is neither recommended nor supported.

To add the USB drive to total storage

- 1 At the computer, click **Start, All Programs, HP Media Vault**, and then **Control Center**.
- 2 On the **Tools** tab, click **Customize HP Media Vault**.
You are prompted for an administrator name and password if you set one up. For additional information, see [Editing System Settings on page 2-26](#).
- 3 Click the **Disks** tab.

The USB device is listed under **USB Disks**. Additionally, any folders on the USB device are automatically shared and available for media streaming.

To remove a USB drive from total storage

- 1 At the computer, click **Start, All Programs, HP Media Vault**, and then **Control Center**.
- 2 On the **Tools** tab, click **Customize HP Media Vault**.
You are prompted for an administrator name and password if you set one up. For additional information, see [Editing System Settings on page 2-26](#).
- 3 On the **Disks** tab, locate the USB device you want to remove.
- 4 Click **Remove**.
The drive is removed from the list of drives on the Disk Setting page.
Disconnect the USB device from the server.

Formatting an External USB Device

The HP Media Vault can interact with USB devices formatted as FAT32, NTFS, or ext3. The HP Media Vault can read and write files to FAT32 and ext3. The Media Vault can only read files from NTFS devices. It cannot write to them.

You may also want to consider that ext3 disks can store larger files, over 74.7 GB.

To format a USB device

Note: Formatting disk drives erases all the disk's contents, including boot records, partition tables, and all shared folders and their sub-folders and files. Format disks only when you know that it is safe to proceed.

- 1 At the computer, click **Start, All Programs, HP Media Vault**, and then **Control Center**.
- 2 On the **Tools** tab, click **Customize HP Media Vault**.
You are prompted for an administrator name and password if you set one up. For additional information, see [Editing System Settings on page 2-26](#).
- 3 On the **Disks** tab, locate the USB disk you want to format.
- 4 Click **Format**.

- 5 Enter the disk's name in the **Disk Name** box.
- 6 Select one of the following format types
 - **Linux (ext3)** - The HP Media Vault comes with a primary hard disk called SYSTEM. The SYSTEM disk is formatted into a proprietary Linux file system (ext3). The format of the SYSTEM disk does not change.

Formatting a second internal hard disk into the proprietary Linux file system gives you the best read/write performance. However, a Linux-formatted hard disk on the server cannot be disconnected and used in a different computer. You can only read and write data to the server's hard drive when its connected to the server.
 - **Windows (FAT32)** - The FAT32 file system allows you to read and write to the hard disk. Microsoft used this file system for Windows versions 95, 98, 98SE, ME, 2000, and XP. Files on FAT32 disks cannot be larger than 4 GB. If you format a server hard disk in FAT32, you can disconnect the disk and use it on Windows, Macintosh and Linux computers. However, you cannot store files larger than 4GB on FAT32 file systems.
- 7 Click **Accept**.

Replacing the System Drive

Replacing the internal system drive consists of three parts:

- 1 [Removing the system drive on page 10-131](#)
- 2 [Re-installing the new system drive on page 10-133](#)
- 3 Resetting the System.

Removing the system drive

The system drive is located below the removable drive tray.

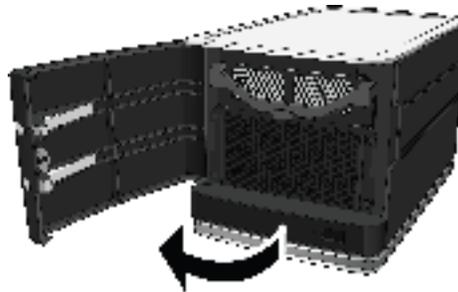
Figure 42: Location of internal system drive



To remove the system drive

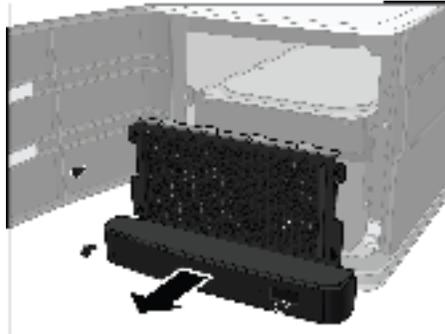
- 1 Press the **Power** button momentarily to shut down the Media Vault.
- 2 Open the door on the front of the Media Vault.

Figure 43: Opening the door



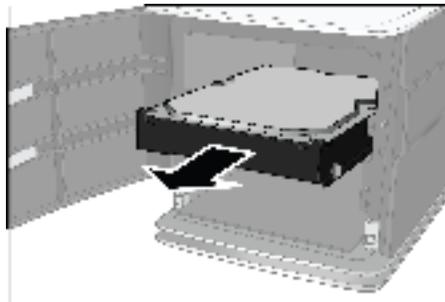
- 3 Remove the top expansion drive tray.
See, [To remove a hard drive from an expansion bay on page 10-123](#) for additional information.
- 4 Remove the four screws holding the system plate.
- 5 Remove the system plate from the front of the Media Vault.

Figure 44: Removing the system plate



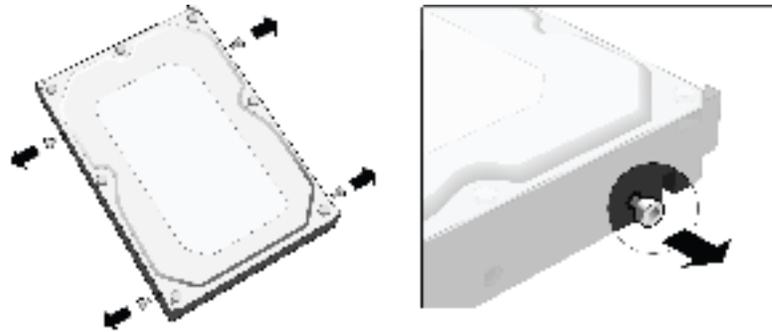
- 6 Gently pull the system drive from the Media Vault.

Figure 45: Removing the system drive



- 7 Remove the four screws from the sides of the system drive.

Figure 46: Removing the screws from the system drive



Re-installing the new system drive

This topic provides information about how to install the system drive.

To re-install the new system drive

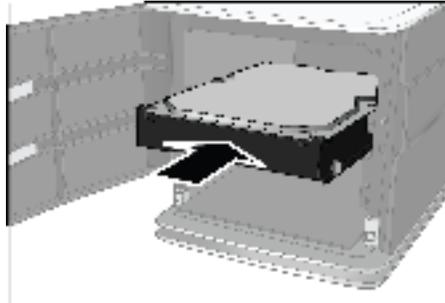
- 1 Insert the four screws from the Media Vault system drive into the sides of the new drive.

Figure 47: Putting the screws into the sides of the system drive



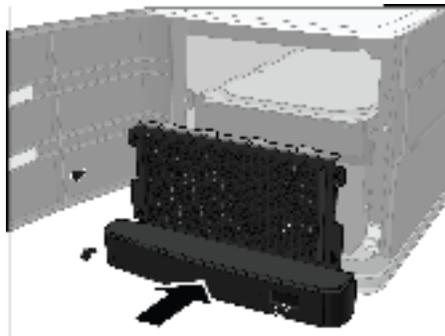
- 2 Slide the drive into the system bay.

Figure 48: Inserting the new drive into the system bay



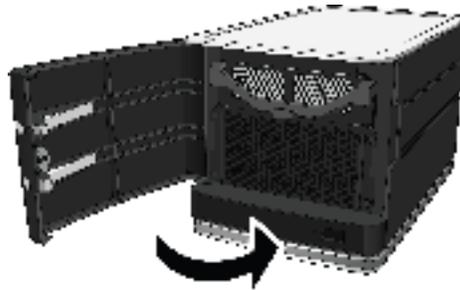
- 3 Replace the system plate on the front of the Media Vault.

Figure 49: Replacing the system plate



- 4 Replace the four screws in the system plate.
- 5 Replace the top expansion drive tray.
See, [To add a hard drive to an expansion bay on page 10-116](#) for additional information.
- 6 Close the door on the front of the server.

Figure 50: Closing the door



- 7 Power on the Media Vault.
- 8 Perform a Factory Reset to initiate the drive.

11 Back up and Restore

What's in this chapter

- » [Backing up Important Files on this Computer](#)
 - » [Backing up an Entire Hard Drive \(on HP Media Vault Pro models only\)](#)
 - » [Restoring a Drive Backup \(on HP Media Vault Pro models only\)](#)
 - » [Backing up the HP Media Vault to a USB Device](#)
 - » [Backing up Files and Folders to an Online Service](#)
-

Backing up Important Files on this Computer

Your HP Media Vault is bundled with NTI Shadow software. NTI Shadow is an easy-to-use application that lets you run automatic backups for the important files and folders on your computer. You can back up any data you want, including photo, music, video, and financial files. Using NTI Shadow does not disturb your computer use because it works transparently in the background.

NTI Shadow offers two ways to back up folders on your computer.

- **Simple Backup**—Select this option to backup selected folders and their sub-folders on this computer every time you make change to their contents.
- **Custom Backup**—Select this option if you want greater control over the folders or files that you backup. Likewise, you can choose to backup your selections every time they change or schedule a specific time for backups.

If you want to back up an entire drive, see [Backing up an Entire Hard Drive \(on HP Media Vault Pro models only\)](#) on page 11-142.

This help topic has steps:

- [To perform a simple backup](#)
- [To create a custom backup](#)

- [To modify a custom backup](#)

To perform a simple backup

A simple backup backs up only the My Desktop, My Pictures, My Music, My Videos, and My Documents folders that are installed by Windows for each User Account on this computer.

After configuring Simple Backup, each file is backed up every time you make a change to the file.

Additionally, Simple Backup creates one version of each file and places that file in a directory called Revision.

- 1** At the computer, click **Start, All Programs, HP Media Vault**, and then **Control Center**.
- 2** On the **Backup** tab, click **Back up Important Files**.
The **Simple Backup** tab should be selected.
- 3** Select one or more of the following folders:

Note: Only the following folders and their sub-folders are backed up.

- **My Documents**

The default folder for documents, graphics, and other personal files. Many programs automatically save data files to this folder.

- **My Music**

The default folder for audio files, such as those you download from the Internet or save on your hard drive.

- **My Pictures**

The default folder for photographs. Many digital-camera and photo-editing software programs automatically create a sub-folder in this folder to which they save their pictures.

- **My Videos**

The default folder for video clips, such as those you download from the Internet or saved on your hard drive.

- **My Desktop**

All files and folders on the Desktop are backed up, including shortcuts. Note that backing up a shortcut does not backup the program that the shortcut opens.

Note: Any file stored in one of the above folders is backed up regardless of its type. For example, a document file stored in My Music is backed up.

4 Click **Start**.

The backup process starts. Your first back up could take some time, depending on the amount of data. The selected folders are backed up and copied to \\HPMediaVault\Backup.

Note: If you need more backup capability, see Run automatic backups for important files.

To create a custom backup

1 At the computer, click **Start, All Programs, HP Media Vault**, and then **Control Center**.

2 On the **Backup** tab, click **Back up Important Files**.

3 Click the **Custom Backup** tab.

4 Click **Create Backup Job**.

5 Select the folders or files to back up.

- To back up an entire folder:

In the Backup job wizard, click the check box next to the folder that you want to back up. A blue check box next to the folder indicates that you have selected to backup the entire contents of that folder.

- To back up specific files:

- In the left pane, select the folder that contains the files you want to back up. Selecting a folder opens the folder and displays its contents in the right pane.

- In the right pane, select the files you want to back up.

- To select a file or folder, click its associated check box.

Note: If you add any new files to a folder that has a gray check box next to it, these files are not included in future automatic backups.

6 Click **Options** to backup files of a specific type.

NTI Shadow backs up all file types unless you specify that you want to back up only specific kinds of files for backup. For example, you can specify that only the audio files in a folder are backed up.

- a Check a file type or type a custom file type.
 - b Select to either include or exclude all of the selected file types from the backup.
 - c Click **OK** to return to the **Backup Job Wizard**.
- 7 Click **Next**.
 - 8 Browse or type your **Backup Destination**.
 - 9 **Schedule your backup** using one of the following options:
 - Save your folder/file to the HP Media Vault every time you save changes to your computer
 - Save your folder/file changes every
Use the drop-down lists to select the time interval for your backup in Minutes, Hours, or Days.
 - Save your folder/file changes every
 - Select one or more check boxes for the days you want to schedule your backups.
 - Select the Hours, Minutes, and AM or PM.

Note: If you select a fixed schedule (specific day or time), to ensure optimum performance, choose a different time for each computer to back up its files. This avoids multiple backups to the server at the same time.
 - 10 Click **Next**.
 - 11 **Select the number of previous file versions to save:**
 - **Save all the previous file versions**
Selecting this option backs up each version of your files. This options keeps all previous versions of your files
 - **Save a limited number of previous file versions**
Selecting this option backs up the number you specify in the list box up to nine versions.
 - **Do not save any previous file version**

Selecting this option stores only the latest version of the files.

- **Option** button

Allows you to delete the backup files/folders from your server when you delete the file from your computer. Select Delete the file on the HP Media Vault when the file is deleted on your computer, and then click OK.

12 Click **Next**.

13 Type a **Job Name**.

NTI Shadow automatically names the file based on the computer name, date, and time. You can rename the backup if desired. You should use a unique name to identify the backup.

14 Check if you want to **Show progress bar**.

15 Click **Finish**.

The Start Backup dialog box appears asking whether you want to start the backup now. The selected files and folders are backed up and copied to \\HPMediaVault\Backup.

- Select **Yes** to start the backup immediately.
- Select **No** to save the backup. If you chose this option, the backup will start as scheduled or you can start the backup in the **Modify Backup Job** pane (see Modify a backup job).

Note: The NTI Shadow icon is displayed in the computer Task Bar whenever a backup job is configured.

To modify a custom backup

Your HP Media Vault is bundled with NTI Shadow software. NTI Shadow is an easy-to-use application that lets you modify any backup jobs you have previously created. You can change the settings of the job, enable or disable jobs, and delete jobs. (For information about creating a backup, see Run automatic backups for important folders or files.)

The Modify Backup Job list box shows the list of backup jobs that have been created. The list includes the name of the backup job, the last time the job ran, which folder/files were backed up, and the location of the backup folders.

- 1 At the computer, click **Start, All Programs, HP Media Vault**, and then **Control Center**.
- 2 On the **Backup** tab, click **Back up Important Files**.
- 3 Click the **Custom Backup** tab.
- 4 You can modify a backup as follows:
 - **Edit**
Opens the Backup job wizard, where you can modify the backup as described in Run automatic backups for important folders or files.
 - **Disable/Enable**
Disables or enables the selected backup job. A disabled backup is not run until it is re-enabled.
 - **Disable All**
Disables all backup jobs.
 - **Delete**
Deletes the selected backup job.
 - **Start Backup**
Immediately starts the selected backup. The backup must be enabled to start.
- 5 You can also view the log file:
 - **View Log File**
Displays information about the backup process.
 - **Done**
Closes the NTI Shadow screen. If a backup is running, it continues to run. Changes to the enabling or disabling of any backup jobs are saved.
- 6 Click **Done**.

Backing up an Entire Hard Drive (on HP Media Vault Pro models only)

Your HP Media Vault Pro is bundled with NTI DriveBackup!. NTI DriveBackup! is an easy-to-use application that lets you backup an entire disk drive or drive

partition on your computer to ensure that all your data and programs are protected against disaster.

Note: You can also use DriveBackup! to restore a previous drive backup to your disk drive.

For more information, see [Restoring a Drive Backup \(on HP Media Vault Pro models only\)](#) on page 11-146.

This help topic describes:

- [Creating a Drive Backup](#)
- [DriveBackup! Menus](#)
- [NTI Schedule Viewer](#)

Creating a Drive Backup

- 1 At the computer, click **Start, All Programs, HP Media Vault,** and then **Control Center**.
- 2 On the **Backup** tab, click **Back up Entire Hard Drive**.
- 3 **Select Drive to Backup** from the drop-down list.

Note: Note the amount of used space shown in this step and make sure that your media vault has enough storage capacity for the backup.

- 4 Browse or type the destination for your backup.
- 5 Type a backup name.

NTI DriveBackup! automatically names the backup file using the computer name, date, and time. You can rename the backup if desired. You should use a unique name to identify the backup.

- 6 Click **Options** and select the desired backup options:

- **General** Tab
 - **Compression**

Selecting this option enables NTI DriveBackup! to reduce the size of the backup. The size reduction depends on the kind of data being compressed. Some kinds of audio and a video files are already compressed; subsequently, further compression is negligible.

- **Verify**

If you select this option, NTI DriveBackup! performs a verification step to ensure that the correct files exist on the backup.

- **Play a sound when the backup completes.**

- **Password** Tab

- Check **Enable Password Protection** to turn on this feature.
- Type and confirm the password.

- Click **OK** to return to the **HP Media Vault - NTI Drive Backup** dialog.

7 Click **Schedule** to schedule your backup for a specific time.

Note: When selecting a schedule, to ensure optimum performance, choose a different time for each computer to back up its files. This avoids multiple backups to the media vault at the same time.

- a In the **Scheduler Setup** dialog, select the frequency of the backup: **Once, Weekly, Monthly, or Daily.**

- b If you select **Daily**, you can specify the particular days of the week you want the backup to occur.

- Click **Which Days.**
- Select one or more days of the week, and then click **OK.**

- c The **Start at** group changes according to the frequency you previously selected. Select the time for the backup as follows:

- **Once**

Select the time, month, day, and year. For example: 12:00 AM, January, 20, 2007.

- **Weekly**

Select the time and day of the week. For example: 15:15, Sunday.

- **Monthly**

Select the time and day of the month. For example: 10:30 PM, 1. Because not every month has 31 days, we suggest that you use the first day of the month for monthly backups.

- **Daily**

Select the time of day. For example: 21:33.

Note: To set the hour and minute of the time option, you can select each column (Hours, Minutes, and AM or PM (for the 12-hour clock format)), and then either enter the time or use the Up and Down arrows.

- d Click **OK** to return to the **HP Media Vault - NTI Drive Backup** dialog.
- 8 Click **Start** to immediately begin the backup.
The Create Drive Image Backup screen appears. This screen shows the details and progress of the backup process.
- 9 After the backup finishes, you can do the following:
 - To view a report of the backup, click **View Report**.
 - To close the Create Drive Image Backup screen, click **Close**.

DriveBackup! Menus

The DriveBackup! menus provide additional functionality for backing up your drive or drive partition.

- **Job** Menu
Provides the following standard file capabilities: New, Open, Save, Save As, Exit.
- **Options** Menu
Sets password protection as described in Password button above.
- **Reports** Menu
Allows you to view or delete reports of all backup and restore operations. Every time a backup is created or restored, DriveBackup! creates a report file that contains information to help you to trace and diagnose problems that might occur. DriveBackup! will report all errors that have occurred in backup or restore process in these files.
 - **View Backup Reports**
Opens the Backup Report dialog box where you can View or Remove reports by highlighting the report and selecting the appropriate button.
 - **View Restore Reports**
Opens the Restore Report dialog box where you can View or Remove reports by highlighting the report and selecting the appropriate button.

- **Help** Menu
Provides the built-in NTI help and support.

NTI Schedule Viewer

The NTI Schedule Viewer is a backup monitoring program that you can use to delete, suspend, or resume already scheduled NTI DriveBackup! jobs.

To access the NTI Schedule Viewer:

Click **Start, All Programs, NTI DriveBackup! 4,** and **NTI Schedule Viewer.**

All scheduled backup jobs can be viewed from the NTI Schedule Viewer window.

To delete a scheduled backup job:

- 1 In the NTI Schedule Viewer window, right-click the job you wish to delete, then click the **Delete** job.
- 2 In the confirmation dialog box, click **Yes**.

To suspend or resume a job:

- 1 In the NTI Schedule Viewer window, right-click the backup job you wish to suspend or resume. A context window appears.
Within the context window, a check mark next to **Suspend** job indicates that the job is suspended. If no check mark is visible, the job will be processed normally.
- 2 Click **Suspend** job to suspend or resume a job.

Restoring a Drive Backup (on HP Media Vault Pro models only)

Your HP Media Vault is bundled with NTI DriveBackup!. NTI DriveBackup! is an easy-to-use application lets you restore an entire disk drive or drive partition on your PC that you have previously backed up using NTI DriveBackup!. (For information about creating a backup, see [Backing up an Entire Hard Drive \(on HP Media Vault Pro models only\)](#) on page 11-142.)

If you wish to restore the system drive, you must use the PC Restore Disc. A system drive cannot be restored from the Windows operating system because it would have to write over itself.

About restoring a drive backup

Note: When restoring a disk drive, any content that exists on the target hard drive or drive partition will be erased.

- Restored NTFS partitions cause the Windows chkdsk utility to run when the system is rebooted. This utility creates and displays a status report for a disk based on the file system. Windows 2000 SP4 or Windows XP will run the verification process and then restart. The restored drive should be fully operational after the computer restarts.
- You cannot select a partition that is smaller than the amount of data on the original partition. However, you may select a larger partition. In some cases, you may need to select a target partition that is the same size as the original partition.
- When you select a drive to restore, you must pay attention to the compatibility of the file systems between the source backup and the target drive. The following table lists all compatible combinations of source and target file systems and the resulting partition format.

Table 4: Compatible Combinations

Source Partition	Target Partition	Resulting Partition
NTFS	NTFS	NTFS
NTFS	FAT 16	NTFS
NTFS	FAT 32	NTFS

Any other combinations are not supported.

To restore a drive backup, follow these steps:

- 1 At the computer, click **Start, All Programs, HP Media Vault**, and then **Control Center**.
- 2 On the **Backup** tab, click **Back up Entire Hard Drive**.

- 3 In **Step 1**, select the location of the backup file you want to restore from the drop down list or browse to its location.
- 4 In **Step 2**, select the hard drive you want to restore from the drop down list.
- 5 Click **Start**.

The time it takes to restore the drive or drive partition depends on the size of the backup file.

DriveBackup! Menus

The DriveBackup! menus provide additional functionality for backing up your drive or drive partition.

- **Job** Menu
This menu provides the following standard file capabilities: New, Open, Save, Save As, Exit.
- **Options** Menu
Sets password protection.
- **Reports** Menu
Allows you to view or delete reports of all backup and restore operations. Every time a backup is created or restored, DriveBackup! creates a report file that contains information to help you to trace and diagnose problems that might occur. DriveBackup! will report all errors that have occurred in backup or restore process in these files. By default, all report files are located in the Report Files directory found in the installation directory for your DriveBackup! software.
 - **View Backup Reports**
Opens the Backup Report dialog box where you can view or remove reports by highlighting the report and selecting the appropriate button.
 - **View Restore Reports**
Opens the Restore Report dialog box where you can view or remove reports by highlighting the report and selecting the appropriate button.
- **Help** Menu
Provides the built-in NTI help and support.

NTI Image Explorer

The NTI Image Explorer allows you to restore individual folders and files from a DriveBackup! file. DriveBackup! files have an .npf extension. To restore an entire drive or partition, see Restore a drive backup.

To restore individual folders or files from an .npf file, follow these steps:

- 1 Start NTI Image Explorer:
 - a Click **Start, All Programs, NTI DriveBackup! 4, and NTI Image Explorer.**
 - b In the **EasySteps 1: What to restore?** screen, select the location of the backup file you want to restore from the drop-down list.
 - c Click **Browse** to find and select the particular backup file you want to restore.

The selected file appears in the box below the list box and Browse button. The backup files contained in the DriveBackup! file appear in the selection panes in the bottom part of the screen.
 - d In the left pane, navigate to the folder that contains the files that you want to restore. (The selection of folders and files is identical to that described in Run automatic backups for important files.)
 - e In the right pane, select the folder or files that you want to restore.
- 2 Click **EasySteps 2.**
- 3 Select one of the following options to restore the files:
 - To restore the files to their original location, select **Original.**
 - To restore the files to a different location, select **Other** and then **Browse.**
- 4 Click **EasySteps 3.**
- 5 Select the overwrite options of the restore:
 - **Never replace a file with its backup copy**
 - **Replace a file only if its backup copy has a newer file date and time**
 - **Always replace a file with its backup copy**
- 6 Click **Start.**

- 7 In the **Operation Finished** dialog box, click **Close**; or if you want to view a report of the restore, click **View Report**.

Backing up the HP Media Vault to a USB Device

Creating backups of your files ensures you have a copy that can be restored to your HP Media Vault if you experience accidental deletions or mechanical failures.

To back up shared folders

- 1 Plug a USB device into the HP Media Vault.
For additional information, see [Adding and Removing an External USB Device on page 10-128](#).
- 2 At the computer, click **Start, All Programs, HP Media Vault**, and then **Control Center**.
- 3 On the **Backup** tab, click **Backup HP Media Vault**.
You are prompted for an administrator name and password if you set one up. For additional information, see [Editing System Settings on page 2-26](#).
- 4 Check the **Shared Folder Names** to back up.

The following default shared folders are listed. If you created others, they are also listed. As you check folders, their total space required for backup is calculated.

- **Backup**
Location of files backed up by PC Backup software.
- **Documents**
The pre-configured folder that you can use for documents, graphics, and other personal files.
- **Music**
The pre-configured folder that you can use for audio files, such as those you download from the Internet or save on your hard drive.
- **Photos**
The pre-configured folder that you can use for photographs. Many digital-camera and photo-editing software programs automatically create a sub-folder in this folder to which they save their pictures.

- **Videos**

The pre-configured folder that you can use for video clips, such as those you download from the Internet or save on your hard drive.

Note: Any file stored in one of the above folders is backed up regardless of its type. For example, a document file stored in **Music** is backed up.

5 Select destination USB device.



Important: The USB device will be reformatted when you click **Start Backup**. All files currently on the USB device will be deleted.

6 Click Start Backup.

Your backup is named “(date stamp)_backup.”

Note: Click **Refresh** to update the information on this page without changing tabs. Clicking the browser’s refresh button returns you to the Status tab.

Private shared folders that are backed up to the USB device will not request a password for validation when they are accessed on the USB device. For this reason, it is recommended that you disconnect the USB device from the HP Media Vault after the backup is complete.

Backing up Files and Folders to an Online Service

Backing up files and folders and storing them at an off site location is recommended for critical data. Purchasing Spare Backup, enables you to backup files and folders to a remote location via an online service.

- 1** At the computer, click **Start, All Programs, HP Media Vault,** and then **Control Center**.
- 2** On the **Backup** tab, click **Online Backup**.
A web browser opens to the Spare Backup web site.
- 3** Follow the instructions on the screen for purchasing **Spare Backup**.

12 Troubleshooting

What's in this chapter

- » [HP Media Vault Troubleshooting tips on page 12-153](#)
- » [Network connection troubleshooting tips on page 12-163](#)
- » [Webshare troubleshooting tips on page 12-169](#)
- » [iTunes troubleshooting tips on page 12-174](#)
- » [Email Troubleshooting tips on page 12-175](#)
- » [Media Streaming Troubleshooting tips on page 12-176](#)

HP Media Vault Troubleshooting Tips

In this section we will cover:

[Your network cannot find the HP Media Vault on page 12-153](#)

[You receive Microsoft Vista permission messages on page 12-155](#)

[Restoring a Mirrored Volume on page 12-155](#)

[Power-on indicator is off on page 12-156](#)

[What to do if the HP Media Vault is unresponsive on page 12-156](#)

[Why is the hard drive light-bar purple? on page 12-157](#)

[Why is the hard drive light-bar red? on page 12-157](#)

[Why does my HP Media Vault shut down by itself? on page 12-158](#)

[Computer Recovery \(this option is only available on the HP Media Vault Pro\) on page 12-158](#)

[Router on page 12-158](#)

[My HP Media Vault loses its router settings on page 12-159](#)

[What are the minimum browser requirement needed by the online User's Guide? on page 12-161](#)

Your Network Cannot find the HP Media Vault

Try the following procedures to connect the HP Media Vault.

Check all cords, cables, and outlets

- 1 Make sure all devices on your network are correctly installed and the cables are connected to the proper ports.
- 2 Make sure you press in the power button.
- 3 Make sure your router has power.
- 4 Restart your router (or unplug and plug it back in).
- 5 Restart all the devices on your network, including your computers and the HP Media Vault.
- 6 If you're using your own Ethernet cable, try using the Ethernet cable that came with the HP Media Vault.

Check the LED lights on the front of the HP Media Vault

- The Power Indicator LED  light should be blue.
- The Health Indicator LED  should be blue.
- The Network Activity Indicator LED  should be blue.

Table 5: Health Code Indicators

Code		Action
1-blue (short), 1-red (long)	Boot image missing	Run firmware repair utility on PC
1-blue (short), 2-red (long)	Failed Recovery	Restart the HP Media Vault and run firmware repair utility on PC
2-blue (short), 1-red (long)	Unable to obtain DHCP address	Check router, If using a static IP address, reconfigure the HP Media Vault, for more information see You prefer to set static IP Addresses on page 12-168

Ensure that you have connected the HP Media Vault to the correct network adapter

Do you have multiple network adapters connected to different physical networks? If so, enable the network adapter on the network that you have attached the HP Media Vault, and disable the other network adapters. You

can typically turn off the wireless network radio on laptops to disable that adapter.

You Receive Microsoft Vista Permission Messages

As part of its enhanced security, the Microsoft Vista operating system may display User Account Control dialog boxes. These dialog boxes help stop unauthorized changes to your computer and require permission to continue with the action.

Note: Always check that the action needing your permission is one that you intended. The source of the action is displayed in the middle band of the dialog box.

A list of the HP Media Vault's applications that may require permission is located below the following User Account Control dialog boxes:

User Account Control - Administrator Password

The following HP Media Vault applications may require permission to continue:

- HPMVTray.exe - HP Media Vault System Tray utility
- Cddib32.exe - NTI DriveBackup!
- Shadow.exe - NTI Shadow
- NASSelector.exe - Media Vault Selection Application
- NASDriveMapper.exe - NASDriveMapper Application

Restoring a Mirrored Volume

A mirrored volume is a volume that protects sensitive data by keeping two copies of your data on separated physical hard disks. This insures that if a hard disk failure occurs, all the data on the volume is still intact and the volume is still available for reading and writing. But your data is no longer protected by a redundant copy.

When one half of a mirrored volume is missing from the device, or has failed, you should restore the missing or failed disk as soon as possible.

Removing a Mirror

Removing a mirror does not destroy the entire volume, but only one of the redundant copies.

To remove a mirrored volume that you no longer want or need, see [Remove a Mirror](#).

Mirror rebuilding when one of the disks has been removed, then reconnected

If one disk containing a volume mirror is disconnected, mirroring is interrupted. Reconnecting the same disk does not cause the mirror to completely rebuild. Once that same disk is reconnected to the HP Media Vault, Click the FIX button to begin the rebuild. Please be aware that while this rebuilding operation is taking place, your data is not protected with a redundant copy. Also be aware that the mirror rebuild may take many hours.

Mirror restoration when a disk (other than the SYSTEM disk) has failed

When a disk (other than the SYSTEM disk) for a mirrored volume fails, the HP Media Vault raises a system tray alert that warns you of the loss of data redundancy. To restore the device to the same level of protection, you must remove the failed hard disk and replace it with a new, working disk. However, the device does not presume that the new disk was attached to recreate the missing half.

Power-on Indicator is Off

The HP Media Vault is not powered on.

To power on the HP Media Vault

- 1** Make sure the power cord is fully plugged into the HP Media Vault and a powered electrical outlet.
- 2** If plugged into a surge protector or power strip, make sure the device is switched on.

What to do if the HP Media Vault is Unresponsive

If the HP Media Vault appears to be unresponsive, do either of the following:

- [Restarting the HP Media Vault Using the Control Center](#)
- [Shutdown and restart the HP Media Vault manually](#)

Restarting the HP Media Vault Using the Control Center

How to reset the HP Media Vault from the HP Media Vault Control Center.

To reset the HP Media Vault

- 1 Double-click the **HP Media Vault Monitor** icon  in the task tray.
- 2 On the HP Media Vault Control Center, click **Tools**, then click **Customize HP Media Vault**.
- 3 Click the **System** tab, then click either the **Shutdown** or the **Restart** icons in the upper right corner of the console.

Shutdown and restart the HP Media Vault manually

How to force the HP Media Vault to turn off and restart.

To perform a soft shut down and restart

- 1 On the back of the HP Media Vault, press the **Power** button.
- 2 The health light should begin blinking.
The shutdown process may take up to two minutes to complete.
- 3 After the HP Media Vault is completely off, press the **Power** button to restart.

To force a shutdown and restart

If the HP Media Vault can not be restarted using any of the above methods, then try disconnecting the power cord and reconnecting it.

Why is the Hard Drive Light-bar Purple?

A purple light bar  indicates that a hard drive has been installed, but has not been initialized. It occurs in the following conditions:

- User has clicked “Remove” on the discs tab.
- When adding a new drive, before it has been added to HP Media Vault storage.

Why is the Hard Drive Light-bar Red?

A red light-bar  indicates that a hard drive has failed and must be replaced.

Why does my HP Media Vault Shut Down by Itself?

The HP Media Vault has a temperature sensor and if the sensor records a temperature of 57° C, the unit will shut down.

Check that the unit has unobstructed airflow, and that the unit is not in a small enclosed.

Turn the unit on and listen for a fan, if you do not hear a fan or the unit continues to shut down, contact HP support.

Computer Recovery (this option is only available on the HP Media Vault Pro)

To help you recover your computer and data in the event of a hard drive failure, the HP Media Vault includes a Drive Backup application. A drive backup must be accomplished prior to a hard drive failure for a Computer Recovery to be successful. Use this disc to restore your computer from the HP Media Vault in the event of the following:

- To restore the system drive.
- When the operating system will not start (boot).
- If you cannot use System Restore to restore the system files.



Important: To ensure that you have the latest version of the PC Restore Disc, contact HP support at <http://www.hp.com/support>.

To recover your computer

- 1 Insert the PC Restore Disc into a CD/DVD drive in the computer you want to restore.
- 2 Restart the computer, and boot from the CD.
- 3 Follow the instructions in the Restore application.

Router

You must configure your router to access your Photo Webshare from outside the home network and to use remote access. After clicking **Setup**, the HP Media Vault will automatically try to configure your broadband router.

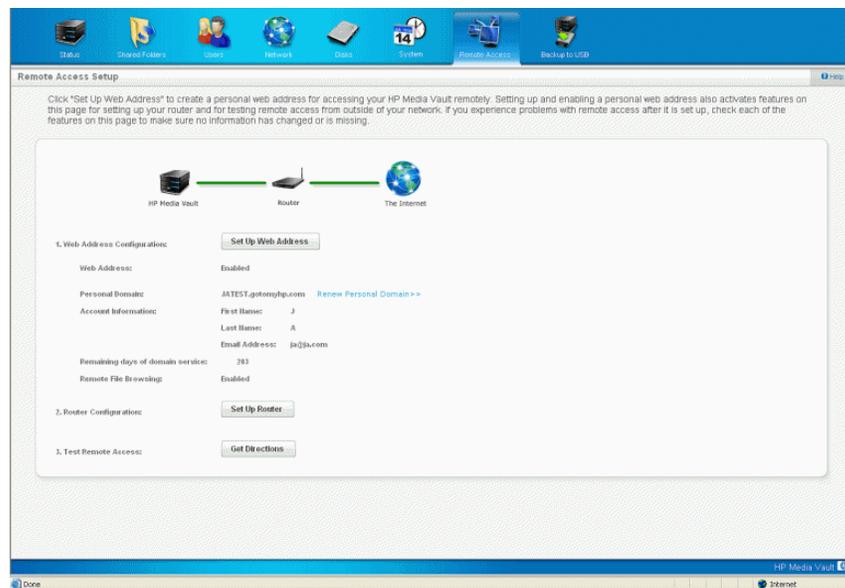
My HP Media Vault Loses its Router Settings

During the configuration of the HP Media Vault's Remote Access, if you chose **Automatically Setup Router**, and the Router has experienced a restart or anything that would cause the router to lose power and/or restart, the settings have been lost. The reason is that the settings are kept in volatile memory, and are erased whenever the router loses power. You can avoid this in the future by manually setting the router.

The steps below will assist in reconfiguring of the router.

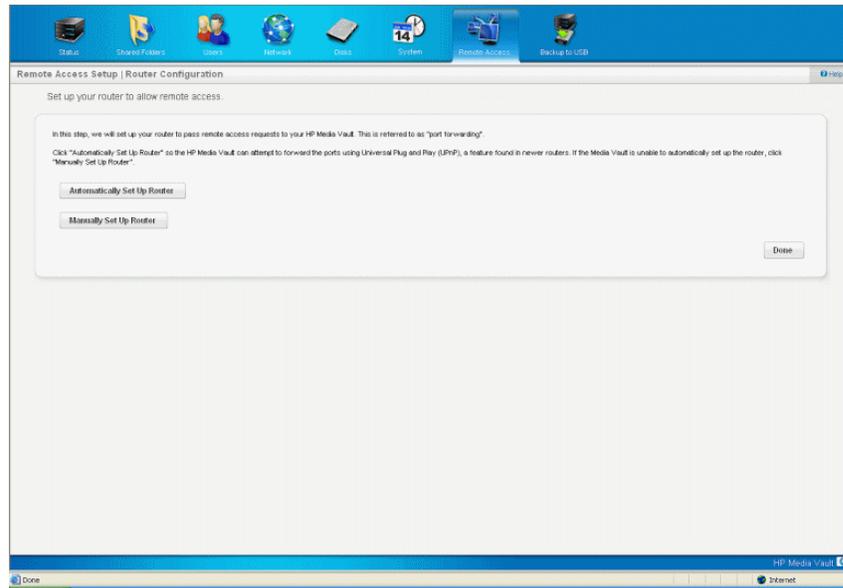
- 1 At the computer, click **Start, All Programs, HP Media Vault**, and then **Control Center**.
- 2 On the **Tools** tab, click **Customize HP Media Vault**.
You are prompted for an administrator name and password if you set one up. For additional information, see [Editing System Settings on page 2-26](#).
- 3 Click the **Remote Access** tab.

Figure 51: The Remote Access Setup page after a personal web address is created.



- 4 Click **Set up Router**.
The **Remote Access Setup | Router Configuration** page displays.

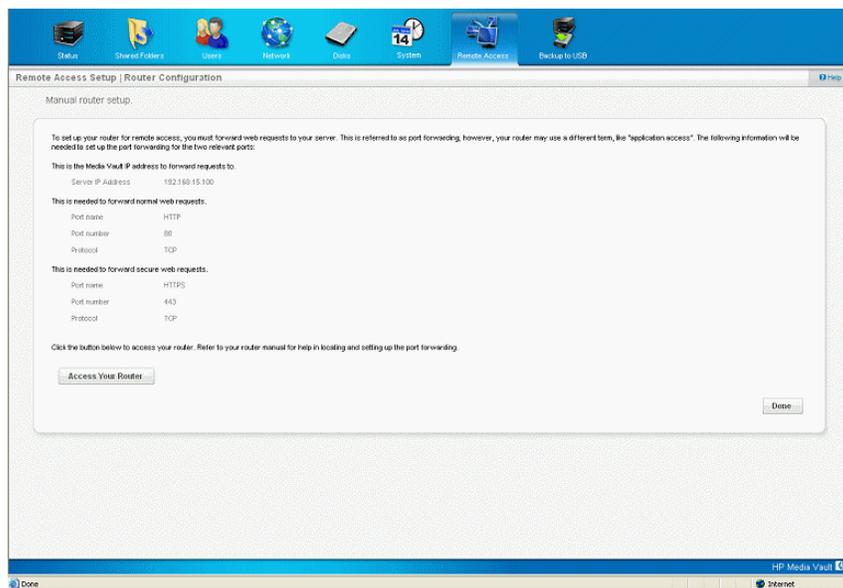
Figure 52: The Remote Access Setup | Router Configuration page.



5 Click **Manually Set up Router**.

The **Manual Router Setup** page displays with information that will be required to manually set up your router.

Figure 53: The Manual Router Setup page.



6 Click **Access your router**.

The HP Media Vault attempts to open your router configuration page. The page that displays is unique to your router. If you have questions about configuring your router for port forwarding, see the documentation that came with the router.

7 Click **Done** on the HP Media Vault Remote Access Setup | Router Confirmation page when you are finished setting up your router.

What are the Minimum Browser Requirements Needed by the Online User's Guide?

For best results, use the latest version of browser with JavaScript enabled. See instructions below:

The navigation menu does not appear in the browser window

JavaScript is not enabled in your web browser.

To enable JavaScript in Internet Explorer 6.0 or 7.0:

Internet Explorer 6.0 or later is required for this product.

- 1 Go to **Tools, Internet Options**.
- 2 Click the **Security** tab.
- 3 Click **Default Level**. This sets the level to Medium and enables javascript.
- 4 To enable only javascript:
 - a Click **Custom Level**.
 - b In the Security Settings window scroll down until you get to the section called **Scripting** (near the bottom).
 - c In the category Active scripting, select **Enable**.
 - d In the Security Settings window, click **OK**.
- 5 In the Internet Options window, click **OK**.

To enable JavaScript in Firefox:

These instructions apply to Firefox 1.5 and above.

Go to **Tools, Options**, and then select **Enable JavaScript**.

To enable JavaScript in Netscape:

These instructions apply to Netscape 8.1.

- 1 Go to **Tools, Options**.
- 2 In the Options window, click **Site Controls**.
- 3 In the Master Settings pane, click **I trust this Site**.
- 4 Click **OK**.

To enable JavaScript in Safari:

These instructions apply to Safari 1.2.

- 1 Go to **Safari, Preferences**.
- 2 Click the **Security** icon.
- 3 In the Web Content pane, click the **Enable JavaScript** check box.
- 4 Close the window.

The menu appears garbled after resizing the text

Refresh the screen.

Network Connection Troubleshooting Tips

In this section we will cover:

[Network connection issues on page 12-163](#)

[No available port on network router on page 12-167](#)

[Why did URL not work? on page 12-167](#)

[You receive firewall blocking messages on page 12-167](#)

[You prefer to set static IP Addresses on page 12-168](#)

Network Connection Issues

For issues connecting the server to the network, check the following:

- [Why is the Network Connection Light Off on page 163](#)
- [The firewall is blocking the connection on page 12-163](#)
- [Check that the router is correctly configured for DHCP on page 12-164](#)
- [Check the network is set up properly for TCP/IP on page 12-164](#)
- [Check the network NetBIOS properties on page 12-166](#)

Why is the Network Connection Light Off

To Determine why the Network Connection Light is Off

- 1** Make sure that all the cable connections are correctly plugged in.
- 2** Make sure the router or switch has power.
- 3** Restart the router or switch (or unplug and plug it back in).
- 4** If you are using your own Ethernet cable, try using the Ethernet cable that came with the HP Media Vault.

The Network Connection Light Alternates Between Blue and Off

The server is intermittently connected to the network.

Check the cable connection between the server and the router (or switch).

The Firewall is Blocking the Connection

If using a firewall program, configure it to allow any HP MediaSmart applications:

- HPMVTray.exe - HP Media Vault System Tray utility

- Cddib32.exe - NTI DriveBackup!
- Shadow.exe - NTI Shadow
- NASSelector.exe - Media Vault Selection Application
- NASDriveMapper.exe - NASDriveMapper Application

For instructions to unblock, see the software vendor's documentation.

For information about firewall blocking alerts, see [You receive firewall blocking messages on page 12-167](#).

Check that the Router is Correctly Configured for DHCP

The HP Media Vault comes automatically set to use a [Dynamic Host Configuration Protocol \(DHCP\)](#) server to dynamically assign IP addresses. Most routers come with a built-in DHCP server.

Check that the router has the DHCP server correctly enabled. Refer to the documentation that came with the router for instructions on proper DHCP server configuration.

For information about configuring a router for remote access, see the following sections.

Windows Vista: Check that Network Discovery is Turned On

To ensure that Network Discovery is turned on

- 1** Click the **Start** menu, and then select **Control Panel**.
- 2** In the Control Panel, click **View network status and tasks**.
- 3** In the Network and Sharing Center, make sure that Network discovery is on.
- 4** If Network discovery is off, click , then select **Turn on network discovery** and **Apply**.

Check the Network is Set Up Properly for TCP/IP

Check that each computer on the network has TCP/IP listed and selected for the network properties with these options selected:

- Obtain IP address automatically
- Obtain [Domain Name System \(DNS\)](#) server address automatically

Windows XP: To Ensure Your Network is Set Up Properly for TCP/IP

- 1** Click **Start**, and then select **Control Panel**.
- 2** Double-click **Network and Internet Connections**.
- 3** Double-click **Network Connections**.
- 4** If the computer is connected via Ethernet cable to the network, right-click **Local Area Connection**.
- 5** If the computer is using a wireless connection, right-click **Wireless Network Connection**.
- 6** Click **Properties**. In the dialog box that opens, check to ensure that **TCP/IP (Transmission Control Protocol/Internet Protocol)** is listed and selected.
 - If TCP/IP is not listed, click **Install, Protocol**, and then **Add**. In the dialog box that appears, select **Internet Protocol (TCP/IP)**.
 - If TCP/IP is listed and checked, highlight it and click **Properties**, then select **Obtain IP address automatically** and **Obtain DNS server address automatically**.
- 7** All computers should be set identically.

Windows Vista: To Ensure Your Network is Set Up Properly for TCP/IP

- 1** Click **Start**, and then select **Control Panel**.
- 2** Click **View network status and tasks** under **Network and Internet**.
- 3** In the left pane, click **Manage Network Connections**.
- 4** If the computer is connected via Ethernet cable to the network, right-click **Local Area Connection**.
- 5** If the computer is using a wireless connection, right-click **Wireless Network Connection**.
- 6** Click **Properties**. In the dialog box that opens, check to ensure that Internet Protocol Version 4 **TCP/IPv4** is listed and selected.
 - If TCP/IP is not listed, click **Install, Protocol**, and then **Add**. In the dialog box that appears, select **Internet Protocol (TCP/IPv4)**.

- If TCP/IP is listed and checked, highlight it and click **Properties**, then select **Obtain IP address automatically** and **Obtain DNS server address automatically**.

7 All computers should be set identically.

Check the Network NetBIOS Properties

Check that each computer on the network has TCP/IP advanced network properties set to Enable NetBIOS over TCP/IP. All computers should be set identically.

Windows XP: To Ensure your Network has the Correct NetBIOS Set Up

- 1 Click **Start**, and then select **Control Panel**.
- 2 Double-click **Network and Internet connections**.
- 3 Double-click **Network Connections**.
- 4 Double-click your default network connection.
 - **Local Area Connection** for wired networks.
 - **Wireless** for wireless connections.
- 5 Click **Properties**.
- 6 Highlight **Internet Protocol (TCP/IP)**.
- 7 Click **Properties**.
- 8 Click **Advanced**.
- 9 Click the **WINS** tab.

WINS refers to Windows Internet Naming Service, which converts NetBIOS network names to IP addresses.
- 10 NetBIOS settings are found at the bottom of the dialog box. Make sure that the **NetBIOS** setting is *not* set to **Disable NetBIOS over TCP/IP**.

Windows Vista: To Ensure your Network has the Correct NetBIOS Set Up

- 1 Click **Start**, and then select **Control Panel**.
- 2 Click **View network status and tasks** under **Network and Internet**.
- 3 In the left pane, click **Manage Network Connections**.

- 4 Right-click your default network connection:
 - **Local Area Connection** for wired networks.
 - **Wireless Network Connection** for wireless connections.
- 5 Highlight **Internet Protocol Version 4 (TCP/IP)**.
- 6 Click **Properties**.
- 7 Click **Advanced**.
- 8 Click the **WINS** tab.

WINS refers to Windows Internet Naming Service, which converts NetBIOS network names to IP addresses.
- 9 NetBIOS settings are found at the bottom of the dialog box. Make sure that the **NetBIOS** setting is *not* set to **Disable NetBIOS over TCP/IP**.

No Available Port on Network Router

Take the following steps:

- 1 To add more Ethernet ports, connect an Ethernet switch to the router. Refer to the switch documentation for instructions on how it connects to the router.
- 2 Connect one end of the Ethernet cable that came with the server to the switch and the other end to the HP Media Vault.

Why Did URL Not Work?

DNS has not updated, wait about 10 minutes for DNS to update.

You Receive Firewall Blocking Messages

If you update Windows XP to the most recent software and service packs, it is likely that you've installed the Windows Firewall. You might also have another firewall program installed on your computer. Firewalls block certain types of communications between various network devices. This helps protect your data from hackers, viruses, spyware, and Trojan-horse software.

The HP Media Vault comes with software applications that must communicate over the network, but sometimes these programs are blocked, by default, by a firewall. When this happens, security alerts pop up on your screen. Security alert dialog boxes usually have a list of possible options. For example, the dialog box might ask you the following three questions:

- 1 Click **Keep Blocking**.
- 2 Click **Unblock**.
- 3 **Defer the choice and be reminded later.**

If you see a security alert dialog for an HP Media Vault application or an NTI backup application, you should unblock the communication to permit the application to run. You are safe to unblock the communications because you are not enabling any connection or communication with the Internet, only between the HP Media Vault and its software applications.

The following list comprises the software applications that need to communicate with the HP Media Vault:

- HPMVTray.exe - HP Media Vault System Tray utility
- NASSelector.exe - HP Media Vault Browse utility
- NASDriveMapper.exe - HP Media Vault Drive Mapping utility
- Cddib32.exe - NTI DriveBackup!
- Shadow.exe - NTI Shadow

If any software is reinstalled, moved to a new disk location, or if the application is deleted from the exception list using the Security Center control panel, communications between that software and the HP Media Vault may once again be blocked by the firewall.

You Prefer to Set Static IP Addresses

If you have a router with a DHCP server properly configured, the DHCP server automatically (dynamically) assigns an IP address to the HP Media Vault. When you install the HP Media Vault, it waits for your router to automatically assign it an IP address. If the router fails to assign an IP address, the HP Media Vault automatically uses the following IP address and subnet mask:

- Auto IP address: 169.254.100.100
- Subnet mask: 255.255.0.0

You may prefer to assign static IP addresses. To assign the HP Media Vault a static IP address:

- 1 Turn on the DHCP server in your router. Consult your router documentation for more information.
- 2 Ensure that the IP addresses assigned by your router are within the same subnet as your other network devices.
- 3 Restart your router and the HP Media Vault.
- 4 At the computer, click **Start, All Programs, HP Media Vault**, and then **Control Center**.
- 5 Click **Customize your HP Media Vault's settings**.
- 6 If the Welcome screen appears, click **Configure Device**.
- 7 Click the **Network Settings** tab.
- 8 Click the **Manually Configure IP Settings** option.
- 9 In the IP Address box, enter a unique IP address.
- 10 Click **Accept**.
- 11 In the Subnet Mask box, enter the subnet.
- 12 Reconfigure your router back to its original settings.
- 13 Restart your HP Media Vault.

Webshare Troubleshooting Tips

In this section we will cover:

[Why can't I share my album? on page 12-170](#)

[How to add photos from your photos shared folder to your Webshare. on page 12-170](#)

[Unable to upload images. on page 12-171](#)

[How do you make Webshare work in the home? on page 12-171](#)

[Why am I getting a certificate error? on page 12-171](#)

[Upload Photos requires ActiveX control to be loaded? on page 12-172](#)

[Clicking on photo Webshare on Control Center Does Not Open. on page 12-172](#)

[Webshare administrator cannot delete Visitor account. on page 12-172](#)

Visitor can create a photo album and add pictures but the album doesn't display. on page 12-172

Visitor cannot download pictures and sees a message telling them that they cannot download pictures. on page 12-172

Visitor cannot add pictures and sees a message telling them that they can't add pictures. on page 12-172

Visitor has created an album (or albums) and wants to delete the album but cannot. on page 12-172

Visitor has changed their password, now they can't log into Webshare. on page 12-173

Selecting URL from address field in web browser loads "page that opens cannot be closed without closing the entire application". on page 12-173

Webshare user is unable to log out of Webshare. on page 12-173

Trouble uploading large files to Webshare. on page 12-173

Clicking on Photo Webshare on Control Center causes command error. on page 12-173

Browser cannot display the page when accessing through URL. on page 12-173

Why can't I Share My Album?

Server users can create albums, but not share them.

How to Add Photos from Your Photos Shared Folder to Your Webshare

Cannot access/browse server shares from the photo selector.

- 1** Use the photo loader, on the left hand side to browse Network Neighborhood (XP PCs) or Network (Vista PCs).
- 2** If your server shared folder does not show up in this list, then use the desktop shortcut to access shared folders on the server, right click on the shared folder you wish to use, and click on "map network drive".
- 3** The next time you use the photo loader, browser to my computer and select the drive previously mapped.

Unable to Upload Images

- Installs may be blocked by browser security.
Click to enable download/install at top of browser.
- Just inserted the drive while Upload photo was loading.
Reinsert the thumb drive.
- Pop up blocker blocked install.
Disable pop up blocker, or enable pop ups for the URL.
- ActiveX is disabled.
Enable ActiveX.
- Not using Internet Explorer.
Use Internet Explorer.

How do you Make Webshare Work in the Home?

Once remote access is setup and you have a custom domain name, frequently urls that look something like `https://{your domain name}/Webshare/` will be used. For many internet service providers, this can cause problems and occasionally even redirect you to your home network router or modem.

To work around this:

- 1 Replace the {your domain name} section of the URL address with the local name of your server (the default is "HPMediaVault").
- 2 In addition to removing common network issues, this will also perform faster.

Why am I Getting a Certificate Error?

If you access your HP Media Vault you will get a warning about the server's security certificate whenever you access any of its `https://` URLs. The reason is that the server issues its own security certificate, and since it is not an official Certificate Authority, your web browser issues the warning or error message.

You may ignore the warning or error message and continue to the HP Media Vault's web pages.

Upload Photos Requires ActiveX Control to be Loaded?

Alternately, you can use non-ActiveX. **Add photos** to add photos to your album.

Clicking on Photo Webshare on Control Center Does Not Open

No Default Browser. Select a default browser or reboot PC.

Webshare Administrator Cannot Delete Visitor Account

Added visitor as User in Media Vault Console. Add the visitor in Webshare instead on in the Admin Console.

Visitor Can Create a Photo Album and Add Pictures but the Album Doesn't Display

Visitor does not have auto-approve rights.

This is expected behavior for a Webshare Visitor who has permission to add photos. The photos must be approved by a Webshare administrator before they will display in the photo album.

Visitor Cannot Download Pictures and sees a Message Telling them that they Cannot Download Pictures

Visitor does not have download rights.

Downloading permissions are set by the Webshare administrator.

Visitor Cannot Add Pictures and sees a Message Telling them that they Cannot Add Pictures

Visitor does not have add rights.

Permission to add pictures to photo albums are set by the Webshare administrator.

Visitor has Created an Album (or Albums) and Wants to Delete the Album but Cannot

Visitors do not have delete album rights.

Visitor should delete the photos from the file. The Webshare administrator has permissions to delete photo albums.

Visitor has changed their password, now they can't log into Webshare

Visitor has changed their password in Webshare to nothing (using "Change Password" link). Now they can't log into Webshare. They are getting a message about their password being incorrect users can create albums, but not share them.

The Webshare admin has edited the Visitor's password.

There is an option on the Webshare login page to obtain a new password.

Selecting URL From Address Field in Web Browser Loads "Page that Opens Cannot be Closed Without Closing the Entire Application"

Webshare Visitor or Administrator is selecting URL from address field in web browser and after login the page that opens cannot be closed without closing the entire application.

Browser remembers previous credentials.

Type IP into browser address field, (e.g. 192.168.1.103) and save the login page as a Favorite.

Webshare User is Unable to log out of Webshare

Browser remembers previous credentials.

There is no logout screen for Webshare. Closing the browser will log out the user if credentials not saved.

Trouble Uploading Large Files to Webshare

The download may time out.

Clicking on Photo Webshare on Control Center Causes Command Error

Click **OK** on error and attempt to open Photo Webshare again.

Browser Cannot Display the Page When Accessing Through URL

- Multiple DHCP devices are on the network.
Verify that there is only one DHCP server on the network - VOIP devices often are DHCP servers.
- Accessing the server through the URL while behind the same router has known issues.
Access the server through the local name (Photo Webshare in Control Center) and use the URL when outside the network.
- Upnp not supported by router.
Enable port forwarding for ports 80 and 443 to the server's IP address.

iTunes Troubleshooting Tips

In this section we will cover:

[iTunes aggregator does not appear to be working. on page 12-174](#)

[Song selection from the server is not updating with new additions. on page 12-174](#)

[Podcasts not showing in playlist. on page 12-175](#)

iTunes Aggregator does not Appear to be Working

- No music in iTunes library.
Add music to library.
Check C:\Program Files\Hewlett-Packard\Media Aggregator.txt.
- Accounts may not match or guest account disabled.
Fix account synchronization.

Song Selection from the Server is not Updating with new Additions

Server has not refreshed yet.

- Wait for the Server to synchronize.
- Click on eject button on the Server bar.

Podcasts not Showing in Playlist.

Podcasts copied over will not show in playlist for server.

Email Troubleshooting Tips

In this section we will cover:

[Why do I need email address for visitors and Home Server users? on page 12-175](#)

[Why do I need to set-up Webshare notifications? on page 12-175](#)

[File doesn't appear. on page 12-175](#)

[Emailed link not opening. on page 12-175](#)

[Email is not received. on page 12-176](#)

Why do I Need eMail Address for Visitors and Home Server users?

Webshare has a notification mechanism that uses email to share photos with others. In order for Webshare to send email and notify other users or visitors, you must configure and enable Webshare email notification in the remote access configuration.

Why do I Need to Set-up Webshare Notifications?

Webshare has a feature to send email notifications whenever items are shared with others, and the email addresses of these users is required. It is recommended that visitor accounts always use the same email as the user name, as opposed to having a different user name than the email address of a visitor (which can add confusion for visitors). Email for Home Server users must be set up separately within Webshare, as there is no other location that uses the email address of Home Server users.

File Does not Appear

File type may not be supported, may need to convert file to supported type.

Emailed Link not Opening

Web site connectivity not on, turn web site connectivity on

Email is not Received

Verify that the correct email address was entered.

Media Streaming Troubleshooting tips

In this section we will cover:

[You're unable to stream media to your entertainment center on page 12-176](#)

[Why can I play and stream DRM content on my home computer but I can not stream it from my HP Media Vault? on page 12-177](#)

[If your DMA does not display your files are found by the DMA. on page 12-178](#)

[If some of your files \(e.g., files newly copied to the server\) are not found by the DMA. on page 12-178](#)

You're Unable to Stream Media to your Entertainment Center

- 1 Make sure that your HP Media Vault is powered up and working before you power up your Digital Media Adapter (DMA).
- 2 Check to make sure that your DMA supports the DLNA/UPnP protocols, which are the protocols supported by the HP Media Vault. Some DMAs use proprietary protocols that do not operate with the HP Media Vault's media server. For a list of compatible DMAs, consult the HP support web site at www.hp.com/support.
- 3 Ensure that your DMA is using the latest firmware revision. Consult your DMA documentation for more information on updating its firmware.
- 4 The HP Media Vault's media server supports the playback of the following file types:

Video: .mpg, .wmv, .mp4, .avi, .asf, .mov, .vob, .mpe, .ts, .dvr-ms, .m2v, .mpeg, .m2p, .divx, xvid, .dat, .m1v, .m4v

Music: .mp3, .ogg, .wav, .lpcm, .pcm, .wma, .mp2, .ac3, .m4a, .aac, .mpa, .mpl, .aif

Photo: .jpg, .jpeg, .png, .tif, .tiff, .bmp, .gif

Note: Some DMAs have playback restrictions for certain types of multimedia files. Check your DMA documentation for supported and unsupported file types.

- 5 New multimedia files can take a considerable amount of time to show up on your DMA. The streaming process requires the HP Media Vault's media server to scan through new multimedia files to gather information, such as artist names, song titles, video names, and so on. This process often takes a long time especially if there are a large number of files. Once the scanning process completes, you can see the files on your DMA.
- 6 Reset the media streaming database. For more information, see Reset media streaming.

Why can I Play and Stream DRM Content on my Home Computer but I Can Not Stream it From my HP Media Vault?

The HP Media Vault includes a media server for streaming iTunes music to PCs running iTunes through the house. See the section in the User's Guide on iTunes.

For Windows Media DRM (WMDRM) content (protected .wma music and .wmv videos), the HP Media Vault does not support streaming of this content to DMAs. Playing (and streaming) of WMDRM protected content requires that the device that is playing the content have a license for the content. When you downloaded the content to your PC, you also received a license to play the content on that PC. If you copy the files to the HP Media Vault, you cannot copy or transfer the license to the server. The server must obtain its own license, and we do not provide for this feature in the current product.

What you can do however, is store your protected content on the HP Media Vault. This allows all of the PCs in the home that have a license for the content to play it from the HP Media Vault by accessing it through the network. For example, to add all of the music on your HP Media Vault to the Windows Media Player library on your PC:

Open Windows Media Player on your PC.

Select File -> Add to Media Library -> Add Folder

In the Add Folder dialog, type \\HPMediaVault\Music and click OK.

This will add all of the music files in your Music shared folder on the HP Media Vault to your Windows Media Player library. You will then be able to play all of the protected content for which this PC has a license.

If your DMA Does not Display your Files are Found by the DMA

- 1 Check that the HP Media Vault and DMA are both connected to the same home network (a router or firewall between them could interfere with the discovery and content sharing protocols).
- 2 Restart the DMA.
- 3 Restart the HP Media Vault server.

If Some of Your Files (e.g., Files Newly Copied to the Server) are not Found by the DMA

- 1 Check that the files were copied to the correct location. Only the Music, Photos and Videos shared folders may be enabled for media sharing by default. Note that all folders below that are also enabled for media sharing.
- 2 Re-enable the shared folder for media sharing.
 - Turn sharing Off for the shared folder with the missing files and select **Apply**.
 - Turn sharing back On for the shared folder and select **Apply**.
- 3 Restart the DMA.
- 4 Restart the HP Media Vault.
- 5 On the Server tab click **Reset the Media Server**.
- 6 Only music files are served from the music share, video files are served from the video share, and photo files are served from the photo share,

13 Product Information

What's in this chapter

- » [Product Specifications](#)
- » [Regulatory Statements](#)
- » [Limited Warranty and Technical Support Statement](#)

Product Specifications

The product specifications contain the following information about the HP Media Vault, its requirements, and standards.

- [HP Media Vault Specifications](#)
- [Minimum Client-computer Requirements](#)
- [Network](#)
- [Environmental](#)

HP Media Vault Specifications

- **Package Contents**

HP Media Vault mv2120 includes:

HP Media Vault, power adapter, power cable, ethernet cable, printed Setup Poster, printed Warranty & Support Guide, HP Media Vault software and manual on CD.

The HP Media Vault Pro mv5000 series includes the above contents plus a PC Restore Disc.

- **Dimensions**

Height: 137mm (5.4")

Width: 139mm (5.5")

Depth: 244mm (9.6")

- **Weight**

HP Media Vault mv2120: 3.2 kg (7.05 lb.) (2.81 kg (6.2 lb.) without power supply)

HP Media Vault Pro mv5140: 3.74 kg (8.25 lb.) (3.36 kg (7.4 lb.) without power supply)

- **Internal Hard Drive**

SATA 7200 RPM

- **Storage Capacity**

HP Media Vault mv2120: 500 GB with 1 SATA expansion bay

HP Media Vault mv5020: 500 GB with 1 SATA expansion bay

HP Media Vault Pro mv5140: 1 TB

HP Media Vault Pro mv5150: 1.5 TB

2 USB 2.0 ports: 1 on front, 1 on back

Maximum storage space: 4 terabytes with a maximum of 1 terabyte per drive. The configuration for maximum storage is 2 internal and 2 external drives.

- **Mirroring**

Can be configured as RAID 1 (a redundant copy of your files) with second hard drive in expansion bay.

- **Remote Access**

Remote access requires setting up a free or charge-based account with TZO dynamic DNS service.

Broadband Internet connection required for remote access.

- **File Sharing**

Supports file sharing from Windows, Mac, and Linux-based computers over a home network.

Minimum Client-computer Requirements

Your computer should meet or exceed these requirements:

- **Computer Requirements**

1 GHz Intel Pentium III processor or equivalent with 256MB RAM.

- **Operating Systems**

File and Drive backup: Microsoft Windows XP Home, XP Professional, Microsoft Windows Vista - Home Basic, Home Premium, Business, and Ultimate editions.

File sharing: Microsoft Windows XP Home, XP Professional, Microsoft Windows Vista - Home Basic, Home Premium, Business, and Ultimate editions, MAC OSX, Linux.

- **Available Hard Drive Space**
150 MB free for included software installation
- **Browser**
Internet Explorer 6.0 or greater, Netscape 7.0 or greater, or Firefox 1.0 or greater
- **Other Client-computer Requirements**
CD-ROM drive for client-computer installation
Home Network
Internet connectivity recommended for software updates

Network

- **Default Network ID**
HPMediaVault
- **Supported Network Protocols**
IEEE 802.3
IEEE 802.3u
UPnP™ AV 1.0
HTTP/HTTPS
- **Network Speed**
10/100/1000 (Gigabit) RJ45 Ethernet
- **Access Method (methods used to record data)**
CSMA/CD
- **Connector Type**
1x RJ45
- **Encoding Method**
100BASE-TX: 4B5B,
MLT-3 10BASE-T: Manchester coding
- **Maximum Transmission Distance**

100 meters

Environmental

- **Temperature**

Operating: 5° to 40° C (41° to 104° F)

Nonoperating: -40° to 70° C (-40° to 158° F)

- **Humidity (no condensation allowed)**

Operating: 15% to 90% RH

Nonoperating: 5% to 95% RH

- **Shock**

Nonoperating: 85 G

- **Vibration**

Operating: 0.2 Grms

Nonoperating: 2.0 Grms

- **Electrical Ratings**

18.5Vdc, 3.5A

- **Power Consumption**

Power Consumption: 18W single drive, 31W dual drive

- **Safety**

IEC 950-compliant

USA – UL, CDRH Radiation Control Standards 21

CFR 1010 and 1020-1 0.50

Canada – CSA or CUL

Europe – LVD 73/23/EEC 93/68/EC

IEC 60950 plus amendments,

EN60825 plus amendments,

EMCD 89/336/EEC plus amendments

- **Battery Disposal Warning**

Perchlorate material – special handling may apply. See <http://www.dtsc.ca.gov/hazardouswaste/perchlorate/>

This product's real-time clock battery or coin cell battery may contain perchlorate and may require special handling when recycled or disposed of in California.

Regulatory Statements

The HP Media Vault complies to the following:

- [Federal Communications Commission Notice](#)
- [Modifications](#)
- [Cables](#)
- [Declaration of Conformity for Products Marked with the FCC Logo \(United States only\)](#)
- [Canadian Notice](#)
- [Avis Canadien](#)
- [European Union Regulatory Notice](#)
- [Japanese Notice](#)

Federal Communications Commission Notice

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications.

However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and the receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio or television technician for help.

Modifications

The FCC requires the user to be notified that any changes or modifications made to this device that are not expressly approved by Hewlett-Packard Company may void the user's authority to operate the equipment.

Cables

Connections to this device must be made with shielded cables with metallic RFI/EMI connector hoods in order to maintain compliance with FCC Rules and Regulations.

Declaration of Conformity for Products Marked with the FCC Logo (United States only)

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions:

- 1** This device may not cause harmful interference, and
- 2** This device must accept any interference received, including interference that may cause undesired operation.

For questions regarding the product, contact:

Hewlett-Packard Company
P. O. Box 692000, Mail Stop 530113
Houston, Texas 77269-2000

Or, call 1-800-HP-INVENT (1-800-474-6836).

For questions regarding this FCC declaration, contact:

Hewlett-Packard Company
P. O. Box 692000, Mail Stop 510101
Houston, Texas 77269-2000

Or, call (281) 514-3333.

To identify this product, refer to the part, series, or model number found on the product.

Canadian Notice

This Class B digital apparatus meets all requirements of the Canadian Interference-Causing Equipment Regulations.

Avis Canadien

Cet appareil numérique de la classe B respecte toutes les exigences du Règlement sur le matériel brouilleur du Canada.

European Union Regulatory Notice

This product complies with the following EU Directives:

- Low Voltage Directive 2006/95/EC
- EMC Directive 2004/108/EC

Compliance with these directives implies conformity to applicable harmonized European standards (European Norms) which are listed on the EU Declaration of Conformity issued by Hewlett-Packard for this product or product family.

This compliance is indicated by the following conformity marking placed on the product:



Hewlett-Packard GmbH, HQ-TRE, Herrenberger Strasse 140, 71034 Boeblingen, Germany

Japanese Notice

この装置は、情報処理装置等電波障害自主規制協議会（VCCI）の基準に基づくクラスB情報技術装置です。この装置は、家庭環境で使用することを目的としていますが、この装置がラジオやテレビジョン受信機に近接して使用されると、受信障害を引き起こすことがあります。
取扱説明書に従って正しい取り扱いをして下さい。

Limited Warranty and Technical Support Statement

HP Media Vault Limited Warranty

Duration**Hardware:** 1 year Limited Warranty**Software:** 1 year Technical Support**General Terms**

This HP Hardware Limited Warranty gives you, the customer, express limited warranty rights from HP, the manufacturer. Please refer to HP's Web site for an extensive description of your limited warranty entitlements. In addition, you may also have other legal rights under applicable local law or special written agreement with HP.

HP MAKES NO OTHER EXPRESS WARRANTY OR CONDITION, WHETHER WRITTEN OR ORAL, AND HP EXPRESSLY DISCLAIMS ALL WARRANTIES AND CONDITIONS NOT STATED IN THIS LIMITED WARRANTY. TO THE EXTENT ALLOWED BY THE LOCAL LAW OF JURISDICTIONS OUTSIDE THE UNITED STATES, HP DISCLAIMS ALL IMPLIED WARRANTIES OR CONDITIONS, INCLUDING ANY IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE. FOR ALL TRANSACTIONS OCCURRING IN THE UNITED STATES, ANY IMPLIED WARRANTY OR CONDITION OF MERCHANTABILITY, SATISFACTORY QUALITY, OR FITNESS FOR A PARTICULAR PURPOSE IS LIMITED TO THE DURATION OF THE EXPRESS WARRANTY SET FORTH ABOVE. SOME STATES OR COUNTRIES/REGIONS DO NOT ALLOW A LIMITATION ON HOW LONG AN IMPLIED WARRANTY LASTS OR THE EXCLUSION OR LIMITATION OF INCIDENTAL OR CONSEQUENTIAL DAMAGES FOR CONSUMER PRODUCTS. IN SUCH STATES OR COUNTRIES/REGIONS, SOME EXCLUSIONS OR LIMITATIONS OF THIS LIMITED WARRANTY MAY NOT APPLY TO YOU.

THE LIMITED WARRANTY TERMS CONTAINED IN THIS STATEMENT, EXCEPT TO THE EXTENT LAWFULLY PERMITTED, DO NOT EXCLUDE, RESTRICT, OR MODIFY BUT ARE IN ADDITION TO THE MANDATORY STATUTORY RIGHTS APPLICABLE TO THE SALE OF THIS PRODUCT TO YOU.

This Limited Warranty is applicable in all countries/regions and may be enforced in any country/region where HP or its authorized service providers offer warranty service for the same product model number subject to the terms and conditions set forth in this Limited Warranty.

Under the HP Global Limited Warranty program, products purchased in one country/region may be transferred to another country/region, where HP or its authorized service providers offer warranty service for the same product model number, without voiding the warranty. Warranty terms, service availability, and service response times may vary from country/region to country/region. Standard warranty service response time is subject to change due to local parts availability. If so, your HP authorized service provider can provide you with details.

HP is not responsible for any tariffs or duties that may be incurred in transferring the products. Transfer of the products may be covered by export controls issued by the United States or other governments.

This Limited Warranty applies only to HP-branded and Compaq-branded hardware products (collectively referred to in this Limited Warranty as “HP Hardware Products”) sold by or leased from Hewlett-Packard Company, its worldwide subsidiaries, affiliates, authorized resellers, or country/region distributors (collectively referred to in this Limited Warranty as “HP”) with this Limited Warranty. The term “HP Hardware Product” is limited to the hardware components and required firmware. The term “HP Hardware Product” DOES NOT include any software applications or programs; non-HP products or non-HP branded peripherals. All non-HP products or non-HP branded peripherals external to the HP Hardware Product — such as external storage subsystems, displays, printers, and other peripherals — are provided “AS IS” without HP warranty. However, non-HP manufacturers and suppliers, or publishers may provide their own warranties directly to you.

HP warrants that the HP Hardware Products that you have purchased or leased from HP are free from defects in materials or workmanship under normal use during the Limited Warranty Period. The Limited Warranty Period starts on the date of purchase or lease from HP or from the date HP completes installation. Your dated sales or delivery receipt, showing the date of purchase or lease of the product, is your proof of the purchase or lease date. You may be required to provide proof of purchase or lease as a condition of receiving warranty service. You are entitled to hardware warranty service according to the terms and conditions of this document if a repair to your HP Hardware Product is required within the Limited Warranty Period.

Unless otherwise stated, and to the extent permitted by local law, new HP Hardware Products may be manufactured using new materials or new and used materials equivalent to new in performance and reliability. HP may

repair or replace HP Hardware Products (a) with new or previously used products or parts equivalent to new in performance and reliability or (b) with equivalent products to an original product that has been discontinued. Replacement parts are warranted to be free from defects in material or workmanship for ninety (90) days or, for the remainder of the Limited Warranty Period of the HP Hardware Product they are replacing or in which they are installed, whichever is longer.

During the Limited Warranty Period, HP will, at its discretion, repair or replace any defective component. All component parts or hardware products removed under this Limited Warranty become the property of HP. In the unlikely event that your HP Hardware Product has recurring failures, HP, at its sole discretion, may elect to provide you with (a) a replacement unit of HP's choosing that is the same or equivalent to your HP Hardware Product in performance or (b) to give you a refund of your purchase price or lease payments (less interest) instead of a replacement. This is your exclusive remedy for defective products.

Exclusions

HP does not warrant that the operation of this product will be uninterrupted or error-free. HP is not responsible for damage that occurs as a result of your failure to follow the instructions intended for the HP Hardware Product.

This Limited Warranty does not apply to expendable or consumable parts and does not extend to any product from which the serial number has been removed or that has been damaged or rendered defective (a) as a result of accident, misuse, abuse, contamination, improper or inadequate maintenance or calibration, or other external causes; (b) by operation outside the usage parameters stated in the user documentation that shipped with the product (c) by software, interfacing, parts, or supplies not supplied by HP; (d) by improper site preparation or maintenance; (e) by virus infection; (f) from loss or damage in transit; (g) by modification or service by anyone other than (i) HP, (ii) an HP authorized service provider, or (iii) your own installation of end-user-replaceable HP or HP-approved parts if available for your product in the servicing country/region.

YOU SHOULD MAKE PERIODIC BACKUP COPIES OF THE DATA STORED ON YOUR HARD DRIVE OR OTHER STORAGE DEVICES AS A PRECAUTION AGAINST POSSIBLE FAILURES, ALTERATION, OR LOSS OF THE DATA. BEFORE RETURNING ANY UNIT FOR

SERVICE, BE SURE TO BACK UP DATA AND REMOVE ANY CONFIDENTIAL, PROPRIETARY, OR PERSONAL INFORMATION. HP IS NOT RESPONSIBLE FOR DAMAGE TO OR LOSS OF ANY PROGRAMS, DATA, OR REMOVABLE STORAGE MEDIA. HP IS NOT RESPONSIBLE FOR THE RESTORATION OR REINSTALLATION OF ANY PROGRAMS OR DATA OTHER THAN SOFTWARE INSTALLED BY HP WHEN THE PRODUCT IS MANUFACTURED. UNITS SENT IN FOR SERVICE MAY HAVE THE DATA ERASED FROM THE HARD DRIVE AND THE PROGRAMS RESTORED TO THEIR ORIGINAL STATE.

Exclusive Remedy

TO THE EXTENT ALLOWED BY APPLICABLE LOCAL LAW, THESE TERMS AND CONDITIONS CONSTITUTE THE COMPLETE AND EXCLUSIVE WARRANTY AGREEMENT BETWEEN YOU AND HP REGARDING THE HP HARDWARE PRODUCT YOU HAVE PURCHASED OR LEASED. THESE TERMS AND CONDITIONS SUPERSEDE ANY PRIOR AGREEMENTS OR REPRESENTATIONS — INCLUDING REPRESENTATIONS MADE IN HP SALES LITERATURE OR ADVICE GIVEN TO YOU BY HP OR AN AGENT OR EMPLOYEE OF HP — THAT MAY HAVE BEEN MADE IN CONNECTION WITH YOUR PURCHASE OR LEASE OF THE HP HARDWARE PRODUCT. No change to the conditions of this Limited Warranty is valid unless it is made in writing and signed by an authorized representative of HP.

Limitation of Liability

IF YOUR HP HARDWARE PRODUCT FAILS TO WORK AS WARRANTED ABOVE, HP'S MAXIMUM LIABILITY UNDER THIS LIMITED WARRANTY IS EXPRESSLY LIMITED TO THE LESSER OF THE PRICE YOU HAVE PAID FOR THE PRODUCT OR THE COST OF REPAIR OR REPLACEMENT OF ANY HARDWARE COMPONENTS THAT MALFUNCTION IN CONDITIONS OF NORMAL USE.

EXCEPT AS INDICATED ABOVE, IN NO EVENT WILL HP BE LIABLE FOR ANY DAMAGES CAUSED BY THE PRODUCT OR THE FAILURE OF THE PRODUCT TO PERFORM, INCLUDING ANY LOST PROFITS OR SAVINGS OR SPECIAL, INCIDENTAL, OR CONSEQUENTIAL DAMAGES. HP IS NOT LIABLE FOR ANY CLAIM MADE BY A THIRD PARTY OR MADE BY YOU FOR A THIRD PARTY.

THIS LIMITATION OF LIABILITY APPLIES WHETHER DAMAGES ARE SOUGHT, OR A CLAIM MADE, UNDER THIS LIMITED WARRANTY OR AS A TORT CLAIM (INCLUDING NEGLIGENCE AND STRICT PRODUCT LIABILITY), A CONTRACT CLAIM, OR ANY OTHER CLAIM. THIS LIMITATION OF LIABILITY CANNOT BE WAIVED OR AMENDED BY ANY PERSON. THIS LIMITATION OF LIABILITY WILL BE EFFECTIVE EVEN IF YOU HAVE ADVISED HP OR AN AUTHORIZED REPRESENTATIVE OF HP OF THE POSSIBILITY OF ANY SUCH DAMAGES. THIS LIMITATION OF LIABILITY, HOWEVER, WILL NOT APPLY TO CLAIMS FOR PERSONAL INJURY.

THIS LIMITED WARRANTY GIVES YOU SPECIFIC LEGAL RIGHTS. YOU MAY ALSO HAVE OTHER RIGHTS THAT MAY VARY FROM STATE TO STATE OR FROM COUNTRY/REGION TO COUNTRY/REGION. YOU ARE ADVISED TO CONSULT APPLICABLE STATE OR COUNTRY/REGION LAWS FOR A FULL DETERMINATION OF YOUR RIGHTS.

Limited Warranty Period

The Limited Warranty Period for an HP Hardware Product is a specified, fixed period commencing on the date of purchase. The date on your sales receipt is the date of purchase unless HP or your reseller informs you otherwise in writing.

Types of Warranty Service

To enable HP to provide the best possible support and service during the Limited Warranty Period, you may be directed by HP to verify configurations, load most recent firmware, install software patches, run HP diagnostics tests, or use HP remote support solutions where applicable.

HP strongly encourages you to accept the use of or to employ available support technologies provided by HP. If you choose not to deploy available remote support capabilities, you may incur additional costs due to increased support resource requirements. Listed below are the types of warranty support service that may be applicable to the HP Hardware Product you have purchased.

Customer Self Repair Warranty Service

In countries/regions where it is available, your HP Limited Warranty may include a customer self repair warranty service. If applicable, HP will determine in its sole discretion that customer self repair is the appropriate method of warranty service. If so, HP will ship approved replacement parts

directly to you to fulfill your HP Hardware Product warranty service. This will save considerable repair time. After you contact the HP Technical Support Center and the fault diagnosis identifies that the problem can be fixed using one of these parts, a replaceable part can be sent directly to you. Once the part arrives, replace the defective part pursuant to the provided instructions and documentation. If further assistance is required, call the HP Technical Support Center, and a technician will assist you over the phone. In cases where the replacement part must be returned to HP, you must ship the defective part back to HP within a defined period of time, normally thirty (30) days. The defective part must be returned with the associated documentation in the provided shipping material. Failure to return the defective product may result in HP billing you for the replacement.

With a customer self repair, HP will pay all shipping and part return costs and determine the courier/carrier to be used. If customer self repair applies to you, please refer to your specific HP Hardware Product announcement. You can also obtain information on this warranty service on the HP Web site at:

<http://www.hp.com/support>

Pickup and Return Warranty Service

Your HP Limited Warranty may include a pickup and return warranty service. Under the terms of pickup and return service, HP will pick up the defective unit from your location, repair it, and return it back to your location. HP will incur all repair, logistics, and insurance costs in this process.

Carry-in Warranty Service

Under the terms of carry-in service, you will be required to deliver your HP Hardware Product to an authorized service location for warranty repair. You must prepay any shipping charges, taxes, or duties associated with transportation of the product to and from the service location. In addition, you are responsible for insuring any product shipped or returned to an authorized service location and assume risk of loss during shipping.

Service Upgrades

HP has a range of additional support and service coverage for your product that can be purchased locally. However, some support and related products may not be available in all countries/regions. For information on availability of service upgrades and the cost for these service upgrades, refer to the HP Web site at:

<http://www.hp.com/support>

Options Limited Warranty, Software and Digital Content

Your Options Limited Warranty is a one (1) year (HP Options Limited Warranty Period) parts replacement warranty on any HP branded or Compaq-branded options (HP Options). If your HP Options are installed in an HP Hardware Product, HP may provide warranty service either for the HP Options Limited Warranty Period or the remaining Limited Warranty Period of the HP Hardware Product in which the HP Options are being installed, whichever period is the longer but not to exceed three (3) years from the date you purchased the HP Options. The HP Options Limited Warranty Period starts on your date of purchase. Your dated sales or delivery receipt, showing the date of purchase, is your start date. Non-HP options are provided "AS IS". Non-HP manufacturers and suppliers may provide warranties directly to you. EXCEPT AS PROVIDED IN ANY SOFTWARE END-USER LICENSE OR PROGRAM LICENSE AGREEMENT, OR IF OTHERWISE REQUIRED BY LOCAL LAW, SOFTWARE AND THIRD PARTY DIGITAL CONTENT, INCLUDING THE OPERATING SYSTEM OR ANY SOFTWARE OR THIRD PARTY DIGITAL CONTENT PREINSTALLED BY HP ARE PROVIDED "AS IS". EXCEPT AS SPECIFICALLY PROVIDED IN THIS LIMITED WARRANTY, IN NO EVENT WILL HP BE LIABLE FOR ANY DAMAGES CAUSED BY OR ARISING FROM ANY THIRD PARTY DIGITAL CONTENT PREINSTALLED ON YOUR HP HARDWARE PRODUCT.

14 Feedback about this Guide

If you find an error in this guide or just have a suggestion for it, send e-mail to manuals@hp.com. The information you send is used only to help us develop future revisions of this manual. You will not get a response to your e-mail.

If you require customer support instead, see the HP Media Vault Support Guide or go to the website www.hp.com/support.

Glossary

This glossary defines terms that are used in the HP Media Vault.

A

all-in-one-gateway A device that provides multiple network features such as a router, modem, local area network (LAN) switch, firewall, and/or a wireless access point. Also see [Local area network \(LAN\)](#).

anti-virus software Software that checks a hard drive for viruses (harmful computer code) that may infect a computer.

B

browser window A browser window is used to display web pages either on a web site or stored locally such as the HP Media Vault User's Guide.

C

client computers A client computer is a personal computer (PC) that accesses the HP Media Vault by the home network. This term also applies to computers using remote access to the server. Also known as the user's computer.

Common Internet File System (CIFS) A protocol for how a computer requests files from other computers on the network. This is the public version of the Server Message Block Protocol by IBM and modified by Microsoft. Also see [protocol](#).

D

Digital Living Network Alliance (DLNA) An alliance of leading companies in consumer electronics. Its purpose is to create industry standards that will allow products from all companies to be compatible with each other and to enable a network of electronic devices in the home.

Digital Media Adapter (DMA), Digital Media Receiver (DMR), Digital Media Player (DMP) A consumer electronic device that communicates with the HP Media Vault and brings digital media streams—such as photos, music, or video—to your entertainment center.

digital rights management Technology built into digital media, such as music and movies, that allows companies in charge of their copyrights to decide how and where media can be used.

domain name A unique name combined with a top level domain (TLD), such as .com or .org, also called a "domain extension," makes up the Internet domain name. For example, hp.com is the Internet domain name for Hewlett-Packard.

Domain Name System (DNS) A server that associates network names with IP addresses. Also see [IP address](#).

domain extension A domain extension is an optional part of a network name used to **logically** divide a large network into smaller networks.

drive partition A **logical** division of a hard disk that create the appearance of having separate hard drives for file management, multiple users, or other purposes.

Dynamic Host Configuration Protocol (DHCP) The protocol used to assign IP addresses to network devices, such as computers. DHCP automatically assigns IP addresses to network devices; the assigned address can change over time. Also see [IP address](#), [protocol](#), and [static IP address](#).

Dynamic IP address A temporary numeric identification assigned to a node in a TCP/IP network. When computers and devices in the network are turned on, they are assigned an IP address by a DHCP server. Internet service providers typically assign dynamic IP addresses to the Internet connections of their residential and small business customers. Consequently, the IP address to the outside world in a cable or DSL modem may change every month, every day, or even every hour.

E

Ethernet The standard local area network (LAN) access method for connecting devices to a company or home network as well as to a cable modem or DSL modem for Internet access.

Ethernet Switch A networking device that connects multiple computers within a Local Area Network (LAN). Switches are similar to hubs, but are more intelligent. Unlike hubs, switches are capable of inspecting data packets as they are received, determining the source and destination computer of that

packet, and forwarding it appropriately. By delivering each message only to the computer it was intended for, a switch conserves network bandwidth and generally offers better performance than a hub. Also called a network switch.

Expansion Bay A slot for adding hard drive storage space to your HP Media Vault.

ext3 A computer file system used in the Linux operating system. HP Media Vault uses the ext3 file system.

F

FAT32 The 32-bit version of the "File Allocation Table" file system developed by Microsoft, common to older versions of the Windows operating systems. Also see [NTFS \(New Technology File System\)](#).

file system A way for files to be organized and stored in a computer. Some examples of file systems are [FAT32](#), and [NTFS \(New Technology File System\)](#).

files and settings transfer wizard A feature in the Windows XP. The Files and Settings Transfer Wizard can transfer files, folders, and settings for Internet Explorer and Outlook Express in addition to desktop and display settings, dial-up connections, and other types of settings to a file on your server. On the new computer, you access this file stored on your server and transfer the settings and files to your new computer.

firewall The primary method for securing computers from intruders by allowing or blocking traffic into and out of a private network or the user's computer.

full access Users have access to all shared folders and drives on a network.

G

gateway server A network device that connects one network to another network.

Gigabytes (GB) Equal to 1,000 Megabytes.

H

HTTP Access Allows you to access folders and files on your server in a browser window.

HTTPS A secure HTTP connection. HTTP (HyperText Transfer Protocol) is the format used to transfer and send web page information across networks, on the Internet, and in help systems. HTTPS is an HTTP connection over encrypted Secure Sockets Layer (SSL) transport mechanism. Also see [protocol](#).

HyperText Transfer Protocol (HTTP) The format used to transfer and send web page information across networks, on the internet, and in help systems. Also see [protocol](#).

I

IP address An IP (Internet Protocol) address is a number that uniquely identifies devices, such as computers, on a network.

J

No terms begin with the letter J.

K

No terms begin with the letter K.

L

Linux An operating system based on UNIX.

Local area network (LAN) A small number of computers that are connected together in a small area, usually in the same building.

M

map Assigning a drive letter to the connection on a computer to access a shared folder on the server.

Mbps Megabits per second.

Media Access Control (MAC) Address A unique number assigned by the manufacturer to all devices, such as computers, that can connect to a network. Also known as a physical address.

media streaming Media streaming sends media—music, photos and video files—from the server to other devices that can play the media. The HP Media Vault includes functionality that allows media to stream to a Digital Media Adapter (DMA). Also see [Digital Media Adapter \(DMA\)](#), [Digital Media Receiver \(DMR\)](#), [Digital Media Player \(DMP\)](#).

mirror, mirrored The automatic copying of data on two separate physical disks that creates two separate copies of the same material. If one disk fails, a copy of the material will be available on the other disk.

N

NAT (Network Address Translation) Broadband routers use NAT technology to allow network components to share Internet access over a single IP address. Additionally, NAT acts like a firewall because the computers and other devices—including the HP Media Vault—on the network are given IP addresses that are non-routable (non-Internet addresses). This masks the real IP addresses of your network components and keeps them from being seen outside the home. Also see [IP address](#).

network address A numeric value that uniquely identifies a device on a network.

network computer A computer that is connected to other computers, creating a network.

no access A setting that does not allow a user to access files and folders on the shared network.

non-mirrored A non-mirrored share is stored on a single hard drive. The HP Media Vault does not automatically maintain a copy of these files on a second hard drive.

NTFS (New Technology File System) Current standard file system for Windows. NTFS replaced Microsoft's previous FAT32 file system, and improves performance, reliability, disk space, and security. Also see [FAT32](#).

NTP server NTP stands for Network Time Protocol, which allows the server to update its internal date and time automatically.

O

No terms begin with the letter O.

P

partition A logical division of a physical hard disk. A partition divides a physical disk into separate units, which can be formatted independently.

personal domain A personal domain is a Web address. It allows you to access your HP Media Vault and HP Photo Webshare from the Internet. For

instance, if you registered `MyFamily.hpshare.net` for your HP Media Vault, you would use this address to connect to your server using remote access. Additionally, this address is part of the URL for accessing an album on your Photo Webshare.

physical hard disk The actual hard disk (hard drive) located in a device that stores files and data.

port 443 A secure port number required for HTTPS (Hypertext Transfer Protocol over Secure Socket Layer, or HTTP over SSL). SSL uses a 40-bit key size for the encryption algorithm, which is considered an adequate degree of encryption for commercial exchange such as banking transactions and retail commerce.

port forwarding

privilege level A level assigned by the user that decides what access levels are available to other users.

protocol The standard(s) of how computers communicate data with each other.

Q

No terms begin with the letter Q.

R

RAID, RAID-1 RAID stands for redundant array of independent disks. RAID is a system which uses multiple hard drives to share or replicate data among the drives. RAID-1 creates an exact copy or mirror of a set of data on two or more disks. Also see [mirror](#), [mirrored](#).

read only A setting that does not allow the user to write data. The user is only able to read information.

redundant Duplication of files on a mirrored system. Also see [mirror](#), [mirrored](#).

router A device connected to your computer that joins two or more networks. For example, a router connects your local network to the internet.

Run Box In Windows Vista and Windows XP, press the Windows key + R to open the Run box. Alternately, go to the Windows Start menu and select

Run. The Run box provides a place to type the location and file name of a program you want to run. Click Browse if you are not sure of the program's location or file name.

S

Serial ATA (SATA) Serial Advanced Technology Attachment is an interface standard that moves information to and from a storage device, such as a hard disk.

shared folders A “shared folder” means the same as a “share,” and you can use these terms interchangeably: A shared folder is a top-level folder that is shared on the network and can store other folders within it. For example, the Music shared folder can store other folders (called sub-folders). A subfolder might be named for a musician, such as Mark Knopfler. Shared folders are sometimes called Shares.

static IP address A number assigned to a device, such as a computer, on a network to be its permanent IP address. Also see [IP address](#) and [Dynamic Host Configuration Protocol \(DHCP\)](#).

sub-folders A folder within a folder or a shared folder.

subnet mask Identifies the portion of the network IP address that can be used for subnetworks. Also see [IP address](#).

switch See [Ethernet Switch](#).

system drive The hard drive (or drive partition) containing the operating system.

T

TCP/IP (Transmission Control Protocol/Internet Protocol) A set of communications protocols used to transmit data over networks. TCP provides for the establishment of connections and exchanges streams of data. IP specifies the format of the data. Also see [IP Address](#). TCP/IPv4 is the standard protocol in use today. TCP/IPv6 is the standard protocol used by Windows Vista. IPv6 main advantage is the increase in number of available addresses. Also see [IP address](#).

TCP/IPv4 TCP/IPv4 is the standard TCP/IP protocol in use today.

terabyte (TB) Refers to a data storage capacity equal to approximately 1000 gigabytes.

tray The plastic support for a hard drive in the HP Media Vault. The tray fits into the expansion bay. Also see [Expansion Bay](#).

U

Uniform Naming Convention (UNC) UNC identifies shared network devices, such as the HP Media Vault Premier. It is a format for specifying the location of resources on a local-area network (LAN). It identifies each shared resource with a unique address in the following format: \\server-name\sharedfolder-name. For example, \\HPMediaVault\Documents. Also see [Local area network \(LAN\)](#).

UPnP (Universal Plug and Play) makes home networking simple by providing compatibility among networking equipment, software, and peripheral devices. UPnP works with wired and wireless networks, on any operating system, to minimize network configuration. UPnP is the protocol used by media streaming. Also see [protocol](#).

V

version One copy of a file. A version is created when a file is modified and the original copy is kept. When configuring the backup option, the NTI Shadow software allows you to save multiple versions of a file. The backup versions would be named as follows: **mydocument(00).doc** (the initial version), **mydocument(01).doc** (the first version), and so on.

W

web browser An application used to access information on networks, on the internet, and in help systems. Common web browsers include Internet Explorer, Netscape, Firefox, and Safari.

Wi-Fi Protected Access (WPA) A technology that allows for increased security with wireless networks.

WINS server WINS (Windows Internet Naming Service) is a server that converts NetBIOS network names to IP addresses. Also see [IP address](#).

Wireless Access Point (WAP) A device, such as a wireless router, that connects wireless communication devices together to form a wireless network.

A WAP often connects to a wired network, and can relay data between wireless devices and wired devices.

Wired Equivalent Privacy (WEP) A protocol that encrypts data on a wireless system for security.

X

No terms begin with the letter X.

Y

No terms begin with the letter Y.

Z

No terms begin with the letter Z.

