HP MediaSmart Server User's Guide

Table of Contents

Chapter 13. Troubleshooting & FAQs   205

Chapter 14. Product Information   263

Chapter 15. Licenses, Copyrights and Notices for Open Source Components   277

Glossary   317

Index   321

Welcome to the HP MediaSmart Server

The HP MediaSmart Server protects and shares a household's digital content—giving connected families an-easy-to-use, central repository for their digital photos, music, videos, and documents. The HP MediaSmart Server supports computers running Microsoft® Windows® and Apple® Mac® OS X, giving families that are "living the digital lifestyle" a more protected and reliable way of managing their media and files.

The HP MediaSmart Server Provides:

- *Mac and Windows Supported Operating Systems*

  Support for households that have a mix of Microsoft Windows and Mac OS X 10.5 or later computers.

- *HP Photo Viewer and HP Photo Publisher*

  A simple photo management and sharing tool that lets users share their photos directly from the HP MediaSmart Server or through popular photo sharing web sites like Snapfish, Facebook, Flickr™, and Picassa™ Web Albums.

  Photo web site services are subject to change without notice and some services may not be available at the time of product purchase. The available service providers may vary in your country/region.

- *Media Collector*

  Media Collector automatically collects photos, music, and video files from computers on the home network and organizes them on the server. Available on PCs only.

- *Media Streaming and Remote Media Streaming*

  Photos, videos, and music can be streamed to PCs or TVs in the house. Furthermore, you can enjoy your photos, music, and videos—at home or at work—with remote media streaming to any Internet-connected computer.

- *PC Backup and Mac Backup*

  An automatic backup process for Windows PCs and Apple Macs on your home network.

  Automatic backup of computers running Microsoft Windows® Vista (32 & 64 bit), XP Home (SP2), XP Professional (SP2), Media Center Edition 2004 (SP2) or later, and Macs running Time Machine.

- *Remote Computer Access*

  Remote access to media and files with an easy-to-use, browser-based interface. With proper authorization, a remote user can log into their home system and perform functions as if they were sitting at their computer.

- *iTunes Music Server*

Any computer system on the network that runs iTunes can access music on the HP MediaSmart Server as an iTunes shared library.

- *Disk Duplication and Storage Expansion*

  A way to transparently duplicate selected folders on separate disk drives to help protect against a hard disk failure. Plus, it's easy to add storage as needs grow.

  Requires at least two hard disks.

Chapter 1.
Set up and Installation

WHAT'S IN THE BOX?

In the box you will find:

- HP MediaSmart Server

- Power cord

- Ethernet (RJ-45) cable

- Software and Documentation

HP MediaSmart Server   Power Cable   Ethernet (RJ-45) Cable   Software and Documentation
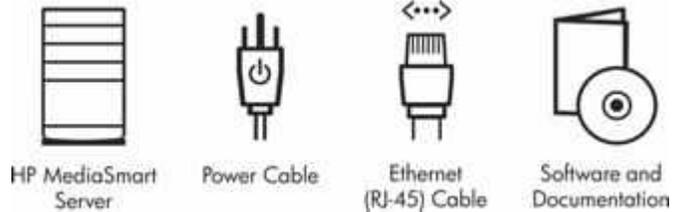
THE SERVER AT A GLANCE

The following lights and symbols are found on the front and back of the HP MediaSmart Server.

The Front of the Server

Light Bar. There is one light bar for each internal **SATA** disk in the HP MediaSmart Server. The server can hold up to four disks.

Power Light. The power light is solid aqua white when the server is turned on.

Network Connection Light. The network connection light is solid aqua white when the server is connected to the network via a router or switch.

Health Light. The health light is solid aqua white when the server is operating correctly.

USB Port. Plug up to four USB 2.0 or later disk drives into the USB ports to expand your storage space. There is one USB port on the front and three on the back of the server.

The Back of the Server

USB Port. Plug up to four USB 2.0 or later disk drives into the USB ports to expand your storage space. There is one USB port on the front and three on the back of the server.

eSATA Port. Plug an eSATA (external SATA) hard drive into the eSATA port to expand your storage space.

Ethernet Port. Connect the HP MediaSmart Server to your network using an Ethernet cable.

Power Switch. Press to turn the HP MediaSmart Server on.

Power Port. Plug the included AC power cord into the HP MediaSmart Server.

WHAT YOU'LL NEED TO SET UP THE SERVER

One or more open ports on a router connected to your network. The HP MediaSmart Server must be wired to the router. The network connection must support 100 Mbps to 1000 Mbps (Gigabit Ethernet).

The router must have DHCP enabled to provide an automatic IP address to the server. See your router's documentation for additional information.

- One or more computers running Windows XP, Windows Media Center Edition, or Windows Vista for the first software installation. Optionally, an Apple Mac OS X 10.5 (Leopard) or later for additional software installations.

- An Internet browser is required to run the HP MediaSmart Server software. Choose one from the following options.

    - Download Internet Explorer from http://www.microsoft.com/downloads.

    - Download Firefox from http://www.firefoxdownload.com/.

    - Download Safari from http://www.apple.com/safari/download/.

- A broadband connection, such as DSL or cable, is required for remote access functionality.

- 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.

FINDING A HOME FOR YOUR SERVER

Server Location

Find a suitable place to locate your HP MediaSmart Server before you install 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 server also requires adequate ventilation to ensure it does not get too hot:

- Do not locate the server in an unventilated space.

- Make sure that the server's front and back panels are not blocked.

- Check that the location of the server is not too hot. Maximum environmental temperature for operating the server is 35 °C (95 °F).

Network Requirements

To successfully use the HP MediaSmart Server, your network must meet the following requirements:

Network Requirements	
Requirement	Recommended
Server connection	100 Mbps to 1000 Mbps (Gigabit Ethernet) wired connection
Home 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.
Internet connection	Broadband connection, such as DSL or cable,

Network Requirements	
Requirement	Recommended
	required for remote access functionality.
Router	An external Internet broadband router with 100 Mbps (or faster) Ethernet connection to the server for remote access functionality and wired or wireless connections to the computers on the network. Additionally, your router must have DHCP enabled to provide an automatic IP address to the server.

Supported Operating Systems

The following operating systems are supported to work with the HP MediaSmart Server:

Supported Operating Systems		
Windows Vista[a]	Windows XP[b]	Mac OS X
Windows Vista Home Basic	Windows XP Home with Service Pack 2 (SP2)	Mac OS X 10.5 or later
Windows Vista Home Basic 64-bit	Windows XP Professional with SP2	
Windows Vista Home Premium	Windows XP Home with SP3	
Windows Vista Home Premium 64-bit	Windows XP Professional with SP3	
Windows Vista Ultimate	Windows XP Media Center Edition 2005 with SP2 and Rollup 2	
Windows Vista Ultimate 64-bit	Windows XP Media Center Edition 2004 with SP2	

a. Remote access to network computers is not supported by Windows Vista Home (all versions); the Business, Enterprise, and Ultimate versions of Windows Vista support remote access. For more information, see **Why can't I connect to some computers?** in the Windows Home Server Console Help.

b. Windows XP Professional and Windows XP Media Center Editions support remote access. Windows XP Home does not support remote access.

Wireless Support

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

TURNING ON THE SERVER

Connecting the Server

How you connect the HP MediaSmart Server to your network depends on the network configuration.
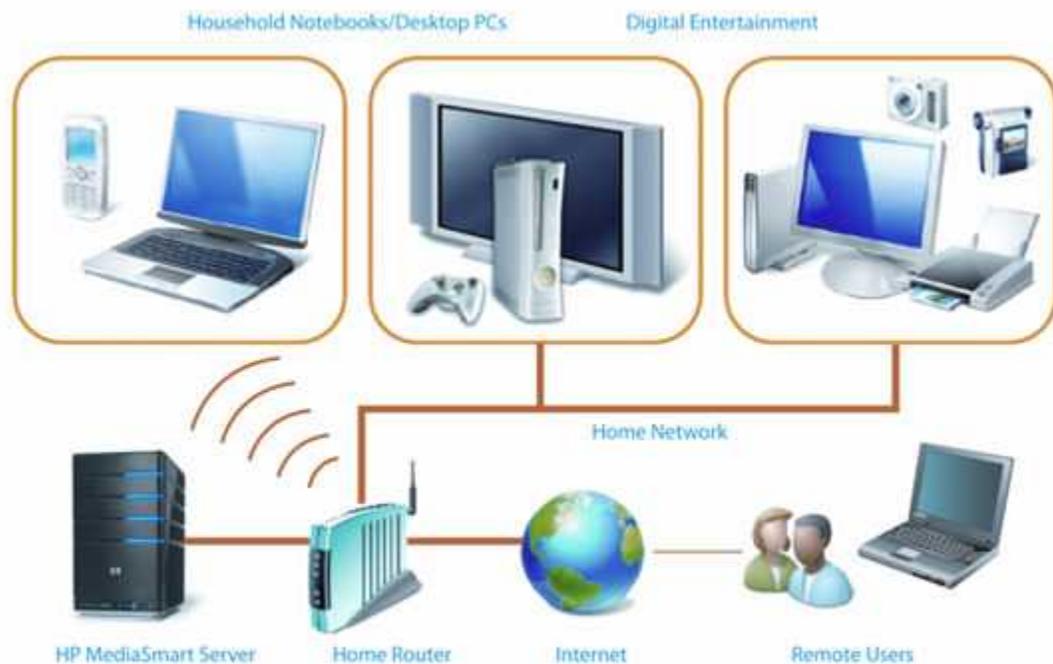
This example shows a broadband router connecting the following:

- HP MediaSmart Server (Requires wired connection to a router, and remote features require a broadband Internet connection.)

- Desktop computer

- Laptop with a wireless adapter

  TV connected to a network-enabled media streaming Media streaming sends media—music, photos and video files—from the HP MediaSmart Server to other devices that can play the media. The HP MediaSmart Server includes functionality that allows media to stream to a Digital Media Adapter (DMA).

- Remote users connecting to the HP MediaSmart Server and home network through an Internet browser

  The server requires a 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 WPA or WEP, to protect your network. See the documentation that came with your router.

Connecting the Server

Connect the HP MediaSmart Server to a power source and to a router.
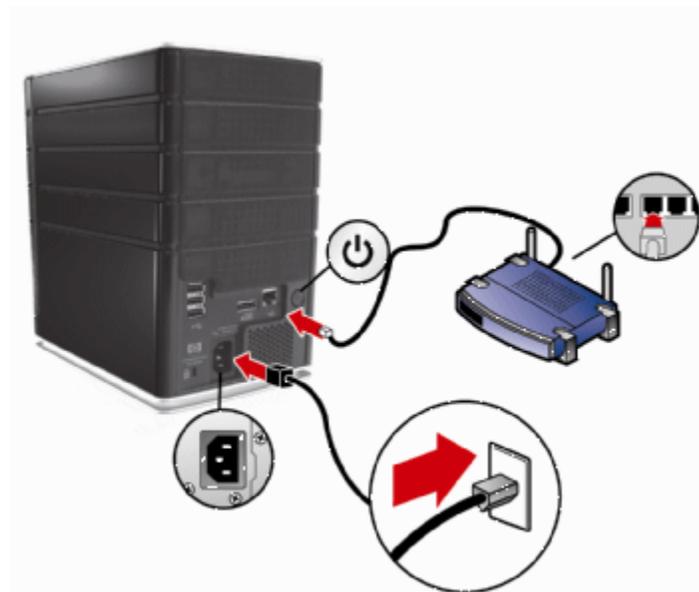
To power on the server

1. **Plug in.** Plug one end of the power cord into the server's power receptacle and the other end into an electrical outlet.

2. **Connect.** Connect one end of the Ethernet cable to the server and the other end to an available Ethernet port on your router or to a switch that is connected to your router.

3. **Power on.** Press the Power button on the back of the server.
   The server takes approximately 60 seconds to start up. The indicator lights blink and change color throughout the startup process. Wait for all of the server lights to be pulsing before proceeding with the software installation.

🔷 **Important**
Do not attach USB devices to the HP MediaSmart Server during initial setup. For additional information, see **Adding and Removing an External USB Drive, eSATA Drive**.

Checking the Server Lights

The lights on the front of the HP MediaSmart Server indicate the status of the server. After the HP MediaSmart Server startup completes but prior to the first software installation, the indicator lights show:

- **Hard drives**—breathing aqua white

- **Power**—breathing aqua white

- **Network**—breathing aqua white

- **Health**—breathing aqua white

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

INSTALLING THE SOFTWARE

Overview of the Software Installation

Important
The first installation must be on a Windows computer. Subsequent installations can be on a Windows or Mac home computer.

This section of the User's Guide provides detailed instructions for installing the HP MediaSmart Server software. If you are familiar with installing software, it may not be necessary for you to read this entire section. However, HP recommends that you take a look at these important points.

Click a bullet to show or hide detailed information.

- *Firewall and Anti-Virus Settings*

  Software firewalls installed on your computer can prevent the computer from locating the HP MediaSmart Server on your network. Open your firewall and anti-virus software and make sure it is set to "Learn" new programs. See, Updating Your Firewall's Trusted Program List for more information.

- *Administrator Privileges*

  You must have administrative privileges on the computer where you are installing the software. Do the following to check for administrator privileges prior to running the software installation disc,

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

- On Windows XP, click **Start**, **Control Panel**, and then double-click **User Accounts**.

- On Mac OS X 10.5 or Later, click **System Preferences**, **Accounts**, and check **Allow user to administer this computer**.

- *Server Name*

  During the software installation, you will be asked to name the server. HP recommends that you keep the default name, **HPSERVER**. During the installation is the only time you can name your server. It cannot be changed later. Write down your server name.

- *Server Password*

  You will also create a password for the server during the installation. Create a strong password. A strong password must be at least 7 characters long and must fulfill three of the following requirements:

  - Uppercase characters

  - Lowercase characters

  - Numbers

  - Symbols (such as !, @, and #)

- *Client Update*

  At the time this documentation was written, the HP MediaSmart Server 2.5 update was available for download. If you are a new customer running the Software Installation Disc for the first time, the installation should find and install the 2.5 server software update. If the installation does not find the update, you can install it from the Windows Home Server Console. See Updating and Rolling Back the Server.

  Updates must be run on the server and the client to maintain compatible software versions. Installing the update during installation or through the Windows Home Server Console only updates the server. To complete the process, you still need to update the client software. See Updating and Rolling Back Client PCs or Updating and Rolling Back Mac Clients.

Updating Your Firewall's Trusted Program List

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

Set Your Firewall or Anti-Virus Programs to Automatically "Learn" New Programs

It is recommended that you set your firewall and anti-virus programs to "**Learn**" new programs before installing the HP MediaSmart Server software. After the HP MediaSmart Server software is installed, the firewall should prompt you to allow the installed programs to communicate with the server.

Allow the following HP MediaSmart Server programs to communicate through your firewall or anti-virus program:

1. C:\Program Files\Hewlett-Packard\HP MediaSmart Server
    This directory will hold the following program that needs to be added:

    - MediaManager.exe

2. C:\Program Files\Windows Home Server
    This directory will hold the following program that needs to be added:

    - MountBackup.exe

    - RestoreOffProc.exe

    - WHSTrayApp.exe

    - WHSConsoleClient.exe

    - WHSConnector.exe

Manually Add Programs to Your Firewall or Anti-Virus Programs Trusted List

Some firewall or anti-virus programs may not automatically update their trusted programs list. Instructions for manually updating several common firewall and anti-virus programs are listed below. If your firewall or anti-virus program is not listed, please contact the vendor to find out how to manually add programs to the trusted programs list. Additionally, see the documentation that came with your firewall or anti-virus program for the latest information.

Click the vendor to expand and view the instructions on updating their trusted programs list. Click again to hide the instructions.

- *AVG*

Open the AVG Anti-Virus plus Firewall. Double-click the Firewall button to configure the Firewall. Add the programs listed at the top of this page.

- *McAfee*

  Open your McAfee Security Center, click **Internet and Network**, and then click the **Advanced** button in the firewall section. Click **Program Permissions**, then click **Add Allowed Program**. Add the programs listed at the top of this page.

  📝 **Note**

  McAfee's firewall automatically disables Windows Firewall and sets itself as your default firewall.
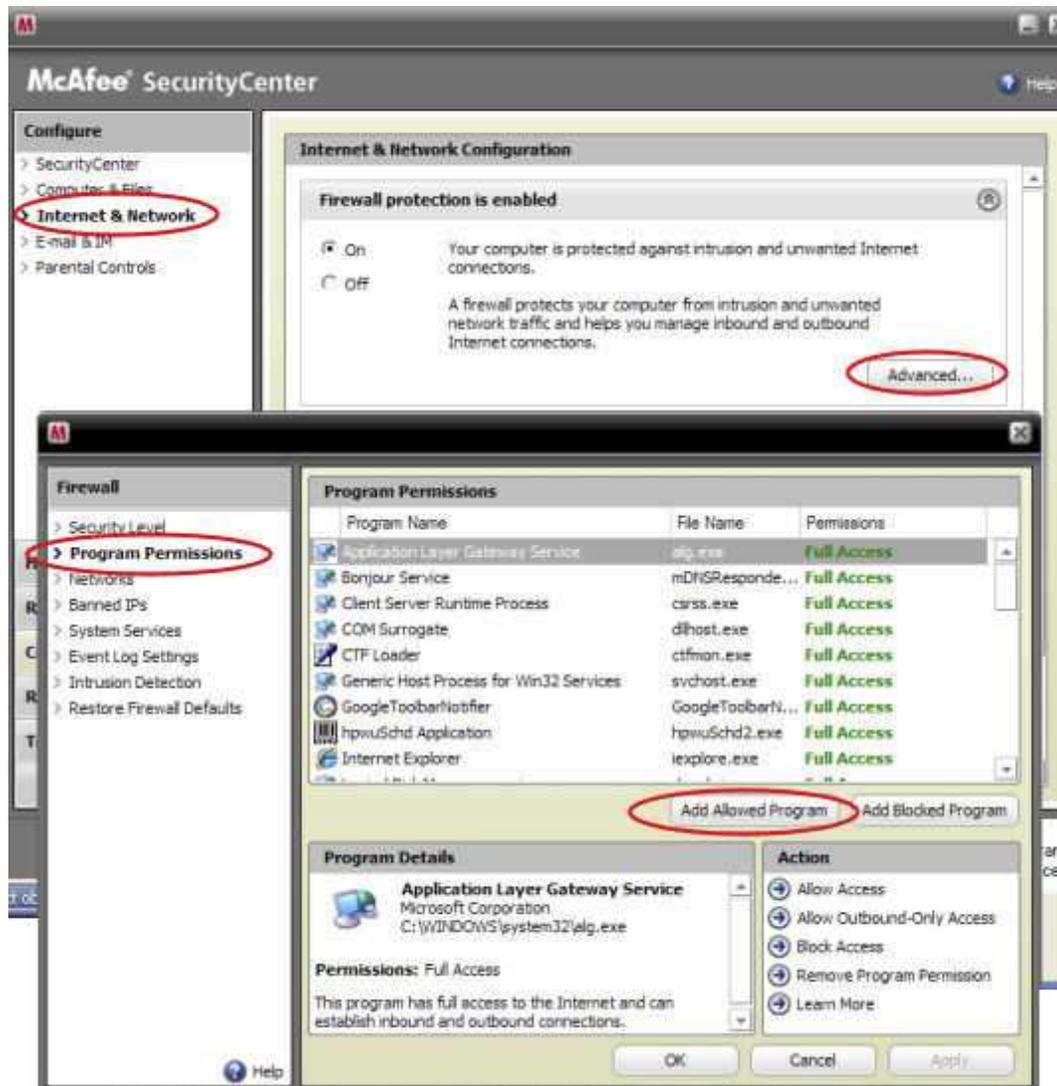
- *Microsoft Windows Vista*

    To add exceptions to your firewall using Windows Vista, preform the following steps:

1. Click **Start**, **Control Panel**, and then **Security Center**.
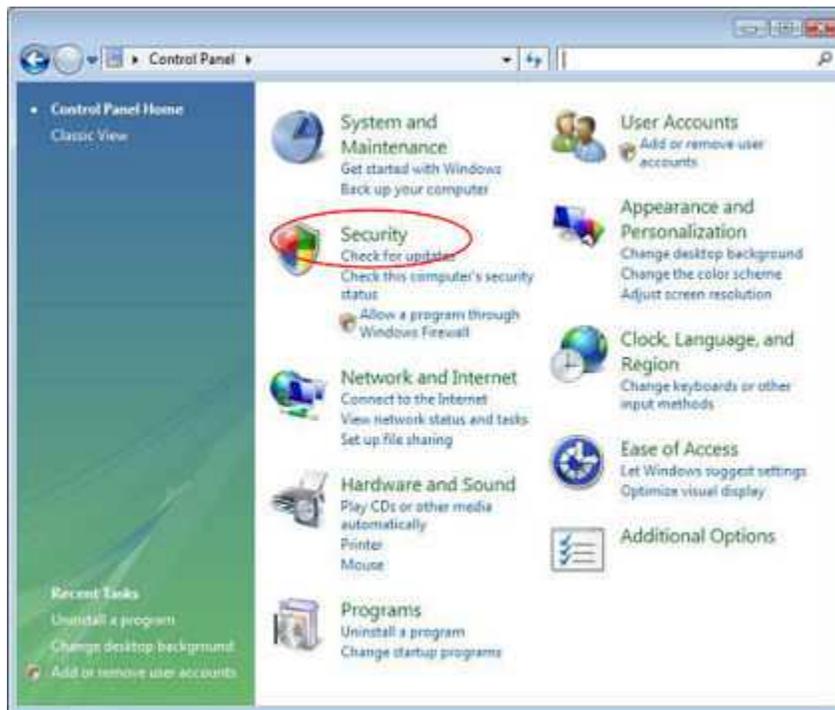
2. Click **Allow a program through Windows Firewall**.
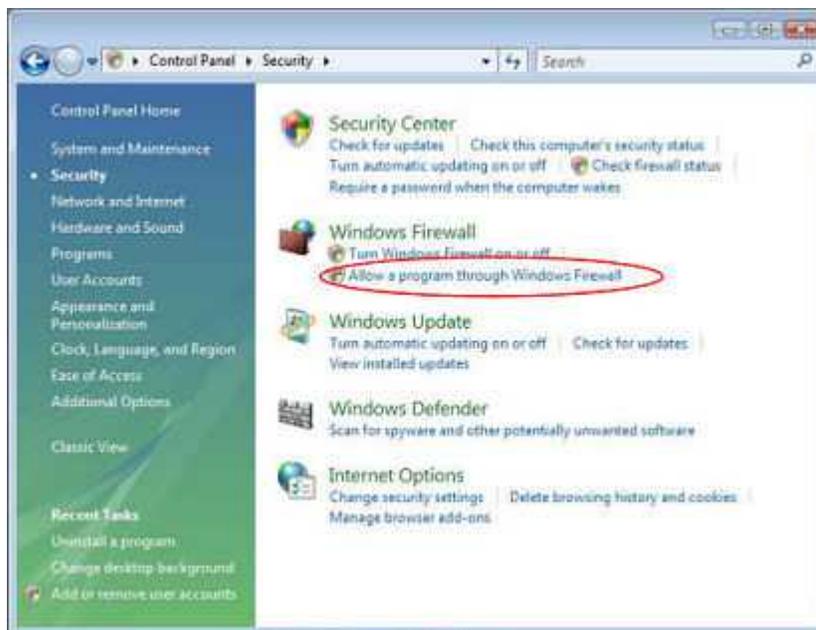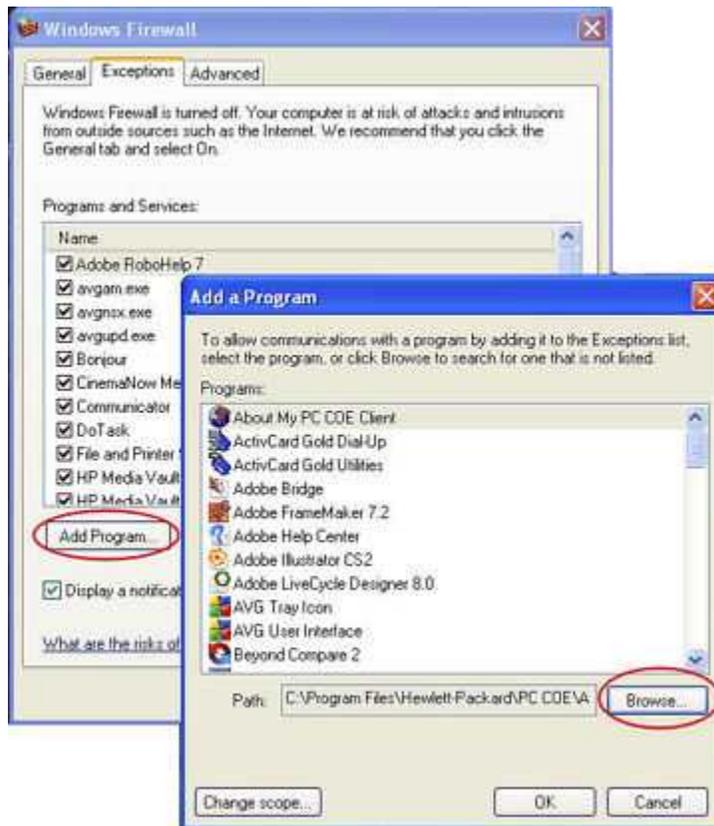
3. Select the **Exceptions** tab and then click **Add Program**.

4. In the **Add a Program** dialog box, click **Browse**. Add the programs listed at the top of this page.

5. Click **OK**.

- *Microsoft Windows XP*

   To add exceptions to your firewall using Windows XP, preform the following steps:

1. Click **Start**, **Control Panel**, and then **Security Center**.

2. Click **Windows Firewall**.

3. Select the **Exceptions** tab and then click **Add Program**.

4. In the **Add a Program** dialog box, click **Browse**. Add the programs listed at the top of this page.
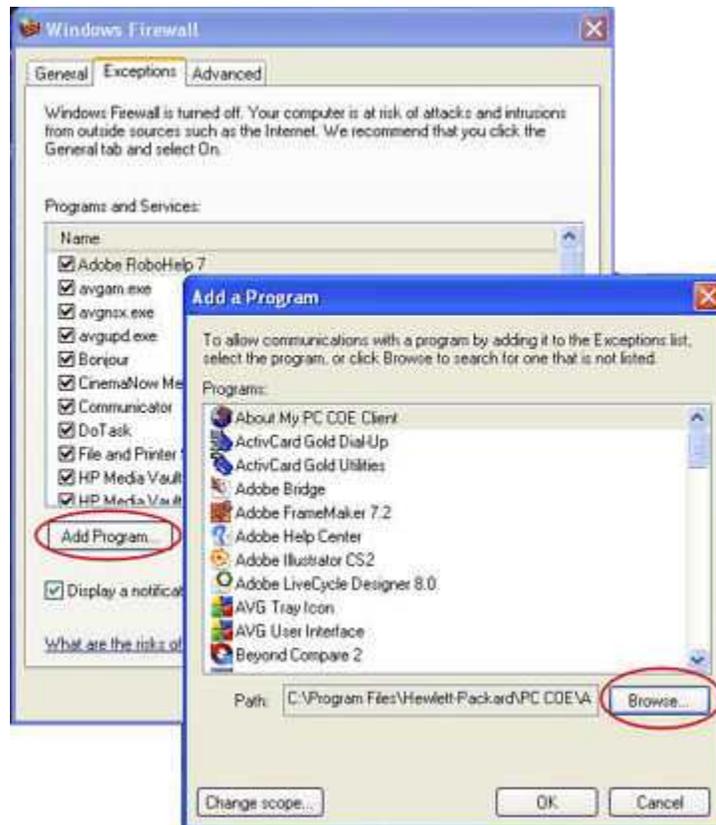
5. Click **OK**.

- *Norton*

  Click **Options** in Norton to change the firewall settings. Add the programs listed at the top of this page.

- *Symantec*

  Open Symantec Endpoint Protection, Click **Change Settings**, and then click **Configure Settings** for Network Threat Protection. Add the programs listed at the top of this page.

- *Trend Micro*

    1. Open the Trend Micro **Main Console**, select the **Personal Network and Firewall Controls** tab, and then click **Settings**.

18

2. On the **Personal Firewall** page, click **Add**.
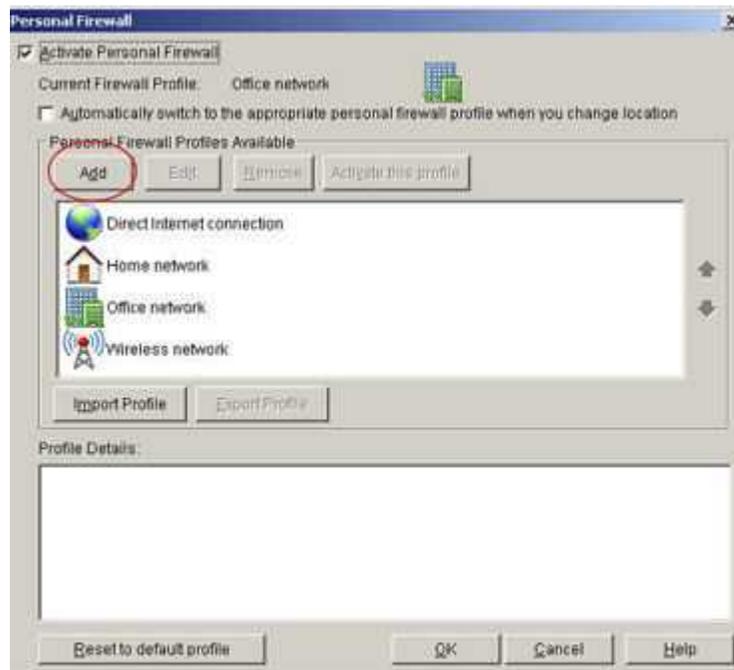
3. Select the **Program Control** tab and then click **Add**.
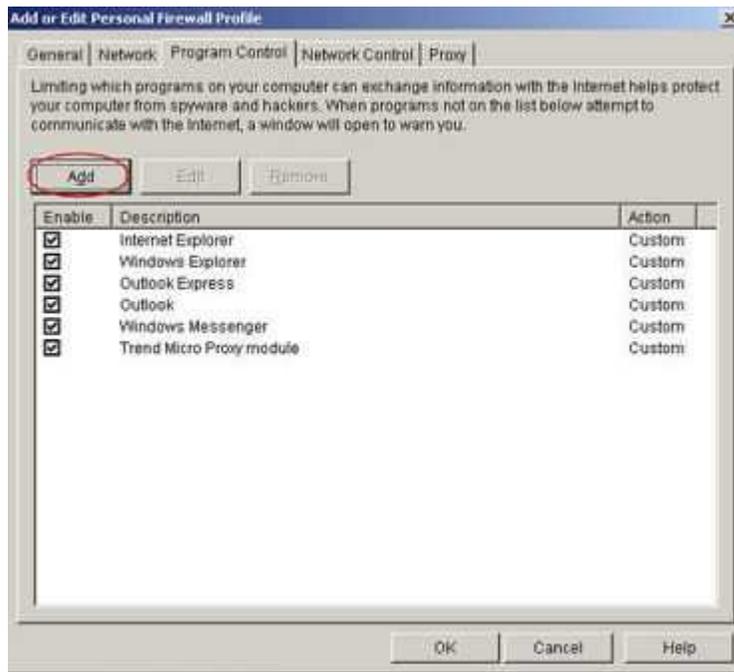
4. Click **Browse** and add the programs listed at the top of this page.
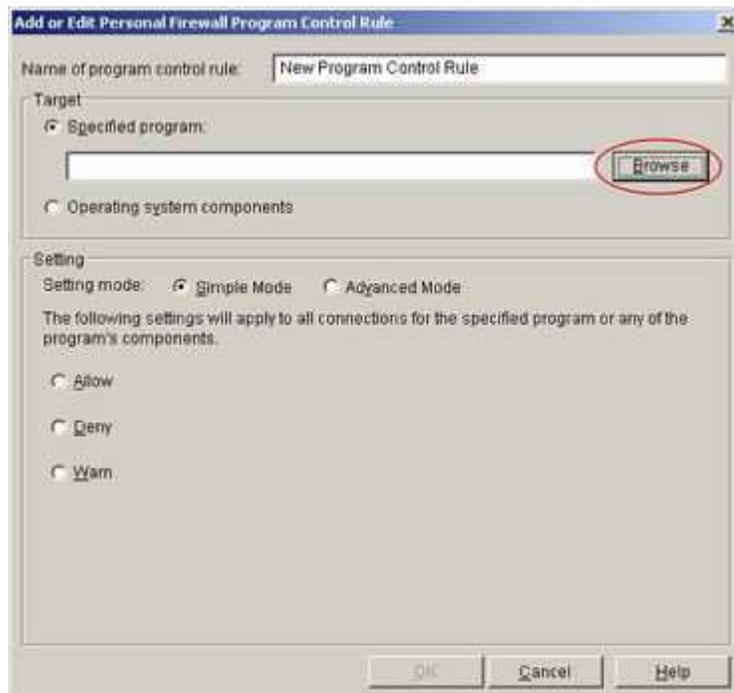
5. Click **OK**.

- *ZoneAlarm*

1. Open ZoneAlarm Security.

2. Click **Program Control**, **Programs**, and then **Add**.
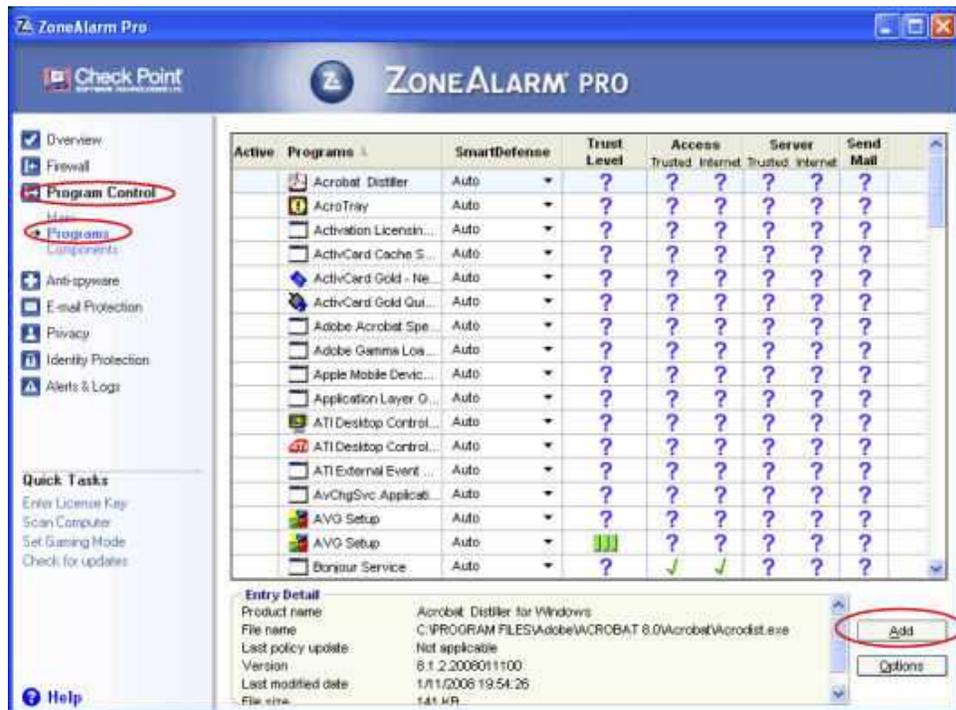
3. Add the programs listed at the top of this page.

Installing Software on the First PC

This help topic provides detailed instructions for installing the HP MediaSmart Server software. If you are familiar with installing software, it may not be necessary for you to read this entire document. Instead, you may want to just look at the Overview of the Software Installation.

1. Check for Administrator Privileges

You must have administrative privileges on your home computer to install the software. Complete the following steps to view or change user account settings.

- On Windows Vista,
  Click **Start**, **Control Panel**, and then **User Accounts and Family Safety**

- On Windows XP,
  Click **Start**, **Control Panel**, and then double-click **User Accounts**

- On Mac OS X 10.5 or Later,
  Click **System Preferences**, **Accounts**, and check **Allow user to administer this computer**

2. Insert the Software Installation Disc

The Software Installation Disc first installs the HP MediaSmart Server software and then the Microsoft Home Server Connector software on your computer.

o   Insert the Software Installation Disc into a computer connected to your network. The installation starts.

o   Follow the instructions on each installation page.

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

3. Find the Server

The installation looks for and connects to your HP MediaSmart Server. Click **Next** once the server is found.
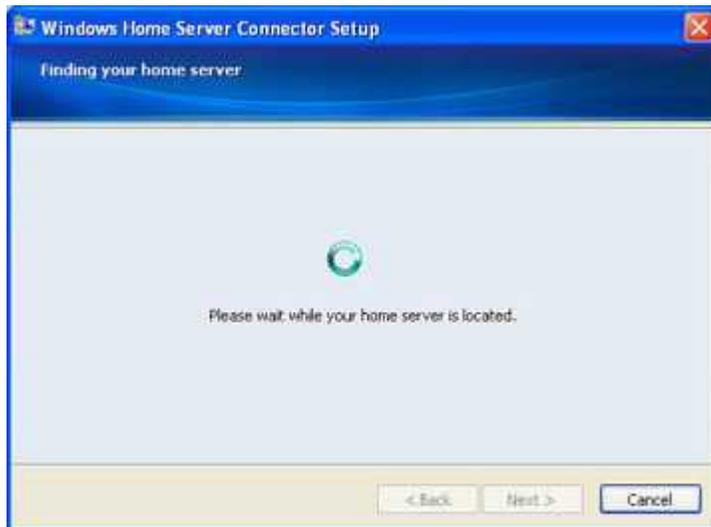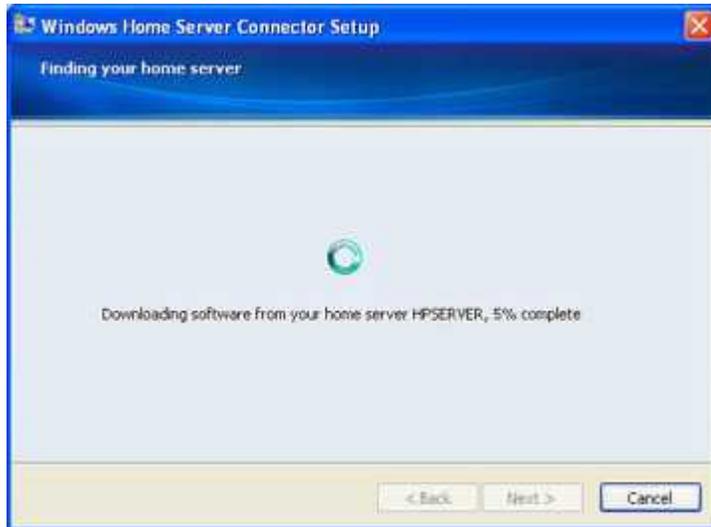
4. Download Software from the Server

Please wait while the installation downloads software from your server.

5. Welcome to the HP MediaSmart Server Software Installation

The HP MediaSmart Server software installs first. This software is used to

- Provide a single point of access for all of the server's features,

- Share photos and videos easily over the Internet using HP Photo Publisher and HP Photo Viewer

- Centralize your photo, video, and music libraries using HP Media Collector

6. Accept the License Agreement

Accept the end user license agreement and click **Next**.
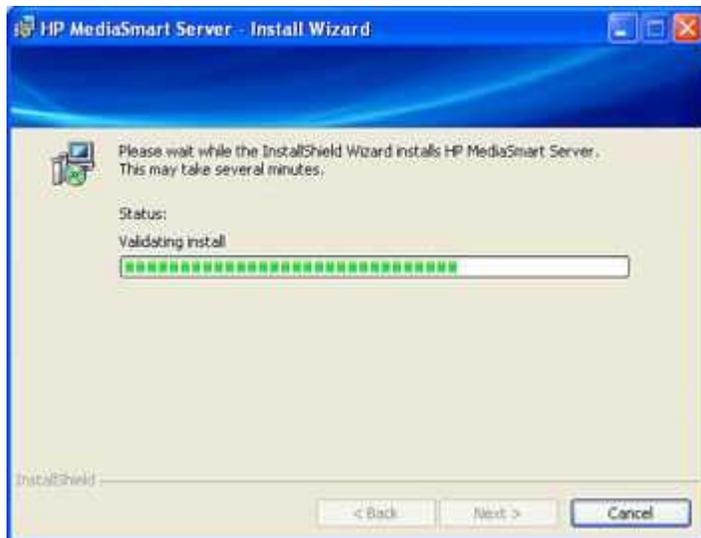
7. Install the HP MediaSmart Server Software

Please wait while the HP MediaSmart Server software installs. This may take several minutes.

8. Welcome to the Windows Home Server Connector Software Installation

The Windows Home Server Connector:

- Connects your computer to the server

- Automatically backs up your computer every night

- Monitors the health of the network and computers running Windows Vista

- Enables configuration of the server from your computer

  The Windows Home Server software installation runs only once—on the first computer where you run the Software Installation Disc.
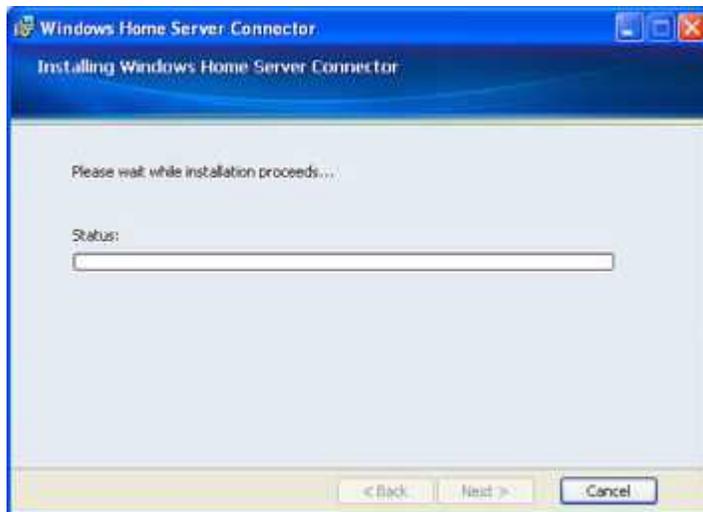
9. Install the Windows Home Server Connector Software

Please wait while the Windows Home Server Connector software installs. This may take several minutes.

10. Automatically Download and Install Windows Home Server Connector Updates

HP recommends that you select to automatically download and install updates.

11. Wake up this Computer to Perform Scheduled Backups

Select to wake up this computer if it is in sleep or hibernate mode to run a scheduled backup.

12. Customize your Home Server

Click **Next** to begin customizing your home server.

13. Start Windows Home Server

Click **Welcome** to initialize the Windows Home Server and configure basic options.

14. Initialize Windows Home Server

The Windows Home Server initialization begins and can take several hours depending on your hardware. Please wait while Windows Home Server:

- Configures your hardware

- Recovers your data

- Starts Windows Home Server

15. Name the HP MediaSmart Server

Type a name for your server. Server names can be:

- 15 characters maximum with no spaces

- Letters (at least one), numbers and hyphens

Important
This is the only time you can name your server. It cannot be changed later. Write down your server name. The default name is **HPSERVER**.

16. Set the Server Password

Create a strong password. A strong password must be at least 7 characters long and must fulfill three of the following requirements:

- Uppercase characters

- Lowercase characters

- Numbers

- Symbols (such as !, @, and #)

📝 **Note**
The password hint can be seen by anyone who clicks the Password hint button on the Windows Home Server Connector logon window.

💠 **Important**
The server password is not the same as a user password. User accounts and passwords are setup in the Windows Home Server Console.
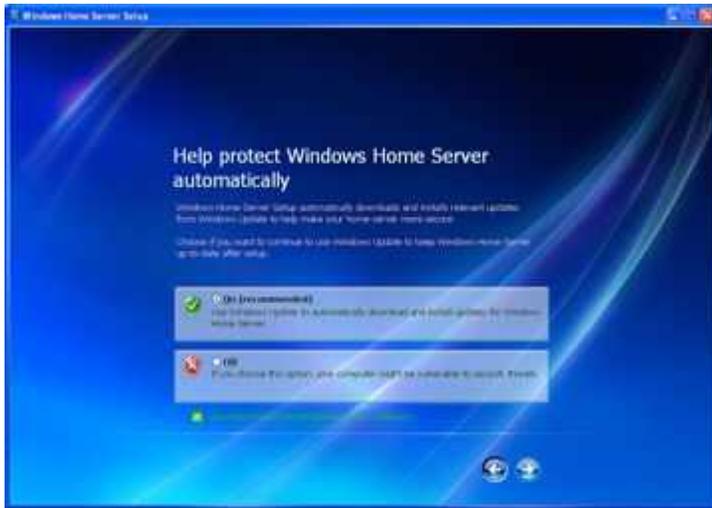
17. Help Protect Windows Home Server Automatically

Windows Home Server automatically downloads and installs relevant important updates from Windows Update to help make your home server more secure.

Choose if you want Windows Home Server to continue to automatically downloading updates after the software installation.

📝 **Note**
It is recommended that you turn on Automatic Windows Updates.
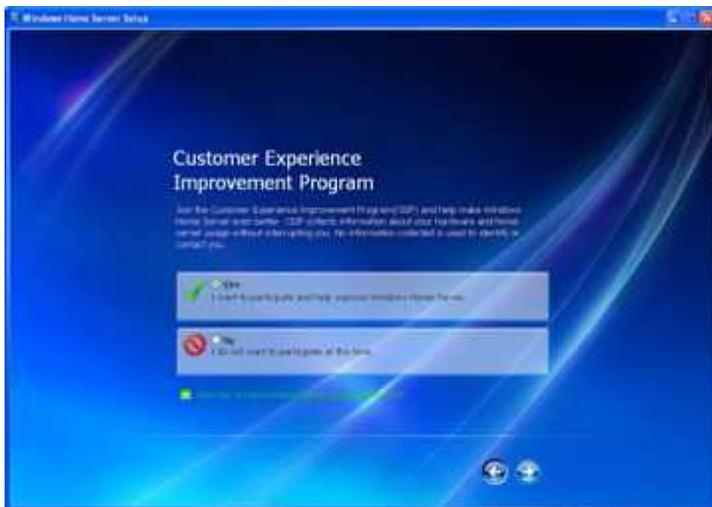
18. Join the Customer Experience Improvement Program

Join the Customer Experience Improvement Program (CEIP) and help make Windows Home Server even better. CEIP collects information about your hardware and home server usage without interrupting you. None of the information that is collected is used to identify or contact you.

Choose if you want to participate in this program and click the next arrow.

19. Select Windows Error Reporting

To help understand the problems you may encounter with Windows Home Server, Windows Error Reporting automatically reports errors to Microsoft. Any personal information inadvertently collected in the reports will not be used.

Choose if you want to participate in this program and click the next arrow.

20. Check for Windows Home Server Updates

The Windows Home Server installation checks for any relevant important updates. This may take some time to complete, but does not require additional information from you.

Important
Do not restart or turn off your home server during the update process.

21. Install Updates on your Home Server

Please wait while Windows Home Server updates install. This may take several minutes.

22. Log on to Windows Home Server

Type the password you created earlier in the installation.

23. Check for HP MediaSmart Server Updates

The HP MediaSmart Server installation checks for any updates. Installing updates ensures that you experience the full functionality and optimal performance of the HP MediaSmart Server.

Note
This check only occurs the first time you run the Software Installation Disc. If you want to check for updates at a later time, see Updating and Rolling Back the Server.

24. Connect to HP MediaSmart Server Web

Please wait while HP Update connects to the Web and looks for updates for the HP MediaSmart Server.
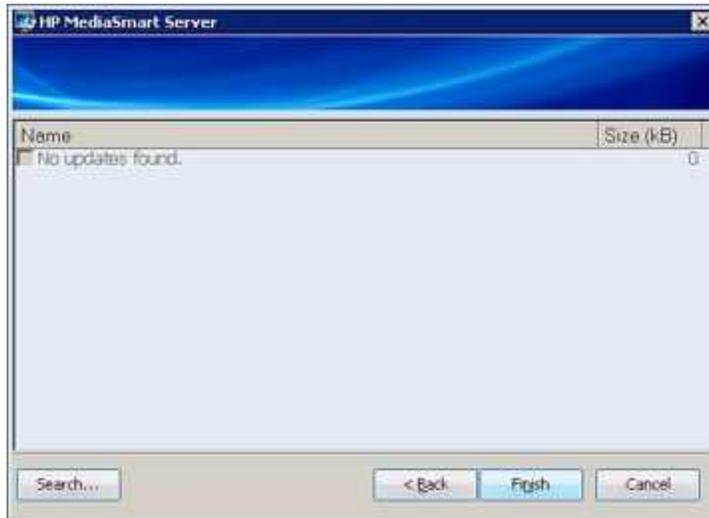
25. Install Server Updates

Select the update and complete the instructions on the screen to install it.

At the time this document was written, the 2.5 update was available for download. If you are a new customer running the Software Installation Disc for the first time, the installation may find and install the 2.5 server software update depending on options you selected earlier in the install. If the installation does not find the update, you can install it from the Windows Home Server Console after the installation completes. See Updating and Rolling Back the Server.

⬦ **Important**
Do not restart or turn off your home server during the update process.

26. The Windows Home Server Console opens

The Windows Home Server console opens. Use the console to set up user accounts and configure HP MediaSmart Server features. Click **Help** in the upper right corner of the Console to get additional assistance.

35

27. Update the Client Software

Updating the server and the client are separate processes. If you chose to update the server software in Step 25 or by running HP Update in the Windows Home Server Console, you must also update the client software. Updates must be run on the server and the client to maintain compatible software versions.

To complete the process and update the client software, see Updating and Rolling Back Client PCs or Updating and Rolling Back Mac Clients.

Updating Client PCs

📝 **Note**
Update the server software prior to updating the client software. If your server does not have the correct software version, you will get an error message when you try to install the client software. See Updating and Rolling Back the Server for more information.

After installing the server update, you are ready to update the client software on each PC in your home that accesses the server. For Mac instructions, see Updating and Rolling Back a Mac Client.

1. At the computer, click **Start**, and then **Run**.
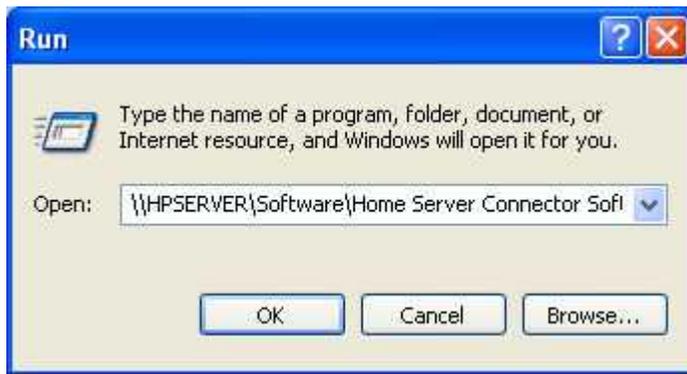
Type or copy/paste the following (**UNC**) network address into the Run dialog.
\\HPSERVER\Software\Home Server Connector Software\setup.exe

If you renamed your server during the initial software installation, the path will be \\<server name>\Software\Home Server Connector Software\setup.exe.

2. Follow the instructions on your computer for installing the update.

There are other methods for installing the update. For more details, see Updating and Rolling Back Client PCs.

Installing Software on Additional PCs

You can install the server through a web browser or you can use the Software Installation Disc to install the HP MediaSmart Server and Windows Home Server Connector software on the other computers on the home network. Install the software on one computer at time.

If you misplaced or damaged your Software Installation Disc, you can also install the software for your computer directly from the server. For more information, see To install from the server using Windows XP or Windows Vista.

To install from the Software Installation Disc

1. Insert the Software Installation Disc into a computer connected to the home network.
   You must have administrative privileges to install. For additional information, see Installing the Software on the First Computer.

2. Follow the instructions on the installation wizards.
   The installation process is identical to installing on the first computer except for the following:

   - The Windows Home Server Setup does not run.

   - Your server password is required to install, as shown in the following figure:

To install the from the server using Windows XP or Windows Vista

📝 **Note**

If you are installing on a Windows Vista 64-bit operating system, you must have Windows Home Server with Power Pack 1 installed. To check your version of Windows Home Server, double-click the Windows Home Server icon 🔼 in the system tray. Click **Settings**, and then click **Resources** in the sidebar of the Windows Home Server Settings dialog box.

1. At the computer, click **Start**, and then **Run**.

   Type the following (**UNC**) network address:
   \\HPSERVER\Software\Home Server Connector Software\setup.exe

   The network address will be different if you renamed your server. In this case type,
   \\<server name>\Software\Home Server Connector Software\setup.exe

2. Click **OK**.

Setting up Additional Computers

After installing the software on the Software Installation Disc, there are a few setup options for you to consider.

- The home computer is automatically set up to be backed up each night. If you want to customize back up settings for this computer, see Computer Backups.

- If you created individual user accounts in Windows Home Server for one or more family members that use this computer, you also need to set up computer user accounts for them if you want them

to be able to access features on the server without logging on. For additional information, see **User Accounts** in the Windows Home Server help.

- If there is an iTunes library on this computer that you want to include in an aggregated iTunes library on the server, set up this computer to copy its iTunes library to the server. For additional information, see Set up iTunes.

Installing and Uninstalling Software on the Mac

- To Install the Mac Software

- To Uninstall the Mac Software

To Install the Mac Software

The Server has to be configured first using a Windows Client. Once the Windows Home Server Connector has been installed you can install the Features for the Mac.

Note
You must have administrative privileges on your computer to install the software. Click **System Preferences**, **Accounts**, and check **Allow user to administer this computer.**

1. Once Windows Home Server has been installed on a Windows home computer, insert the installation CD and a screen will appear with 2 icons, one for install and one for uninstall.

2. Double click the **Install HP MediaSmart Server Software.pkg** to begin the install process.

3. On the Welcome to the HP MediaSmart Server Software click **Continue** to install.

4. The End User license Agreement will pop up, click **Continue** to agree.

5. A standard install screen will appear, this screen will report how much room is available for the install on the default location. You do have a button to press to change location if you desire. Otherwise click **Install**.

6. Once the install is completed a confirmation screen will appear followed by a settings or a preferences screen.

7. The confirmation screen can be closed or left open. It will not effect the rest of this process. Click **Close**, to close the summary screen.

8. On the settings screen you will need to enter the **server name** and the server's administrator **password** so that the Mac software can access your Server. The authentication process begins when you stop typing the password.

9. Once your credentials have been authenticated, click **Apply** to save the server name and password.

📝 **Note**
Server Name and Password have to be authenticated prior to using the control center, or entering preferences for BackUp.

10. After clicking **Apply**, you can click **BackUp** to set your BackUp Preferences. Or you can click **Show All** to go to the Control Center.

To Uninstall the Mac Software

After the Mac software has been installed, should you decide to un-install the Mac software, insert the Software Installation Disc and a screen opens with two icons, one for install and one for uninstall.

1. Double click the **Uninstall HP MediaSmart Server Software** to begin the process.

2. Follow the on screen instructions to complete the uninstall process, click **Continue**, and then click **Close** on the Summary screen.

HP MediaSmart Server 2.5 Update Read me

As always, the HP MediaSmart Server helps you centralize, organize, and share your digital content. The 2.5 update improves on existing HP MediaSmart Server features, making them even more robust. Additionally, new features were added to make your music, photos, and videos more mobile than ever before. With the HP MediaSmart Server, your media is where you are…wherever you are. Read on to discover what's new!

HP Video Converter

The HP MediaSmart Server automatically converts your video library (including unprotected DVDs) into a format that will play in the home and remotely on PCs, Macs, XBox 360s, PlayStation 3s, and other popular media streaming devices. The video converter transcodes many popular video formats into an MPEG-4 video file using an H.264 video codec and AAC stereo audio codec with both original and mobile resolutions. The original video resolution streams to most devices attached to your home network including PCs, Macs, and gaming systems. The mobile video resolution streams remotely to your PC or Mac using a secure remote log on to your server and can be copied to popular mobile devices.

HP Media Streamer for Videos

The HP Media Streamer always supported music and photos. Now it supports videos!

Whether you are at home, on campus, at work, or visiting friends and family, you can use a web browser and your HP MediaSmart Server personal web address to securely log on to your server and use Media Streamer to stream music, photos, and videos to wherever you are. No additional player is required. Media Streamer does it all—it streams your media and offers several playback options.

MediaSmart Server iPhone Application

The MediaSmart Server iPhone application is a free download that allows you to securely stream photo, music, and video libraries from your home server to your iPhone or iPod Touch. And since your MediaSmart Server is designed to stay on 24/7, all of your media files are now just a fingertip away. Wireless or 3G connection is recommended for best performance. The iPhone application is only supported on EX 487 and EX 485 HP MediaSmart Servers.

Defect Fixes and Enhancements

The following defect fixes and enhancements are included in this update.

1. Public and private capabilities were added to HP Photo Viewer albums.

2. Made a number of improvements to the Mac Backup feature, including the ability to resize the backup disk.

3. Fixed a number of TwonkyMedia server issues, including the case where songs would not play all the way through.

4. Improved the HP Media Streamer interface, including adding support for streaming video files, column sort functionality, and new album art views. See HP_Media_Streamer_for_Videos above.

5. Added streaming support for iPhone. See MediaSmart_Server_iPhone_Application above.

6. Added the HP Video Converter which transcodes common video formats to an H.264 video codec and AAC stereo audio code. See HP_Video_Converter above.

7. Improved Media Collector by displaying progress details, status information, and client connectivity to shared folders.

8. Improved The HP MediaSmart Server dashboard functionality.

9. The User's Guide was updated to match HP MediaSmart Server software changes.

HP SOFTWARE UPDATES

HP MediaSmart Server Software Update

Use the HP MediaSmart software update to keep your server and home computers current with the latest HP software, online help, and new features.

HP MediaSmart software update does not update the Microsoft Windows Home Server operating system. For information about updating Windows Home Server, see **Configuring Windows Update** in the Windows Home Server Console Help.

To Configure HP MediaSmart Software Update

1. At the computer, double-click the Windows Home Server icon ![icon] in the system tray and log on.

2. Click **Settings** in the upper right of the Console.

3. Select **HP MediaSmart Server** in the left menu and click the **HP Update** tab.

4. In the **Configure** section you have choices to

Configure HP Software Update Options	
Option	**Additional information**
Automatically download and install updates (recommended)	Requires no user action. Downloads and installs updates on the server in the background. If necessary the server will automatically reboot.
Download updates and let me choose when to install	Requires user action. Your computer notifies you that an update has been downloaded and is ready to install on the

Configure HP Software Update Options	
Option	**Additional information**
	server. Additionally, the Install link turns blue under HP MediaSmart software updates. To update the server after an update is downloaded, click Install under HP MediaSmart software updates in the Windows Home Server Console
Turn off automatic updates	Not recommended. To get updates with this choice you will have to click **Check for updates** located in the Version section.

5. The following information and options are in the **Version** section of the HP Update dialog

- The server software version number and date are shown.

- Click **Check for updates** to immediately check for available software updates, regardless of the configuration settings you selected above.

- The **Install** link becomes active when an update has been downloaded, but not installed. Click **Install** to run the server update.

- The **Rollback** link becomes active when a software update has been installed. Use this link to uninstall the update on the server and revert to the previous server software version.

 Important

Clicking **Install** or **Rollback** only makes changes to the server software. Each home computer still needs to be updated or rolled back so that the server and client computers are running the same version of software. See Updating and Rolling Back Client PCs or Updating and Rolling Back Mac Clients for more information.

Updating and Rolling Back the Server

Use the HP MediaSmart software update to keep your server and home computers current with the latest HP software, online help, and new features.

 Important

The server must be updated before client PCs and Macs are updated. The server and the client computers must be running the same version of the HP MediaSmart Server software.

To update the server

The method you use to update the server depends on how you configured HP Update.

- *To automatically check for updates*

If you selected **Automatically download and install updates** when you configured HP Update, then you do not need to take further action. The server will install updates in the background as they are available.

- *To manually check for updates*

  📝 **Note**
    If you have never restarted you HP MediaSmart Server, you may need to turn it off and back on before you check for updates.

  1. At the computer, double-click the Windows Home Server icon 🏠 in the system tray and log on.

  2. Click **Settings** in the upper right of the Console.

  3. Select **HP MediaSmart Server** in the left menu and click the **HP Update** tab.

  4. Click the **Check for updates** link.

  5. If an update is found it will be listed as below. Click **Next** to start the install process; follow default choices to complete the software install.
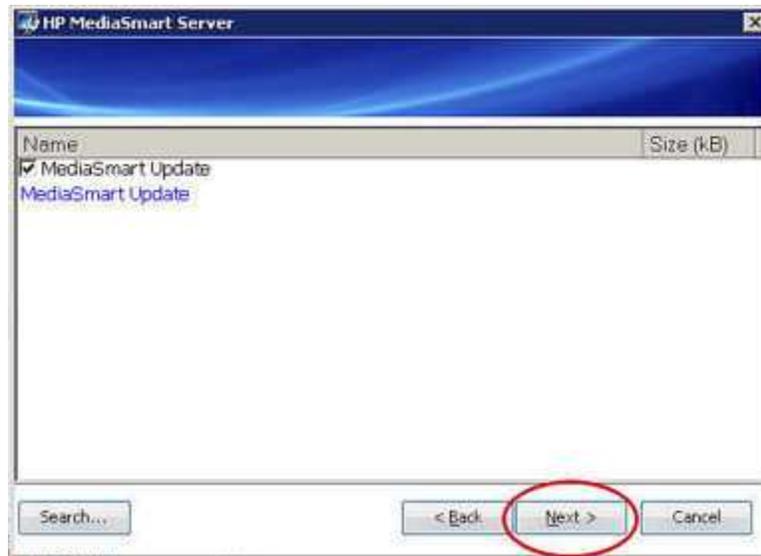
- *To manually install an update copied to the server*

    1. If you downloaded a software update from the www.hp.com site, you can manually install it by copying the software update package to your server. Once the update is on the server, complete the following steps.

    2. At the computer, double-click the Windows Home Server icon 🖳 in the system tray and log on.

    3. Click **Settings** in the upper right of the Console.

    4. Select **HP MediaSmart Server** in the left menu andclick the **HP Update** tab.

    5. Click the **Check for updates** link. After the install wizard checks for pending updates on your server, you will see the select package page where you can select the **Search** button.
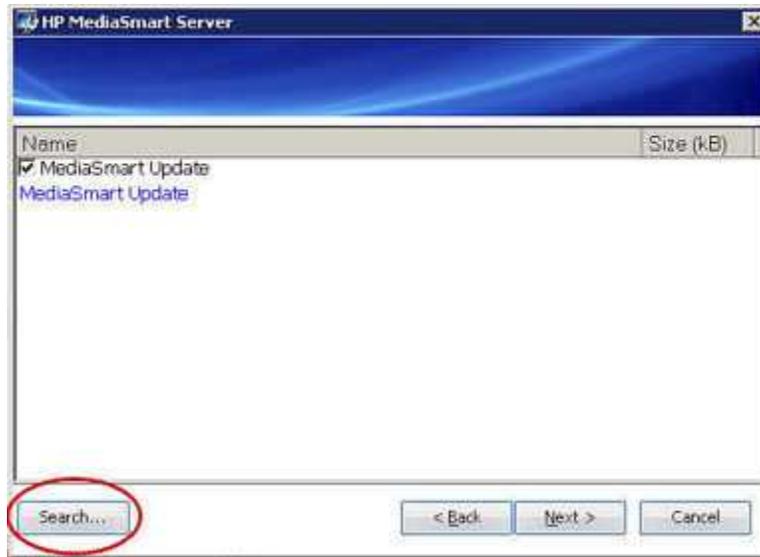
6. Click **Select file**.

7. Type the full path to the file that you copied to the server or select the **Browse** button navigate to the file and select **OK**.
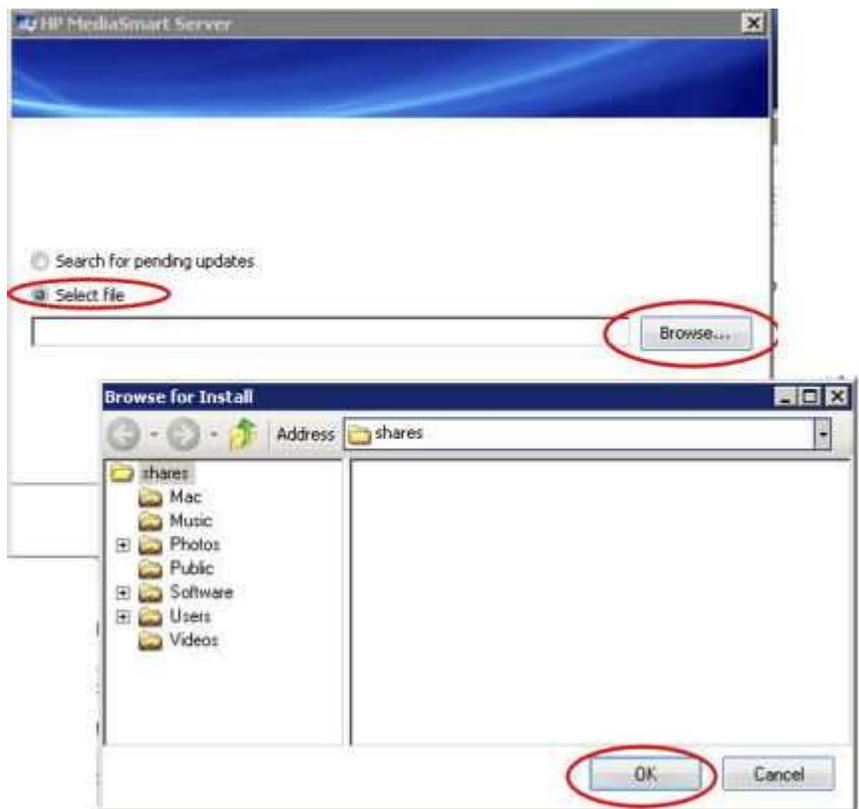
8. Click **Finish** to start the install process and follow the default choices to complete the server software install.

To roll back the server

If you want to uninstall a server update click **Rollback** and then click **Yes** in the confirmation screen. If you updated the client software, it must also be uninstalled so that the server and the client are running the same version of the HP MediaSmart Server software.

Note
HP MediaSmart software update does not update the Microsoft Windows Home Server operating system. For information about updating Windows Home Server, see **Configuring Windows Update** in the Windows Home Server Console Help.

Updating and Rolling Back Client PCs

Note
Update the server software prior to updating the client software. If your server does not have the correct software version, you will get an error message when you try to install the client software. See Updating and Rolling Back the Server for more information.

Updating Client PCs

There are multiple ways of updating your client PCs. Once the server is updated, the client PC update is on the server and can be run from the software folder. The client PC update can also be

downloaded and run from HP Update. The following sections describe various methods for installing the client PC update. Click an option to expand and view the instructions for updating your client. Click again to hide the instructions.

- *To Update Client PCs Using Run Programs*

    1. At the computer, click **Start**, and then **Run**.

    Type the following (**UNC**) network address.
    \\HPSERVER\Software\Home Server Connector Software\setup.exe

    If you renamed your server during the initial software installation the path will be \\<server name>\Software\Home Server Connector Software\setup.exe.

    2. Follow the instructions on your computer for installing the update.

- *To Update Client PCs Using HP Update*

    1. Click the **Start** menu, **HP**, and **HP Update**.

    2. Click **Settings** to configure HP Update.

3. Click **Next** to immediately check for a client PC update.

4. Follow the instructions on your computer for installing the update.

- *To Update Client PCs Using the Software Installation Disc*

  The Software Installation Disc runs an executable file that is on your server. When the server software is updated, the new client executable file is placed on the server but not installed. As long as you run the Software Installation Disc after you update the server, the CD will find the new client executable file on the server and install it.

- *To Update Client PCs Using a Browser*

  1. Open a Web Browser and type the following address **http://hpserver:55000**.
     If you renamed your server during the initial installation the URL will be http://<server name>:55000.
     The Windows Home Server Connector Setup window opens.

  2. Click **Download Now**.

Rolling Back Client PCs

Important
You must roll back your server prior to rolling back the client PC. See Updating and Rolling Back the Server.

1. Click the **Start** menu, **Control Panel**, and **Add or Remove Programs**.

2. Select **HP MediaSmart Server** and click **Remove**.

3. Select **Windows Home Server Connector** and click **Remove**.

4. Close **Add or Remove Programs**.

5. At the computer, click **Start**, and then **Run**.

6. Type the following (UNC) network address.
   \\HPSERVER\Software\Home Server Connector Software\setup.exe

   The network address will be different if you renamed your server. In this case type,
   \\<server name>\Software\Home Server Connector Software\setup.exe

7. Click **OK**.
   Install the software on one computer at a time.

Checking the Client PC Version Number

It is important for the Server software and the Mac client software to be on the same version in order for them to work together properly. Complete the following steps to confirm that the server and the client are on the same version.

1. To check the PC client software version number, click the **Start** menu and click **HP MediaSmart Server**.

2. In the task bar at the bottom of your screen, right-click HP MediaSmart Server and select **About HP Control Center** from the pop-up menu.
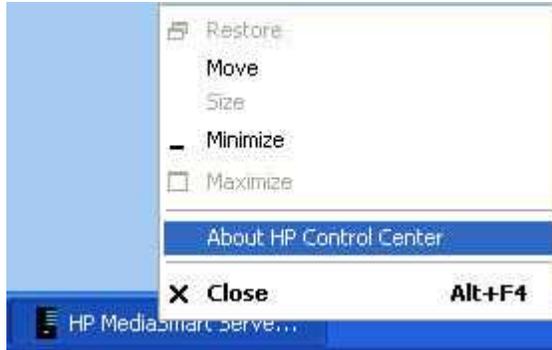
The About dialog opens.

3. To check the server software version number, double-click the Windows Home Server icon in the system tray and log on.

4. Click **Settings** in the upper right of the Console.

5. Select **HP MediaSmart Server** in the left menu and click the **HP Update** tab.
The version number is at the bottom of the HP Update tab.

52

The server and client software should have compatible version numbers. The following table lists the version numbers that work together.

Compatible Software Version Numbers		
Server Version	**PC Client Version**	**Mac Client Version**
1.3.6.21622	1.2.1.18999, 1.3.6.21622	N/A
1.3.8.25155	1.2.1.18999, 1.3.6.21622, 1.3.8.25155	N/A
2.1.7.24261	2.1.7.24261	1.0.0b20
2.5	2.5	2.5

Updating and Rolling Back Mac Clients

Updating Mac Clients

Important

Update the server software prior to updating the client software. The server update and the Mac client update are downloaded at the same time through the HP Update mechanism in the Windows Home Server Console. Updating the server ensures that the most recent copy of the HP MSS

Client.dmg is on your server and ready to install. See Updating and Rolling Back the Server for more information.

1. Insert the Software Installation Disc and run it, or

    Select the server name in the left side of the Finder and connect to the server.
    The name of the server is **HPSERVER**, unless you renamed it during the original installation.

    Choose **Software** > **Mac**, and then run **HP MSS Client.dmg**.

2. When the software window opens, click **Uninstall HP MediaSmart Server Software**.
    Moving the application to the trash can will not uninstall it properly.

3. After the uninstall is complete, click **Install HP MediaSmart Server Software.pkg** to install the update.

Rolling Back Mac Clients

Important

Roll back the server software prior to rolling back the Mac client software. When the server is rolled back using the HP Update mechanism in the Windows Home Server Console, it also rolls back the HP MSS Client.dmg file that is located on the server. See Updating and Rolling Back the Server for more information.

1. Go to **Finder** > **Applications**, and then drag and drop **HP MediaSmart Server Control Center** to the Trash.

2. Select the server name in the left side of the Finder and connect to the server.
    The name of the server is **HPSERVER**, unless you renamed it during the original installation.

3. Choose **Software** > **Mac**, and then run **HP MSS Client.dmg**.

4. When the software window opens, click **Install HP MediaSmart Server Software.pkg** to install the update.

Checking the Mac Client Version Number

It is important for the Server software and the Mac client software to be on the same version in order for them to work together properly. Complete the following steps to confirm that the server and the client are on the same version.

1. To check the Mac client software version number, go to **Finder** > **Applications**, and open the **HP MediaSmart Control Center** on the Mac.

2. At the top of the screen select **HP MediaSmart Server Control Center** > **About HP MediaSmart Control Center**.
   The Mac client version number is displayed in the About dialog.

3. To check the server software version number go to a PC and double-click the Windows Home Server icon in the system tray and log on.

4. Click **Settings** in the upper right of the Console.

5. Select **HP MediaSmart Server** in the left menu and click the **HP Update** tab.
   The version number is at the bottom of the HP Update tab.

📝 **Note**
   Server version 2.1.7.24261 and Mac client version 1.0.0b20 work together. Starting with version 2.5, the server and the client version numbers will have the same first two numbers.

The server and client software should have compatible version numbers. The following table lists the version numbers that work together.

Compatible Software Version Numbers		
Server Version	PC Client Version	Mac Client Version
1.3.6.21622	1.2.1.18999, 1.3.6.21622	N/A
1.3.8.25155	1.2.1.18999, 1.3.6.21622, 1.3.8.25155	N/A
2.1.7.24261	2.1.7.24261	1.0.0b20
2.5	2.5	2.5

Chapter 2.
Start Using Your Server

GUIDED TOUR

HP MediaSmart Server Control Center for PC

The Control Center is the starting point for accessing the features of the HP MediaSmart Server. The Control Center has three sections:

Browse—Access your shared folders .

- **Tools**—Tools and settings for configuring your server.

- **Help & Support**—Learn to use the HP MediaSmart Server and connect to online support.

Opening the Control Center on a PC

The Control Center can be accessed from the following:

Windows Start menu—at the computer, click **Start**, **All Programs**, and then select **HP MediaSmart Server**.

Desktop icon—at the computer, double-click the **HP MediaSmart Server** icon on the desktop.

About the HP MediaSmart Server Control Center for PC

The Browse Section

Shared folders are places to help you get started saving and organizing your files so that you can share them with other people on your network.

 Server—opens a folder that displays a list of all your shared folders.

 Photos—opens a folder that displays a list of photos and photo subfolders.

 Music—opens a folder that displays a list of music and music subfolders.

 Video—opens a folder that displays a list of videos and video subfolders.

If the logon name for the user account on your server does not match the logon name for your computer, you must enter a user name and password. For information about creating matching user accounts, see **Why should logons names match?** in the Windows Home Server Console Help.

The Tools Section

Use the tools and settings on this tab to configure your HP MediaSmart Server.

HP Photo Publisher—Publish photos from your Server to your favorite photo-sharing site. Friends and family can see your photos on the Internet.

Home Server Console—opens the Windows Home Server Console, where you manage and configure the server. For more information, see **Windows Home Server Console** in the Windwows Home Server Console help.

Backup now—immediately backs up your computer. All files not backed up since the last nightly backup are backed up. For more information, see **Backup Now** in the Windows Home Server Console Help.

Media Streamer—opens a web application for streaming music, videos, and photos in your home. For more information, see [About Media Streamer](#).

Media Collector Status—opens a client tool for viewing media collection information and connectivity. For more information, see [About Media Collector](#).

Wake Server—Click Wakeup Server if you want to use the HP MediaSmart Server during sleep hours. All of the lights on the Server will be off when it is in sleep mode. For more information, see [Power](#).

The Help & Support Section

Get information about using, configuring, and getting accessories for your HP MediaSmart Server.

User's Guide—contains installation information, setup instructions, how to use the server, tutorials, and other important information.

Online support—go to the HP Support web site, where you can get more information about the HP MediaSmart Server.

Registration—Click to go to https://register.hp.com and register your HP MediaSmart Server. Registering your Server ensures that your information is on file with HP if you should need technical support services.

Need accessories?—get accessories for your server and shop HP Home & Home Office.

HP MediaSmart Server Control Center for Mac

The Control Center is the starting point for accessing the features of the HP MediaSmart Server. The Control Center has three sections:

Browse—Access your shared folders .

- **Tools**—Tools and settings for configuring your server.

- **Help & Support**—Learn to use the HP MediaSmart Server and connect to online support.

Opening the Control Center for Mac

The Control Center can be accessed from the following:

Using the Finder—at the computer, click Finder, Applications, and then select HP MediaSmart Server Control Center.

On the Dock—at the computer, double-click the HP MediaSmart Server icon on the Dock.

Desktop icon—at the computer, double-click the HP MediaSmart Server Control Center icon on the desktop.

The Control Center desktop icon and system tray icon are available only if you selected to create them during installation.

About the HP MediaSmart Server Control Center for Mac

The Browse Section

Shared folders are places to help you get started saving and organizing your files so that you can share them with other people on your network.

Server—opens a folder that displays a list of all your shared folders.

Photos—opens a folder that displays a list of photos and photo subfolders.

Music—opens a folder that displays a list of music and music subfolders.

Video—opens a folder that displays a list of videos and video subfolders.

If the logon name for the user account on your server does not match the logon name for your computer, you must enter a user name and password. For information about creating matching user accounts, see **Why should logons names match?** in the Windows Home Server Console Help.

The Tools Section

Use the tools and settings on this tab to configure your HP MediaSmart Server.

HP Photo Publisher—Publish photos from your Server to your favorite photo-sharing site. Friends and family can see your photos on the Internet.

Preferences—Click to enter your Server name and password, also to set backup preferences.

Media Streamer—opens a web application for streaming music, videos, and photos in your home. For more information, see About Media Streamer.

Wake Server—Click Wakeup Server if you want to use the HP MediaSmart Server during sleep hours. All of the lights on the Server will be off when it is in sleep mode. For more information, see Power.

The Help & Support Section

Get information about using, configuring, and getting accessories for your HP MediaSmart Server.

User's Guide—contains installation information, setup instructions, how to use the server, tutorials, and other important information.

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Need accessories?—get accessories for your server and shop HP Home & Home Office.

Windows Home Server Console

OPENING THE WINDOWS HOME SERVER CONSOLE

The Windows Home Server Console is where you manage and configure the HP MediaSmart Server. You can access the Windows Home Server Console in the following ways:

- To open the WHS Console from the Start menu

- To open the WHS Console from the HP MediaSmart Server desktop icon

- To open the WHS Console from the system tray

To open the WHS Console from the Start menu

1. At the computer, click **Start**, **All Programs**, and then select **Windows Home Server Console**.

2. Log on to the Windows Home Server Console.

To open the WHS Console from the HP MediaSmart Server desktop icon

1. From the computer desktop, double-click HP MediaSmart Server icon.

2. In the Control Center, click the **Tools** tab.

3. Click **Home Server Console**.

4. Log on to the Windows Home Server Console.

To open the WHS Console from the system tray

1. At the computer, double-click the Windows Home Server icon in the system tray.

2. Log on to the Windows Home Server Console.

WELCOME TO THE WINDOWS HOME SERVER CONSOLE

Opening the Windows Home Server Console brings you to the following screen. This document explains or links to documents that will help you use the Windows Home Server console.

The Top Banner

From the top banner you can click on a tab to open management windows, or click the Settings link to open the MediaSmart Server Settings. Clicking the Help link will open a help screen that deals the location you are at.
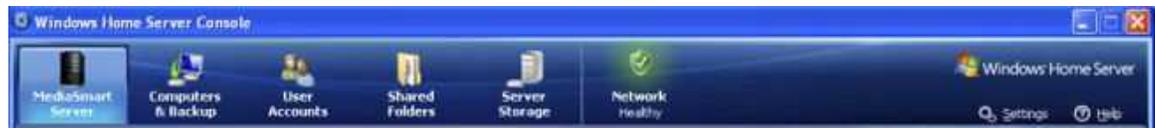
Click on any of the links below to open a help page for that document:

- MediaSmart Server

- Computers and Backup

- User Accounts

- Shared Folders

- Server Storage

- Network

- Settings

- Help

The Settings Link will open up a page that allows you to configure settings:

You can configure the various settings by clicking on the title in the left panel.

Help

Clicking the help button will open up the help file for the server.

You can search help by clicking the Content, Index, or Search tab.
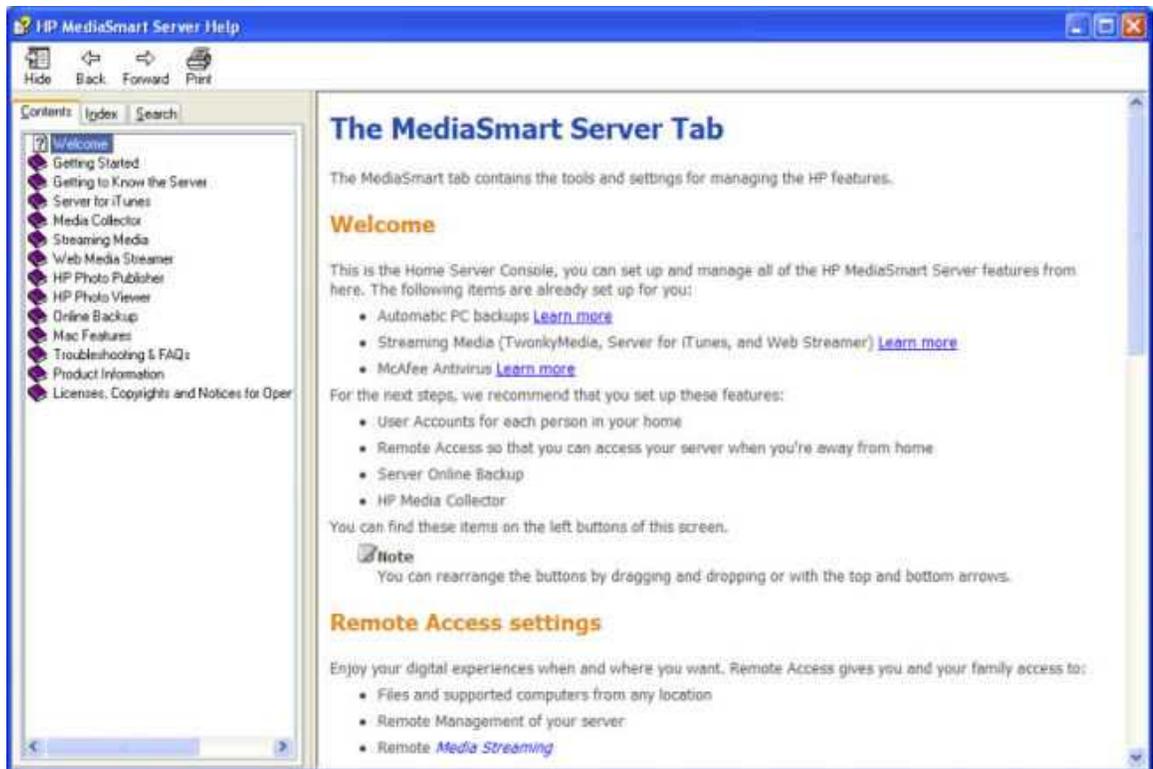
Windows Home Server Console Left Panel

Clicking the selections on the left panel will allow you to configure your server. Links below the graphic will give you more information for that selection

Click the links below to learn more about the panes listed above:

- Welcome

- Server Summary

- Remote Access

- HP Photo Publisher

- Features for Mac

- Server Online Backup

- Server for iTunes

- HP Media Collector

- HP Video Converter

- TwonkyMedia

  You can rearrange the position of the panes by:

- Hover over the pane, hold the left mouse button down and move the pane to the position you want to place it.
  or

- Hover over the pane until the up/down arrows appear. This will move pane to the top or bottom position.
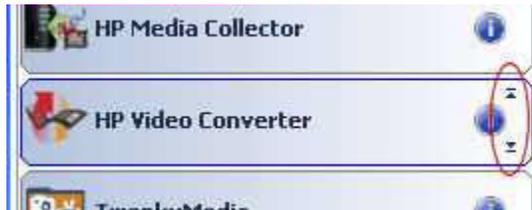
Each pane has 3 conditions:

	Informational
	Configured/OK
	Warning/Not Configured

Main Panel

The Main Panel will display whatever you have chosen from the left panel.

THE MEDIASMART SERVER TAB

The MediaSmart tab contains the tools and settings for managing the HP features.

Welcome

This is the Home Server Console, you can set up and manage all of the HP MediaSmart Server features from here. The following items are already set up for you:

- Automatic PC backups Learn more

- Streaming Media (TwonkyMedia, Server for iTunes, and Web Streamer) Learn more

- McAfee Antivirus Learn more

  For the next steps, we recommend that you set up these features:

- User Accounts for each person in your home

- Remote Access so that you can access your server when you're away from home

- Server Online Backup

- HP Media Collector

You can find these items on the left buttons of this screen.

📝 **Note**
You can rearrange the buttons by dragging and dropping or with the top and bottom arrows.

Remote Access settings

Enjoy your digital experiences when and where you want. Remote Access gives you and your family access to:

- Files and supported computers from any location

- Remote Management of your server

  Remote **Media Streaming**

- HP Photo Viewer

- HP Photo Publisher

HP Photo Publisher

Publish photos from your Server to your favorite photo-sharing site. Friends and family can see your photos on the Internet. Uploading your photos is a simple 4-step process:

1. Log on to the HP Photo Publisher

2. Log on to the photo-sharing site

3. Select the photos you want to share

4. Upload your photos

Media Collector

Media Collector copies media files from the computers in your network and organizes them on the server. Media Collector continuously copies files. You can enable collection for any or all the PCs in your home.

You choose the organization structure:

- Photos - by date or existing structure

- Music - by artist/album or existing structure

- Videos - move or copy to the server

Mac Features

Your HP MediaSmart Server works with Mac OS X 10.5 and later. You can:

- Use Time Machine to back up your Mac to the HP MediaSmart Server.

  Get easy access to **shared folders** on the server using your Control Center.

Settings for iTunes

Your HP MediaSmart Server includes a Server for iTunes. This server allows you to stream your music and playlists to computers that are running iTunes, or compatible devices.

Server Summary

Review important information about your Server at a glance.

Media Smart Server Online Backup

Online Backup uses an Amazon S3™ account to save your important files to a remote location on the Internet. You can also browse and restore your online files back to your Server. This feature is an Add-in that you can uninstall at any time.

THE WINDOWS HOME SERVER TABS

The Windows Home Server enables you to share, store, access, and automatically protect your pictures, videos, music, and files. It contains the following tabs:

- **Computers & Backups**—view and customize backups. Also, view the status of your home computers. For more information, see **Computers & Backup** in the Windows Home Server Console Help.

- **User Accounts**—add, remove, and modify user accounts. For more information, see **User Accounts** in the Windows Home Server Console Help.

  Shared Folders—add, open, remove, and view the properties of the shared folders on your server. For more information, see **Shared Folders** in the Windows Home Server Console Help.

- **Server Storage**—view, add, repair, and remove hard drives from server storage. For more information, see **Server Storage** in the Windows Home Server Console Help.

- **Network**—displays health notifications from your server and your home computers. For more information, see **Network Health** in the Windows Home Server Console Help.

- **Settings**—configure general settings, such as date and time, backups, passwords, media sharing, remote access, add-ins, resources, and more. For more information, see **Server Settings** in the Windows Home Server Console Help.

- **Help**—access the Windows Home Server Console Help.

ABOUT HP ADD-INS FOR WINDOWS HOME SERVER

HP add-ins are software programs that extend the functionality of Windows Home Server. HP is working with PacketVideo to provide enhanced media streaming using the TwonkyMedia add-in. The McAfee add-in delivers server side anti-virus protection.

PacketVideo TwonkyMedia

The TwonkyMedia enhanced media streaming software add-in for the HP MediaSmart Server enables you to view photo thumbnails, available music album art, and stream content from any shared folder using a digital media player or a digital media receiver.

Note

It is suggested that you use one media streaming program, either Windows Media Connect or TwonkyMedia described above. Windows Media Connect is part of Windows Home Server and is already installed on the HP MediaSmart Server. Conversely, Hewlett-Packard partnered with PacketVideo to provide the TwonkyMedia add-in. For a comparison of these programs, see Windows Media Connect 2.0 and TwonkyMedia Comparison.

McAfee Anti-virus Protection

To receive McAfee Anti-virus protection, you must activate the service. The McAfee anti-virus add-in with Total Protection Service is a comprehensive security management solution that:

- Checks for viruses, spyware, unwanted programs, and other potential threats. Every time a file is accessed on your Windows Home Server, Total Protection Service scans the file to make sure it is free of viruses and spyware.

- Sends security status information for your server to an administrative web site that is unique to your account, known as the McAfee SecurityCenter. You can visit the SecurityCenter to check detection reports or to set up security rules, known as policies, to define the types of programs that do not pose a security threat.

- Updates itself automatically at regular intervals with the latest versions of components and detection definition (dat) files. This ensures that Total Protection Service is always able to protect you against the latest threats.

  Total Protection Service typically operates in the background without any interaction on your part.

  To learn more about the McAfee anti-virus add-in, see their online documentation in one of the following languages:

- **English**—http://us.mcafee.com/root/campaign.asp?cid=39906&l=enu&action=whshelp

- **French**—http://us.mcafee.com/root/campaign.asp?cid=39906&l=fra&action=whshelp

- **German**—http://us.mcafee.com/root/campaign.asp?cid=39906&l=deu&action=whshelp

- **Spanish**—http://us.mcafee.com/root/campaign.asp?cid=39906&l=esp&action=whshelp

  After you activate McAfee antivirus protection, you receive a seven month trial period. Internet access is required to receive updates. Subscription is required for updates after seven months.

Installing Add-ins

1. At the computer, double-click the Windows Home Server icon in the system tray and log on.

2. Click **Settings** in the upper right corner of the Console.

3. Click **Add-ins** in the left menu.

4. Click the **Available** tab.

5. Click **Install** to install an add-in.

6. Click **OK** on the Installation succeeded dialog box to restart the console.

   For additional information, see **Add-ins** in the Windows Home Server help.

FIRST STEPS

Customize Computer Backups

After running the Software Installation Disc on your first home computer it is automatically added to the list of computers that are backed up by the HP MediaSmart Server each night. Run the Software Installation Disc on additional home computers to enable them to communicate with the server and to add them to nightly backups.

To customize the hard-drive volumes to back up, or to exclude folders from the backup

1. At the computer, double-click the Windows Home Server icon in the system tray.

2. Log on to the Windows Home Server Console.

3. Click the **Computers & Backups** tab.

    For assistance backing up or restoring a computer, see the following in the Windows Home Server Console Help:

- **Computers & Backup**

- **How does backup work?**

- **Managing and Configuring Backups**

- **Restoring Computer Backups**

- **Removing a Computer**

- **Troubleshooting Computers & Backup**

Copy Files to Shared Folders

Shared folders are places for you to organize and store files on your home server so that you can share them with other people on your network. Start copying digital assets from your computer to shared folders on the HP MediaSmart Server.

 Note
Do not delete the shared folders that come with the HP MediaSmart Server—Music, Photos, Public, Software, or Videos. Likewise, do not delete the Mac shared folder if you intend to use Mac features.

1. At the computer, double-click the HP MediaSmart Server desktop icon.

    Or you can click the Shared Folders icon.

2. Copy Photos, Music, or Videos to the appropriate shared folder or click Server to create shared folders for other digital content.

> **Note**
> From the **Media Sharing** page on the Windows Home Server **Settings** tab, you can turn on digital media streaming for the Photos, Music, or Videos shared folders. Click **On** for each folder that you want to stream from.

Windows Home Server Console Help for Shared Folders

For assistance using shared folders, see the following in the Windows Home Server Console Help:

- **Shared Folder**

- **Adding a shared folder**

- **Viewing shared folder properties**

- **Opening a shared folder**

- **Removing a shared folder**

- **Viewing shared folder history**

  What is Folder Duplication?

Accessing Shared Folders from your Computer

For convenience, the HP MediaSmart Server provides several ways to access shared folders:

- At the computer, click **Start** and **Run**. Type **\\hpserver** or the name of your server and click **OK**.

- [To access shared folders from the Control Center](#)

- [To access shared folders from the desktop shortcut](#)

- [To access shared folders from the system tray](#)

- [To access shared folders from My Network Places in Windows XP](#)

- [To access shared folders from Network in Windows Vista](#)

To access shared folders from the Control Center

1. At the computer, click **Start**, **All Programs**, and then select **HP MediaSmart Server**.

2. Click one of the following:

   - Server—opens a folder that contains all your shared folders.

   - Photos—opens a folder for sharing photos.

   - Music—opens a folder for sharing music.

   - Videos—opens a folder for sharing videos.

To access shared folders from the desktop shortcut

1. At the computer, go to the desktop, and then double-click the Shared Folders on Server shortcut
    .

2. Double-click the shared folder you want to open.

To access shared folders from the system tray

1. Right-click the Windows Home Server icon.

2. Click **Shared Folders**.

3. Double-click the shared folder you want to open.

To access shared folders from My Network Places in Windows XP

1. At the computer, click **Start**, and then click **My Network Places**.

2. Double-click the shared folder you want to open.

3. If the shared folders are not in My Network places, you can add them manually.

To access shared folders from Network in Windows Vista

1. At the computer, click **Start**, and then **Network**.

2. In Network, double-click the computer icon next to **SERVER** .
    If you changed the default name of the server, that name appears next to the computer icon
    instead.

3. Double-click the shared folder you want to open.

Enable Guest Account and Set up User Accounts

Enabling the Guest Account

If you want everyone to use the same logon account to access the HP MediaSmart Server, enable
the guest account. If the Guest account is enabled with no password, family members are not
required to logon when they use home computers. Additionally, all family members can have Full
access to all shared folders through the Guest account.

Important

If you enable the Guest account, everyone that connects to your home network has the same
privileges. That may mean that they all have full access to shared folders and other resources on
your server. To protect your home network from unwanted connections, see Securing your server
from intruders.

📝 **Notes**

o   We strongly recommend that you enable the Guest account and give the Guest account full permission on all your photos, music, and videos shared folders; this ensures that Media Collector always has access to all shares.

o   The Guest account cannot be used to access the server from outside of the home using remote access.

To enable the guest account

1.   At the computer, double-click the Windows Home Server icon 🏠 in the system tray.

2.   Log on to the Windows Home Server Console.

3.   Click the User Accounts tab at the top of the page, the User Accounts Setup dialog displays.

4.   Click Enable Guest.

📝 **Notes**
If you have already asked the Enable Guest checkbox not to show again, double-click Guest account and click Enable.

Creating Individual User Accounts

If family members want to access information on your home network from an Internet café, coffee shop, or other location outside of your home, they need individual user accounts with strong passwords on their computer or laptop and on the server.

🔷 **Important**

When you create user accounts on the server, use logon names and passwords that match the logon names and passwords of existing user accounts on your home computers. Creating matching user accounts enables family members to automatically log on to the server when they log on to their home computer.

If the user accounts and passwords do not match, you will be prompted to type a user name and password when you open the server's shared folders.

If your computer does not have a password or if the computer uses a factory default user name, you can change these parameters to eliminate the need to enter your user name and password when you access a shared folder.

To create a user account for a home computer running Windows XP

1.   At the computer, click **Start**, **Control Panel**, and then **User Accounts**.

2.   Click **Add** to create a user account.
     -or-
     Click **Change an Account** to change a logon name or password for an existing account.

     A strong password is suggested to ensure security and is required to use remote access. A strong password must be at least 7 characters long and must fulfill three of the following four character criteria:

     • Uppercase characters

74

- Lowercase characters

- Numbers

- Symbols (such as !, @, #, and so on.)

A password hint helps you remember your password. The password hint can be seen by anybody who clicks the link to display it.

To create a user account for a home computer running Windows Vista

1. At the computer, click **Start** and then **Control Panel**.

2. Under **User Accounts and Family Safety**, select **Add or remove user accounts**.

3. Add user accounts or make changes to existing user accounts.

   A strong password is suggested to ensure security and is required to use remote access. A strong password must be at least 7 characters long and must fulfill three of the following four character criteria:

   - Uppercase characters

   - Lowercase characters

   - Numbers

   - Symbols (such as !, @, #, and so on.)

   A password hint helps you remember your password. The password hint can be seen by anybody who clicks the link to display it.

To create user accounts on the server

1. At the computer, double-click the Windows Home Server icon in the system tray.

2. Log on to the Windows Home Server Console.

3. Click the **User Accounts** tab at the top of the page. If the User Accounts Setup dialog displays click **OK**.

4. Click **Add**, this will open the **Add User Account** screen. enter user information. Check the **Enable Remote Access for this user** check box. Make an appropriate choice concerning allowing access to computer and folders.

5. Click **Next**.

6. Enter and confirm a strong **password**. A strong password is suggested to ensure security and is required to use remote access. A strong password must be at least 7 characters long and must fulfill three of the following four character criteria:

   - Uppercase characters

   - Lowercase characters

   - Numbers

75

- Symbols (such as !, @, #, and so on.)

7. Click **Next**.

8. Select access to shared folders

9. Click **Finish**.

10. Click **Done**.

   Repeat for each user account that you want to add.

Add a user account for a home computer running Mac

1. Click **System Preferences**, **Accounts**.|

2. If the accounts page is locked, click the lock and enter you credentials to unlock the page.

3. Click the + to open the new account page.

Enter the user information.

A **strong password** is suggested to ensure security and is required to use remote access. A strong password should be at least 7 characters long and fulfill three of the following four character criteria:

- Uppercase characters

- Lowercase characters

- Numbers

- Symbols (such as !, @, #, and so on.)

A **password hint** helps you remember your password.

5. Click **Create Account**.

Secure your Server from Intruders

The HP MediaSmart Server is designed as a device that is always on, which comes in handy for accessing files any time your network users need or want them. Additionally, remote access can allow visitors to view, add, and delete photos and videos. If not properly secured, these features present security risks, so you'll want to ensure that unauthorized users can't access your server and the files stored on it.

The following security measures help protect your network and computers:

- Firewall protection

- Wireless security

  Anti-virus software

- User name and password protection

- Remote Access security

Firewall protection

A firewall is a hardware device or software program that protects your network from unauthorized access. It protects your system from hackers running programs, sending email, and gaining access to your private information. The following types of firewalls protect your network and computers:

Broadband router firewall

- Windows Home Server firewall

- Personal firewall

78

Broadband router firewall

The HP MediaSmart Server requires a broadband router. Broadband routers allow multiple computers and devices to share an internet connection using NAT (Network Address Translation) technology. NAT allows all the computers and devices on your network to use a single internet connection (IP address). NAT acts as a firewall by masking the real IP addresses of your network components—including the HP MediaSmart Server—which keeps them from being seen outside the home.

Some broadband routers implement Stateful Packet Inspection (SPI), which adds enhanced security by examining each packet of information before allowing it into the network. SPI can prevent advanced forms of incursions like Denial of Service attacks.

Windows Home Server firewall

Windows Home Server includes Windows Firewall, which protects communications between the server and the computers on your home network. This firewall is configured to allow remote access. It is not configurable by the user.

Personal firewall

A personal firewall is a software application that protects an individual computer. Because a personal firewall is behind the broadband firewall, it will protect the computer on which it is installed from attacks from other computers within the network.

Firewall ports

The following table lists the ports used by the server.

Ports used by the server		
Type	**Port numbers**	**Description**
TCP	80, 443	Standard Web site
TCP	55000, 56000	internal (subnet only) Web site for Windows Home Server Web services
TCP	1138	Transport
TCP	8912	Backup and beacon
UDP	8912	Backup and beacon
TCP	2869	UPnP (Universal Plug and Play)
UDP	1900	UPnP
TCP	3389	Remote desktop
TCP	4125	Remote access (when enabled)
TCP	139, 445	File and print sharing
UDP	137, 138	File and print sharing

Ports used by the server		
Type	**Port numbers**	**Description**
UDP	10284, 10283, 10282, 10281, 10280, 10243	Media connection

The following topics in the Windows Home Server Console Help discuss how to configure your router for port forwarding:

- **Configuring your broadband router**

- **Why can't I connect to some computers?**

- **Learn more about router port forwarding**

Wireless security

If your router 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, 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 access your network and may be able to get into the server and any computer or other device 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 (**WEP**)

Wi-Fi Protected Access (**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 all the computers on your network, and configure the software from one of the computers to scan all the shared folders on the server. You might be required to assign (map) drive letters to all your shared folders to enable the anti-virus software to scan the server.

Important
Remember to keep your anti-virus definitions up-to-date.

User name and password protection

User names and passwords help secure the server by requiring authentication for managing the server, accessing shared files, and using remote access.

Server password - during the first install of the HP MediaSmart Server, you are asked to create a strong password to allow access for managing your server from the Windows Home Server console. This password will protect the server from unwanted changes.

- **User account passwords -** each person who uses your network must have a user account so they can access shared folders on the server or, if configured, use remote access. For more information, see User Accounts and Setting User Accounts Password Policy in the Windows Home Server Console Help.

- **Computer passwords -** by using the same user name and password for logging onto a computer as for the server user account, you can avoid having to enter the user name and password when accessing a shared folder. Requiring logon to each computer on your network adds a level of security. For more information, see Why should logon names match? in the Windows Home Server Console Help.

Remote Access security

By default Remote Access is turned off.

Using a computer to remotely access the files on your server is protected in several ways:

- Security certificate

  HTTPS (encrypted Secure Sockets Layer (SSL) protocol)

- User account with strong password

Security certificate

When you install the HP MediaSmart Server software on your home computers, the Windows Home Server Connector software adds the Windows Home Server security certificate to the computer's trusted certificate list. This security certificate helps secure the information that is exchanged between the server and your computer's Web browser. The best way to access the files on the server while away from home is from a computer that has a browser and Internet access.

Using remote access to access your server from public or other untrusted computers is not recommended. Doing so can potentially expose your server to malicious software and viruses.

HTTPS

Remote Access is secure because the connection between the remote computer and the server is done over HTTPS. HTTPS uses the encrypted Secure Sockets Layer (SSL) protocol, the same protocol used for banking transactions and retail commerce.

User Account with strong password

Remote access does not allow logging on from the Guest or Administrator account. Moreover, the user account must be enabled for remote access, which requires a strong password to ensure that authentication is as secure as possible.

HP MediaSmart Photo Viewer

If you have configured a Domain name to your Server, any photos that are placed into photo viewer are viewable by any one that finds your domain. The Photos that are found and seen on this manner can not be deleted, nor can they be modified. Deleting photos can only be done by users that have successfully logged into the Server.

Add Shared Folders to Network Places

How to add shared folders to network places in Windows XP and Windows Vista.

- To add shared folders to My Network Places in Windows XP

- To add a network place in Windows Vista

To add shared folders to My Network Places in Windows XP

1. At the computer, click **Start**, and then click **My Computer**.
   Note
   If you use the classic start menu, click My Computer on the desktop.

2. Under **Other Places**, click **My Network Places**.

3. Under **Network Tasks**, click **Add a network place**.

4. In the **Add Network Place Wizard**, click **Next**.

5. Highlight **Choose another network location**, and then click **Next**.

6. To add the network place, you have two options:

   In the I**nternet or network address box**, enter the path to the shared folder you want to **map**, and then click **Next**.
   For example, enter \\HPSERVER\Music
   Where **HPSERVER** is the default name. If you changed the name of the server, use that name.
   Music is the shared folder's name.

   - Click the **Browse** button and then use Windows Explorer to locate the network place. The path is usually: Entire Network, Microsoft Windows Network, Workgroup, <Name of Server>.

7. After locating the shared folder, click to highlight it, and then click **OK**.
   The location will appear in the **Folder** box.

8. Specify whether you want to reconnect every time that you log on to your computer, and then click **Finish**.

   Once you create a network place for one of the shared folders, the other shared folders on the server will be available on My Network Places.

To add a network place in Windows Vista

📝 **Note**
Network discovery must be turned on to add a shared folder to Network places in Windows Vista.

1. At the computer, click **Start**, and then click **Network**.

2. Under **Network Tasks**, click **Add a network place**.

3. In the Network Place Wizard, click **Next**.

4. Highlight Choose another network location, and then click **Next**.

5. To add the network place, you have two options:

- In the I**nternet or network address** box, enter the path to the shared folder you want to map, and then click **Next**.
For example, enter \\HPSERVER\Software
Where **HPSERVER** is the default name. If you changed the name of the server, use that name. **Software** is shared folder's name.

- Click the **Browse** button and then use Windows Explorer to locate the network place. The path is usually: Entire Network, Microsoft Windows Network, Workgroup, <Name of Server>.
After locating the shared folder, click to highlight it, and then click **OK**. The location will appear in the I**nternet or network address** box.

6. To create a name for the network place, enter a name in the **Type a name for this network place** box, and then click **Next**.

7. Specify whether you want to reconnect every time that you log on to your computer, and then click **Finish**.

About HP Add-ins for Windows Home Server

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- **German**—http://us.mcafee.com/root/campaign.asp?cid=39906&l=deu&action=whshelp

- **Spanish**—http://us.mcafee.com/root/campaign.asp?cid=39906&l=esp&action=whshelp

After you activate McAfee antivirus protection, you receive a seven month trial period. Internet access is required to receive updates. Subscription is required for updates after seven months.

Installing Add-ins

1. At the computer, double-click the Windows Home Server icon in the system tray and log on.

2. Click **Settings** in the upper right corner of the Console.

3. Click **Add-ins** in the left menu.

4. Click the **Available** tab.

5. Click **Install** to install an add-in.

6. Click **OK** on the Installation succeeded dialog box to restart the console.

For additional information, see **Add-ins** in the Windows Home Server help.

Configure HP MediaSmart Server Settings

POWER

The Power Management screen allows you to put the Server into a sleep mode to save power.

The **Enable Daily Sleep Time** checkbox allows the Server to be put into a sleep mode and wake up based on times entered into the **Sleep time** and **Wake time** fields.

📝 **Note**
The server will wake up for a scheduled backup.

Clicking the **Sleep Now** button puts the Server into sleep mode. The server will wake up for a backup, input from the Control Center, or pressing the power button on the Server.

HP MEDIASMART SERVER SOFTWARE UPDATE

Use the HP MediaSmart software update to keep your server and home computers current with the latest HP software, online help, and new features.

HP MediaSmart software update does not update the Microsoft Windows Home Server operating system. For information about updating Windows Home Server, see **Configuring Windows Update** in the Windows Home Server Console Help.

To Configure HP MediaSmart Software Update

1. At the computer, double-click the Windows Home Server icon 🔁 in the system tray and log on.

2. Click **Settings** in the upper right of the Console.

3. Select **HP MediaSmart Server** in the left menu and click the **HP Update** tab.

4. In the **Configure** section you have choices to

Configure HP Software Update Options	
Option	**Additional information**
Automatically download and install updates (recommended)	Requires no user action. Downloads and installs updates on the server in the background. If necessary the server will automatically reboot.
Download updates and let me choose when to install	Requires user action. Your computer notifies you that an update has been downloaded and is ready to install on the server. Additionally, the Install link turns blue under HP MediaSmart software updates. To update the server after an update is downloaded, click Install under HP MediaSmart software updates in the Windows Home Server Console
Turn off automatic updates	Not recommended. To get updates with this choice you will have to click **Check for updates** located in the Version section.

5. The following information and options are in the **Version** section of the HP Update dialog

    - The server software version number and date are shown.

    - Click **Check for updates** to immediately check for available software updates, regardless of the configuration settings you selected above.

    - The **Install** link becomes active when an update has been downloaded, but not installed. Click **Install** to run the server update.

    - The **Rollback** link becomes active when a software update has been installed. Use this link to uninstall the update on the server and revert to the previous server software version.

    ◆   **Important**

    Clicking **Install** or **Rollback** only makes changes to the server software. Each home computer still needs to be updated or rolled back so that the server and client computers are running the same version of software. See Updating and Rolling Back Client PCs or Updating and Rolling Back Mac Clients for more information.

NOTIFICATIONS

The Notifications screen gives you control of which notifications will show up as messages in your system tray.

The example below has all notifications turned on.
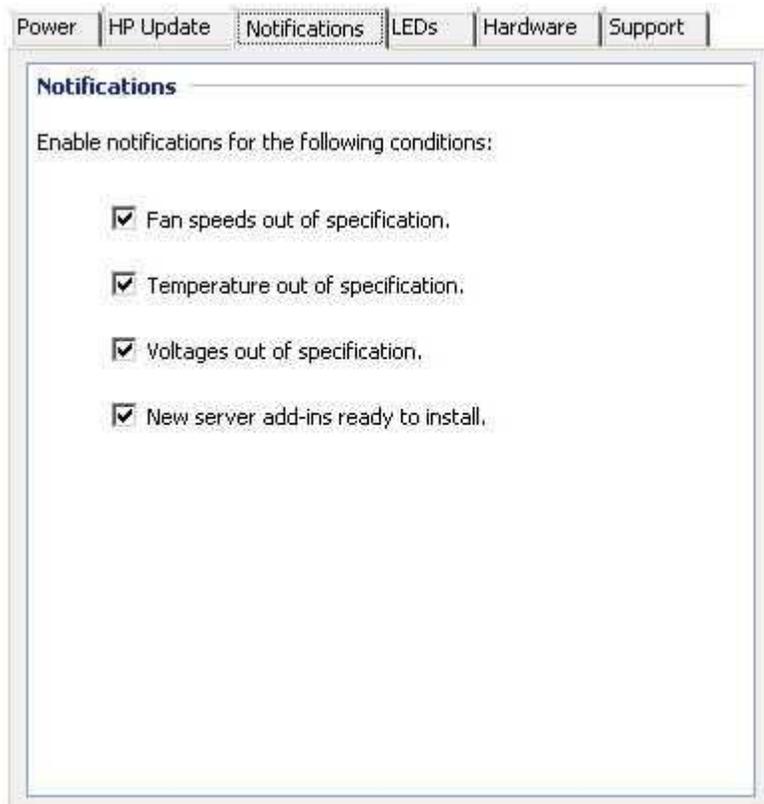
An example of a new server add-in is also displayed.

LED

The LED screen gives you control of two different LED behaviors.

The LED brightness control allows you to adjust the brightness of all LEDs on the front panel of the Server. Grab the slider and move for a brighter or dimmer LED.

The **Health LED Behavior** checkbox allows for the Server's health LED to show red you for any Critical Windows Home Server health notifications.

HP MEDIASMART SERVER SETTINGS, HARDWARE TAB

Information presented on this screen is gathered from various sensors within the Server Solution:
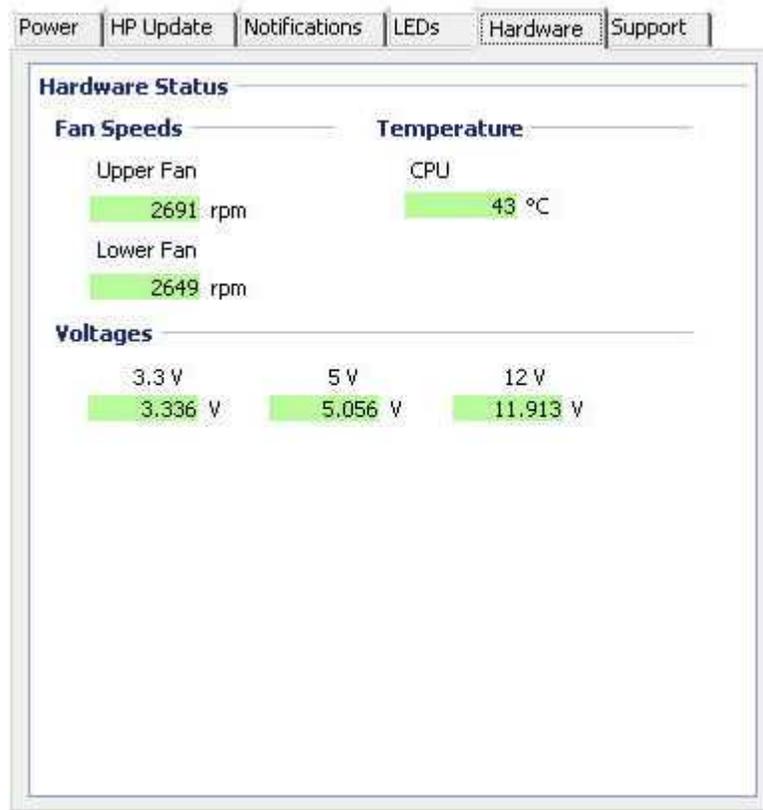
HP MEDIASMART SERVER SETTINGS, SUPPORT TAB

The Support tab shows:

- The HP Software Version

  The **BIOS** Version

- The Serial Number of the Server

- Links for Online Support and More information

- Access to the Server event logs
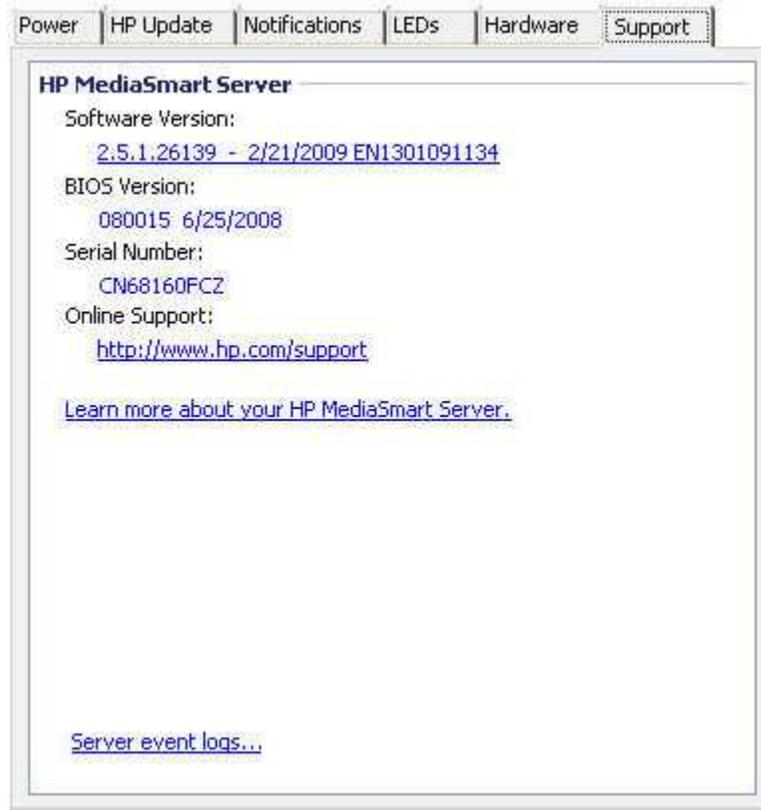
GETTING HELP FOR USING YOUR SERVER

The HP MediaSmart Server is a home server for families with multiple computers on a home network who want to enjoy their digital experiences when and where they want. The HP MediaSmart Server includes remote access to files, automatic computer backups, virtually unlimited storage expandability, and media streaming to the entertainment center.

Help is available from most windows on the HP MediaSmart Server.

HP MediaSmart Server Help

HP Help includes the types of help shown in the following table. Additionally, the online User's Guide provides links to topics in the Windows Home Server Help.

 User's Guide—Contains online help, installation instructions, guidance for set up, using the product, tutorials, recovery information, and other important information.

 Online Help—A Help button is available on most pages.

 HP Support Web site—Additional support and informational articles are available at http://www.hp.com/support.

Windows Home Server Console Help

Some tasks, such as creating users and using shared folders, are done through the Windows Home Server Console.

1. At the computer, double-click the Windows Home Server icon in the system tray.

2. Log on to the Windows Home Server Console.

3. Click **Help** in the upper right corner, indicated by a icon, or click help buttons on dialog boxes.

Windows Home Server Console Help	
Main Topics	**Description**
Welcome to the Windows Home Server Console	Learn what the Windows Home Server tray icon colors mean. This topic also provides an overview of adding user accounts, organizing files, configuring backups, and customizing server settings.
Computers & Backup	Explains how backups work and how to configure, restore, and troubleshoot backups.
User Accounts	How to add users to your server.
Shared Folders	Adding, opening, removing, viewing the history of shared folders, and using folder duplication.
Server Storage	View, add, repair, and remove hard drives from total storage.
Network Health	What health notifications mean and what to do about them.
Windows Home Server Settings	How to configure backups, passwords, media sharing, remote access, add-ins, resources, and more.
Remote Access	How to set up the server to easily access your files away from home.

Chapter 3.
HP Photo Publisher

HP PHOTO PUBLISHER HOME PAGE

To access the HP Photo Publisher Home Page, log onto the Windows Home Server Console. At the HP MediaSmart Server tab, click the HP Photo Publisher button in the left pane to open the Photo Publisher home page.

Photo Publisher allows you to post photos from your Server to the photo sharing and social networking sites shown above.

File Compatibility

The table below tells what file types are accepted at the various photo sharing and social networking sites:

	*.jpg, *.jpeg	*.gif	*.png	*.bmp
Picasa	X	X	X	X
Snapfish	X			
facebook	X	X	X	X
flickr	X	X		
MediaSmart Photo Viewer	X	X	X	

Some limitations, by site, for the free account:

- At time of writing; flickr only allows for 3 photo sets, and a limit of 100MB worth of photo uploads each calendar month.

- At time of writing; facebook allows only 60 photos for album, but you can have an unlimited number of albums

- At time of writing; Picasa has a storage limit of 250mb

- At time of writing; Snapfish does not have any restriction to number of photos uploaded.

HP PHOTO PUBLISHER LOG ON PAGE

To login to HP Photo Publisher:

1. On the Windows Home Server Console, click the **HP Photo Publisher** panel, then click the **Launch HP Photo Publisher** link.
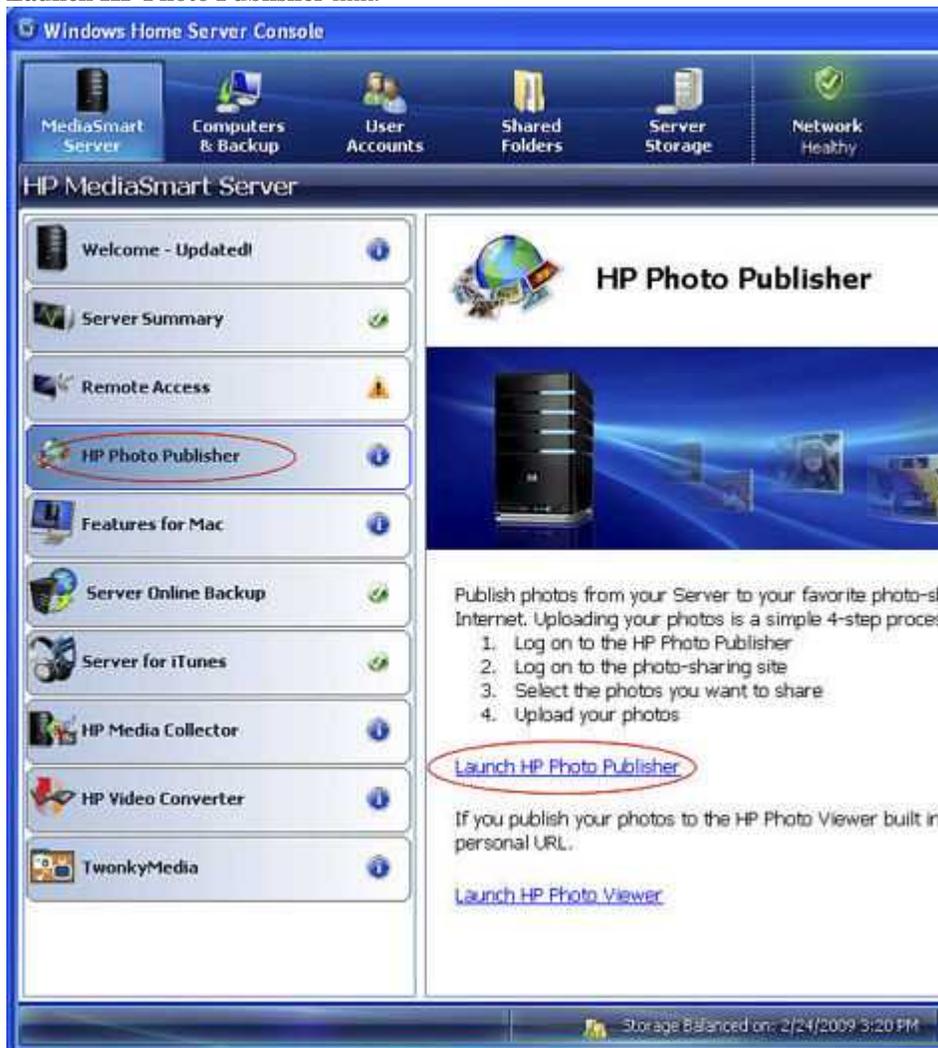
2. Enter your **Username**, **Password** and click the **Log On** button.
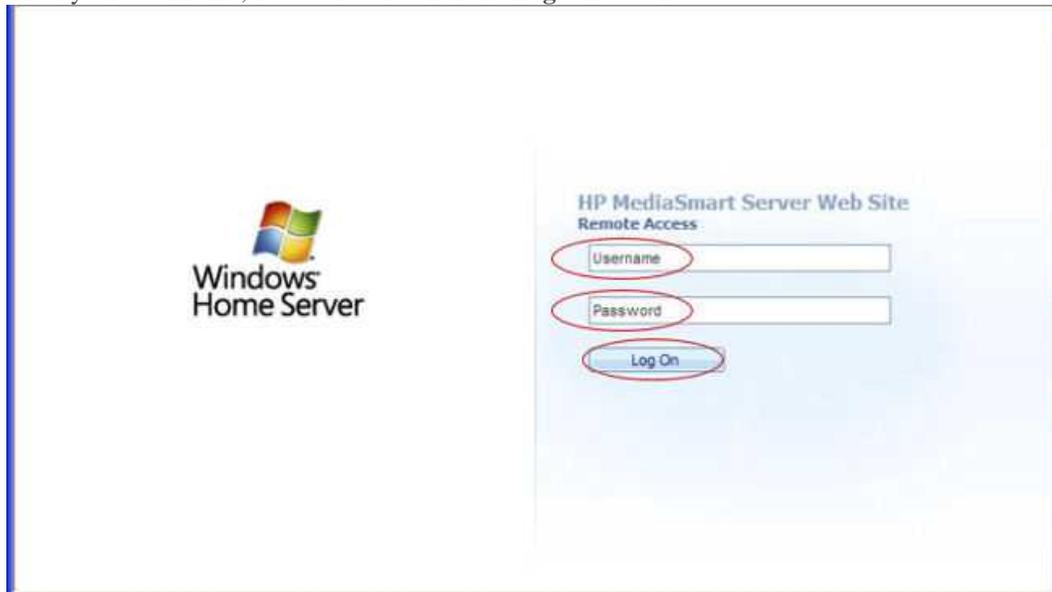
3. You will be brought the **HP Photo Publisher** home page.

4. If you entered incorrect credentials then you be brought to the Remote Access page. Click the HP Photo Publisher and you will be brought to the **HP Photo Publisher home page.**

UPLOAD PHOTOS OR CREATE AN ALBUM

Here you can select to upload to an existing album or you can create a new album or set.

Use the drop down arrow beside the upload to an existing album field, to select an existing album on the photo sharing site.

To create a new album on the photo sharing site you can enter a name and the album is created for you.

Note
Flickr uses the term **set** instead of **album**. Another term that Flickr uses is **photo stream**. The **photo stream** is the default presentation mode for Flickr and uses no sets.

SELECT PHOTOS

Photo Publisher will query the server and present a list of folders and photos available to the current user.

Click the **Arrow** to see an expanded view of folders

You can select an entire folder by putting a check in the checkbox by the folder, or you can select individual files using the checkboxes beside individual files. Once you have finished your selections click **Finish**. The photos selected will now upload to the photo sharing site you are logged onto.

Only file types that are supported by the photo sharing site are available to upload

The table below tells what file types are accepted at the various photo sharing and social networking sites:

	*.jpg, *.jpeg	*.gif	*.png	*.bmp
Picasa	X	X	X	X
Snapfish	X			
facebook	X	X	X	X
flickr	X	X		
MediaSmart Photo Viewer	X	X	X	

SERVER CONTINUES UPLOADING

This page gives a status concerning the uploading of the photos.

If the browser stops responding, you can close the browser, or you can visit another Web site; your HP MediaSmart Server will continue the upload.
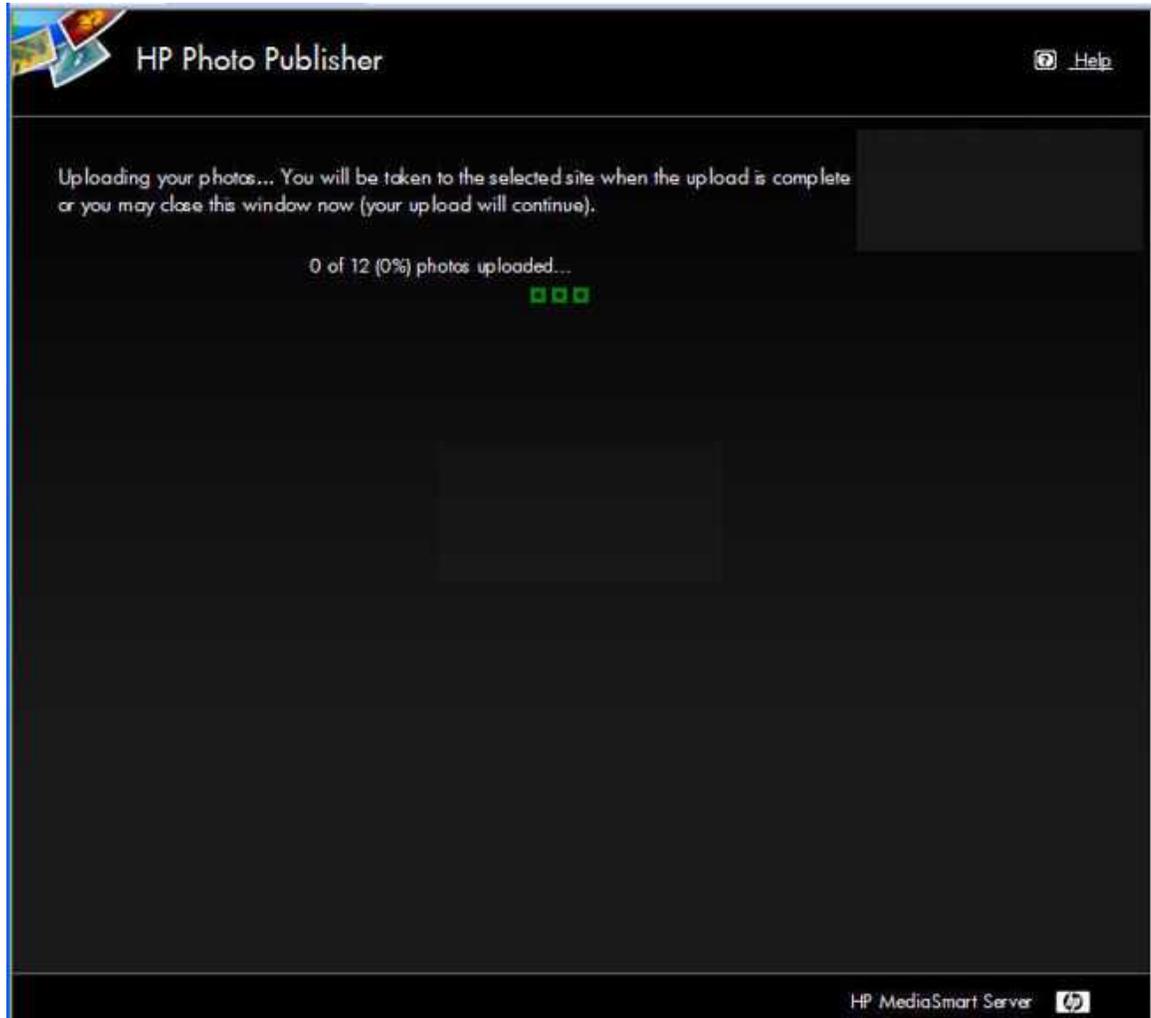
SNAPFISH

Snapfish Logon

To login to Snapfish, enter your credentials. Click **Next**.

After your credentials are accepted, this takes you to a page where you can create or add to albums.

FLICKR

Flickr Log On Page

To logon to Flickr, click the blue **Log On** link as shown below.
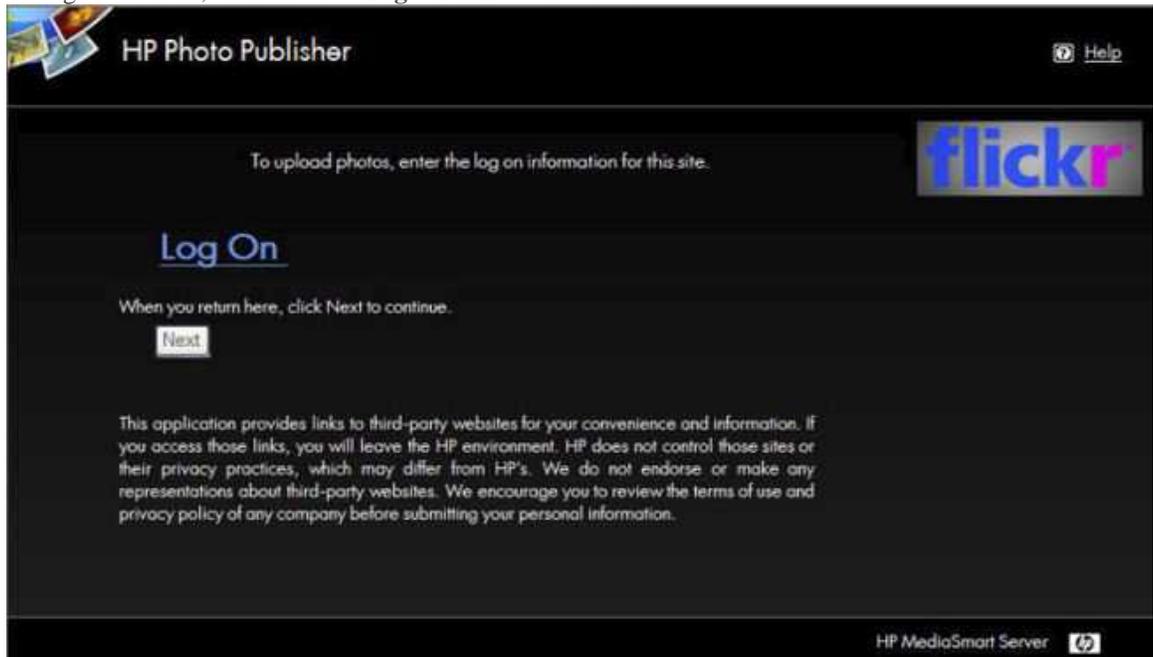
This takes you to the Flickr sign in page. Enter your credentials and return to the HP Photo Publisher page.
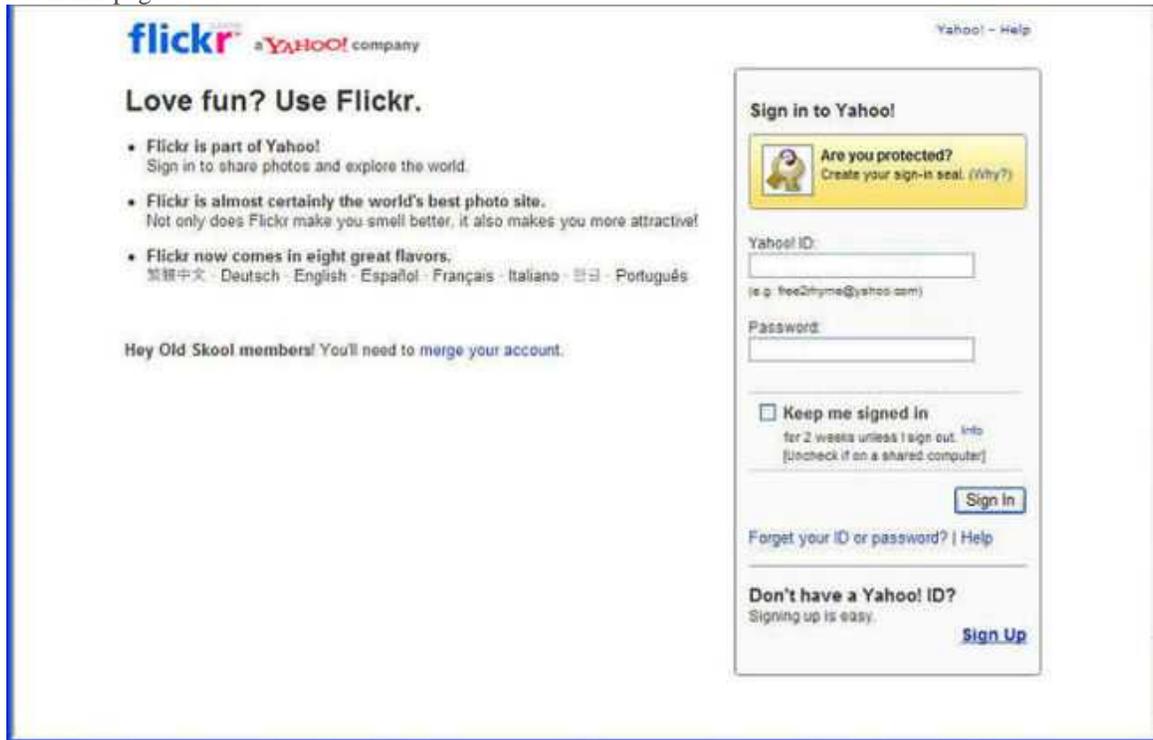
Flickr then asks you to allow HP MediaSmart Server to link to your account.

Click **OK, I'LL ALLOW IT**

This takes you to the Flickr confirmation page. Close this page.

Click **Next**.

This takes you to the HP Photo Publisher Albums page.

You can now create or add to albums.

FACEBOOK

Facebook Logon
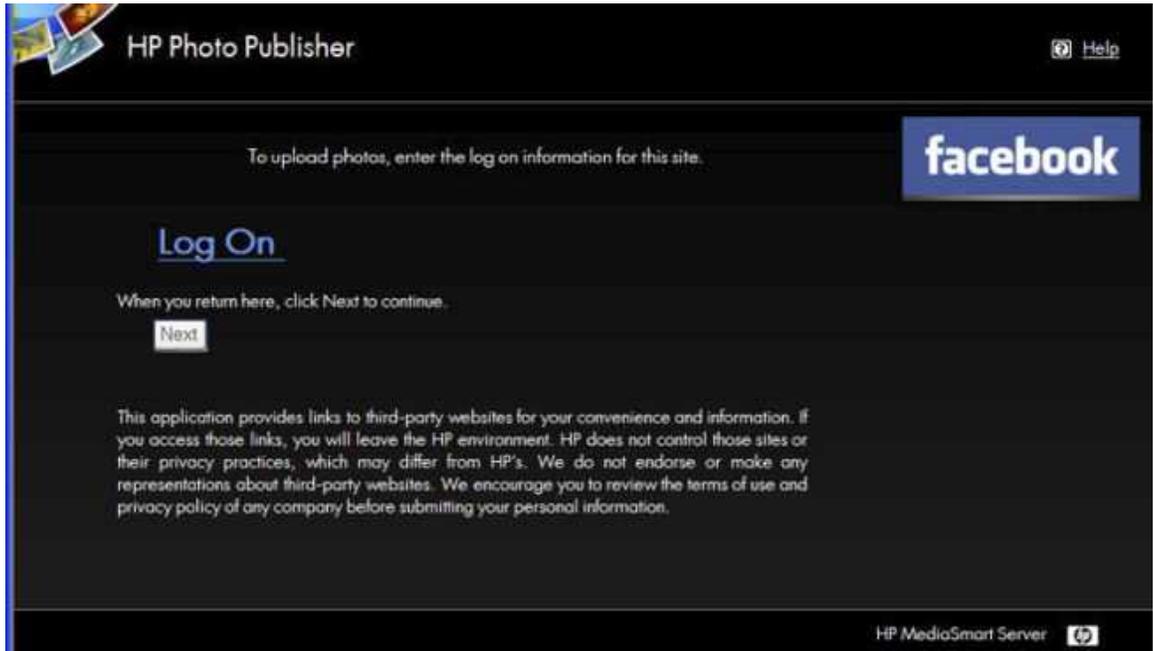
To log into your facebook account click the **Log on** link.

You will be taken to a page to enter your credentials for that site.

This takes you to the facebook confirmation page. Close this page.

At the Photo Publisher login screen click **Next**. You are then taken to a page where you can create or add to an existing album.

PICASA

Picasa Logon

To logon to Picasa, enter your credentials as shown in the figure below. Click **Next**.

After your credentials are accepted, this takes you to a page where you can upload photos and create albums.
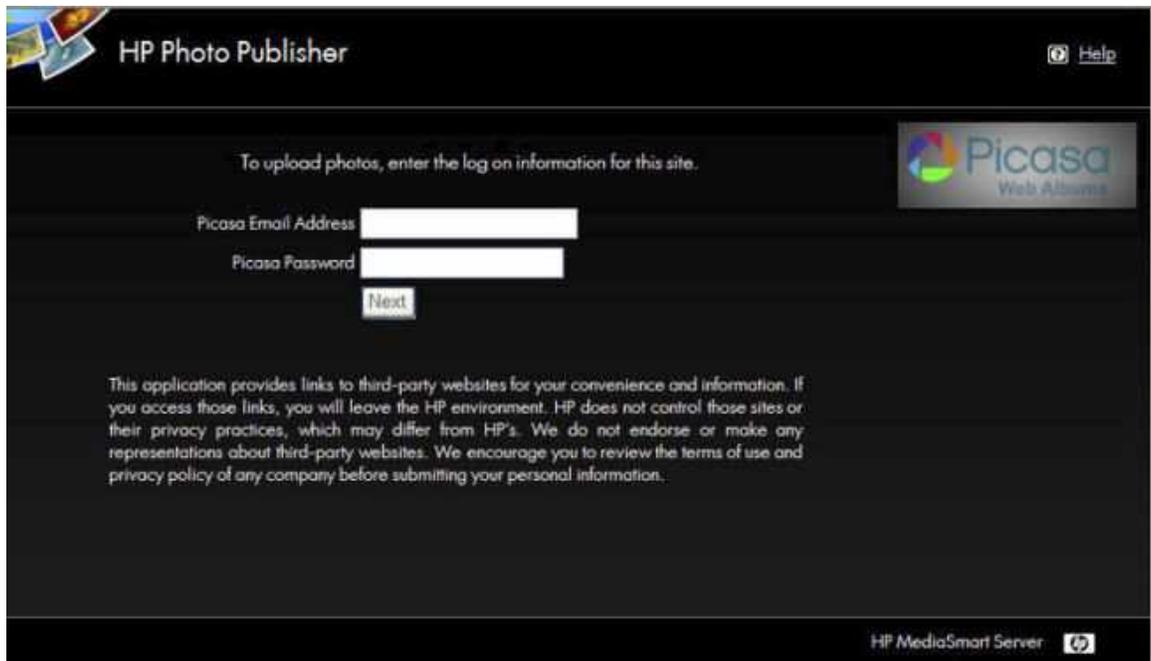
Chapter 4.
HP Photo Viewer

HP MEDIASMART PHOTO VIEWER HOME PAGE

The Photo Viewer Home Page gives you the opportunity to View, Rename, Delete an album Photo Viewer lets you make an album Public or Private.

The Public/Private choice is designed for additional privacy for Server owners that have set up their servers for remote access. This feature allows the administrator to make an album private, while allowing access to friends and family that know the URL of the album.
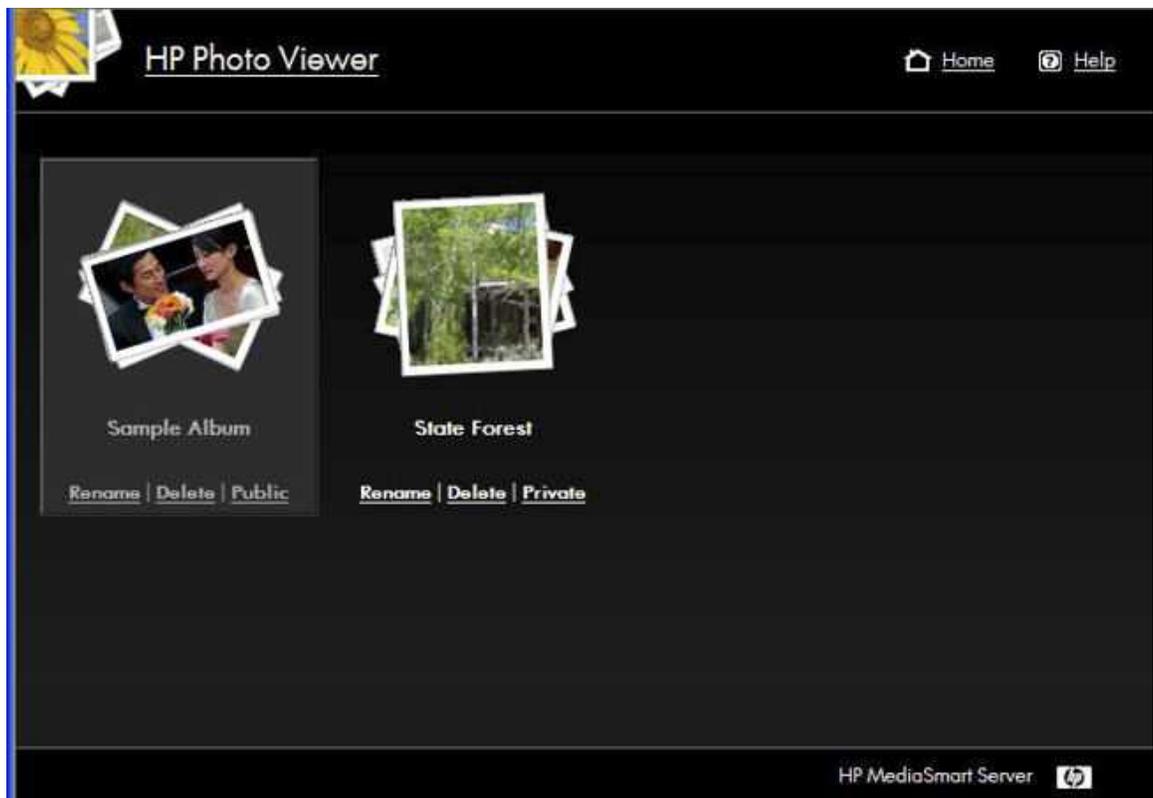
To share a Private album:

1. Open the Album

2. Either

    *   Use your browser's menu to send the URL, click **File**, **Send**, **Link by E-mail** to start sending an email to outside users

- Copy the URL
  http://myserver.homeserver.com/PhotoViewer/album633689042886093750/index.xml to
  paste into your email.

NOTE: Make sure you use the URL that has been set up for Internet/Remote Access. Using local
address for your album such as:
http://hpserver/PhotoViewer/album633689042886093750/index.xml will not work for remote
users.

3. Send the URL to your friend or family member, and they can now gain access to the Album
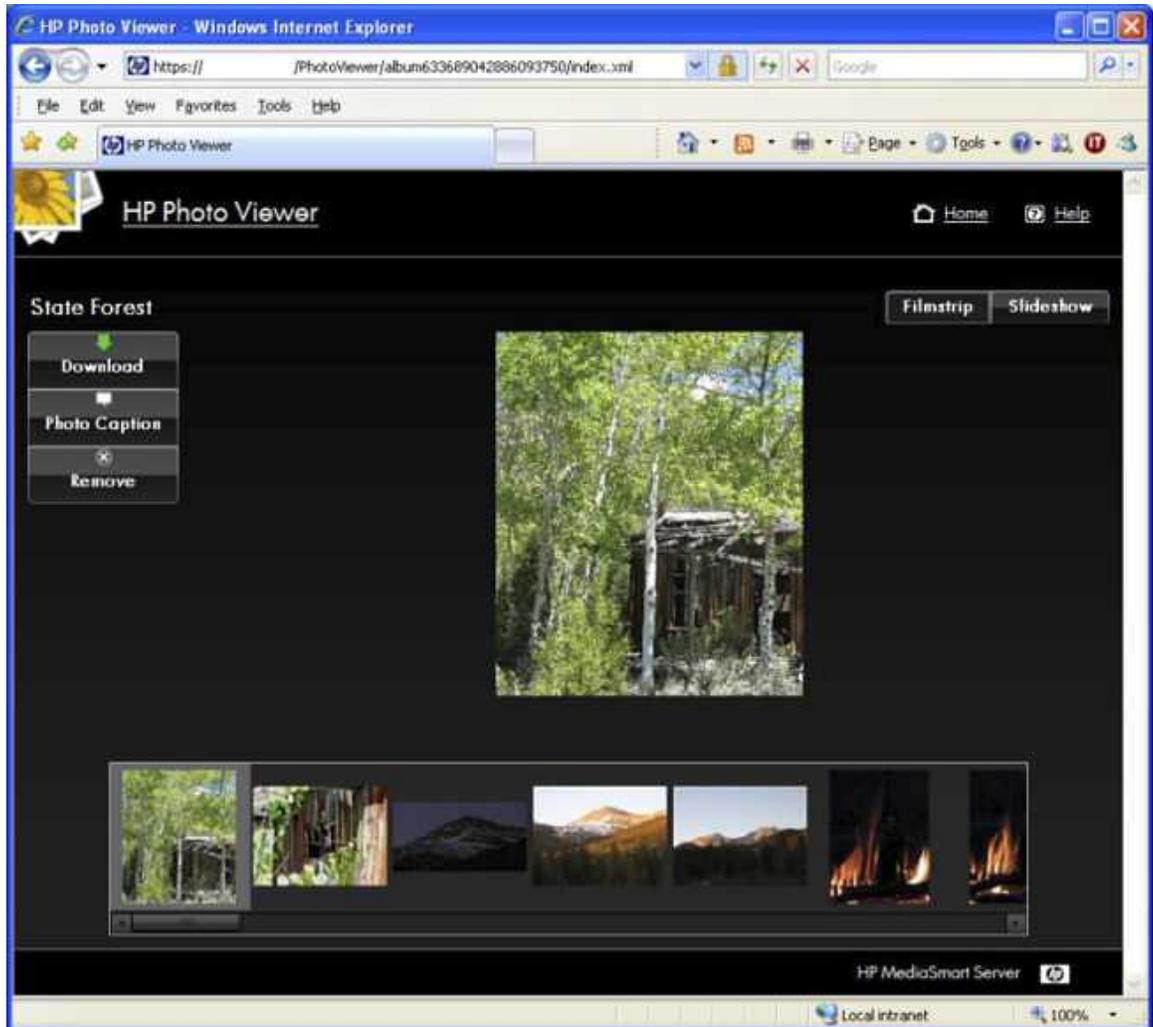
HP PHOTO VIEWER SLIDESHOW

You have two choices:

- Filmstrip View

- Slideshow View

Filmstrip View

Viewing the album in **Filmstrip**, you will see a screen similar to the below. As long as you are logged into the server you will have see three buttons on the left: Download, Photo Caption, and Remove.

If you have been logged off the server due to inactivity you will only see the Download button. Click the **Login** link in the upper right part of the screen and provide credentials to log back on.

The Download Button allows visitors to download the photo to there Computer.

Photo Caption allows you add a caption for the photo. Enter text in the field that appears below the photo as shown in the example below. Click the **Save** button to keep the Caption
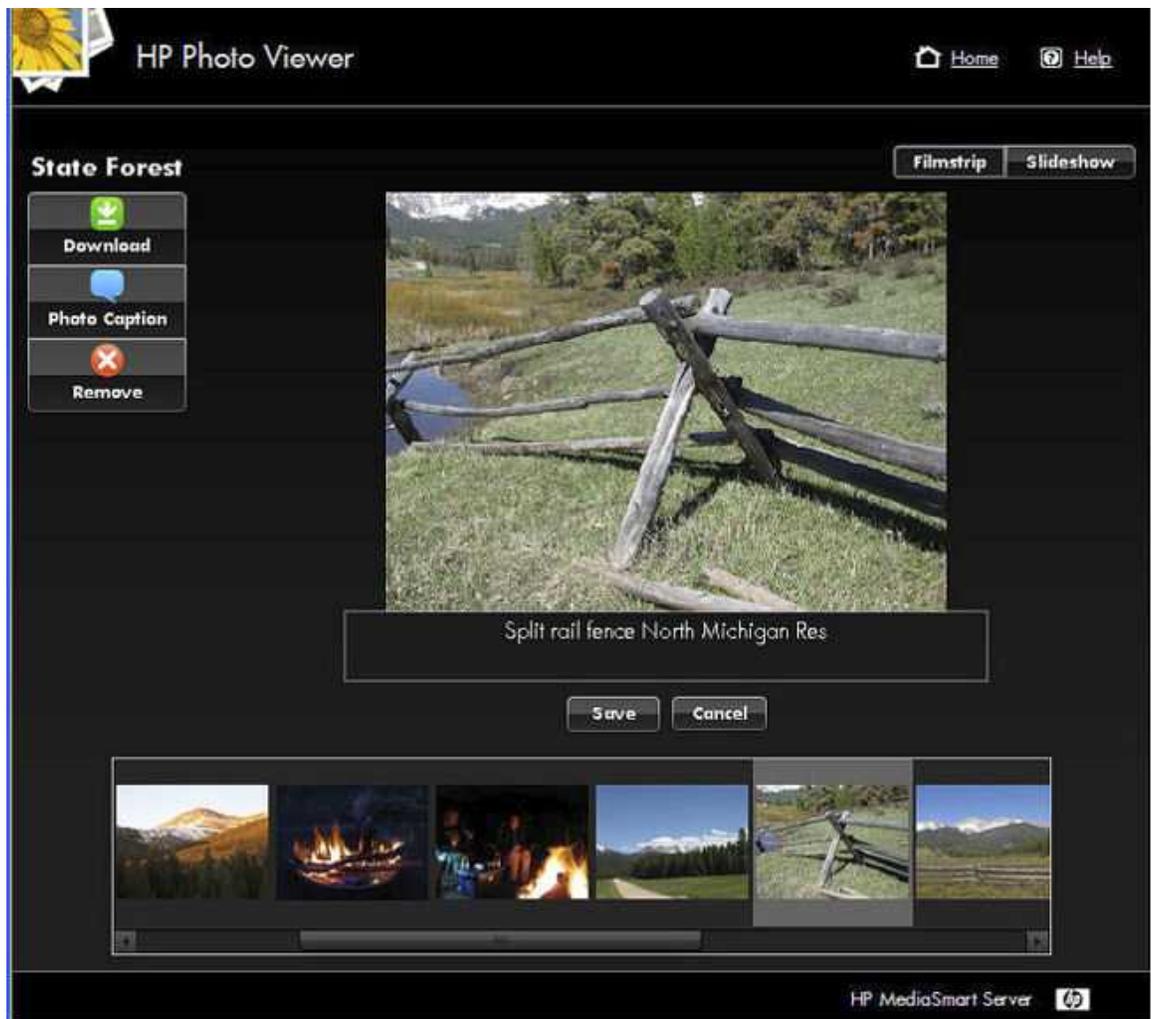
Remove lets you remove the photo from the album, please note that the photo still remains on the Server. Click **Yes** or **No** to confirm the removal.

Slideshow View

Viewing the album in Slideshow will give you larger views of the photos. If the photo has a caption, it will show as in the example below.
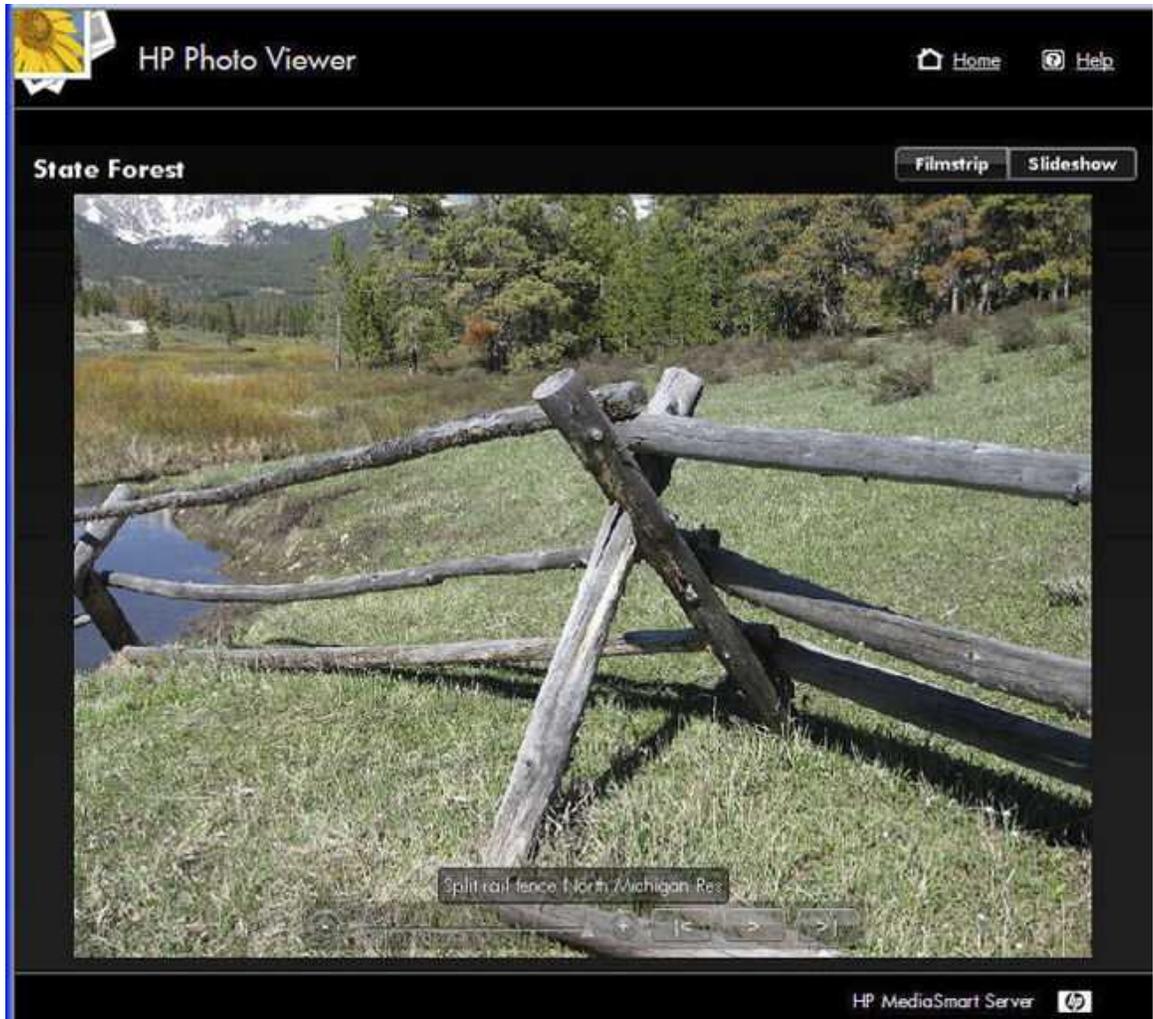
The Control Bar for the slideshow will appear towards the bottom of the screen.

The slider _____ half of the bar controls how fast the next

photo will show. The [|<] button will bring up the previous photo in the slideshow, the

[>|] button will bring up the next photo in the slideshow, and the [>] button is a toggle switch; playing or pausing the slideshow.

UPLOAD PHOTOS OR CREATE AN ALBUM

Here you can select to upload to an existing album or you can create a new album or set.

Use the drop down arrow beside the upload to an existing album field, to select an existing album on the photo sharing site.

To create a new album on the photo sharing site you can enter a name and the album is created for you.

Note

Flickr uses the term **set** instead of **album**. Another term that Flickr uses is **photo stream**. The **photo stream** is the default presentation mode for Flickr and uses no sets.

SELECT PHOTOS

Photo Publisher will query the server and present a list of folders and photos available to the current user.

Click the **Arrow** to see an expanded view of folders

113

You can select an entire folder by putting a check in the checkbox by the folder, or you can select individual files using the checkboxes beside individual files. Once you have finished your selections click **Finish**. The photos selected will now upload to the photo sharing site you are logged onto.

Only file types that are supported by the photo sharing site are available to upload

The table below tells what file types are accepted at the various photo sharing and social networking sites:

	*.jpg, *.jpeg	*.gif	*.png	*.bmp
Picasa	X	X	X	X
Snapfish	X			
facebook	X	X	X	X
flickr	X	X		
MediaSmart Photo Viewer	X	X	X	

HP MEDIASMART PHOTO VIEWER ALBUM MISSING PHOTOS

When viewing an album I have missing photos.

This occurs when photos that have been added to an album have been moved from the location that they were originally located when the photos were added to the album. The photos may still reside on the server, just in a different location. A Photo Album is very much like a play list – it contains a reference to photos on your server, but does not contain its own copy of these photos.
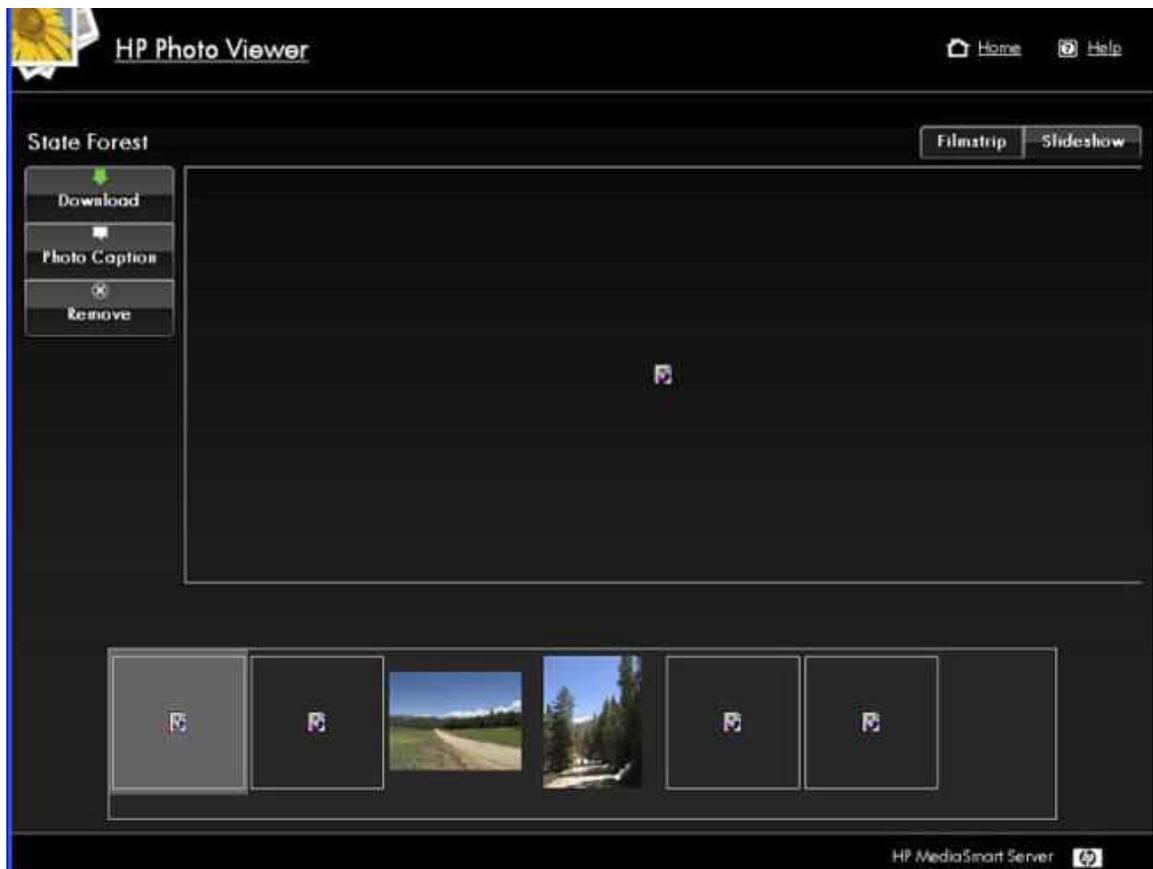
To remove the missing photos placeholders:

1. Log into Photo Viewer as the administrator

2. Open the album.

3. Click the Yes button in the Remove Photos dialog.
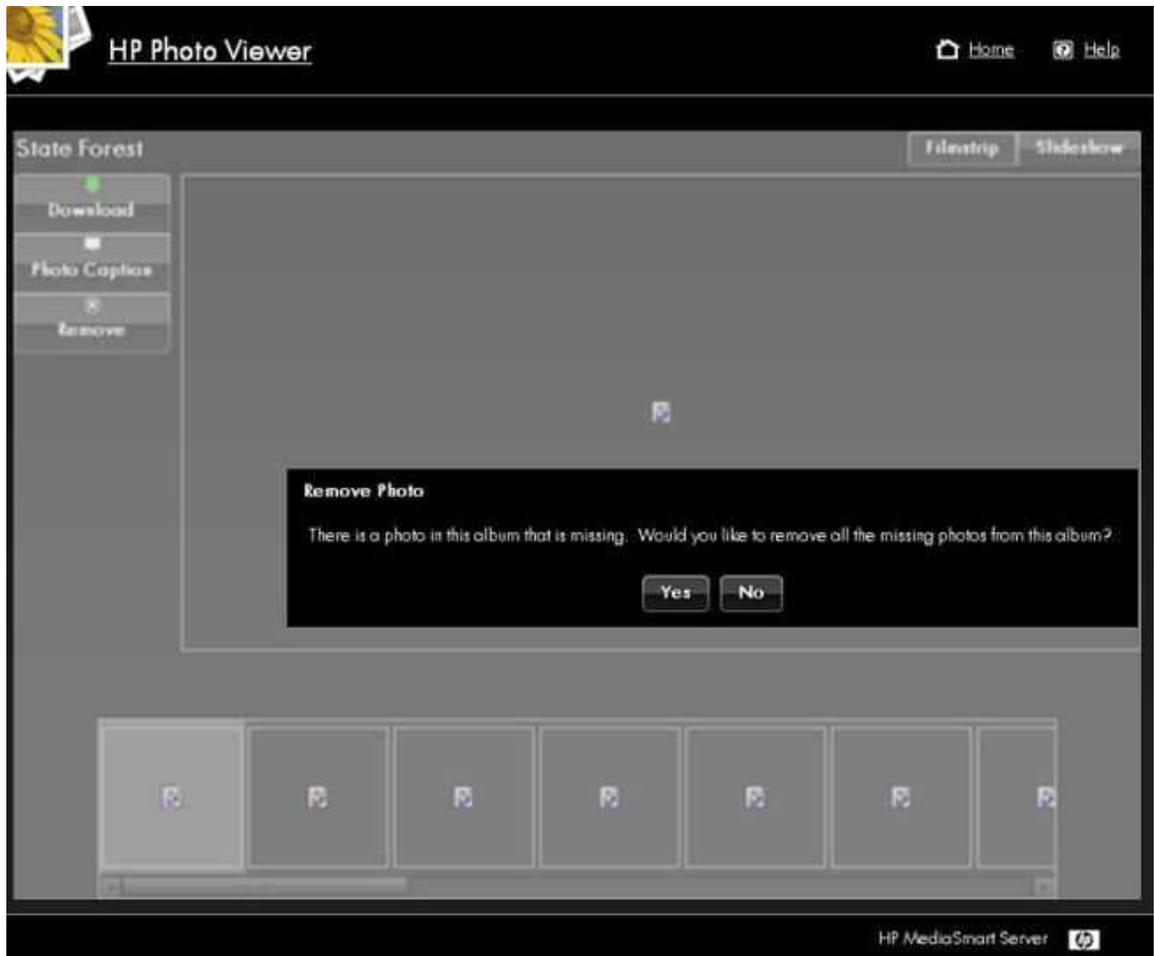
Chapter 5.
Features for Mac

INSTALLING AND UNINSTALLING SOFTWARE ON THE MAC

- To Install the Mac Software

- To Uninstall the Mac Software

To Install the Mac Software

The Server has to be configured first using a Windows Client. Once the Windows Home Server Connector has been installed you can install the Features for the Mac.

📝 **Note**
You must have administrative privileges on your computer to install the software. Click **System Preferences**, **Accounts**, and check **Allow user to administer this computer.**

1. Once Windows Home Server has been installed on a Windows home computer, insert the installation CD and a screen will appear with 2 icons, one for install and one for uninstall.

2. Double click the **Install HP MediaSmart Server Software.pkg** to begin the install process.

3. On the Welcome to the HP MediaSmart Server Software click **Continue** to install.

4. The End User license Agreement will pop up, click **Continue** to agree.

5. A standard install screen will appear, this screen will report how much room is available for the install on the default location. You do have a button to press to change location if you desire. Otherwise click **Install**.

6. Once the install is completed a confirmation screen will appear followed by a settings or a preferences screen.

7. The confirmation screen can be closed or left open. It will not effect the rest of this process. Click **Close**, to close the summary screen.

8. On the settings screen you will need to enter the **server name** and the server's administrator **password** so that the Mac software can access your Server. The authentication process begins when you stop typing the password.

9. Once your credentials have been authenticated, click **Apply** to save the server name and password.

Note
Server Name and Password have to be authenticated prior to using the control center, or entering preferences for BackUp.

10. After clicking **Apply**, you can click **BackUp** to set your BackUp Preferences. Or you can click **Show All** to go to the Control Center.

To Uninstall the Mac Software

After the Mac software has been installed, should you decide to un-install the Mac software, insert the Software Installation Disc and a screen opens with two icons, one for install and one for uninstall.

1. Double click the **Uninstall HP MediaSmart Server Software** to begin the process.

2. Follow the on screen instructions to complete the uninstall process, click **Continue**, and then click **Close** on the Summary screen.

UPDATING AND ROLLING BACK MAC CLIENTS

Updating Mac Clients

Important
Update the server software prior to updating the client software. The server update and the Mac client update are downloaded at the same time through the HP Update mechanism in the Windows Home Server Console. Updating the server ensures that the most recent copy of the HP MSS Client.dmg is on your server and ready to install. See Updating and Rolling Back the Server for more information.

1. Insert the Software Installation Disc and run it, or

    Select the server name in the left side of the Finder and connect to the server.
    The name of the server is **HPSERVER**, unless you renamed it during the original installation.

    Choose **Software** > **Mac**, and then run **HP MSS Client.dmg**.

2. When the software window opens, click **Uninstall HP MediaSmart Server Software**.
    Moving the application to the trash can will not uninstall it properly.

3. After the uninstall is complete, click **Install HP MediaSmart Server Software.pkg** to install the update.

Rolling Back Mac Clients

Important
Roll back the server software prior to rolling back the Mac client software. When the server is rolled back using the HP Update mechanism in the Windows Home Server Console, it also rolls back the HP MSS Client.dmg file that is located on the server. See Updating and Rolling Back the Server for more information.

1. Go to **Finder** > **Applications**, and then drag and drop **HP MediaSmart Server Control Center** to the Trash.

2. Select the server name in the left side of the Finder and connect to the server.
   The name of the server is **HPSERVER**, unless you renamed it during the original installation.

3. Choose **Software** > **Mac**, and then run **HP MSS Client.dmg**.

4. When the software window opens, click **Install HP MediaSmart Server Software.pkg** to install the update.

Checking the Mac Client Version Number

It is important for the Server software and the Mac client software to be on the same version in order for them to work together properly. Complete the following steps to confirm that the server and the client are on the same version.

1. To check the Mac client software version number, go to **Finder** > **Applications**, and open the **HP MediaSmart Control Center** on the Mac.

2. At the top of the screen select **HP MediaSmart Server Control Center** > **About HP MediaSmart Control Center**.
   The Mac client version number is displayed in the About dialog.

3. To check the server software version number go to a PC and double-click the Windows Home Server icon in the system tray and log on.

4. Click **Settings** in the upper right of the Console.

5. Select **HP MediaSmart Server** in the left menu and click the **HP Update** tab.
   The version number is at the bottom of the HP Update tab.

📝 **Note**
Server version 2.1.7.24261 and Mac client version 1.0.0b20 work together. Starting with version 2.5, the server and the client version numbers will have the same first two numbers.

The server and client software should have compatible version numbers. The following table lists the version numbers that work together.

Compatible Software Version Numbers		
Server Version	**PC Client Version**	**Mac Client Version**
1.3.6.21622	1.2.1.18999, 1.3.6.21622	N/A
1.3.8.25155	1.2.1.18999, 1.3.6.21622, 1.3.8.25155	N/A
2.1.7.24261	2.1.7.24261	1.0.0b20
2.5	2.5	2.5

CONNECTING YOUR MAC TO THE SERVER

File sharing is a key advantage of having a home server. The HP MediaSmart Server enables you to place documents, music, photos, or videos on the server and share them with all of the Macs and PCs in your household. This document explains how to connect your Mac to the server so you can access shared folder contents.

- Before Connecting to the Server

- Connection Method A: Using the Finder

- Connection Method B: Using Connect to Server

Before Connecting to the Server

Some setup and decisions are required before connecting your Mac computer to the server and accessing shared folders.

- The server software is installed on one PC.

- Decide how you will connect to the server—administrator account, user account, or guest account.

Types of Accounts		
Type of Account	**Description**	**Account Creation**
Guest Account	The guest account is useful when people are visiting your home and need temporary access to your server. In these cases, it probably does not make sense to create a user account for each person. Instead, you can create a single guest account that all visitors use. The guest account may or may not have a password.	Go to a PC and double-click the Windows Home Server icon in the system tray and log on. Select the **User Accounts** tab. Double-click the **Guest** account and click **Enable Account…** on the Properties dialog. You have the option to create a password for the guest account or leave it blank. Click the **Shared Folder** tab to define folder access.
User Account	The server pairs user accounts on the server with those on a computer to identify who is connecting to the server and to maintain security. Each server user account has a unique user name and password that should match their computer log on name and password. Each user account on the server can have their own shared folder access levels.	Go to a PC and double-click the Windows Home Server icon in the system tray and log on. Select the **User Accounts** tab. Click **Add** from the Windows Home Server Console **User Accounts** tab. Complete the information in the Add User Account wizard.
Administrator Account	Connecting as the server administrator gives you access to all shared folders on the server. The administrator account's user name is always Administrator.	The server administrator account is created the first time you install the server software on a PC. You enter a password during the installation. See Installing Software on the First PC.

- If you created a User Account on the server, create a matching User Account on the Mac if it does not already exist. The Mac user account should have the same user name and password as the server user account.
  On the Mac computer, choose **Apple menu** > **System Preferences** > **Accounts**. On the Accounts dialog, verify the dialog features are unlocked and click "+" to add a user account. Complete the information on the Accounts dialog.

Connection Method A: Using the Finder

Connecting to the HP MediaSmart Server using the Finder is quick and easy. The Finder can also remember your server logon settings so subsequent connections are effortless.

1. At the Mac computer, choose **File** > **New Finder Window**.

2. Click **HPSERVER** in the Shared category of the left Sidebar. If you renamed the HP MediaSmart Server during the first installation, select that name in the Shared category.
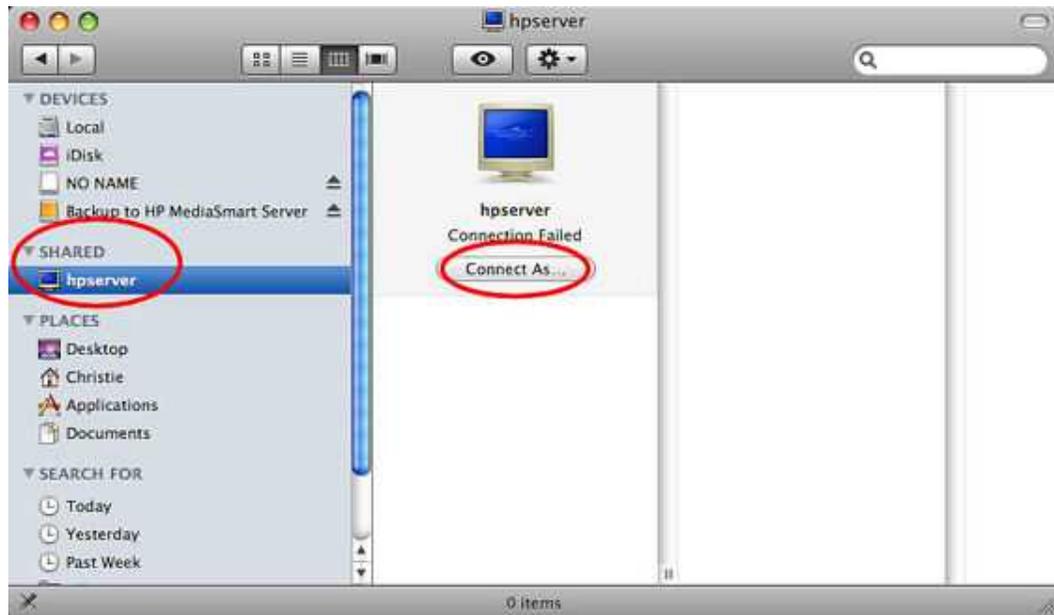
📝 **Note**
The same Sidebar shows up in Save and Open dialog boxes of your programs too, making your server available to you for opening and saving files.

If you don't see the server in the Finder window's Shared category,

- The server may not be connected to the network,

- The Mac computer may not be connected to the network,

- Or maybe the check box is turned off for **Connected Servers** and **Bonjour Computers** in **Finder** > **Preferences...** > **Sidebar**.

3. If you are not automatically connected to the server, click **Connect As...**.

Precisely how you connect to the server depends on what kind of server account you are using: Guest, User Account, or Administrator.

- **Guest account with no password**—You are automatically connected to the server when you click its name in the Finder.

- **Guest account with a password**—In the dialog that opens, select **Registered User**, type the server's Guest account **Password**, and click **Connect**. You do not need to change the **Name**. Check **Remember this password in my keychain** to remember your settings and automatically connect to the server in the future.

125

- **User account**— If you have a User Account on the server, select **Registered User**, type the **Name** and **Password** that was created in the server's user account in the Windows Home Server Console, and click **Connect**. Check **Remember this password in my keychain** to remember your settings and automatically connect to the server in the future.

- **Administrator account**—Alternately, you can connect to the server using the server's administrator account. Select **Registered User**, type Administrator for the **Name**, and type the server's **Password**. The server's password was created the first time you installed the server software on a PC.

4. Navigate to the folder you want on the server.

   The folders that display depend on the **Shared Folder Access** settings for the guest account or user account that you used to connect to the server. To change **Shared Folder Access** settings, double-click the Windows Home Server icon in the system tray on a PC and log on to the Console. Click the **User Accounts** tab and double-click the guest account or user account. Select the **Shared Folder Access** tab to change settings. Click **OK** to accept the changes.

   If you connected to the server using the Administrator account, you will see all of the server's shared folders.

Connection Method B: Using Connect to Server

Follow these steps to connect to Windows File Sharing (SMB) from Mac OS X 10.5 or later. SMB is the native sharing protocol for Microsoft Windows operating systems.

1. At the Mac computer, choose **Go** > **Connect to Server…** on the Apple menu bar.

   Click **Browse** on the Connect to Server dialog to open the Finder and connect using Method A described above.

   Type the **Server Address** using the following syntax:

   smb://ServerName/ShareName

   For example, type the following server address to connect to the music shared folder:

   smb://hpserver/music

126

If you renamed your server during the first software installation, remember to use that server name instead of HPSERVER. A shared folder name is required. The shared folder name cannot contain spaces; type %20 instead of spaces. Additionally, you cannot connect to a shared folder name that contains a hyphen.

The Mac computer may not recognize the server's name in some cases. If that happens, connect to the server using its IP address instead of the server name. If you are unsure of your server's IP address, you can log on to your router to see a list of IP addresses for all network connected devices. To log on to your router, open an Internet browser window, type the router's IP address in the address bar and press **Enter**. The router's IP address will be one of the following,

- 192.168.1.1,

- 192.168.0.1, or

- Obtain your router's IP address from a Mac by selecting **Apple menu** > **System Preferences** > **Network**. Select **Built-in Ethernet** on the left menu. The router IP address is on the right side of the Network dialog.

127

On a PC, select **Start** > **Run**. Type cmd and click **OK**. In the DOS window, type ipconfig and press **Enter**. Use the **Default Gateway IP** address to log on to your router.

Once logged in to the router, look for a list of connected devices. Each router is different. See your router's documentation if you do not find the server's IP address right away. Once you find your server's IP address, return to the Connect to Server dialog on the Mac and enter the server address. Your address will be different but will look similar to the following,

smb://192.168.0.180/music

📝 **Note**

Click "+" to add the server address to your list of favorites.

3. Click **Connect**.

To troubleshoot a connection failure, you can ping the server by opening a Finder window and choosing **Applications** > **Utilities** > **Network Utility**. Select the **Ping** tab, type the server's IP address, and click **Ping**. A successful ping verifies a connection between the Mac computer and the server.

If you are unable to ping the server, check that the server is on and that all network cables are securely connected. You may also need to reset your router.

4. Log on to the server using either a guest account, user account, or administrator account.

See Step 3 in Method A above for detailed information on logging on to the server.

HP MEDIASMART SERVER CONTROL CENTER FOR MAC

The Control Center is the starting point for accessing the features of the HP MediaSmart Server. The Control Center has three sections:

Browse—Access your shared folders .

- **Tools**—Tools and settings for configuring your server.

- **Help & Support**—Learn to use the HP MediaSmart Server and connect to online support.

Opening the Control Center for Mac

The Control Center can be accessed from the following:

Using the Finder—at the computer, click Finder, Applications, and then select HP MediaSmart Server Control Center.

On the Dock—at the computer, double-click the HP MediaSmart Server icon on the Dock.

Desktop icon—at the computer, double-click the HP MediaSmart Server Control Center icon on the desktop.

The Control Center desktop icon and system tray icon are available only if you selected to create them during installation.

About the HP MediaSmart Server Control Center for Mac

The Browse Section

Shared folders are places to help you get started saving and organizing your files so that you can share them with other people on your network.

Server—opens a folder that displays a list of all your shared folders.

Photos—opens a folder that displays a list of photos and photo subfolders.

Music—opens a folder that displays a list of music and music subfolders.

Video—opens a folder that displays a list of videos and video subfolders.

If the logon name for the user account on your server does not match the logon name for your computer, you must enter a user name and password. For information about creating matching user accounts, see **Why should logons names match?** in the Windows Home Server Console Help.

The Tools Section

Use the tools and settings on this tab to configure your HP MediaSmart Server.

HP Photo Publisher—Publish photos from your Server to your favorite photo-sharing site. Friends and family can see your photos on the Internet.

Preferences—Click to enter your Server name and password, also to set backup preferences.

Media Streamer—opens a web application for streaming music, videos, and photos in your home. For more information, see About Media Streamer.

Wake Server—Click Wakeup Server if you want to use the HP MediaSmart Server during sleep hours. All of the lights on the Server will be off when it is in sleep mode. For more information, see Power.

The Help & Support Section

Get information about using, configuring, and getting accessories for your HP MediaSmart Server.

User's Guide—contains installation information, setup instructions, how to use the server, tutorials, and other important information.

Online support—go to the HP Support web site, where you can get more information about the HP MediaSmart Server.

Registration—Click to go to https://register.hp.com and register your HP MediaSmart Server. Registering your Server ensures that your information is on file with HP if you should need technical support services.

Need accessories?—get accessories for your server and shop HP Home & Home Office.

MAC BACKUP AND RESTORE

This document has instructions for,

- Determining_Used_Space_on_Your_Local_Disk

- Configuring_Time_Machine_Backups

- Changing_the_Backup_Disk_Size

- Deleting_a_Backup_Disk

- Restoring_Files_from_Backup

Determining Used Space on Your Local Disk

Begin by finding out how much space your data currently occupies on your startup disk.

1. Open a Finder window and select the Local disk.

2. On the Apple menu bar, choose **File** > **Get Info**.

3. In the window that opens, look in the **General** section next to find the **Used** disk space.

Now, multiply the used disk space by 1.2; the result is the minimum amount of disk space Time Machine can work with. (That's because Time Machine needs space for all your files plus some extra room to enable it to store new data and multiple copies of files that change.) However, more space is always better, because it enables Time Machine to retain backups that go further into the past. A backup disk with at least 1.5 times as much free space as the amount occupied on your local disk is recommended, and more if possible. If you find that you need more space for Time Machine later, you can resize the backup disk space.

Configuring Time Machine Backups

Before you begin,

- The HP MediaSmart Server software has to be installed on your Mac. See Installing and Uninstalling Mac Software.

- You must be logged on to the Mac with an account that has administrator privileges.

  To configure the HP MediaSmart Server as a valid Time Machine backup device,

1. Choose **Finder** > **Applications** > **HP MediaSmart Server Control Center** > **Preferences**.

2. On the **Server** tab, enter the server name and the server's administrator password.

  This information is used by Time Machine to set up the backup destination, as well as the links to the shares on the server. This information may have been entered at the end of the Mac software install. If so, you will be authenticated automatically.

3. Select the **Backup** tab and type a **Backup Disk Size**.

    The suggested minimum disk space size displays in the dialog based on approximately 1.5 times the size of your used disk space. However, HP recommends creating a backup disk that is at least as large as your total local disc capacity, or larger if possible. When choosing a backup disk size, you may want to consider how much you use your Mac and how much disk space you have available on your server. The backup disk size cannot exceed the amount of free space that you have available on one server disk.

    Important
    You can resize your backup disk later if you need more room. Resizing the backup disk overwrites the current backup disk and causes all data to be lost. See Changing the Backup Disk Size.

Note
The location for the backup is on the server at \\HPSERVER\Mac\Backup. If the Mac shared folder has been deleted from the server (you must use a Windows PC to do this), you must create the Mac folder.

4. Click **Apply**.

    This process can take quite some time based on the size of the backup disk and server activity. Once the formatting process is complete, the Backup Disk Status changes to **Started**.

    The backup file will be located at \\<server name>\Mac\Backup. The filename is based on the serial number of the Mac system, and cannot be changed. Do not manually delete or rename this file.

5. Click **Open Time Machine Preferences**, click **Choose Backup Disk** and select **Backup to HP MediaSmart Server** as the backup disk.

    Backup to HP MediaSmart Server may already be selected. You typically have to change the backup location to the HP MediaSmart Server if you had a previous Time Machine backup that pointed to a different location.

Changing the Backup Disk Size

The backup disk size can be changed; however, all previous backup data will be lost.

1. Choose **Finder** > **Applications** > **HP MediaSmart Server Control Center** > **Preferences**.

2. In the **Backup Disk Status**, click **Stop**.
    The **Backup Disk Status** changes to **Stopped** and the virtual disk icon on the desktop goes away after the backup disk is stopped.

134

Note
You may have to wait several minutes for the backup disk to stop. Please be patient. If the backup disk does not stop and it appears to hang, it could be because an application or other process is accessing the backup disk in the background. If this is the case, attempt to eject the disk using Finder.

3. Enter a new value in the **Backup Disk Size** and select **Resize** from the action menu.
    You cannot select **Resize** until the disk is stopped and the disk size is changed.

4. Click **Apply**.

5. A pop up warning appears informing you the file already exists, and that continuing will erase the existing backup data and start over. To continue with the new size click **Delete and Continue**.

Deleting a Backup Disk

You may want to delete a backup disk if you need to free up space on your server for other things or if you are no longer using your Mac.

1. Choose **Finder** > **Applications** > **HP MediaSmart Server Control Center** > **Preferences**.

2. In the **Backup Disk Status**, click **Stop**.
    The **Backup Disk Status** changes to **Stopped** and the virtual disk icon on the desktop goes away after the backup disk is stopped.

Note
You may have to wait several minutes for the backup disk to stop. Please be patient. If the backup disk does not stop and it appears to hang, it could be because an application or other process is accessing the backup disk in the background. If this is the case, attempt to eject the disk using Finder.

3. Select **Delete** from the action menu next to the **Backup Disk Size**.

Restoring Files from Backup

Restoring your Mac from a failed hard drive scenario involves the following steps.

1. Install the new hard drive.

2. Install Mac OS X 10.5 from the **Mac OS X Install Disc**.

3. Install Mac OS X operating system updates, to ensure everything is up-to-date.

4. Install HP MediaSmart Server Mac Client software. See Installing and Uninstalling the Mac Software.

5. Configure HP MediaSmart Server Mac Client settings including: server name, administrator password, backup location (using the same share that was used for the backup) and start the backup disk.

6. Choose the disk called **Backup to the HP MediaSmart Server** disk in .Time Machine System Preferences.

7. Launch Time Machine and ask to restore to the latest backup.

Chapter 6.
Online Backup

SERVER ONLINE BACKUP FEATURES

Online Backup uses an Amazon S3™ account to save your important files to a remote location on the Internet. You can also browse and restore your online files back to your Server. This feature is an Add-in that you can uninstall at any time.

BEFORE USING SERVER ONLINE BACKUP

Before using this feature, you must first get an Amazon S3™ account. When you have an Amazon S3™ account, you can use your Amazon credentials to configure the Online Backup feature. To get an Amazon S3™ account, go to the Account Setup tab in the **Server Online Backup** section of the **Windows Home Server Settings** window.

SERVER ONLINE BACKUP DASHBOARD

When you select **Server Online Backup** in the HP MediaSmart Server tab on the Windows Home Server Console, the right pane offers you a portal to your Amazon S3™ account. This screen includes a **Backup Summary**, **Backup Status**, and a **Configure** link that takes you to the **Account Setup**. The figure below shows the **Online Backup Dashboard** before you have configured Online Backup or scheduled any backups:

Backup summary

Online backup summary shows the names and sizes of the folders currently stored in your Amazon S3™ account. The figure below shows the **Backup summary**.

Backup Status

Backup Status shows information on the most recent backup only.

BUTTON BAR

In the button bar of the **Online Backup Dashboard**, you can click these buttons: **Configure**, **Schedule Backup**, **Backup Now**, **Browse/Restore**, and **Delete**.

Configure

Click on this button to bring up the **Settings** screen with focus on the **Account Setup** tab. Use this tab to specify the Amazon S3 account credentials to use for the backup

Schedule Backup

Clicking the **Schedule Backup** button opens the **Windows Home Server Settings** window at the Scheduling tab. You can select shared folders and online backup schedule details here. The figure below shows this window.
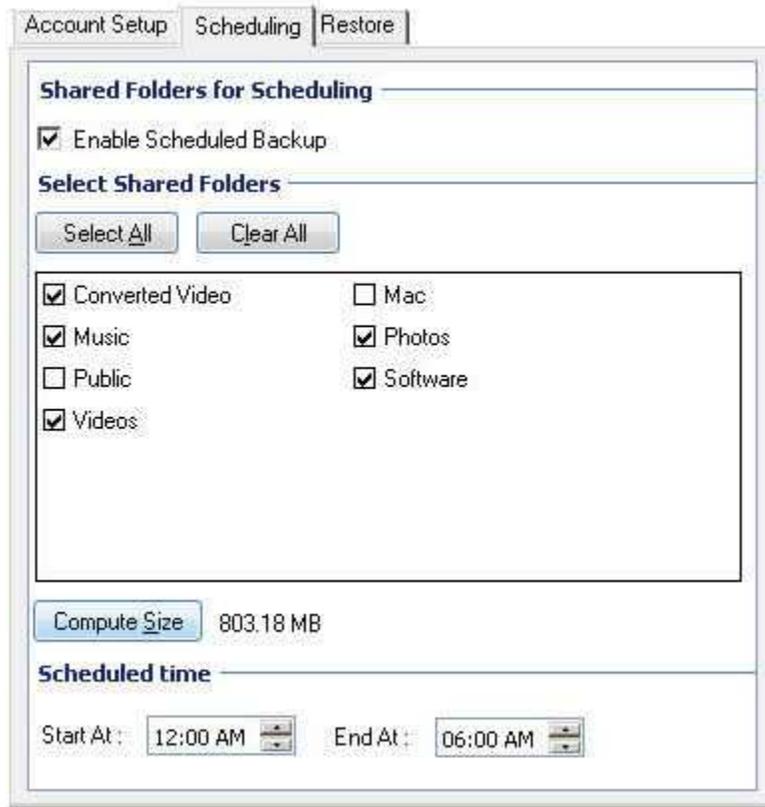
Backup Now

Click the **Backup Now** button to do an immediate online backup. The **Backup** window opens to show a list of shared folders on your HP MediaSmart Server. You can select any or all of these folders for backup. Check the box next to each folder you want to back up. The **Select All** and **Clear All** buttons help you select or clear quickly. The **Compute Size** button opens to show you the size of your selected backup. Click the **Backup** button to start the transfer. You can see the File Transfer Status in the Server Online Backup screen. The figure below shows the **Backup** window.

The figure below shows the Online Backup Dashboard after you have configured Online Backup and scheduled backup activity:

Browse/Restore

Click the **Browse/Restore** button to view your Amazon S3™ account and see the list of HP MediaSmart Server shared folders that are already backed up. The **Browse/Restore Backup** window opens. In the left pane, select a folder to restore by checking the box. The right pane shows the files in your selected folder and information on File Name, File Size and File Path.

Note:

Be sure that files and folders in the selected folders are not open during restore. The restore cannot proceed if files are open.

The figure below shows the **Browse/Restore Backup** window.
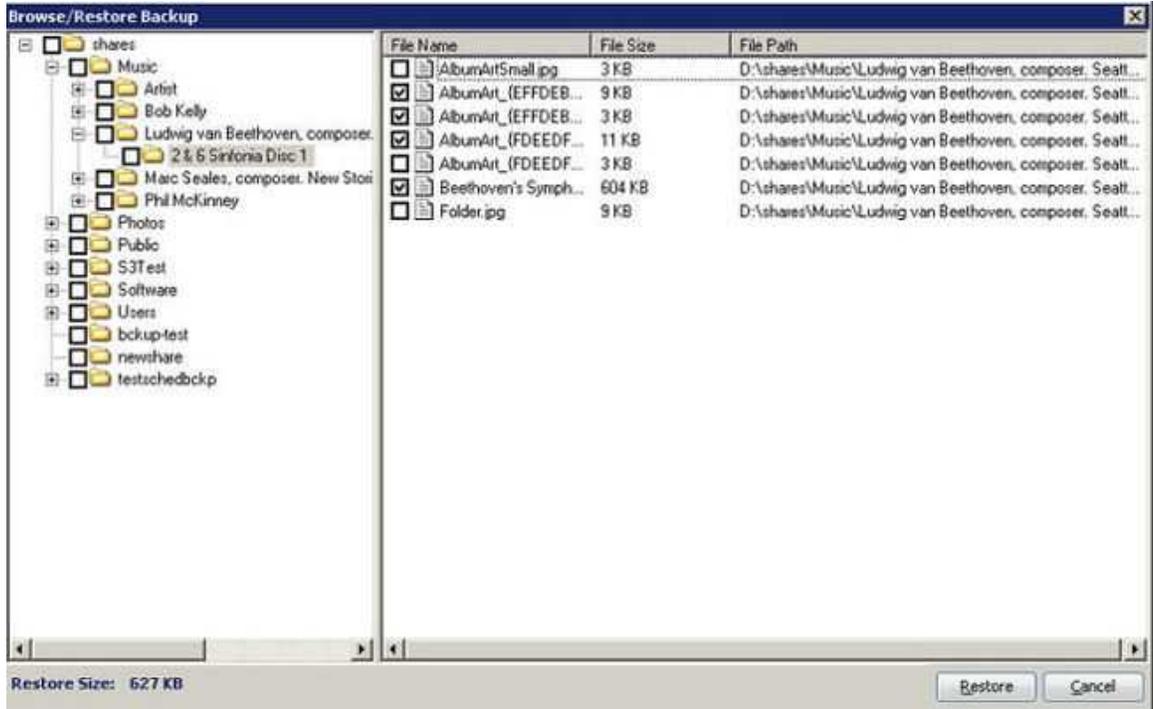
Delete

Brings up a window where you browse and chose to delete data backed up to your Amazon S3 account. Using the check boxes to select or unselect an item for deletion. You can select multiple items for deletion.

1. Click the **Delete** button.

2. A confirmation message box is shown that asks "Are you sure you want to permanently delete selected files/folders from Amazon S3?", click **OK** to delete.

Once the deletion has been confirmed, the **Delete Backup** window closes and the **Current activity** field in the Dashboard changes to reflect that a delete operation is in progress.

To stop the deletion, click the **Stop Delete** link in the Backup Status pane. The status of the delete operation is displayed in the **Activity log** pane. Once the selected files/folders are deleted, the **Backup Summary** pane in the dashboard refreshes to display the up to date shares and sizes in Amazon S3.

WINDOWS HOME SERVER SETTINGS

Account Setup

Before you can set up your account, you must get an Amazon S3™ Account. The Account Setup tab lets you log into your existing Amazon S3™ account.

Once you have entered your **Access** and **Secret** Keys, click the **Validate Keys** button to validate the keys. The system validates the keys and reports if they are valid or not.

Your **Bucket** is how Amazon designates the location of your online backup. You can use a default name for your bucket or choose another name. The figure below shows the Account Setup tab.

143

Scheduling

To schedule a backup, click the Scheduling tab. Here you can enable a backup, select shared folders, and schedule the start and end time of the backup window. The figure below shows the Scheduling tab.

Restore

The restore tab allows you to keep the original restored file in the server or you can replace it with the file from Amazon. The figure below shows the Restore tab.
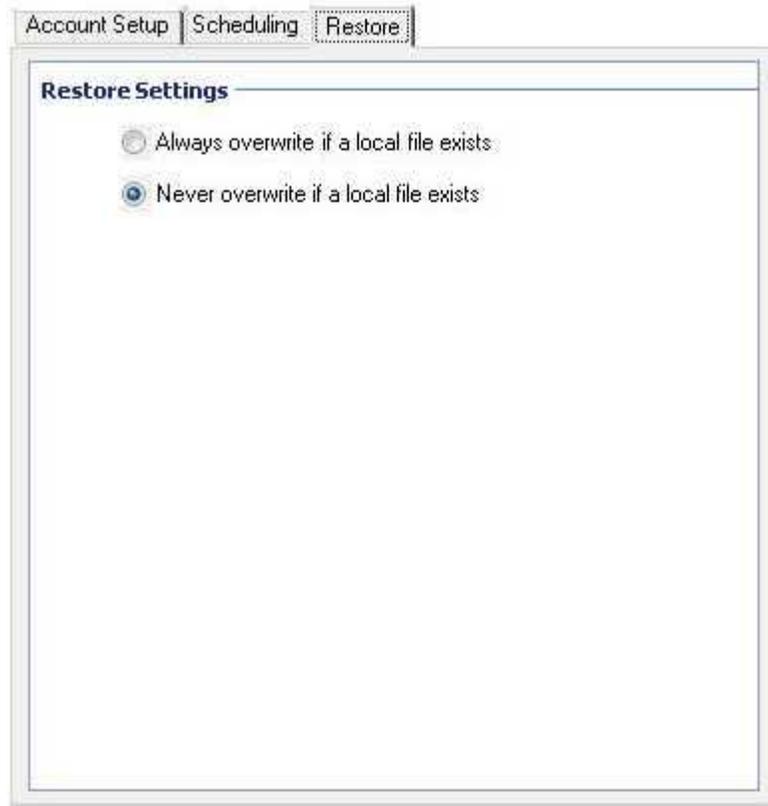
Chapter 7.
About Streaming Media

STREAMING MEDIA

Streaming media allows you to enjoy your videos, music, and photos in any room of your home and outside your home. Even when you are away from home, you can enjoy your media on any computer that has a Web browser.

STREAMING MEDIA REQUIREMENTS

Before Streaming Media can work, you must:

- Store media on the HP MediaSmart Server

- Set up and enable Remote Access

- Set up Digital Media Receivers in your home

STREAMING MEDIA TYPES

Your HP MediaSmart Server can only stream media files such as music, photos, and videos. Non-media files are not available for streaming (Microsoft Word files, Spreadsheet files, etc).

PUTTING MEDIA ON THE HP MEDIASMART SERVER

You can put media on your HP MediaSmart Server in two ways:

- Drag and drop media files to the folders on your Server

- Configure Media Collector to copy files to your Server

Media Collector scans the computers in your home network and copies media to the server. You can choose how often Media Collector copies files; and you can choose what Media Collector copies and how to organize media on the server.

STREAMING TO YOUR TELEVISION, STEREO, AND HOME PC

Your HP MediaSmart Server uses Digital Media Servers to stream media from the Server to a Digital Media Receiver that is attached to your television and stereo.

STREAMING TO A REMOTE COMPUTER

You can stream from the Internet using the HP Web Streamer application. When you are traveling, you can stream media from your HP MediaSmart Server to any computer that has a **Web browser**.

Your Server has a Digital Media Server called TwonkyMedia and a Web server. TwonkyMedia prepares your media for streaming and the Web server streams media to the Internet where your computer can play it on a Web browser.

STREAMING TO ITUNES

You can listen to the music files from your HP MediaSmart Server using iTunes. You cannot stream photos or videos to iTunes, only music files. iTunes can stream DRM-protected media.

Chapter 8.
Server for iTunes

SETTINGS FOR ITUNES

Media Collector provides the ability to copy your iTunes music library and playlists to your HP MediaSmart Server. You can centralize your iTunes library for playback on any computer on your home network that runs iTunes.

Your Server is enabled for iTunes by default. To set up your Server for iTunes follow these steps:

1. At the computer, double-click the Windows Home Server icon in the system tray.

2. Log on to the Windows Home Server.

3. In the left pane of the **HP MediaSmart Server** tab, click the **Server for iTunes** button. In the right pane click the **Configure** button. The **Windows Home Server Settings** window opens. Here you can set up the following:

- **Status**—enable or disable.

- **Shared name**—specify the shared name you want to display in iTunes.

- **Require password**—check to require password. The default setting here is no password. If you assign a password, then only users who provide the correct password can play music from your Server's shared library.

- **Check interval**—how often to check for music that has been added to the shared Music folder on the server. By default this is set to check every 15 minutes.

5. Click **OK** to finish.

Chapter 9.
TwonkyMedia

STREAMING MEDIA SERVERS

The HP MediaSmart Server includes three types of servers. These servers stream media from the HP MediaSmart Server to your devices:

Web Server—Streams media to the Internet where you can access it from any computer that has a Web browser

- Digital Media Servers—Your Server has two Digital Media Servers:

Packet Video's TwonkyMedia—Prepares your media for the Web server to stream to the Internet and streams media to Digital Media Receivers (DMR) in your home. We strongly recommend that you use TwonkyMedia. TwonkyMedia is enabled by default in the HP MediaSmart Server. TwonkyMedia can stream media to remote locations and it can stream most file types.

  - Windows Media Connect—Streams to DMRs. Windows Media Connect cannot stream to a Web server. It cannot stream as many file types as TwonkyMedia and it is disabled by default in the HP MediaSmart Server.

- Server for iTunes—Streams to iTunes applications on the computers in your network. This server is included in your MediaSmart Server. It looks like a new device to your iTunes application, but it does not use one of your iTunes licenses.

The figure below shows how these servers take media from the disk on your HP MediaSmart Server and stream it to your various receivers.
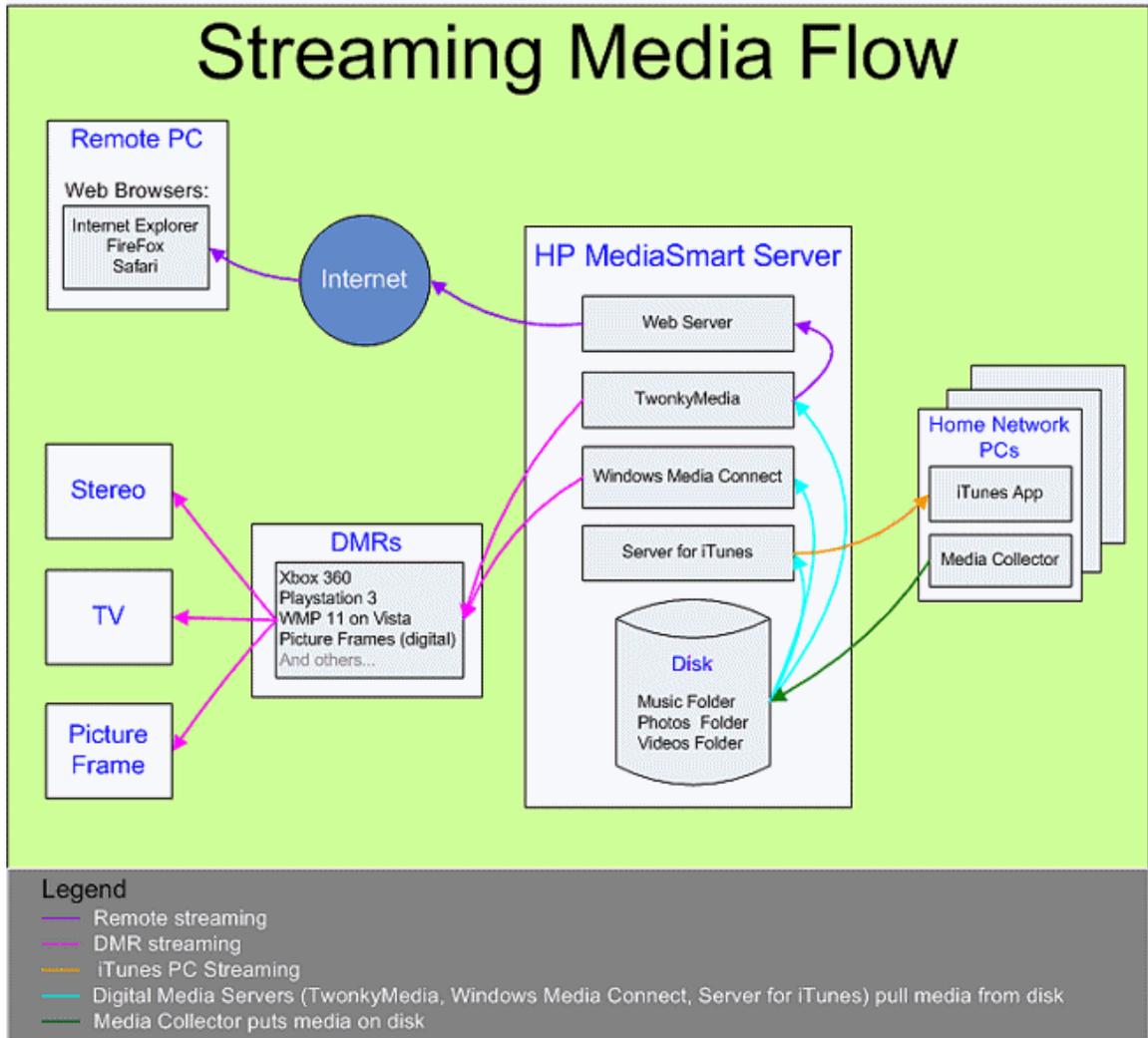
TWONKYMEDIA FEATURES

We strongly recommend that you use TwonkyMedia as your Digital Media Server. TwonkyMedia is enabled by default in your MediaSmart server. TwonkyMedia includes these features:

Allows your digital media receiver (**DMR**) to see photo thumbnails for pictures and album artwork for music

Supports remote **media streaming**

- Supports more media formats than Windows Media Connect

Complies with the **Digital Living Network Alliance** (DLNA) **protocol** which allows support for more DMRs

File Compatibility for Local Streaming

The table below compares local streaming file compatibility between TwonkyMedia and Windows Media Connect.

TwonkyMedia and Windows Media Connect File Compatibility		
File Types	**TwonkyMedia**	**Windows Media Connect**
Music Formats		
3gp	Yes	
ac3	Yes	
aiff	Yes	
asf	Yes	Yes
FLAC	Yes	
LPCM	Yes	
m4a	Yes	
mp1	Yes	
mp2	Yes	
mp3	Yes	
mp4	Yes	
mpa	Yes	
ogg	Yes	
wav	Yes	Yes
wma	Yes	Yes
Picture Formats		
bmp	Yes	Yes
gif	Yes	Yes
jpg	Yes	Yes
png	Yes	Yes
tif, tiff	Yes	Yes
Video Formats		
3gp	Yes	
asf	Yes	

TwonkyMedia and Windows Media Connect File Compatibility		
File Types	TwonkyMedia	Windows Media Connect
avi	Yes	Yes
DivX	Yes	
dvr-ms	Yes	Yes
m1v	Yes	
m4v	Yes	
mpe	Yes	
mpg/mpeg	Yes	Yes
MPEG-1	Yes	Yes
MPEG-2	Yes	
MPEG-2-T-S	Yes	
MPEG-4	Yes	
vdr	Yes	
vob	Yes	
wmv	Yes	Yes
Xvid	Yes	
Playlist Formats		
m3u	Yes	Yes
pla	Yes	
wpl	Yes	Yes

TWONKYMEDIA DEFAULT SETTINGS

TwonkyMedia has these default settings in your HP MediaSmart Server:

Enables three folders for media streaming (You can add more. See below.):

- **Music**—music only (album art is displayed but is not shared as a picture)

- **Photos**—music, photos, and videos

- **Videos**—videos only

- Gives all newly-detected DMRs access to your media

Note
You can change these default settings by clicking the TwonkyMedia button on the HP MediaSmart Server tab of your Windows Home Server Console

UPNP A/V AND DLNA

Universal Plug and Play Audio Video (UPnP A/V) and Digital Living Network Alliance (DLNA) define standard network protocols for streaming media.

- **UPnP A/V** is a set of network protocols that allow networked devices to communicate seamlessly in a home networking environment. The Digital Media Servers on your HP MediaSmart Server, TwonkyMedia and Windows Media Connect, use UPnP/AV.

- **DLNA** is a set of standards (that includes UPnP A/V) for sharing media between devices. TwonkyMedia is DLNA compliant. Windows Media Connect is not. This compliance allows TwonkyMedia to work with more DMRs.

TWONKYMEDIA AND REMOTE STREAMING

You can stream media to your laptop in the hotel room or to your friend's computer in London. TwonkyMedia takes media from the folders on your disk and streams this to the Web server. The Web server streams your media files to the Internet where you can access them from any computer that has an Internet browser.

CONFIGURE TWONKYMEDIA FOR STREAMING MEDIA

TwonkyMedia is enabled by default in your **HP MediaSmart Server**. To configure or change TwonkyMedia settings, follow these steps:

1. At the computer, double-click the Windows Home Server icon in the system tray.

2. Log on to the Windows Home Server.

3. In the left pane of the **HP MediaSmart Server** tab, click the **TwonkyMedia** button. The right pane shows current TwonkyMedia status for Shared Content, Media Sharing Folders, and Enabled Media Receivers.

4. In the right pane, click **Media Server Settings.** The **Windows Home Server Settings** window opens. You can change settings here by using these tabs:

   - **Media Sharing Folders**—Add, Edit, or Remove.

   - **Media Receivers**—Add, Edit, or Remove. Check Automatic Sharing here to enable sharing for new media receivers automatically.

   - **Maintenance**—Rebuild the database, and Reset to Default all media server settings. Create and View Log Files for debugging purposes. And you can change the default Web server port.

5. Click **OK** to finish.

Chapter 10.
Media Collector

ABOUT HP MEDIA COLLECTOR

HP Media Collector takes media files from the computers on your network and copies them to your HP MediaSmart Server. This allows you to maintain a comprehensive library of music, photos, and videos in one location in your home. You can stream media to your television and stereo. You can share music with iTunes applications on other computers in your network. You can even stream media to the Internet where any computer with a Web browser can play it.

📝 **Note**
Media Collector copies only media files. It does not collect other file types, such as Microsoft Office documents.

Media Collection

HP Media Collector scans your computers for music, image, and video files and it copies them to the Server. You can choose how, where, and when Media Collector gathers your media. For example:

- You can tell Media Collector to look for videos in all folders or only in your My Videos folders.

- You can tell Media Collector to look for music and not to look for photos and video.

- You can tell Media Collector to gather photos from your computer and not from your children's computers.

Schedule

Media Collector scans the computers in your network on an automatic schedule that you choose. After you enable media collection and set the schedule, Media Collector collects new media files when you add them to your computers.

Media Collection Order

When all media types are enabled for collection, Media Collector collects photo files first; then music files, and it takes video files last.

HP Media Collector Default Settings

Media Collector is disabled by default. Before Media Collector can begin to copy media to your HP MediaSmart Server, you must enable the media types you want to collect.

Media Collector copies media files only from computers that are installed as clients on your Windows Home Server network. For example, if you have a computer that you use only for gaming and you have not made it part of your Windows Home Server network, this computer is not available for Media Collection.

Organization Options and Defaults

You can tell HP Media Collector how you want to organize your media on your HP MediaSmart Server. For example, you can organize media in these ways:

Photos

• By date taken, or existing file structure

• Default is existing file structure

Music

• By Artist/Album or existing file structure

• Default is Artist/Album

Videos

• By existing file structure

Ignored Directories and Skipped Files

HP Media Collector skips picture files that are less than 45 K in size. Media Collector ignores some directories for each media. See the list below:

Photos

temporary internet files, My Music folder, windows system directories

Music

temporary internet files, windows system directories

Videos

temporary internet files, windows system directories, mov files located under My Pictures, Pictures

Supported File Formats

The files and types listed below are compatible for Media Collection:

Photos

jpg, gif, tif, pct, mov files located under My Pictures, Pictures

Music

mp3, wma, m4a, aac, wav, playlists (m3u, wpl), album art

Videos

AVI, MOV, m4v, MPEG, MP2, WMV, FLV, DIVX, DVR-MS, M2TS, VOB file collections

Media File Duplication

📝 **Note**

When HP Media Collector copies media files from all your computers and users, it attempts to reduce duplicates. For example, if two users have the same media file, Media Collector copies only one file to the Server.

CONFIGURING MEDIA COLLECTOR

Configuring Media Collector General Settings

Before You Configure HP Media Collector

🔹 **Important**

We strongly recommend that you enable the **Guest** account and give the Guest account full permission on all your photos, music, and videos shared folders; this ensures that Media Collector always has access to all shares.

The first time that you open the Media Collector tab in the **Windows Home Server Settings** window, all your computers are listed in the **Included computers** box. When you add a new computer, it shows up in the **Available Computers** list. To add the new computer to Media Collector's scan schedule, simply move it to the **Included computers** box.

When enabled, Media Collector automatically scans the **Included computers** for media. Media Collector does not scan computers in the **Available computers** box. You can move a computer out of the **Included computers** box and into **Available computers** if you want to disable media collection for that computer.

Configure HP Media Collector General Settings

1. At the computer, double-click the Windows Home Server icon in the system tray and log on.

2. In the HP MediaSmart Server tab, click the HP Media Collector button.

3. In the right pane, click **Media Collector Settings**.
   The Windows Home Server Settings window opens. You can configure Media Collector General
   settings here.

4. Select general Media Collector settings.

   - **Scan Interval—**set how often the Media Collector scans your computers

   - **Scanned Computers—**Add or Remove computers from the Included list. (Available
     computers are Windows Home Server clients. Included Computers are scanned for media
     collection.)
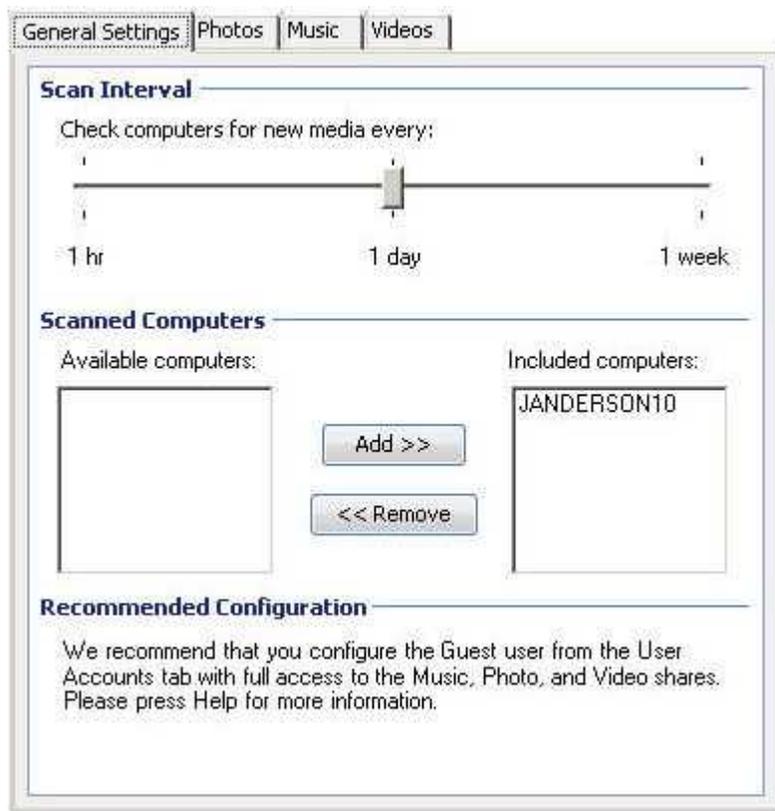
Configuring Media Collector for Photos

1. In the **Windows Home Server Settings** window, click on Media Collector in the left pane.

2. Click the **Photos** tab to configure Photos collection. You can configure these settings in this tab:

   - **Photo Collection Status**—Enable or Disable photo collection

   - **Photo Source**—My Pictures folders or All Folders

   📝 **Note**
   If you select **All folders**, Media Collector may collect graphics and images from your computer that are not a part of your photo collection, such as graphics associated with software applications.

   - **Photo Organization**—Organize by date or by PC folder structure

Example of Photos Collected by Date and by PC Folder Structure

First of all, it's helpful to understand the underlying data used to build the two examples below. In this case, the files that are being shown are based on two groups of photos. One group is located under user Susan's home Pictures folder, with a number of uploaded photos and a single named photo (Beach_sunrise.jpg). This group of photos could be on any particular computer in the network (or even split across two computers). The second group of photos is on a particular computer (LaptopDad), but not under a user's home Pictures folder. In this case, it's under D:\Photo Collection\... Also, note that all of the photos on LaptopDad are organized and named with meaningful names, including a copy of the Beach_sunrise.jpg file that also exists on Susan's group of files.

The photo example shows two panes with different file/folder organizations for the same group of sample photos.

Photo Organization Example – Sample Data
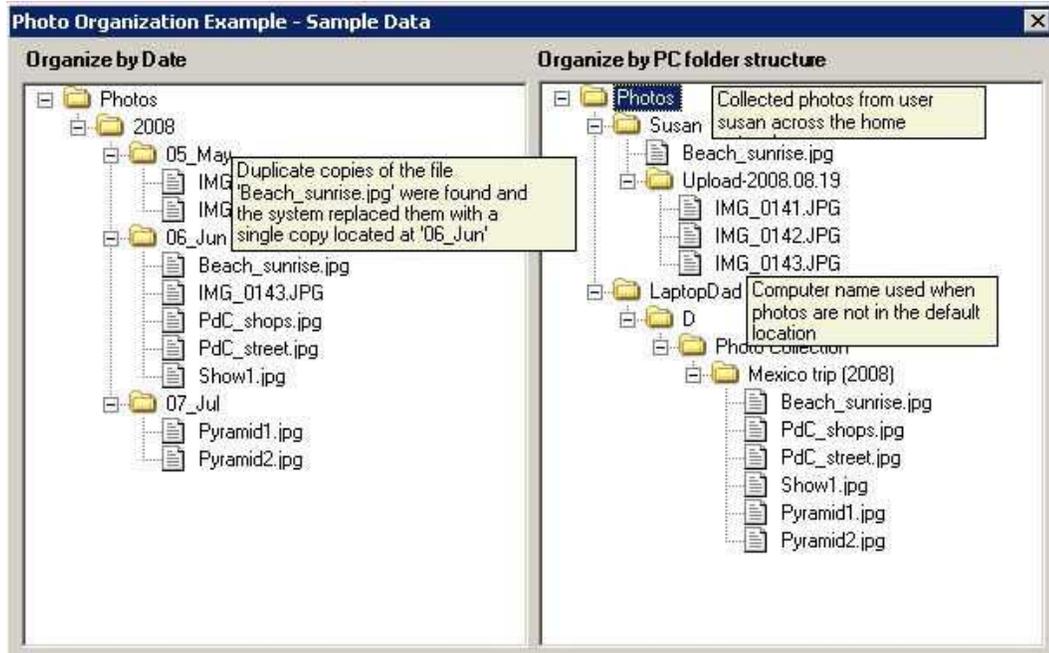
Things to Consider	
Organize by Date	**Organize by PC Folder Structure**
Uses **Date Picture Taken** tag or **Modified Date** to organize files	Sorts files by user or source computer
Good for organizing large groups of unsorted image files	Good for maintaining original photo sorting
Reduces duplication of photos	

On the left, the files are organized by date

There are two things of interest

1. The photos from the two groups are now grouped together based on date, and

2. The one photo that was duplicated between the two groups is only present once.

   The single grouping is what the **Organize by Date** option accomplishes – it uses the **Date Picture Taken** tag within the file to place the photos by date. If this is not set, the system will use the file property **Modified Date** to place the photo. Be aware that this model ignores your folder structure, so it's most useful in the case where you don't have a meaningful folder structure (e.g. unsorted groups of folders or groups based on the camera software's defaults). Regarding the duplicate file, only one copy is kept as shown in the example. If two duplicate files are different, the newest one is retained on the server.

In contrast, the right pane is organized by PC folder structure

If photos are found under a user's home Pictures folder, then they will be grouped just under the user's name with the underlying folder organization. This still may include some simplification in that photos for user Susan on computer1 and user Susan on computer2 will be coalesced into a single group. This may result in some duplicate photos being represented once.

On the other hand, if the photos were found on a computer in a folder other than a user's home Pictures folder, they will be grouped under the computer name, with a path showing their placement on the computer. In general, the "by folder" organization is most helpful if you have already organized your photos and don't want to lose your folder structure.

Configuring Media Collector for Music

To Configure Media Collector for Music, follow the steps below:

1. In the **Windows Home Server Settings** window, click on Media Collector in the left pane.

2. Click the **Music** tab to configure Music collection. You can configure these settings in this tab:

    - **Music Collection Status**—Enable or Disable music collection

    - **Music Source**—My Music folders, iTunes libraries, Windows Media Player libraries, or All Folders

    📝 **Note**
    If you select **All folders**, Media Collector may collect sound files from your computer that are not a part of your music collection, such as sound files that are associated with software applications.

    - **Music Organization**—Organize by Artist/Album or by PC folder structure
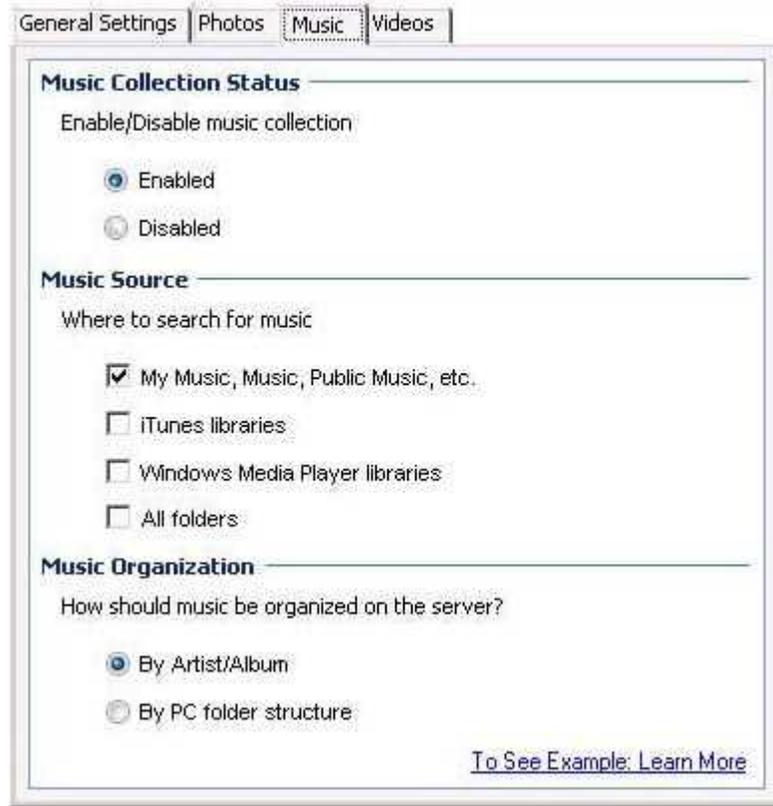
Example of Music Collected by Artist/Album and by PC Folder Structure

We'll start by looking at the underlying data used to build the two examples below. The files that are shown are based on two music collections. One group is located under user Susan's home Music folder, with some songs organized by album as well as some that are included within her iTunes library. This music could be on any particular computer in the network, or even split across two computers. The second group of music files is on a particular computer (LaptopDad), but not under a user's home Music folder. In this case, it's under D:\Misc Music\... Notice that these files are not organized by album name and they include a duplicate song (U2's Bullet the Blue Sky).

The music example shows two panes with different file/folder organizations for the same group of music files.
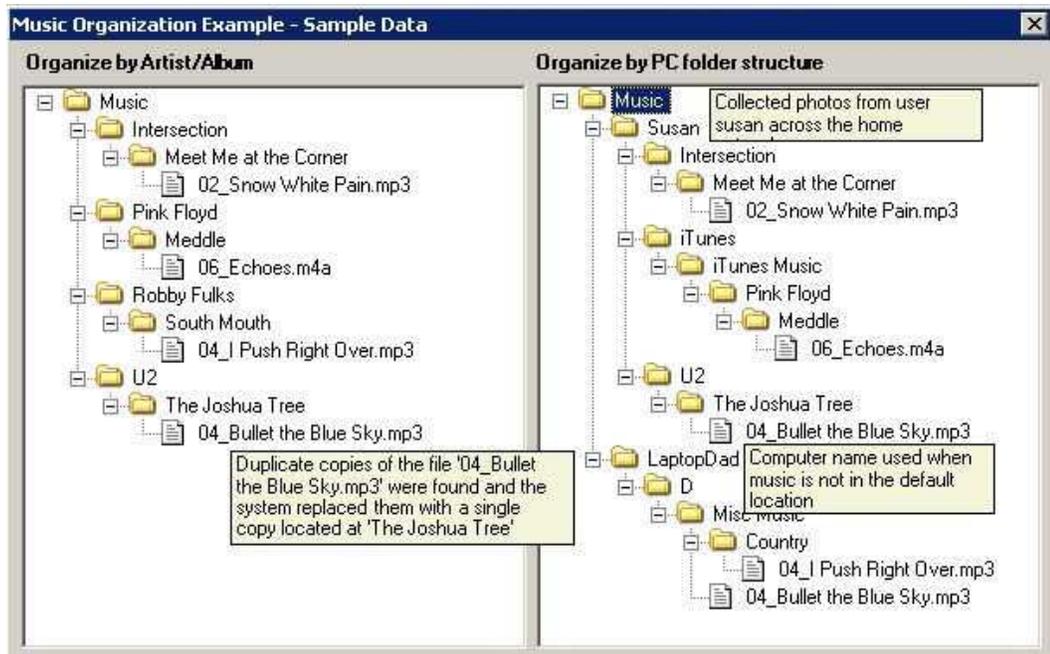
Things to Consider	
Organize by Artist/Album	**Organize by PC Folder Structure**
Uses music file tags to organize files	Sorts files by user or source computer
Reduces duplication of files on the server	Good for maintaining original music sorting

On the left, the files are organized by Artist/Album

There are two things of interest

1. The two groups of music files are now organized uniformly, and

2. The one song that was duplicated between the two groups is only present once.

    The uniform organization is what the **Organize by Artist/Album** option accomplishes – it uses the **Album** and **Artist** tags within the file to place the files. If a music file doesn't have both of these tags set, it will be placed based on its location on the user's computer. This organizational approach is useful for organizing multiple music collections into a single collection and reducing file duplication. This means that browsing the server music share for music streaming will be more streamlined without duplicate file entries. The example illustrates duplicate file handling by pointing out the single file entry on the left pane that was duplicated on the right. If the two duplicate files are different, the newest one is retained on the server.

In contrast, the right pane is organized by PC folder structure

If music is found under a user's home Music folder, it will be grouped under the user's name with the underlying folder organization. This still may include some simplification in that music for user Susan on computer1 and user Susan on computer2 will be coalesced into a single group. This may result in some duplicate songs being represented once.

On the other hand, if the music was found on a computer in a folder other than your home Music folder, it will be grouped under the computer name, with a path showing their placement on the computer. This type of organization is most helpful if you have organized your music in a special way and doesn't want to lose this folder structure or if multiple users have different quality versions of the music and you want to maintain the multiple copies of songs.

Configure Media Collector for Videos

To configure Media Collector for Videos, follow the steps below:

1. In the **Windows Home Server Settings** Window, click **Media Collector** in the left pane.

2. Click the **Videos** tab to configure Video collection. You can configure these settings in this tab:

   - **Video Collection Status**—Enable or Disable photo collection

   - **Video Source**—My Pictures folders or All Folders

   📝 **Note**
   If you select **All folders**, Media Collector may collect video files from your computer that are not a part of your video collection, such as videos that are associated with software applications.

MEDIA COLLECTION STATUS

Using the Media Collector Server Status

By default, the HP Media Collector pane of the HP MediaSmart Server tab in the Windows Home Server Console has information about the Media Collector along with a **Media Collector Status** link. After the feature has been configured, the pane shifts to display status information about the Media Collector.

The information in the Windows Home Server Console relates to the Client Media Collector Status Tool but there are some differences. The status on the server is largely based on client status files being copied to the server. This means that if there is a connectivity problem between the client and the server, then no status information about that client is available.

The status page displays a line for each computer in the home network that the server knows about. Computers may be missing if they are Macs and/or if they do not have MediaSmart Server software installed on them. For each computer listed, a status is listed.

Another important concept is that media collection executes on a per computer and per user basis. So, if one computer in the home network has a single user while a second computer has two users, the second computer's status will be a composite value based on the different per user status values for that client. In any case, users should expect to see status values such as the following.

Server Media Collection Status	
Status	**Description**
Not included	Indicates that the computer has not been configured for media collection.
No status available	Indicates that the computer has been configured for media collection, but no status information has been transferred to the server. If the computer was just added to the included list or if media collection was just enabled, then **No status available** is normal because media collection takes some time to start. If 30 minutes has gone by since the configuration changes and the status is unchanged, even after clicking **Refresh**, then check the computer for more information. First of all, verify that a user is logged into the computer because the media collection needs to run as part of a user's computer environment. Otherwise, check the **Media Collector Status Tool** on the computer for more details.
Media collection issue	This error can occur if the client software and the server software versions are not compatible. For other errors, the media collector software on the client should not be able to connect to the server to share its status. See Updating and Rolling Back the Server and Updating and Rolling Back Client PCs for additional information.
Media collection in progress	Indicates that media collection is currently underway for at least one user on this computer.
Media partially collected	Indicates that the media collection started but may have lost network connectivity with the server before completing. Media collection occurs at a schedule roughly determined by the collection interval in the Media Collector General Settings. If you are concerned that too much time has passed without another collection starting, check the Media Collector Status Tool on the computer for more details.
Media successfully collected	Indicates that media has been successfully collected from this computer for at least one user.

Viewing Computer Details

If the status line is anything other than **Not included** or **No status available**, you can open the line for more details by selecting the line and clicking **View Details** or by double-clicking on the line. This opens the View Collection Details dialog, which shows information about the most recent media collection activities for the computer on a per user basis.

Each line in the list represents media collection results for a given user. This only shows attempted media collection results: if user A has not logged into the computer, then the media collection software is never run for user A and no entry for user A will be seen here. The status line indicates the date that media collection was performed, a status value, and statistics about the different kinds of media files collected. The expected status values are:

- Media collection in progress

- Media partially collected

- Media successfully collected

- Media collection issue

    The meanings of these status values are explained above.

    The media collection counts show how many files of each type were collected in the last collection attempt. These numbers are not cumulative historical information. They only apply to the most recent media collection. A particular media type may indicate "Not enabled", which means that it's not configured for collection. Click **Refresh** to update the details dialog, which is mainly of interest for the case where collection is in progress. The bottom half of the display offers the user opportunities to change the configuration and access help topics.

Using the Client Media Collector Status Tool

The Media Collector Status Tool displays information about the most recent media collection for the computer you are sitting at. It does not display cumulative media collection history. To view the status of a different computer, you must go to that computer and open the Media Collector Status Tool.

This dialog can provide helpful information about the client computer if there was a problem during the last media collection.

To open the Media Collection Status Tool

1. At the computer, select **Start**, **All Programs**, and then **HP MediaSmart Server**.

2. Click **Media Collector Status**.
    This help topic describes the following tabs:

    - Status Information

    - Connectivity Test

Status Information

The Status Information tab displays feedback about the user's most recent run of the Media Collection client software. The different status values and descriptions of the related information are listed below. An example of each state is also provided.

Client Media Collection Status	
Status	**Description**
In Progress	• Status—Media collection in progress • Messages—Displays the date and time that the media collection started and the number of files that have been collected so far. • Details—Shows the counts for each media file type collected at the given time. Details may update to show the counts changing over time.
Successful	• Status—Media successfully collected • Messages—Displays any messages, such as file counts, written to the log during the media collection. • Details—Shows the counts for each media file type collected in the last run.
Partial Success	• Status—Media partially collected • Messages—Displays any messages written during the media collection. Messages include file counts and, most probably, a lost connection to server message. • Details—Shows the counts for counts for each media file type collected in the last run up until the client lost connection with the server. • Last Successful Run—Displays the last date and time that the media collection succeeded. If the media collection was never successful, this section says "Media never successfully collected." See Media Collector Error Messages for additional information.
Error	• Status—Media collection issue • Messages—Identifies the error. See Media Collector Error Messages for additional information. • Last Successful Run—Indicates when the media collection last succeeded. If the media collection was never successful, this section says "Media never successfully collected."

Example 1: Media collection in progress

Example 2: Media successfully collected

Example 3: Media partially collected

Example 4: Media collection issue

Connectivity Test

The connectivity test pane is a troubleshooting tool that helps you investigate issues connecting to their server. Use this pane if you get the **Media Collector did not have read/write access to the server** error or if you get a lost connection error. Click **Test Connection** to attempt to write and read to each of the media shares on the server. The display area reports the results of these tests.
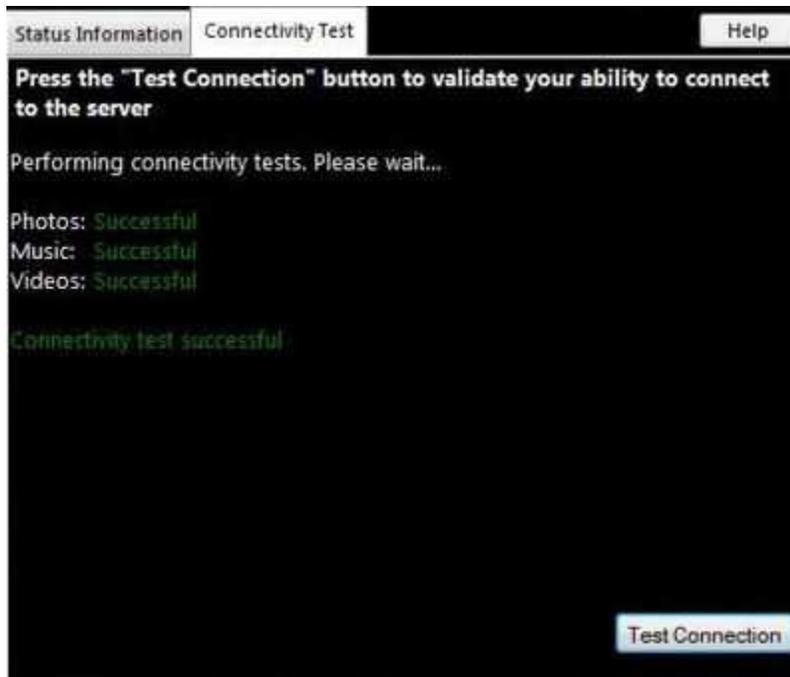
No shares are accessible.

- If the tests show that none of the shares are accessible, it is most likely because authentication is not set up correctly. Verify that either the guest account is enabled with full access to all the media shares or that the user name and password match for the user on this computer and on the server (and also that the server user has full access to the media shares). For additional information, see User Accounts.

- Another possibility is that the server is not available. Attempt to connect to the server by opening the Windows Home Server Console to verify that the server is reachable from this computer. For additional information, see Opening the Windows Home Server Console.

One share is not accessible.

If the tests show that a single share is not accessible, the user permissions not set up correctly. Verify that the matching user on the server has full access to the media shares or, if there is no matching user, that the guest account has full access to the media shares. For additional information, see Viewing Shared Folder Properties.

Media Collector Error Messages

The following errors may display on the Media Collector Status Tool's Status tab during media collection.

Media Collection Errors		
Error	**Description**	**Possible Solutions**
The Media Collector could not find the server name in the registry	This indicates an install problem with the client software	Installing the Software on the First PC Installing the Software on

Media Collection Errors		
Error	**Description**	**Possible Solutions**
		Additional PCs Updating and Rolling Back Client PCs Uninstall the Client Software and Reinstall it
This computer is not configured for media collection	Change the configuration in the Windows Home Server Console to include this computer.	Configuring Media Collection General Settings
No data types are configured for media collection	Change the configuration in the Windows Home Server Console to enable at least one media type.	Configuring Media Collection for Photos Configuring Media Collection for Music Configuring Media Collection for Videos
Media Collector did not have read/write access to the server	Make sure that either 1) the user name/password match for this user on this computer and the server or 2) the guest account is enabled on the server with full access permission for the Photo, Music, and Video shares.	User Accounts Viewing Shared Folder Properties Connectivity Test
Media Collector is stopping because the server is reorganizing media data	This problem will solve itself once the server finishes reorganizing the media files. File reorganization results from the user changing the configuration of the photo and/or music organization.	No action required.
Media Collector could not create a scheduled task to run regularly	This usually indicates an install problem that requires support help. The user needs to manually delete the scheduled task, then log out and back in.	See your Warranty and Support Guide for HP Support phone numbers in your country.
Upgrade the HP MediaSmart server software to version <x>	This happens if the HP Media Collector software version is out of sync with the HP MediaSmart Server.	Updating and Rolling Back the Server Updating and Rolling Back Client PCs

Media Collection Errors		
Error	**Description**	**Possible Solutions**
Media partially collected	Partial collection is the result of a lost connection during the collection process. This may indicate a real error such as a server crash or a problem with the home network but, more likely, it can occur during a very large collection when the server hits its normal sleep time. It is recommended that you disable server sleep until after a "break in" period to initially collect the media in the household. This may require a few days for large collections of files.	[Connectivity Test](#) [Power](#)

Media Collection System Tray Messages

For the most part, you will be informed about media collection problems through either the Windows Home Server Console or the Media Collector Status Tool on your computer. In addition to those, if the Media Collector software version is out of sync with the HP MediaSmart Server, you will see a system tray notification. The MediaSmart Server software must be the same version on both the server and your PC to be compatible. So, if the server software is at 2.5 and the Media Collector software is at version 2.1, the server will send out this notification. If the server software is at 2.1 and the Media Collector software is at version 2.5, the Media Collector will generate this system tray message. The message will say something like: Upgrade the HP MediaSmart server software to version <Version number> on <system name>.

To fix this, either upgrade the 2.1 component or rollback the 2.5 component. To change the Media Collector software, the HP MediaSmart Server software and the Windows Home Server Connector software on your computer must be uninstalled and reinstalled from the server. Changing the server software involves either accessing the Update feature from the Windows Home Server Console or rolling back the server version.

Chapter 11.
HP Video Converter

ABOUT HP VIDEO CONVERTER

The video converter monitors selected shared folders and attempts to perform video conversion (also known as transcoding) on files with common video file formats. The video converter also supports DVD file system conversion, for DVD files that are commonly used in camcorders. Advanced DVD processing like title and audio track selection is not provided, as these types of features are not common on consumer camcorders and are usually only encountered in commercial DVDs which contain copy protection.

The results of the video converter tool are of a single file format: an MPEG-4 video file using an H.264 video codec and AAC stereo audio codec. You should check device documentation for support of this video format. At the time of this writing, devices supporting this format include:

o   Microsoft Xbox 360

o   Sony PlayStation 3

o   Sony PlayStation Portable

o   Apple iPod (newer iPods with video support)

o   Apple iPhone

o   Microsoft Zune

📝 **Note**

The Video Converter will not transcode copy protected DVDs or electronic videos with Digital Rights Management (DRM) protection.

Converted Video Resolution

When selecting a shared folder to perform video conversion on, there are two options for the output of the video converter: Full resolution and Mobile resolution.

Full Resolution

Full resolution keeps the source video's screen resolution, and basically just creates an output file with the new format for the provided input. Video and audio quality should be very similar to the source material for Full resolution videos. You may notice some differences between the original and Full resolution output, but these differences are minimal in most situations.

Mobile Resolution

The Mobile resolution creates a video that is suitable for mobile devices and remote video streaming (the video will be no larger than QVGA: 320w x 240h). This is to make support of mobile devices easier, and to provide videos suitable for remote media streaming. For more information, see About Media Streamer.

Network Bandwidth

One benefit of using the Full resolution output settings is that older video formats like MPEG-2 videos are often much larger in size than the format used by the video converter. The output of a Full resolution video conversion can be approximately 25% the file size of an original DVD (MPEG-2).   This significant reduction in size can make streaming via 802.11G less problematic (although many factors impact streaming videos wirelessly, results may vary widely).

When considering remotely streamed video content (using a Windows Home Server with Remote Access Enabled), Full resolution videos will be difficult to stream remotely on many broadband connections. HP recommends using the Mobile resolution videos when streaming remotely for more success.   These videos are very limited in resolution and visual fidelity, to provide a better chance for successfully accessing videos remotely. The Mobile resolution setting produces a video that is commonly supported for the mobile devices listed above. The Mobile resolution is also ideal for streaming playback on Internet connected PC's using the HP MediaSmart Streamer and on iPhones/iPod Touches using the HP MediaSmart server for iPhone application.

VIDEO CONVERSION USE CASE SCENARIOS

Basic/Default Video Conversion Scenario

If you have little to moderate video content you will find the basic default settings appropriate for video conversion. The basic settings require you to enable the video converter tool, and keep your videos in the Videos shared folder.

Advantages

The advantage of using the basic settings is that all video files in your Videos shared folder will attempt to be converted. Also, this scenario does not require any file organization changes or moving or copying files around.

Disadvantages

If you have a lot of content in your Videos shared folder, the basic settings can use a lot of additional disk space. Also, video conversion takes a lot of time and you may have to wait a long time for video conversion to complete. Lastly, if you have a lot of videos that are already in a highly compressed format (such as DivX, Xvid, or H.264); then converting them again on the "Full" output setting offers little value since these formats are very similar in storage efficiency.

Video Conversion Scenario – Alternative #1

You may find that converting all of your videos takes too much time and disk space. However, you may want to have all your videos available remotely. In such cases, it is recommended to enable **Mobile** quality only for the Videos shared folder. To save disk space, you can create a new shared folder (called something like "full-res videos") and enable full resolution conversion only on this folder. When there are videos that should be converted at full resolution, those files can be copied or moved into this new shared folder.   After conversion is complete, the original files should be moved back to the original location in the videos folder (to make sure they are still available for local network streaming).

Advantages

This method provides a balance for making all the video files (or at least those in the Videos shared folder) available to mobile devices, but also offers control to limit the amount of full resolution videos converted.

Disadvantages

This method requires you to move/copy videos back and forth around their server. This can be error prone and also consume too much disk space. Users should be very familiar with the file and folder layout before attempting to work with this type of approach.

Video Conversion Scenario – Alternative #2

You may find converting any of your videos automatically to be troublesome. However, you may want to convert a selected portion of your videos. In such cases, it is recommended to disable conversion for all formats for the Videos shared folder. You can then create new shared folders to enable conversion for only the videos you place in this folder in the output resolution you want. This gives you the ability to selectively convert only a few videos, or even videos in a certain order, to specific output formats selected.

Advantages

Along with the extra input and output control, this alternative offers the greatest potential benefit for disk space utilization.

Disadvantages

This method shares the same issues as alternative #1, except twice as complicated. Now you will have to manage videos in multiple places for mobile, full, or both conversion settings. You should be very familiar with your folder layout and how this works with media streaming servers before attempting this approach.

AUTOMATING VIDEO CONVERSION

If you have little to moderate video content you will find the basic default settings appropriate for video conversion. The basic settings require you to enable the video converter tool, and keep your videos in the Videos shared folder.

Advantages

The advantage of using the basic settings is that all video files in your Videos shared folder will attempt to be converted. Also, this scenario does not require any file organization changes or moving or copying files around.

Disadvantages

If you have a lot of content in your videos shared folder, the basic settings can use a lot of additional disk space. Also, video conversion takes a lot of time and you may have to wait a long time for video conversion to complete. Lastly, if you have a lot of videos that are already in a highly compressed format (such as DivX, Xvid, or H.264); then converting them again on the Full output setting offers little value since these formats are very similar in storage efficiency.

How to Configure

1. At the computer, double-click the Windows Home Server icon ![icon] in the system tray and log on.

2. Enable the Guest account or create user accounts on your server.
   Enabling the guest account or creating user accounts gives your network computers a way to authenticate with the server. See Enable Guest Account and Set up User Accounts.

3. Configure Media Collector to copy all videos on your network computers to the videos shared folder.
   See Configuring Media Collector General Settings and Configuring Media Collector for Videos.
   Alternately, you can skip Steps 1 and 2 and manually move or copy video files you want to convert to the videos shared folder on the server. The videos shared folder is at \\hpserver\videos.

4. To enable the HP Video Converter, click **Settings** and select **Video Converter** in the left menu.

5. Check **Enable Video Converter**.
   Depending on the number of videos you are converting and their size, the HP Video Converter may take a very long time to convert files.

6. Check **Full** or **Mobile** for each folder you want to convert videos.
   If you are using Media Collector, all of the videos will be in the videos shared folder. If you check Full and Mobile, you will have three files on your server: the original video file, the converted Full resolution file, and the converted Mobile resolution file. Think about the required disk space when selecting folders and resolution quality.

- **Full**—Keeps the source video's screen resolution and converts the file format to an MPEG-4 video file using an H.264 video codec and AAC stereo audio codec.

- **Mobile**—Creates a video that is suitable for mobile devices and remote video streaming (the video will be no larger than QVGA: 320w x 240h).

7. Click **Apply**.
   Unsupported video formats, copy protected DVD content, and DRM protected videos will not be converted.   Full and Mobile converted video files are placed on your server at \\hpserver\converted videos.

GIVING USERS ACCESS TO THE CONVERTED VIDEOS FOLDER

You may want to give people on your home network access to the Converted Videos folder so they can see what is in the folder or so they can add, delete, or change videos from the folder. By default, users have no access to the Converted Videos folder. Users that do not have access to the Converted Videos folder are still able to stream content from the folder.

Complete the following steps to change user permissions.

1. At the computer, double-click the Windows Home Server icon in the system tray and log on.

2. Click the **User Accounts** tab at the top of the page. If the User Accounts Setup dialog displays click **OK**.

3. Double-click a user account to open the Properties dialog.

4. Select the **Shared Folder Access** tab.

5. Select an access level for the user—**Full**, **Read**, or **None**.

   - **Full**—The user will be able to create, change, or delete any files in the folder.

   - **Read**—The user will only be able to read files in the folder. They cannot create, change, or delete files in the folder.

   - **None**—The user will not be able to access any files in the folder.
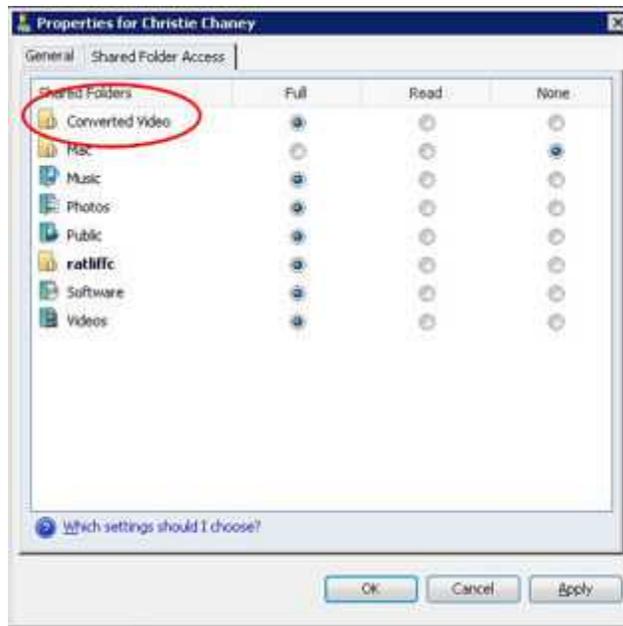
6. Click **OK**.

ENABLING CONVERTED VIDEOS FOR TWONKYMEDIA

The Converted Videos folder is enabled for TwonkyMedia by default. If you uninstall the TwonkyMedia add-in and reinstall it, the Converted Videos folder is disabled. If this happens, your mobile devices and in-house media streaming will not see the converted videos. Complete the following steps to enable the Converted Videos folder for TwonkyMedia.

1. At the computer, double-click the Windows Home Server icon in the system tray and log on.

2. In the left pane of the **HP MediaSmart Server** tab, click the **TwonkyMedia** button.
   The right pane shows current TwonkyMedia status for Shared Content, Media Sharing Folders, and Enabled Media Receivers.

3. If **Converted Videos** is not listed under **Media Sharing Folders**, click **Media Server Settings.**
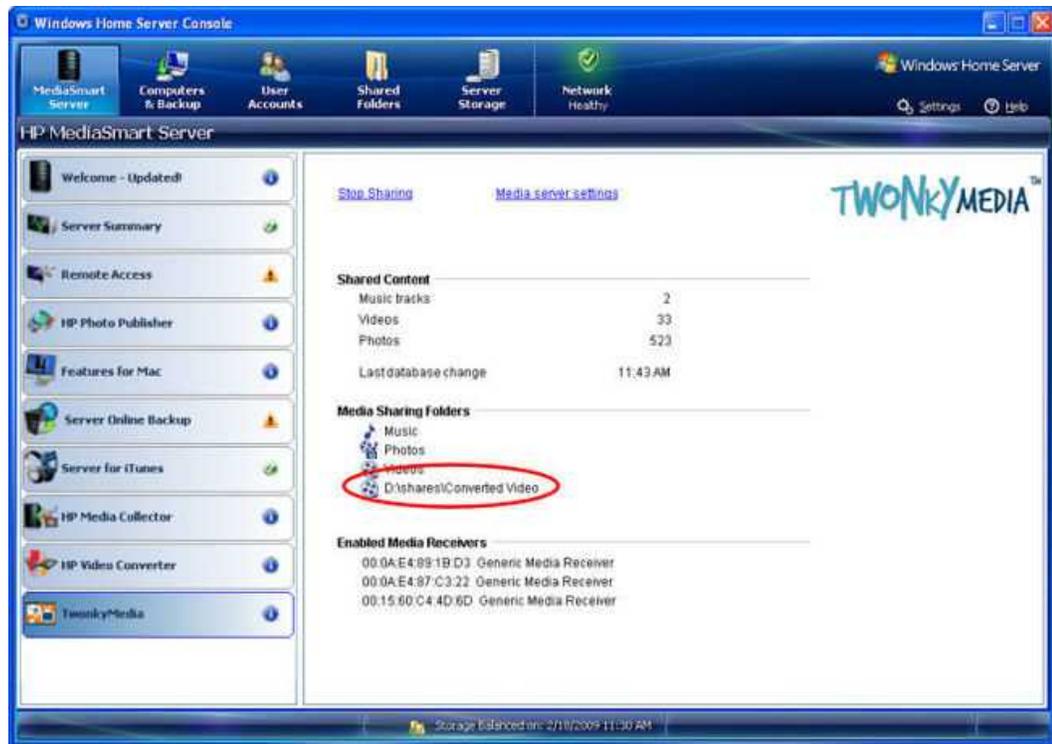
4. In the **Windows Home Server Settings,** double-click **Converted Videos** to enable it to make it green.
If **Converted Videos** is not in the list, click **Add** to restore it to the list.
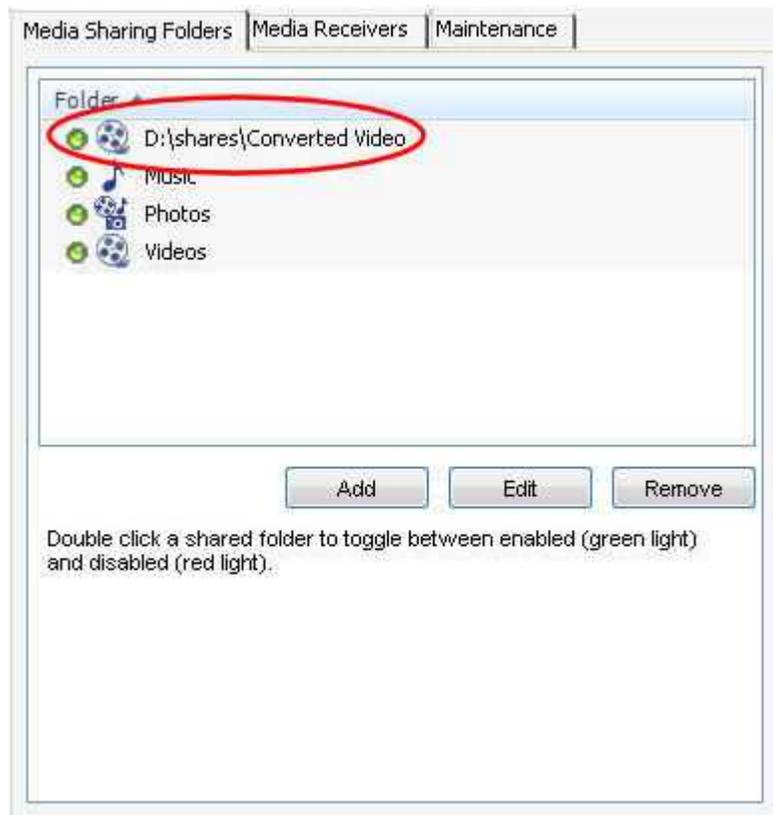
CONVERTING NON-COPY PROTECTED DVDS

Video content is becoming more and more popular, whether you're recording your last vacation or creating a YouTube video. If you used software to create a DVD of your project, you can use the HP Video Converter to transcode the DVD into a format suitable to streaming to many devices in the home or mobile devices.

1. Insert the DVD in your computer's DVD-ROM drive.

2. Navigate to a folder on your server that is enabled for video conversion.
   This is typically your videos shared folder at \\hpserver\videos. If you changed the name of your server during the installation the path will be different. Navigate to \\<server name>\videos.

3. Create a folder for the DVD content.

4. Navigate to the DVD-ROM in Windows Explorer and copy the **Video_TS** folder to the folder you created on your server.
   In the example, the full path on the server is \\hpserver\videos\MyDVD\Video_TS.
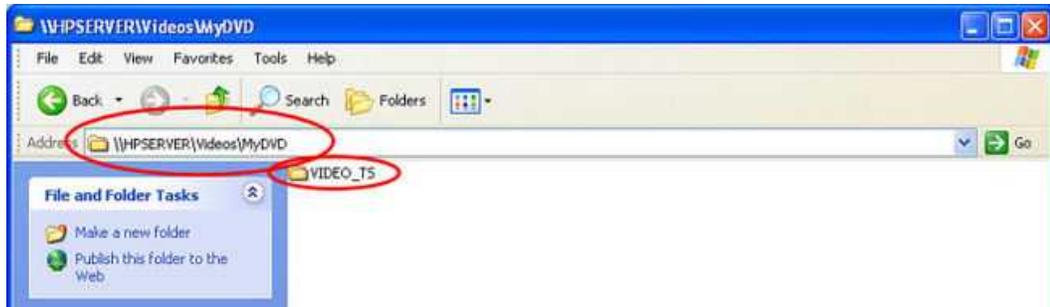
5. When the HP Video Converter scans the videos shared folder it will transcode the DVD content and put it in a subfolder within \\hpserver\converted videos.
   The DVD may have multiple titles or chapters. All of these files are appended to one another during video conversion to produce a single output file. For this reason, converted DVDs will not retain any title or chapter information.

SUPPORTED VIDEO FORMATS

The following table lists several popular video formats supported by the Video Converter. This list is not comprehensive. For a comprehensive list, see http://www.hp.com/support . A list of unsupported formats is also included.

Supported Video Formats		
Container	**Video**	**Audio**
AVI	DivX (4,5,6)	mp3
AVI	DivX (4,5,6)	aac
AVI	XviD	mp3
AVI	XviD	aac
WMV	WMV, VC1	WMA
MPG	MPEG-1, MPEG-2	mp2, PCM, AC3
AVI	MJPEG	ADPCM, PCM
VOB	MPEG-2	AC3, ADPCM, PCM
MOV	MJPEG-A , B	PCM
MP4, M4V	MPEG-4	AAC
DVR-MS	MPEG-2	AC3

Unsupported Video Formats		
Container	**Video**	**Audio**
MP4,M4V	AVC (h264)	AAC
WTV	MPEG-1, 2, 4; WMV, VC1	
MOV	AVC (h264)	AAC and others
Multiple other containers	AVC (h264)	
MKV	AVC (h264)	
MTS	AVC (h264)	
No Support for ISO		

To determine if your video is compatible with Video Converter, check the following

- Check to see if the video file extension matches one of those listed in the Containers column. If it matches, it is likely that the video is compatible with Video Converter. However, if the embedded video or audio is an unsupported format, the file will not convert.

- See the documentation that came with the software or device that you used to create the video.

- Try converting a single test video using Video Converter.

VIDEO CONVERSION FAILS

1. To view the status of video conversion, double-click the Windows Home Server icon in the system tray and log on.

2. Click **Video Converter** on the left side of the Console.

3. Check **Show All Converted Videos**.

4. Click the **Status** column header to sort and group all Failed videos conversions together.

5. Examine the failed video conversions to determine the reason they failed.

- **Copy protected DVD**—The HP Video Converter will not transcode copy protected DVDs.

   DRM protected content—The HP Video Converter will not transcode electronic videos with Digital Rights Management (DRM) protection.

- **Unsupported video format**—The original video format is unsupported by the HP Video Converter.

- **Media Collector files**—If you copy videos to the server using Media Collector, the HP Video Converter may start transcoding videos before they are completely copied to the server. If this happens, the video conversion will fail. Select the video in the **Converter Status** list and click **Re-Convert** to attempt to transcode the video again. See Automating Video Conversion for more information on using Media Collector to copy videos to the server.

Chapter 12.
Media Streamer

ABOUT MEDIA STREAMER

Media Streamer is a Web application. To access Media Streamer, open a **Web browser** and type your personal URL address in the address bar. An example URL is: smithfamily.HPhome.com.

The browser goes to the Windows Homer Server home page. When you click on the Media Streamer icon, this takes you to the Log on screen. Here you can enter your HP MediaSmart Server user account name and password.

This takes you to the Media Streamer application. Media Streamer opens at the Music page, Artists View.

MEDIA STREAMER PAGES

The Media Streamer application has two pages: Music and Photos. Each page has different views for browsing your media.

Format Compatibility

The files and types listed below are compatible for **Media Streaming**:

Audio Formats

MP3, AAC-LC, PCM

Compatibility for Audio

.wma, .mp3, .m4a, .mp4, .aac, .wav

Compatibility for Photo

.jpg, .tif, .tiff, .png, .gif, .bmp

HP MediaSmart Server Requirements

Before you can run Media Streamer you must:

Install Flash 9 plugin for the **Web browser** on your computer

- Turn on Windows Media Sharing
- [Configure TwonkyMedia for Streaming Media](#) on your HP MediaSmart Server
- Configure Remote Access on your Server

MUSIC PAGE

The music page has four views: Album View, Artists View, Folders View, and Playlists View. To change views, click the **Album**, **Artists**, **Playlists**, or **Folders** button.

MUSIC PAGE—ALBUM VIEW

The Album view on the Music page has two selection panels (Album and Tracks) and a media Player. The blue background shows the item selected in each panel.

.
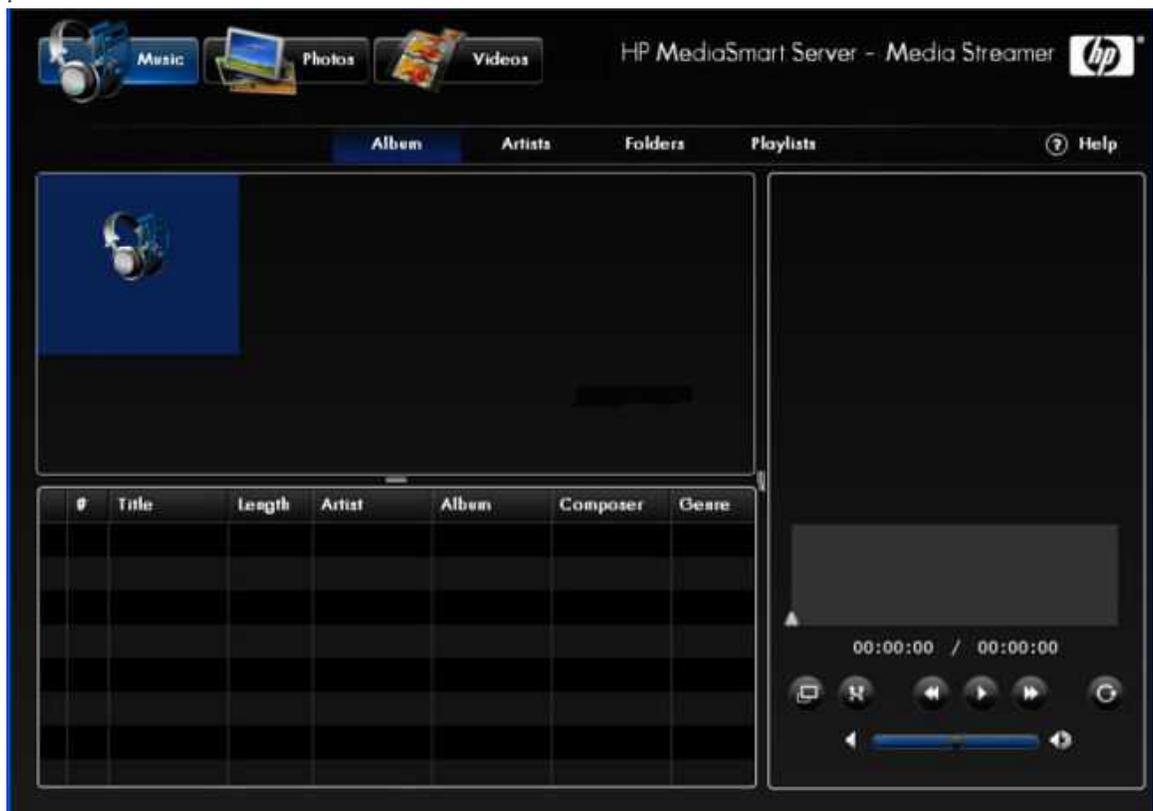
Selection Bar

The album panel shows a list of the albums available on the server sorted alphabetically by album title. When you select and album, the tracks for that album appear in the tracks panel. You can jump to a different album in the list by typing the first letter of an album.

In the Tracks panel, Tracks sort by track order. Again You can jump to a different section of each column by typing the first letter of any Title, Artist, or Album.

MUSIC PAGE—ARTISTS VIEW

The Artists view on the Music page has three selection panels (Artists, Albums, Tracks) and a media Player.

– All – The Artists and Albums panels have an **– All –** item at the top. This allows you to select all artists or albums and this option always stays on screen.

Selection Bar

This blue bar shows the item selected in each panel.

The figure below shows the Music Page—Artist View

Selection Panel Behavior

In the Artists and Albums panels, names sort alphabetically.

– All — The Artists and Albums panels have an – All – item.

- Selecting – All – in the artists panel will list all albums in the albums panel.

- Selecting –All – in the albums panel will list the tracks from all albums by that artist in the tracks panel.

- In the Tracks panel, Tracks sorts by song title.

- The Albums column shows the number of albums for – All – and for each artist. The Tracks column shows the number of tracks for – All – and for each artist.

  When you select an artist, the albums for that artist appear in the Albums panel.

  When you select a single album, the tracks for the selected album appear in the tracks panel sorted by song title.

MUSIC PAGE—FOLDERS VIEW

The Folders View of the Music page has two selection panels and a media player.

The top selection panel shows folders in a typical file browser view sorted in alphabetical order.

Tracks Panel

The tracks panel shows tracks sorted by track number.

📝 **Note**
Music tracks in sub folders are not included in the Tracks panel list.

Selection Bar

This blue bar shows the item selected in each panel.

MUSIC PAGE—PLAYLISTS VIEW

The Playlists View has two selection panels and a media player.

There are three pre-defined playlists: **-Last played-** , **-Most played-**, and **Recently added**. And the user's personal playlists are listed below

Tracks from the selected playlist display in the Tracks panel. Playlist tracks sort in playlist order.

📝 **Note**
Playlists display up to 500 songs.

Selection Bar

This blue bar shows the item selected in each panel. When you open Media Streamer the Selection Bar highlights what you last selected.

MUSIC PAGE—MEDIA PLAYER

From the top down, the Player shows these features:

- Player window shows album art (if available)

- Blue Display area – shows artist on top line, album in the middle line, track name on the bottom line. Below the Text the progress bar shows the amount of time played. Names that are too wide to fully display in the player can be read in a tool tip by hovering the mouse over desired name.

- Progress Bar –Click the progress bar at the place you want to play or slide the arrow to the desired time.

- Song progress text – shows the current position in time for the song and total song duration.

- Player Controls are in left to right order:

- Full Screen Toggle

- Shuffle Toggle – blue circle outline indicated shuffle is turned on

- Previous Track

- Play/Pause toggle

- Next track

- Repeat Toggle   -- blue circle outline indicates repeat is turned on

- Below the player controls is the volume control slider bar. You can grab and move this to left and right or click the desired position on the slider bar.
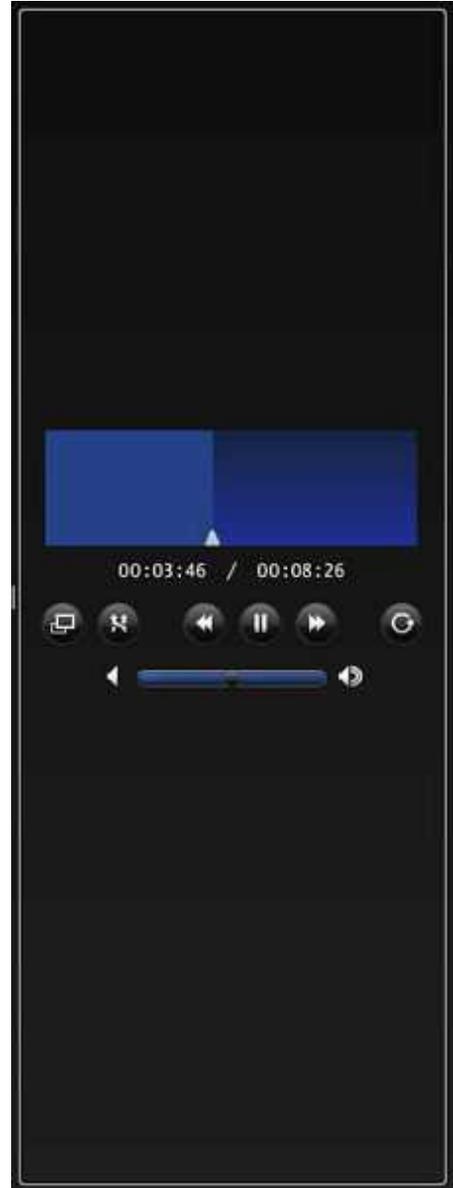
MUSIC PAGE—TRACKS PANEL

The columns: Length, Artist, Album, Composer, and Genre give information about each track and are sort-able by clicking the column header. Once the column is sorted, type the first letter of the value you are looking for, and the first track with a value in that column that matches will be selected, but not played. Repeating the key press will move the selection to the next value beginning with the letter typed.

Click the desired track with mouse and it will begin to play.

NO MUSIC TO STREAM

This dialog box will appear when you open **Media Streaming** and you click the Music button and you:

- Do not have music on your Server

  or

- You have not configured the server for streaming media.

NO MUSIC ON YOUR SERVER

Place music on your server in the following location "**<name of server>/Music**" and then configure your server for streaming media.

PHOTOS PAGE

The photos page has four views: the Date View, the Folders View, the Playlist View, and the FullScreen View. To change views, click the **Date**, **Folders**, or **Playlist** button.
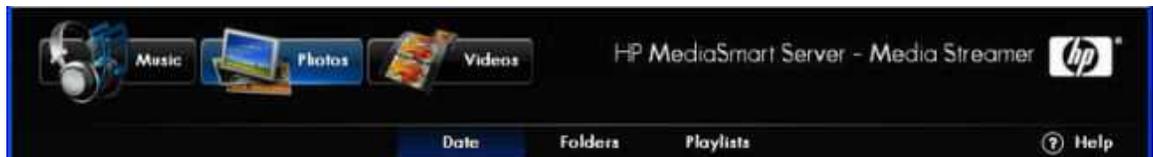
PHOTOS PAGE—DATE VIEW

The Photo Page, Date View has three selection panels and one media player.

The Year panel has a column showing years and a column showing the number of photos in that year.

The Month panel has a month column that shows the number of the month, only the months that have photos show up and a column showing the number of photos in that month and year.

The Photos panel displays thumbnails, if you hover over a thumbnail a tool tip will display the filename.

Selection Bar

This blue bar shows the item selected in each panel.

– All – The Year and Month panels have an – All – item.

- Selecting - All - in the year panel will list all months in the month panel, each month entry includes the photos from that month for all years combined.

- Selecting – All – in the month panel will show all photos for the selected year in the photos panel.

Selecting a particular year in the year panel will load all months that contain images from that year.

Selecting on a particular month will load the thumbnails of all images for that month in the photos panel.

Selecting a photo thumbnail in the photos panel will load the image in the media player.

The figure below shows the Photos Page—Date View
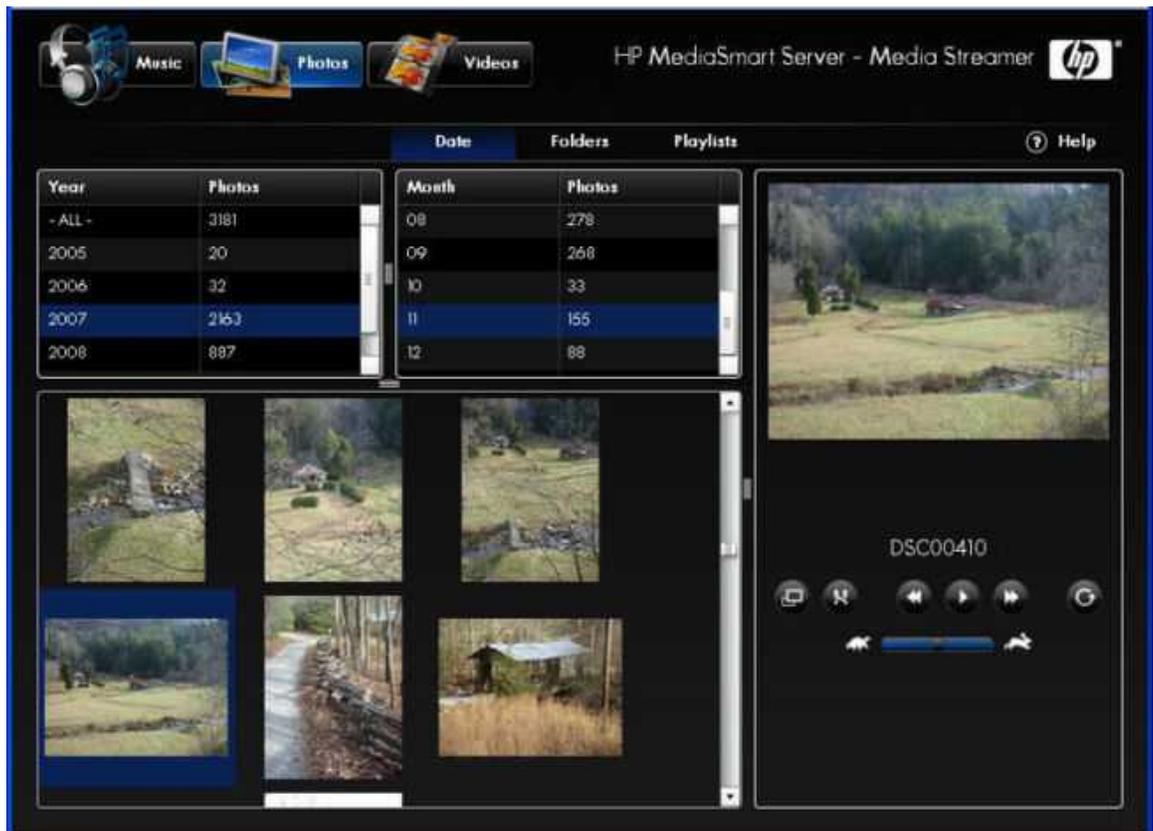
PHOTOS PAGE—FOLDER VIEW

The Photos Page, Folder View has two selection panels and one media player

The top selection panel shows folders in a typical file browser view.

In the photos panel thumbnails of the images in the folder selected in the file browser view are displayed. Images in sub folders are not shown in the photo panel.

Selecting a photo thumbnail in the photos panel will load the image in the media player.

Selection Bar

This blue bar shows the item selected in each panel.

The figure below shows the Photos Page—Folder View

PHOTOS PAGE—PLAYLIST VIEW

The Playlists View has two selection panels and a media player.

There are three pre-defined playlists: -Most played-, -Last played-, and -Recently Added-.

Photo thumbnails from the selected playlist display in the photos panel. Playlist photos sort in playlist order.

📝 **Note**
Playlists display up to 500 photos.

Selection Bar

This blue bar shows the item selected in each panel.

The figure below shows the Photos Page—Playlist View
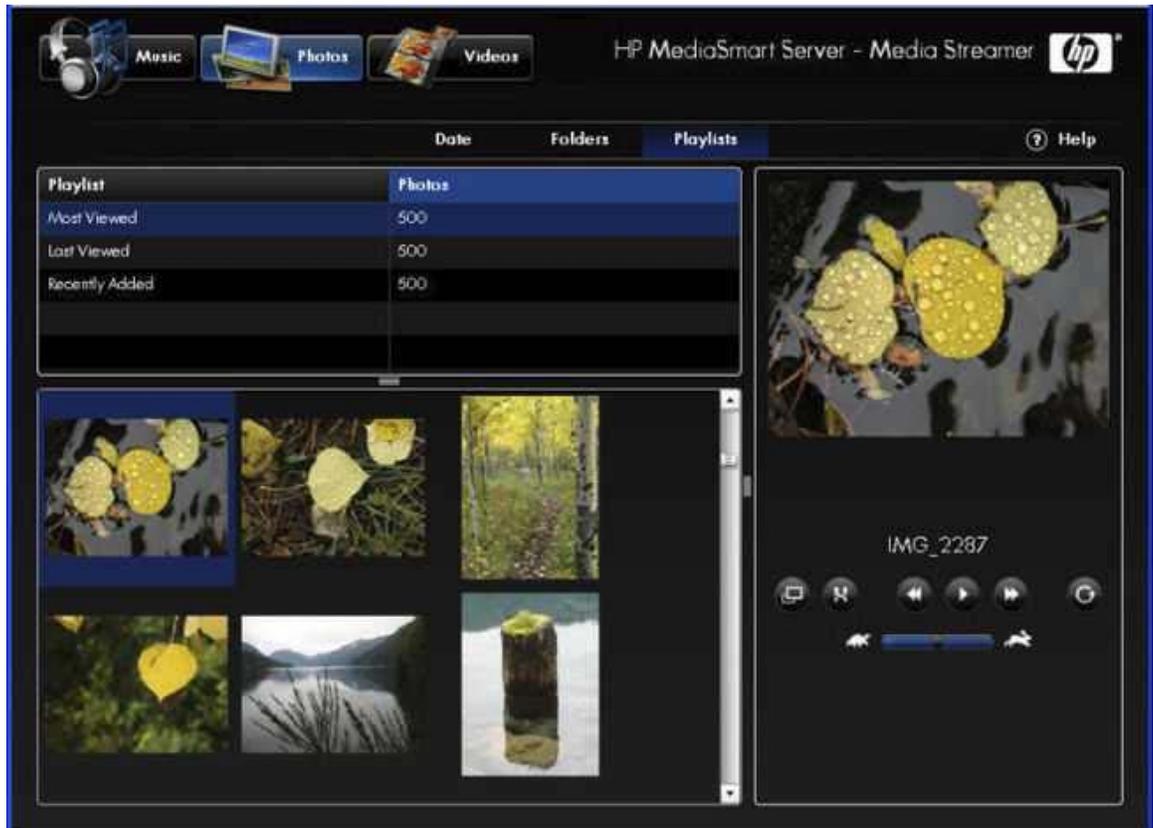
PHOTOS PAGE—FULL SCREEN VIEW

This view shows the picture in the full **browser window**. The player controls appear in a semi-transparent gray bar in the bottom center of the picture. The controls will fade out after 3 seconds. Moving the mouse in the photo viewer window will make the controls appear again.

The figure below shows the Photos Page—Full Screen View

VIDEOS PAGE

The Videos page has three views: the All View, Folders View, and the Playlists View.

NOTE:

To ensure that your videos can be streamed, videos should be processed through the HP Video Converter, for more information see About HP Video Converter. See About Media Steamer for assistance in setting up your Server.
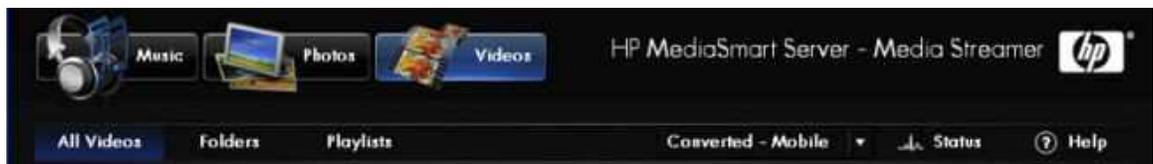
The Navigation Bar also includes a Video Quality Filter, a Status link, and Help link.

VIDEOS PAGE – ALL VIEW

The All view of the Videos page has one selection panel and the media player.

In the Videos panel, videos available for streaming are presented.
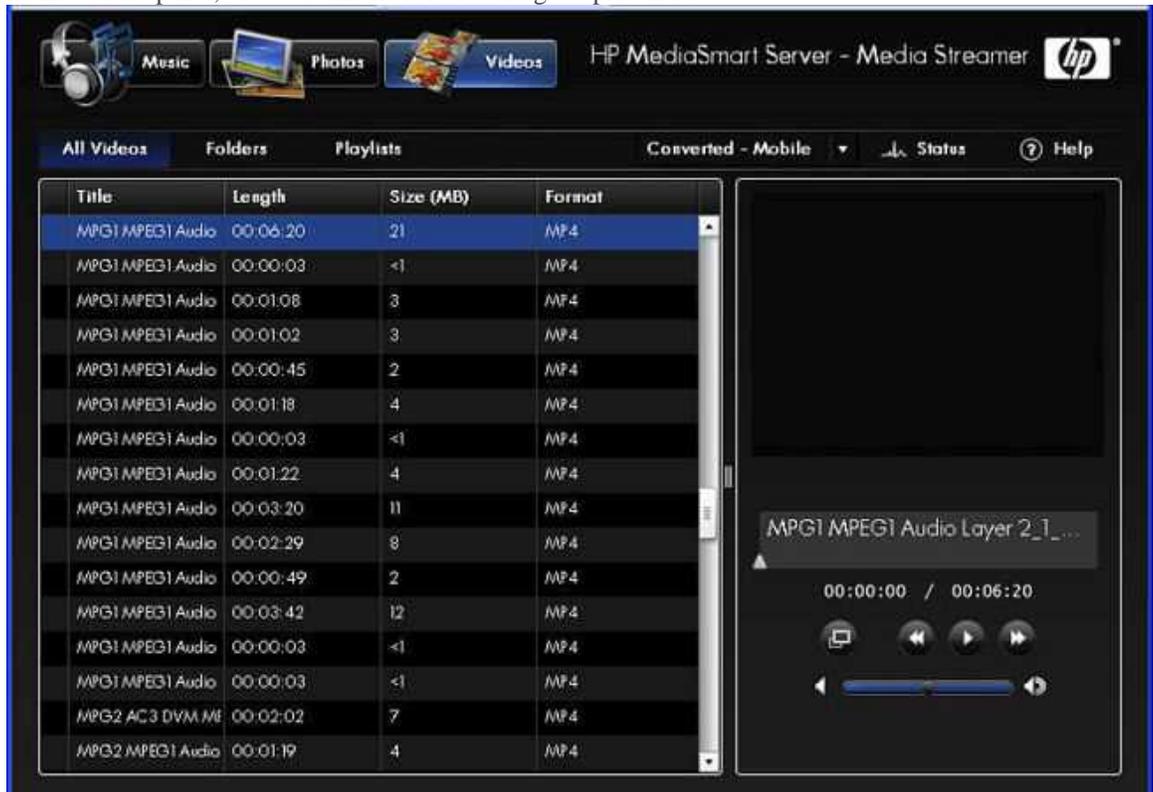
Selection Bar

This blue bar shows the item selected in each panel.

Selecting a video in the Videos Panel will start loading the video in the video player. You must then click the play button to start the video.

VIDEOS PAGE – FOLDERS VIEW

The Folders view of the Videos page has two selection panels.

The top selection panel shows folders in a typical file browser view. The lower panel lists videos for the selected folder.
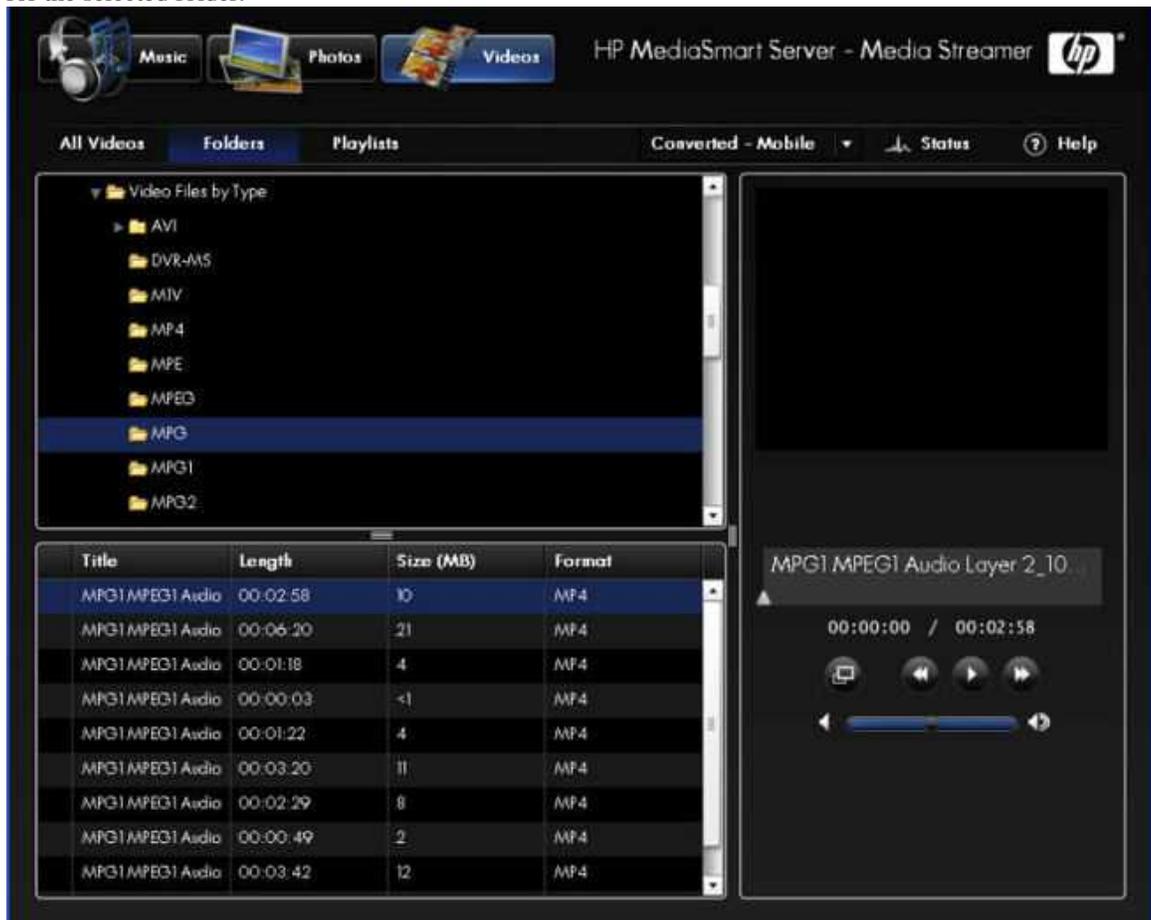
Selection Bar

This blue bar shows the item selected in each panel.

Selecting a video in the Folder Panel lists the videos in that folder in the Videos Panel.

Selecting a video in the Videos Panel will start loading the video in the video player. You must then click the play button to start the video.

The figure below shows the Videos Page – Folders View

VIDEOS PAGE – PLAYLISTS VIEW

The Playlists View has two selection panels and a media player.

There are three pre–defined playlists: – Most played–, –Last played–, and –Recently Added– which are displayed in the Playlist panel. The playlist panel also lists the number of videos in each playlist.

Videos from the selected playlist display in the videos panel. Playlist videos sort in playlist order.

Selecting a video in the Videos Panel will start loading the video in the video player. You must then click the play button to start the video.

📝 **Note**
Playlists display up to 500 videos.
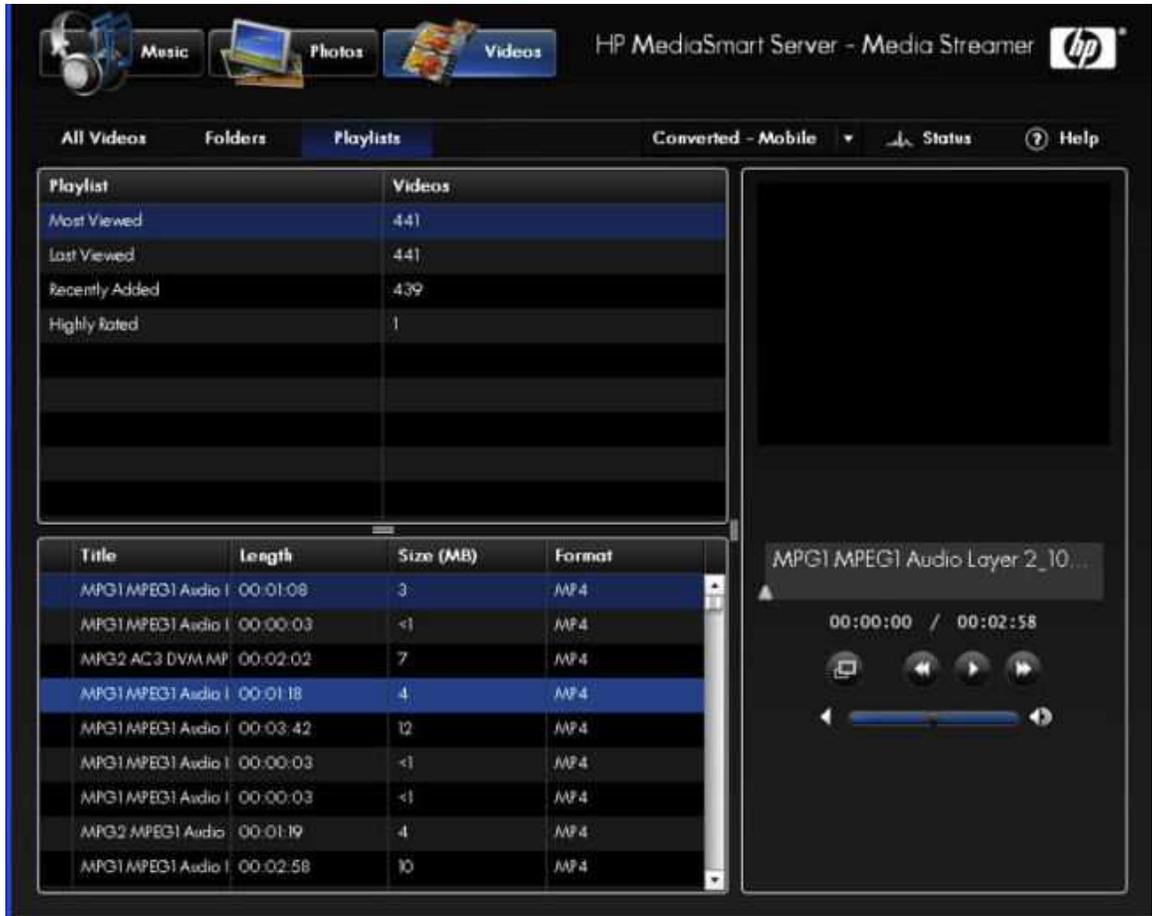
VIDEO QUALITY FILTER

By default the Video page will open with Converted Mobile videos.

You have three choices for Video Quality

- Converted – Mobile These Videos are suitable for mobile devices and remote video streaming (the video will be no larger than QVGA: 320w x 240h). This is to make support of mobile devices easier, and to provide videos suitable for remote media streaming.

- Converted – Full. Full resolution keeps the source video's screen resolution, and basically just creates an output file with the new format for the provided input. Video and audio quality should be very similar to the source material for Full resolution videos. You may notice some differences between the original and Full resolution output, but these differences are minimal in most situations.

- All. Displays all videos in the shared folder.

STATUS LINK

Clicking the Status link will bring up a report that can tell you the status of your video conversions. For more information see Automating Video Conversion.

Clicking a file will give a more detailed explanation of its status. If the explanations disappear too soon, remove the check from the Auto-Fresh box.

Should the Converter Status be red (off), go to the Video Converter settings as detailed in Automating Video Conversion.

VIDEOS PAGE – VIDEOS PANEL

In the videos panel, videos sort alphabetically by name. There are three other columns. The Length columns shows length in minutes, the Size in mega-bytes, and the Format column shows video file formats, such as .mp4.

VIDEOS PAGE – PLAYER

Player window

- Blue Display area – shows video title. Behind the text the progress bar shows the amount of time played. Names that are too wide to fully display in the player can be read in a tool tip by hovering the mouse over desired name.

- Progress Bar –Click the progress bar at the place you want to play or slide the arrow to the desired time.

- Video progress text – shows the current position in time for the song and total song duration.

- Player Controls are in left to right order:

    - Full Screen Toggle

    - Previous Video

    - Play/Pause toggle

    - Next Video

- Below the player controls is the volume control slider bar. You can grab and move this to left and right or click the desired position on the slider bar.

- If you choose full screen you can return to the player view by pressing the **Escape** key.

Chapter 13.
Troubleshooting & FAQs

ERRORS & LIGHTS

What to do if the Server is Unresponsive

If the server appears to be unresponsive, do either of the following:

- [Reset the server console](#)

- [Shutdown and restart the server manually](#)

Reset the server console

How to reset the server from the Windows Home Server Console.

To reset the server

1. If the Windows Home Server Console is open, click the Close button in the upper-left corner of the console.

2. Double-click the **Windows Home Server** icon in the task tray.

3. On the Windows Home Server Console startup page, click **Options**.

4. From the drop-down menu, select **Reset the Windows Home Server Console**.

5. Click **OK** to verify that you want to reset the console.

Shutdown and restart the server manually

How to force the server to turn off and restart.

To perform a soft shut down and restart

1. On the back of the server, 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 server is completely off, press the **Power** button to restart.

To force a shutdown and restart

1. On the back of the server, hold in the **Power** button for at least 4 seconds to force the server to shutdown.

2. After the server is completely off, press the **Power** button to restart.

Power-On Indicator is Off

The server is not powered on.

To power on the server

1. Make sure the power cord is fully plugged into the server and a powered electrical outlet.
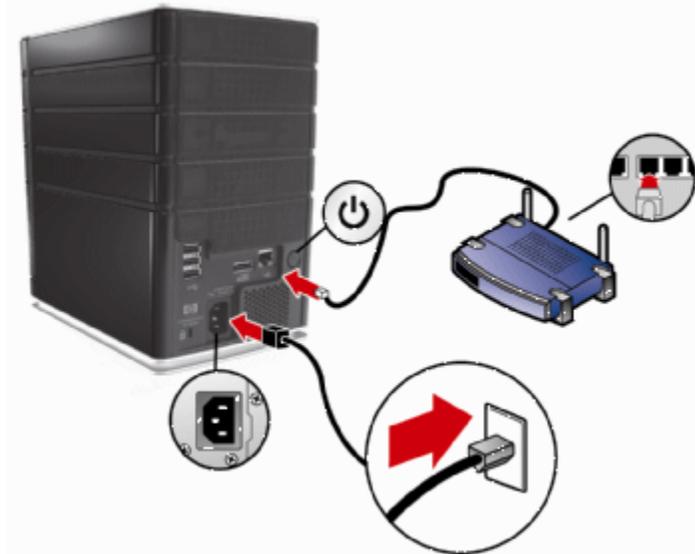
2. If plugged into a surge protector or power strip, make sure the device is switched on.

Why is the Hard Drive Light-Bar Breathing or Blinking Aqua White?

A breathing or blinking aqua white light bar ▭▭▭▭ indicates that a hard drive has been installed, but has not been initialized. It occurs in the following conditions:

*   When setting up the server for first time—the light-bar is breathing aqua white until the set up on the first computer is complete.

*   The drive has been removed from total storage and the light bar is blinking—for example, when removing a drive from the drive bay. See Removing a hard drive from the server.

*   When adding a new drive the light bar blinks aqua white, before it has been added to server storage.

    For information on initializing a hard drive, see **Server Storage** in the Windows Home Server Console Help.

Why is the Hard Drive Light-Bar Red?

A red light-bar [red bar] indicates the following:

- That a hard drive has failed and must be replaced. Additionally, the connected computers show the following:

- The drive was removed from the drive bay before removing it from total storage. See Removing a hard drive in the Windows Home Server Console Help.

- Red icon [icon] on the task tray.

- Red indicator [icon] on the Windows Home Server Console Network Health tab.

Why is the Server's Health Indicator Light Red?

A red Health indicator light [icon] has the following states:

- **Solid red** - operating system failure.

  Blinking red - power on test has failed or **BIOS** failed.

  Additionally, on your computers the Windows Home Server icon is grey [icon] on the task tray, which indicates the computer cannot contact Windows Home Server.

  To get more information about the failure, the HP MediaSmart Server provides additional error codes.

To get the specific error code causing the failure

Use a paper clip to press and release the recessed Status/Recovery button on the front of the server.

What to do About Hardware Warning Messages?

Warning messages indicate Critical issues or At Risk issues.

- **Critical issues** - address immediately; otherwise, the server may be damaged.

- **At Risk issues** - address as soon as possible.

  The HP MediaSmart Server monitors the temperature of the microprocessor (CPU), fan speed, and voltages. It displays the following messages:

- [Temperature warnings](#)

- [Fan speed warnings](#)

- [Voltages warnings](#)

Temperature warnings

Temperature warning messages indicate that some server components are too hot.

To lower the temperature of the server

1. Check the ventilation surrounding the server:

    - If the server is located in a small unventilated space, move the server to a more ventilated location.

    - Check that the server's front and back panels are not blocked.

    - Check that the location of the server is not too hot. Maximum environmental temperature for operating the server is 35° C (95° F).

2. Remove any accumulated dust on the back and front of the server.

    Fold up the flap on any empty **system drive** trays. For more information, see [Adding an internal SATA drive](#).

3. If none of the previous steps return the temperature to normal:

    - Write down the temperatures of the CPU.

    - Turn off the server.

    - Contact HP Support at http://www.hp.com/support.

Fan speed warnings

The fans cool the disk drives and other electronics. If they are not cooling the server sufficiently, the hard drives and server may be damaged.

For fan speed out of specification

1. Write down the speeds of the upper and lower fans.

2. Turn off the server.

3. Contact HP Support at http://www.hp.com/support.

Voltages warnings

The voltages indicate the health of the server's power supply.

For voltages out of specification

1. Write down the voltages.

2. Turn off the server.

3. Contact HP Support at http://www.hp.com/support.

No Server Found

If the recovery program cannot find the server, the most likely causes are:

*   The Recovery Mode was not successfully initiated—repeat step 5 if you did not push the Status/Recovery button while the Health indicator lights was blinking red and aqua white.

*   A firewall is blocking the connection - configure the firewall to allow the **Windows Home Server Recovery** application or to allow connections over TCP port 8192 and UDP port 8192. If opening these ports, be sure to close them after the recovery has completed. For more information, see the vendor's documentation.

*   The network connection is not working. For troubleshooting network connections, see Network Connection Issues.

Recovery Fails

If the recovery fails, one of the following messages will be displayed:

*   The server disks could not be reformatted

    The **partition** data on the server could not be written

*   The primary volume on the server could not be written

*   The recovery image could not be loaded

    The most likely causes of these messages are:

    A connection failure.

1. Make sure that you are using a wired connection to the server from the computer you are using to do the recovery.

2. Check network connections

3. Repeat the recovery or reset.

File Transfer Failure

What to do about a failure when transferring files to the HP MediaSmart Server from your computer.

To correct a file transfer failure

1. Compare files that you were transferring with the files on the shared folder and try transferring the missing files again.

2. If the transfer fails again, check that you can access the Windows Home Server.

209

3. If you cannot access the Windows Home Server, check the network connections:

    - Make sure that all the cable connections are correctly plugged in.

    - Make sure the HP MediaSmart Server has power and the Network indicator light is aqua white .

    Make sure the router (or switch) has power.

    - Restart the router or switch (or unplug and plug it back in).

    - Restart all the devices on the network, including the computers and the server.

    Make sure your server and computers are on the same logical network (subnet). See **What is an advanced network configuration?** in the Windows Home Server Console Help.

4. If the computer that you transferring files from is connected wirelessly to the network, try connecting it with an ethernet cable.

5. Check the Event Viewer to see if the System logs show a disconnect:

    - In **Windows XP**, click **Start**, **Control Panel**, **Performance and Maintenance**, **Administrative Tools**, and then select **Event Viewer**.

    - In **Windows Vista**, click **Start**, **Control Panel**, **System and Maintenance**, **Administrative Tools**, and then select **Event Viewer**.

Health Indicator Codes

The Tables below are a breakdown of the Health indicator displays. To see this code, using a paper clip, press and release the recessed Status/Recovery button on the front of the server.

Health indicator codes when the indicator starts as solid red		
Code	**Description**	**Action**
Solid red—no code	Operating system or application error.	See Windows Home Server Console for error condition.
1 aqua white, 2 red	**System drive** failed to boot.	If the light-bar for the system drive (the lowest light-bar) is also red, you need to replace the system hard drive.

Health indicator codes when the indicator starts as solid red		
Code	**Description**	**Action**
1 aqua white, 3 red	Operating system USB boot failed.	Check that lowest USB port on back of server has boot source.
1 aqua white, 4 red	Recovery mode failed.	Contact HP Support at http://www.hp.com/support.
1 aqua white, 5 red	Multiple boot failure.	Contact HP Support at http://www.hp.com/support.
1 aqua white, 6 red	Service code.	Do not hold state button longer that 3 seconds. Shut down and repeat.

Codes when the indicator starts as blinking red		
Code	**Description**	**Action**
2 aqua white, 1 red	BIOS corrupted.	Repeat power-on to validate. If repeats Contact HP Support at http://www.hp.com/support.
2 aqua white, 2 red	Memory failure.	Contact HP Support at http://www.hp.com/support.
2 aqua white, 3 red	BIOS recovery source not present.	Contact HP Support at http://www.hp.com/support.

Why is the Network Connection Light Off?

To determine why the network connection light is off:

- Make sure that all the cable connections are correctly plugged in.

  Make sure the router or switch has power.

- Restart the router or switch (or unplug and plug it back in).

- If you are using your own Ethernet cable, try using the Ethernet cable that came with the HP MediaSmart Server.
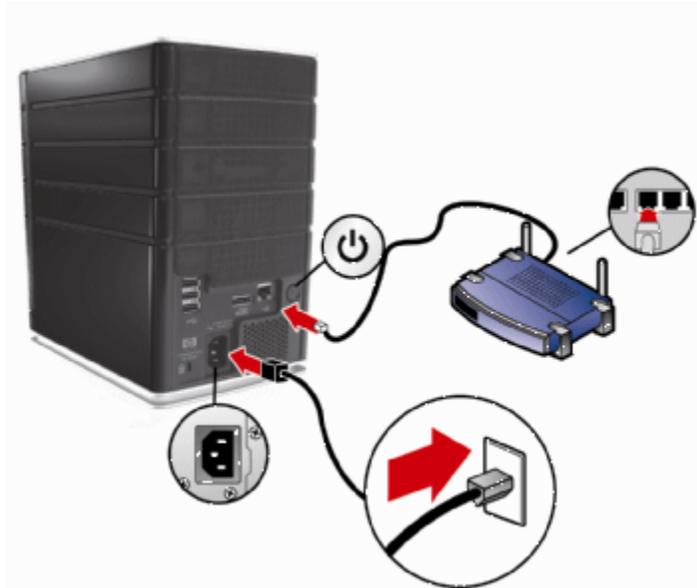
The Network Connection Light Blinking Aqua White

The server is intermittently connected to the network.

Check the cable connection between the server and the router/switch.

Server Not Showing Up on Your DMR

Issue:

The HP MediaSmart Server is not listed on your DMR or DMA.

Solution:

You can either:

- Turn on Windows Home Server Media Sharing

- Turn on TwonkyMedia

Turn on Windows Home Server Media Sharing

1. At the computer, double-click the **Windows Home Server** icon in the system tray.

2. Log on to the Windows Home Server Console.

3. Click **Settings** in the upper right corner.

4. Click the **Media Sharing** link in the left navigation bar.

5. Click the **On** radio button for at least one of the folders.

Turn on TwonkyMedia

1. At the computer, double-click the **Windows Home Server** icon in the system tray.

2. Log on to the Windows Home Server Console.

3. Click **TwonkyMedia** in the left navigation.
   If you do not see TwonkyMedia in the left navigation, the add-in is not installed. Click **Settings** in the upper right corner. Click **Add-ins** in the left navigation of the Windows Home Server Settings dialog. On the **Available** tab, install the **TwonkyMedia Server for HP MediaSmart**.

4. In the right pane, click **Start Sharing** and then click **Media Server Settings**.

Checking the Server Lights Out of the Box

Question:

How should my server lights look when I turn it on for the first time?

Answer:

The lights on the front of the HP MediaSmart Server indicate the status of the server. After the HP MediaSmart Server startup completes and prior to the first software installation, the indicator lights show:

- Hard drives—breathing aqua white

- Network—breathing aqua white

- Health—breathing aqua white

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

    If the lights are not solid aqua white, see the following:

- [Why is the hard drive light-bar breathing or blinking aqua white?](#)

- [Why is the hard drive light-bar red?](#)

- [Power-on indicator is off](#)

- [Why is the server's health indicator light red?](#)

Windows Home Server Frequently Asked Questions

Server Low on Space.

Clean out unused files.

Earmark backups for deletion and 'clean up now', delete unused docs from **Shared Folders**.

Cannot Connect to Server Shares.

- A duplicate device exists on the network.
  Verify that there is no device on the network named **hpserver**.

- User names and passwords do not match.
  Create a user on the server whose name and password match the user on the PC or enable the Guest account.

Hubs and Network Health Light

Some network hubs, as opposed to switches or routers, may reduce performance between your computer and the HP MediaSmart Server, or the hub may prevent your computer from communicating with the server. 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.

NETWORK & FIREWALL

Network Connection Issues

In this document we will cover:

- [No Available Port on Network Router](#)

- [Why did URL not Work?](#)

- [What do Firewall Blocking Messages Mean?](#)

- [Why is the Network Connection Light Off?](#)

- [The Firewall is Blocking the Connection](#)

- [Windows Vista: Check that Network Discovery is turned on](#)

- [Windows XP: To ensure your network is set up properly for TCP/IP](#)

- [Windows Vista: To ensure your network is set up properly for TCP/IP](#)

- [Windows XP: To ensure your network has the correct NetBIOS set up](#)

- [Windows Vista: To ensure your network has the correct NetBIOS set up](#)

No Available Port on Network Router

Take the following steps:

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.

Connect one end of the Ethernet cable that came with the server to the switch and the other end to the HP MediaSmart Server.

Why did URL not Work?

DNS has not updated, wait about 10 minutes for DNS to update.

What do Firewall Blocking Messages Mean?

Firewalls block certain types of communications between network devices. This helps protect your data from hackers, viruses, spyware, and Trojan horse software. The computer might have one or more firewall programs installed. For example, if the latest version of the Microsoft Windows XP operating system is installed, the computer may be using the Windows XP Firewall.

The HP MediaSmart Server comes with software applications that must communicate over the network. Sometimes these programs are blocked by a firewall. When this happens, security alerts pop up on the computer screen.

Security alerts usually have a list of possible options. The particular messages or alerts displayed depend on the vender.

For example, the alert might offer the following options:

- Keep Blocking

- Unblock

- Defer the choice and be reminded later

If a security alert dialog box for an HP MediaSmart Server application or the Windows Home Server is displayed by the firewall, click Unblock or Allow to permit the application to execute. It

215

is safe to unblock the communications because no connection or communication with the Internet is enabled, only those between the server and its software applications. After unblocking an application, if any software is reinstalled, moved to a new disk location, or if the application is deleted from the exception list using the Windows XP Security Center control panel, communications between that software and the server may once again be blocked by the firewall.

Configure your firewall to allow any HP MediaSmart or Windows Home Server applications.

Why is the Network Connection Light Off?

To determine why the network connection light is off:

- Make sure that all the cable connections are correctly plugged in.

- Make sure the router or switch has power.

- Restart the router or switch (or unplug and plug it back in).

- If you are using your own Ethernet cable, try using the Ethernet cable that came with the HP MediaSmart Server.

The Firewall is Blocking the Connection

If using a firewall program, configure it to allow any HP MediaSmart or Windows Home Server applications.

For instructions to unblock, see the software vendor's documentation.

For information about firewall blocking alerts, see What do firewall blocking messages mean?.

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 the **down arrow** ⌄ , then select **Turn on network discovery** and **Apply**.

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**.

    If the computer is connected via Ethernet cable to the network, right-click **Local Area Connection (LAN)**.

4. If the computer is using a wireless connection, right-click **Wireless Network Connection**.

5. Click **Properties**. In the dialog box that opens, check to ensure that TCP/IP 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**.

6. 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 (LAN)**.

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.

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** 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**.

Network Health

The Windows Home Server console contains a Network Health button to view the health of your network.

The Home Network Health dialog box shows health notifications from the server and the computers that are running Windows Vista.

To access the Network Health button

1. At the computer, double-click the **Windows Home Server icon** in the system tray.

2. Log on to the Windows Home Server Console.

3. Click the **Network Health** button.

   For assistance with Network Health notifications, see the following in the Windows Home Server Console Help:

- **Network Health**

- **Home Server Health Notifications**

- **Home Computer Health Notifications**

Why is the Network Connection Light Off?

To determine why the network connection light is off:

- Make sure that all the cable connections are correctly plugged in.

  Make sure the router or switch has power.

- Restart the router or switch (or unplug and plug it back in).

- If you are using your own Ethernet cable, try using the Ethernet cable that came with the HP MediaSmart Server.
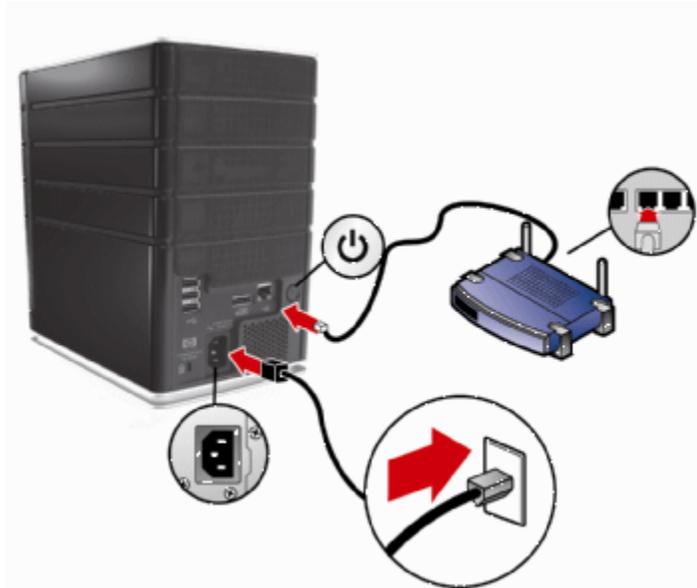
The Network Connection Light Blinking Aqua White

The server is intermittently connected to the network.

Check the cable connection between the server and the router/switch.

The Firewall is Blocking the Connection

If using a firewall program, configure it to allow any HP MediaSmart or Windows Home Server applications.

For instructions to unblock, see the software vendor's documentation.

What do Firewall Blocking Messages Mean?

Firewalls block certain types of communications between network devices. This helps protect your data from hackers, viruses, spyware, and Trojan horse software. The computer might have one or more firewall programs installed. For example, if the latest version of the Microsoft Windows XP operating system is installed, the computer may be using the Windows XP Firewall.

The HP MediaSmart Server comes with software applications that must communicate over the network. Sometimes these programs are blocked by a firewall. When this happens, security alerts pop up on the computer screen.

Security alerts usually have a list of possible options. The particular messages or alerts displayed depend on the vender.

For example, the alert might offer the following options:

- Keep Blocking

- Unblock

- Defer the choice and be reminded later

If a security alert dialog box for an HP MediaSmart Server application or the Windows Home Server is displayed by the firewall, click Unblock or Allow to permit the application to execute. It is safe to unblock the communications because no connection or communication with the Internet is enabled, only those between the server and its software applications. After unblocking an application, if any software is reinstalled, moved to a new disk location, or if the application is deleted from the exception list using the Windows XP Security Center control panel, communications between that software and the server may once again be blocked by the firewall.

Configure your firewall to allow any HP MediaSmart or Windows Home Server applications.

Check that the Router is Correctly Configured for DHCP

The HP MediaSmart Server comes automatically set to use a DHCP server to dynamically assign IP addresses. Most router 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 **Configuring your broadband router** in the Windows Home Server Console Help.

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 the **down arrow** ⊙, then select **Turn on network discovery** and **Apply**.

Check the Network is Set Up Properly for TCP/IP

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 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**.

If the computer is connected via Ethernet cable to the network, right-click **Local Area Connection (LAN)**.

4. If the computer is using a wireless connection, right-click **Wireless Network Connection**.

5. Click **Properties**. In the dialog box that opens, check to ensure that TCP/IP 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**.

6. 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 (LAN)**.

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**.

   Highlight **Internet** Protocol **(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**.

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** 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**.

Network Frequently Asked Questions

The following questions are answered in this document. Click the question to find the solution:

No Available Port on Network Router

- Why did URL not Work?

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 MediaSmart Server.

Why did URL not Work?

DNS has not updated, wait about 10 minutes for DNS to update.

What do Firewall Blocking Messages Mean?

Firewalls block certain types of communications between network devices. This helps protect your data from hackers, viruses, spyware, and Trojan horse software. The computer might have one or more firewall programs installed. For example, if the latest version of the Microsoft Windows XP operating system is installed, the computer may be using the Windows XP Firewall.

The HP MediaSmart Server comes with software applications that must communicate over the network. Sometimes these programs are blocked by a firewall. When this happens, security alerts pop up on the computer screen.

Security alerts usually have a list of possible options. The particular messages or alerts displayed depend on the vender.

For example, the alert might offer the following options:

- Keep Blocking

- Unblock

- Defer the choice and be reminded later

  If a security alert dialog box for an HP MediaSmart Server application or the Windows Home Server is displayed by the firewall, click Unblock or Allow to permit the application to execute. It is safe to unblock the communications because no connection or communication with the Internet is enabled, only those between the server and its software applications. After unblocking an application, if any software is reinstalled, moved to a new disk location, or if the application is deleted from the exception list using the Windows XP Security Center control panel, communications between that software and the server may once again be blocked by the firewall.

  Configure your firewall to allow any HP MediaSmart or Windows Home Server applications.

What are Optimum Data Throughput Speeds for Different Network Interfaces?

Depending on the network interface your computer uses, you will experience different rates of data transfer to your server. Network Interfaces are described in terms of their ideal maximum speed, but many factors can affect the actual data transfer speeds you will experience. For example, your optimal wireless transfer speed will be reduced depending on the type of security

and encryption you have enabled on your wireless network and by the amount of other work your computer and server are performing at the same time.

What are optimum data throughput speeds for different network interfaces?

- Gigabit Ethernet - 1000mbps/125MBs.

- Fast Ethernet - 100mbps/12.5MBs.

- Wireless N - 600mbps/75MBs.

- Wireless G - 54mbps/6.75MBs.

- Wireless A -54mbps/6.75MBs.

- Wireless B - 11mbps/1.375MBs.

What is the ideal minimum time to transfer a 1GB file for different network interfaces?

- Gigabit Ethernet - 8s.

- Fast Ethernet - 1min 20s.

- Wireless N -13.3s.

- Wireless G - 2min 28s.

- Wireless A - 2min 28s.

- Wireless B -12min 7s.

Updating Your Firewall's Trusted Program List

The HP MediaSmart Server Software Installation Disc installs several programs that enable your computer to communicate with the HP MediaSmart Server over your network. Software firewalls installed on your computer can block this communication and prevent the computer from locating the HP MediaSmart Server on your network. The following steps are recommended before installing the HP MediaSmart Server programs:

Launch your firewall and anti-virus software and update the trusted programs list.

- Verify that your firewall and anti-virus software is set to "Learn" new programs. After the HP MediaSmart Server software is installed, the firewall should prompt you to allow the installed programs to communicate with the server.

- 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 click here to go to http://www.hp.com/support for a list of software to add.

225

What Value does TZO Domain Names Provide Beyond the Microsoft Live Option?

Some broadband ISPs block Port 80 which is required for easy remote access. The TZO service allows you to obtain easy remote access even if Port 80 is blocked.

* With the Microsoft domain name, if you don't already have a Microsoft Live account, you'll have to set that up.

* With TZO custom domain name option, you can get your own domain name (e.g., smithfamily.com).

* TZO customer support and troubleshooting

The First Backup is Taking a Long Time.

Your initial PC backup could take several hours, depending on how much data you have on your computer. Subsequent backups will go much faster since only the data that has changed is copied to the server.

POWER MANAGEMENT

Uninterruptible Power Supply is not Supported

The Media Smart Server does not support active Uninterruptible Power Supply (UPS). Using the USB cable to allow the UPS to communicate with the MediaSmart Server, can cause a wide range of false errors. Using the UPS in a passive mode (USB cable not attached) does not appear to cause any false error reporting.

SERVER RECOVERY AND FACTORY RESET

Using Server Recovery and Factory Reset

* Choosing Server Recovery or Factory Reset?

* Recovering or resetting the server

To help recover or reset the server, the HP MediaSmart Server includes a Server Recovery Disc. Using this disc requires a DVD drive.

Server Recovery attempts to recover all data and restore the folders. However, because of the state of the system prior to the recovery, not all data may be able to be recovered or integrated into the folder structure.

📝 **Note**
For information about recovering a computer, see Computer Recovery.

Choosing Server Recovery or Factory Reset?

How to chose which process to use.

⚠ **Caution**
During Server Recovery , all system settings, such as User Accounts and settings, are lost. You will need to recreate them. During Factory Reset, in addition to loosing all system settings, the data on all drives is lost.

The following table will help you determine whether to choose Server Recovery or Factory Reset.

Choosing Server Recovery or Factory Reset	
Server Recovery	**Factory Reset**
Server operating system has been corrupted.	The partition data on the other storage drives is corrupted.
Disk replacement - partition data on other storage drives are okay.	Giving away or selling the server. See the caution below this table.
If you have lost your password.	
Server's system hard drive has been replaced.	

⚠ **Caution**
Factory Reset does not remove data from the drives; instead it allows the existing data to be overwritten. To insure that your data can never be accessed, use a "shredder" program that overwrites the hard drives with random numbers or meaningless data.

Recovering or resetting the server

⚠ **Caution**
Steps for performing a Server Recovery or Factory Reset. To recover or reset the server Use the Server Recovery Disc from a computer using a wired connection to the router (or switch). A wireless connection is not recommended. Additionally, if the server is some distance from the computer you are using for Server Recovery or Factory Reset, it may be more convenient to move the server near the computer.

1. If the HP MediaSmart Server Control Center is open on your computer, close it before proceeding.

2. Insert the Server Recovery Disc into a DVD drive in a computer connected to the network by an Ethernet cable.
   The Server Recovery program automatically starts.

3.   Click **Next**.

4.   Uninstall HP MediaSmart Server and Windows Home Server Connector:

- Click **Start**, **Control Panel** and select **Add or Remove Programs**.

- Click on **HP MediaSmart Server**, click **Remove**.

- Click on **Windows Home Server Connector**, click **Remove**.

5.   Prepare the server for recovery or reset:

- On the back of the server, hold in the **Power** button for at least 4 seconds to force the server to shutdown.

- After the server is completely off, locate the recessed **Status/Recovery** button on the front of the server and prepare to press this button with a paper clip.

- On the back of the server, press the **Power** button to restart.

- While the Health indicator is blinking aqua white and red , use a paper clip to press the recessed Status/Recovery button until it clicks.

  Recovery mode is initiated.

- If recovery mode is successfully initiated, the Health indicator light blinks pink and red repeating. After alternating a few times, the Health indicator light turns solid pink.

6. On the **Rebooting your server into recovery mode** dialog box, click **Next**, and then follow the instructions on each dialog box.

   During the recovery process, the following may happen:

   - If the recovery program cannot find the server, see No server found below.

   - If the Server Recovery cannot recover the partition data, the progress bar will go to 100% and then back to zero and start over.

   - If the recovery fails, see [Recovery fails](#).

7. After the Server Recovery or Factory Reset completes, the server automatically restarts. Before taking the next step wait until the Health indicator light is solid aqua white .

8. You must reinstall the software on each of your computers, including the computer that you used to perform the recovery - otherwise, you won't be able to use the server.

9. Click **Finish** on the **Server recovery complete** dialog box.

10. The HP MediaSmart Server software will automatically be installed on the computer where you performed the Server Recovery or Factory Reset.

 Caution
If you did not close the HP MediaSmart Server Control Center, as indicated in step 1, you may see a message asking you to reboot your computer. If you see this message, choose to reboot later. Otherwise, rebooting may leave the server in a state where it cannot be configured, and you will have to repeat the recovery or reset process.

 Note
It takes a few minutes for the server to go through the finishing process. Please be patient.

To install the software on other **client computers**, see Installing the Software on Additional Home Computers.

Backing Up and Restoring a Computer

Backing up and restoring a computer is available through the Backups & Computers tab on the Windows Home Server console.

To access the Backups & Computers tab

1. At the computer, double-click the **Windows Home Server icon** in the system tray.

2. Log on to the Windows Home Server Console.

3. Click the **Backups & Computers** tab.

   For assistance backing up or restoring a computer, see the following in the Windows Home Server Console Help:

- **Computers & Backup**

- **How does backup work?**

- **Managing and Configuring Backups**

- **Restoring Computer Backups**

- **Removing a Computer**

- **Troubleshooting Computers & Backup**

Computer Recovery

To help you recover your computer and data in the event of a hard drive failure, the HP MediaSmart Server includes a PC Restore Disc. Use this disc to restore your computer from the HP MediaSmart Server 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.

 Caution
To ensure that you have the latest version of the PC Restore Disc, contact HP support at http://www.hp.com/support.

The Microsoft® Windows® Preinstallation Environment software included with this computer or software may be used for boot, diagnostic, setup, restoration, installation, configuration, test or disaster recovery purposes only.

📝 **Note**
THIS SOFTWARE CONTAINS A SECURITY FEATURE THAT WILL CAUSE END USER
CUSTOMER'S SYSTEM TO REBOOT WITHOUT PRIOR NOTIFICATION TO THE END
USER CUSTOMER AFTER 24 HOURS OF CONTINUOUS USE.

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 Wizard.

   For additional information about restoring computer backups, see **Restoring Computer Backups**
   in the Windows Home Server Console Help.

Recovering or resetting the server

⚠️ **Caution**
Steps for performing a Server Recovery or Factory Reset. To recover or reset the server Use the
Server Recovery Disc from a computer using a wired connection to the router (or switch). A
wireless connection is not recommended. Additionally, if the server is some distance from the
computer you are using for Server Recovery or Factory Reset, it may be more convenient to move
the server near the computer.

1. If the HP MediaSmart Server Control Center is open on your computer, close it before proceeding.

2. Insert the Server Recovery Disc into a DVD drive in a computer connected to the network by an
   Ethernet cable.
   The Server Recovery program automatically starts.

3. Click **Next**.

4. Uninstall HP MediaSmart Server and Windows Home Server Connector:

- Click **Start**, **Control Panel** and select **Add or Remove Programs**.

- Click on **HP MediaSmart Server**, click **Remove**.

- Click on **Windows Home Server Connector**, click **Remove**.

5. Prepare the server for recovery or reset:

- On the back of the server, hold in the **Power** button for at least 4 seconds to force the server to shutdown.

- After the server is completely off, locate the recessed **Status/Recovery** button on the front of the server and prepare to press this button with a paper clip.

- On the back of the server, press the **Power** button to restart.

- While the Health indicator is blinking aqua white and red , use a paper clip to press the recessed Status/Recovery button until it clicks.

   Recovery mode is initiated.

- If recovery mode is successfully initiated, the Health indicator light blinks pink and red repeating. After alternating a few times, the Health indicator light turns solid pink.

6. On the **Rebooting your server into recovery mode** dialog box, click **Next**, and then follow the instructions on each dialog box.

    During the recovery process, the following may happen:

    - If the recovery program cannot find the server, see No server found below.

    If the Server Recovery cannot recover the partition data, the progress bar will go to 100% and then back to zero and start over.

    - If the recovery fails, see [Recovery fails](#).

7. After the Server Recovery or Factory Reset completes, the server automatically restarts. Before taking the next step wait until the Health indicator light is solid aqua white ![icon].

8. You must reinstall the software on each of your computers, including the computer that you used to perform the recovery - otherwise, you won't be able to use the server.

9. Click **Finish** on the **Server recovery complete** dialog box.

10. The HP MediaSmart Server software will automatically be installed on the computer where you performed the Server Recovery or Factory Reset.

🔴 **Caution**
If you did not close the HP MediaSmart Server Control Center, as indicated in step 1, you may see a message asking you to reboot your computer. If you see this message, choose to reboot later. Otherwise, rebooting may leave the server in a state where it cannot be configured, and you will have to repeat the recovery or reset process.

📝 **Note**
It takes a few minutes for the server to go through the finishing process. Please be patient.

To install the software on other client computers, see [Installing the Software on Additional Home Computers](#).

Recovery fails

If the recovery fails, one of the following messages will be displayed:

- The server disks could not be reformatted

    The partition data on the server could not be written

- The primary volume on the server could not be written

- The recovery image could not be loaded

    The most likely causes of these messages are:

    A connection failure.

1. Make sure that you are using a wired connection to the server from the computer you are using to do the recovery.

2. Check network connections.

3. Repeat the recovery or reset.

## Installing the Software using a Browser

Use the Software Installation Disc to install both the HP MediaSmart Server software and the Windows Home Server Connector software. You can also install the Server software using a **Web browser** with this link: http:\\hpserver:55000.

1. Turn on the Server.
   All of the LED's will be in a pulsing state.

2. Open a Web Browser and type the following address **http://hpserver:55000**.
   The Windows Home Server Connector Setup window opens.

3. Click **Download Now**.

📝 **Note**
You can come back later to get the toolkit or contact information. Type the Address <name of server:55000> in this example http://hpserver:55000.
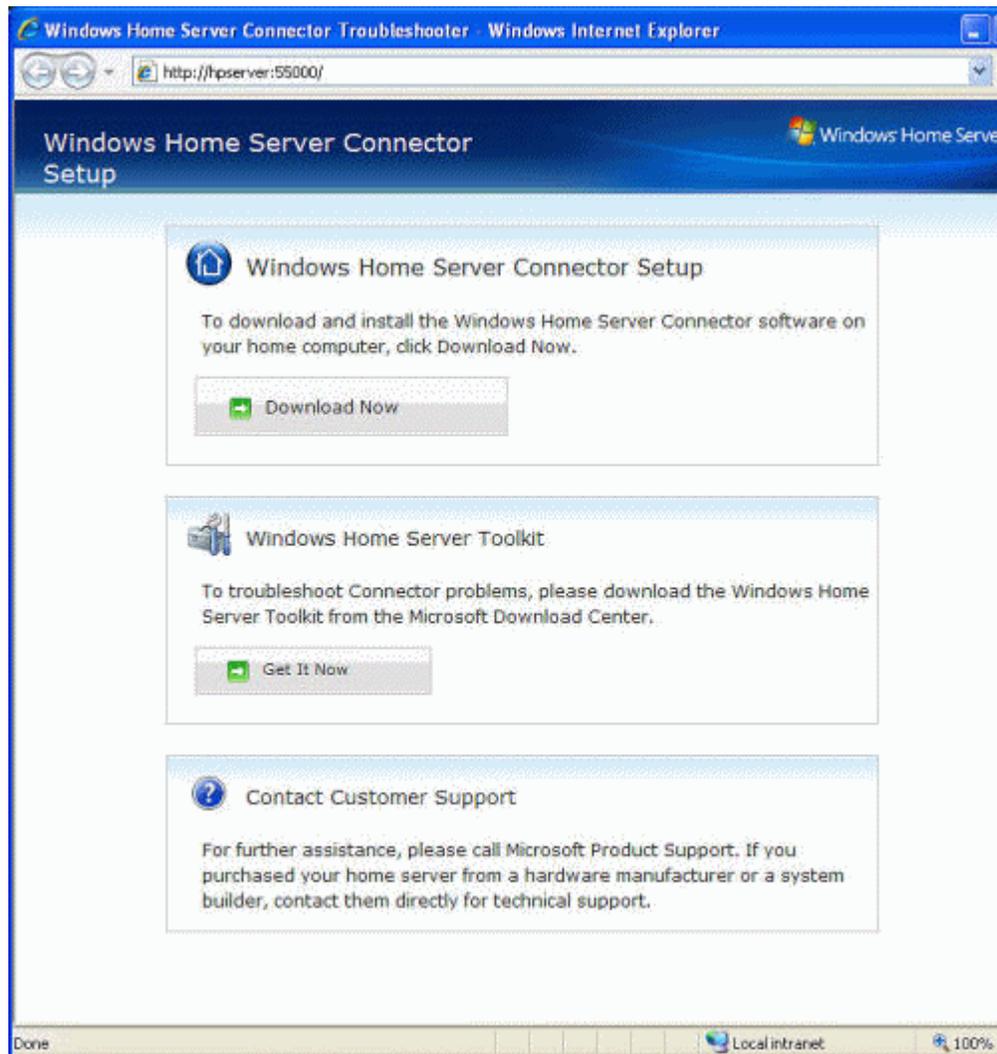
4. A file download security warning and a Internet Explorer dialog box may pop up. Click **Run**.

5. A dialog box opens stating that software is being downloaded from your HPSERVER. Click **Next**, when the download is complete.
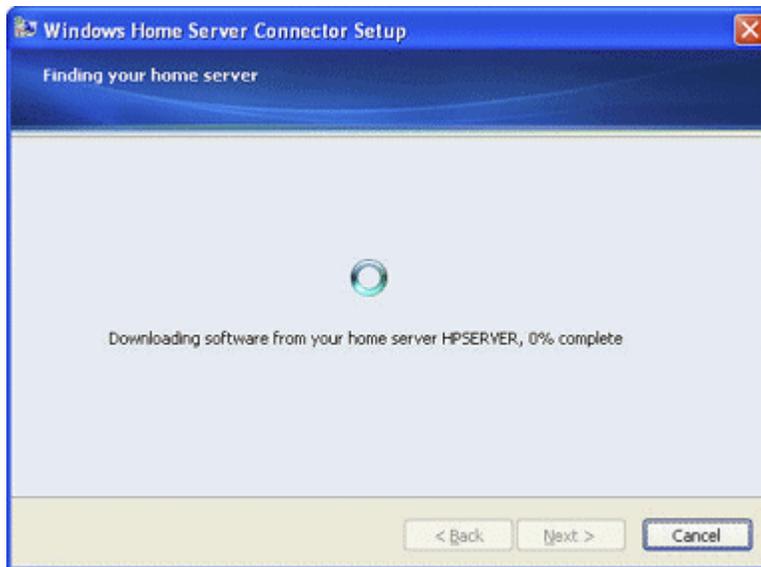
6. The **Install Wizard** opens and gives you the rest of the installation instructions.

SERVER STORAGE

Expanding Server Storage

You can expand storage in the HP MediaSmart Server in several ways:

Add one or more **SATA** hard drives to the server's internal expansion bays. (Integrated Drive Electronics (IDE) drives are not supported.)

- Add up to four USB disk drives to the server's USB ports.

- Add an external SATA (eSATA) hard drive to the server's external eSATA port.

  The following topics provide information on expanding server storage:

- [Adding an internal SATA drive](#)

- Installing and removing an external USB disk drive or eSATA drive

- Adding and removing drives from server storage

Adding an Internal SATA Drive

How to place a hard drive into an expansion bay in the HP MediaSmart Server.

◆ **Important**
Do not remove the bottom drive. This drive contains the Windows Home Server operating system.

◆ **Important**
There are two parts to adding an internal drive: add the drive to an expansion bay and then initialize the drive so it becomes part of the total server storage.

To add a **SATA** drive to an expansion bay

1. Determine which expansion bay to use:

    - The light-bar for an empty expansion bay is off.

    - Add the new hard drive to the lowest available expansion bay.

2. Open the door on the front of the server.

3. On the lowest empty hard-drive tray, press down the lever to unlock the handle.
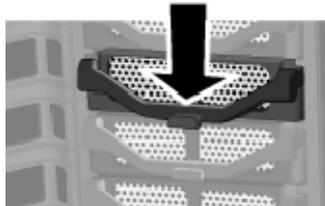
4. Lift the handle all the way up.
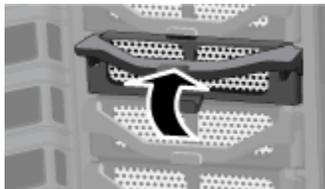
5. Gently pull the hard-drive tray from the expansion bay.
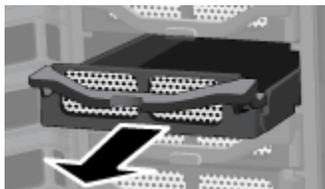
6. Fold down the flap near the back of the hard-drive tray.

📝 **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.
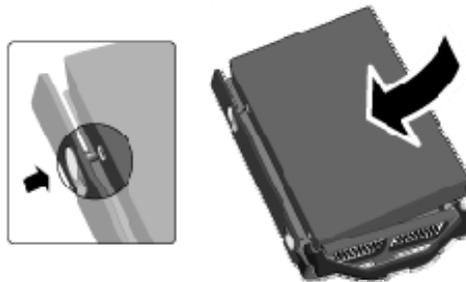

8. Flex the right side-rail, and then insert the pins into the hard drive's mounting holes.
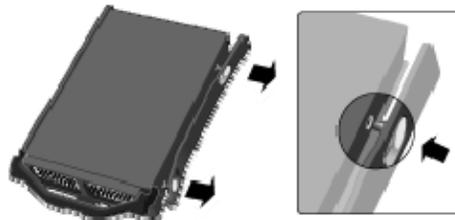

9. With the handle up, slide the hard-drive tray and drive into the expansion bay.
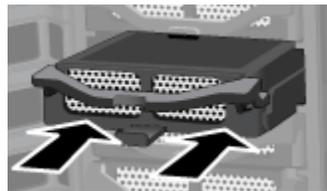
10. Press down on the handle on the hard-drive tray until it locks.
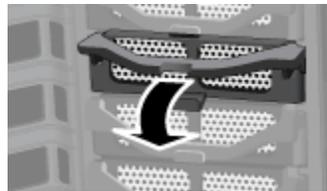
11. Close the door on the front of the server.

237
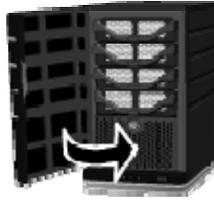
11. Notice that within a few seconds the light-bar for the new hard drive pulsates aqua white ▭▭▭. This indicates that the hard drive has been installed, but has not been initialized.

12. Add the drive to the server's total storage.

Removing an Internal SATA Drive

How to remove a hard drive from an expansion bay in the HP MediaSmart Server.

For information about removing the **system drive**, see Replacing the system.

 Caution
Before removing a drive from an expansion bay, you must remove the drive from the server's total storage.

For information about removing a drive from total storage, see Adding and Removing Drives from Server Storage.

To remove a hard drive from an expansion bay

1. Be sure that the light-bar for the hard drive you want to remove is blinking aqua white ▭▭▭. This indicates that the drive has been properly removed from the server's total storage.

2. Open the door on the front of the HP MediaSmart Server.

3. On the drive you want to remove, press down the lever to unlock the handle.
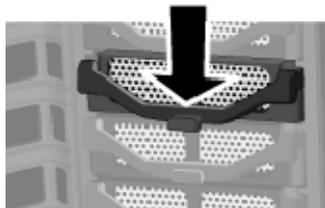
4. Lift the handle of the hard-drive tray all the way up.
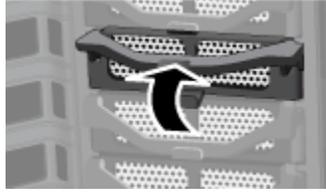
5. Gently pull the system drive from the drive bay.
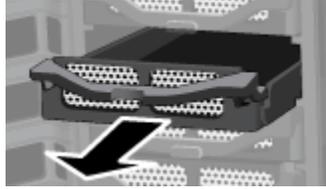
6. Flex the back of the right side-rail, and then withdraw the back pin from the hard drive by gently pulling the side-rail down and away.

7. 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.

8. Remove the drive from the hard-drive tray.

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


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

10. With the handle up, slide the hard-drive tray back into the system bay.
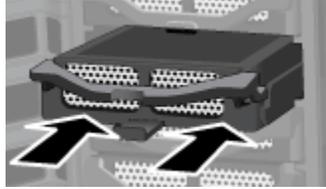
11. Close the handle on the hard-drive tray until it locks.
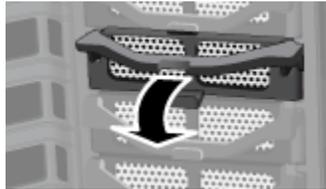
12. Close the door on the front of the server.
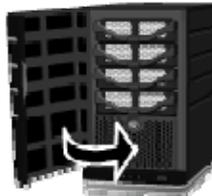
Adding and Removing Drives from Server Storage

Drives added or removed from an expansion bay or port must be added or removed from total server storage.

⚠ **Caution**
When adding a hard drive to server storage, the hard drive is formatted. Make sure to back up any important files that are on the hard drive before adding it to server storage.

To add a drive to the server's total storage

1. At the computer, double-click the **Windows Home Server icon** 🔼 in the system tray.

2. Log on to the Windows Home Server Console.

3. Click the **Server Storage** tab.

4. Follow the instructions in **Adding a hard drive** in the Windows Home Server Console Help.

To remove a drive from the server's storage

If the server does not have enough remaining storage, and you do not first add another hard drive to server storage, either you will lose shared-folder duplication or you will lose files. This depends on how much server storage space remains after you remove a hard drive.

1. At the computer, double-click the Windows Home Server icon in the system tray.

2. Log on to the Windows Home Server Console.

3. Click the Server Storage tab.

4. Follow the instructions in **Removing a hard drive** in the Windows Home Server Console Help.

Adding and Removing an External USB Drive or eSATA Drive

You can add external USB disk drives to any of the HP MediaSmart Server's four USB ports. You can also add an eSATA drive to the eSATA port.

💠 **Important**
There are two parts to adding external drives: connect the drive to a port and then initialize the drive so it becomes part of the total server storage.

To connect an external USB disk drive

If you use a USB disk drive, it is recommended that you use a drive that conforms to USB 2.0 or later.

1. Plug in the USB cable into one of the USB ports on the server.

2. To plug in and power up your external USB drive, see the documentation that came with your USB disk drive.

🔴 **Caution**
The addition of multiple USB disk drives through an external USB hub is neither recommended nor supported.
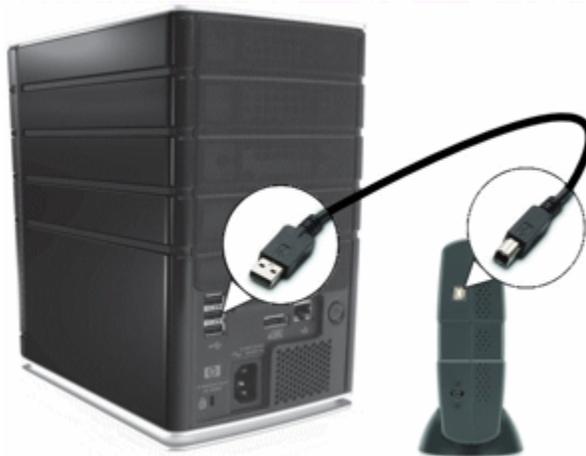
3. Follow instructions in Adding and Removing Drives Server Storage

To connect an eSATA disk drive

1. Plug in the Serial ATA cable into the eSATA port on the back of the server, as shown in the following figure.

241

2. To plug in and power up your eSATA disk drive, see the documentation that came with your device.

3. Follow instructions in <u>Adding and Removing Drives Server Storage</u>

Replacing the System Drive

Replacing the internal **system drive** consists of four parts:

1. <u>Removing the System Drive</u>

2. <u>Re-installing the New System Drive</u>

3. Resetting the System. See Using Server Recovery and Factory Reset.

4. Reinstall the software on each computer. See <u>Installing the Software on Additional Home Computers</u>.

⬦ **Important**
The system drive contains the Microsoft Windows Home Server operating system. The server cannot operate while the system drive is removed and must be re-installed via the Server Recovery Disc or factory reset. See Using Server Recovery and Factory Reset.

Removing the System Drive

The following figure shows the location of the system hard drive.
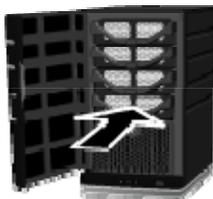
To remove the system drive

1. Hold in the **Power** button for at least 4 seconds to force the server to shutdown.

2. Open the door on the front of the server.

3. Using a coin, turn the security knob clockwise to unlock the drive.

4. On the bottom drive, press down the lever to release the handle.
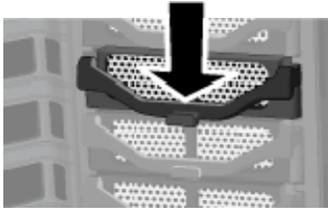
5. Lift the handle all the way up.

6. Gently pull the system drive from the drive bay.

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

8. Flex the front of the right side-rail and withdraw the front pin from the hard drive by gently pulling the side-rail down and away.

9. Remove the drive from the hard-drive tray.

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 new system drive into the left side of the hard-drive tray, making sure that the pins go into the hard drive's mounting holes.
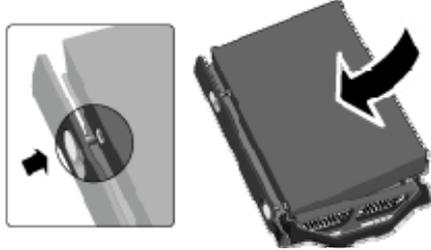
2. Flex the front of the right side-rail and insert the pin into the hard drive's mounting hole, and then flex the back of the right side-rail and insert the pin into the other mounting hole.
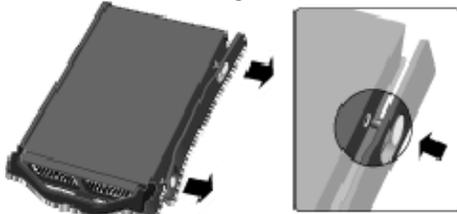
3. With the handle up, slide the hard-drive tray and drive into the system bay.

📝 **Note**
Don't push on the handle; the tray won't slide in.
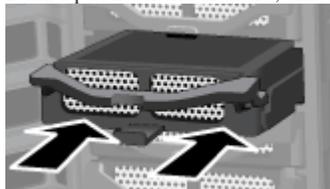
4. Close the handle on the hard-drive tray by pressing down until it locks.
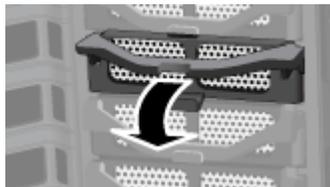
5. Using a coin, turn the security knob counterclockwise to lock system drive in its bay.

6. Close the door on the front of the server.
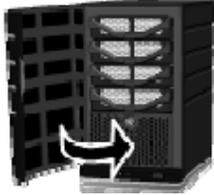
7. Power on the server.

8. The HP MediaSmart Server lights will pulsate aqua white.

9. Perform a Factory Reset to initiate the drive. See [Using Server Recovery and Factory Reset](#).

Can I Remove and Reattach A USB Drive

Yes, any USB drive that has been attached to the Server:

- To increase storage capacity of the Server
  or

- To back up files

  If a USB drive is removed can be reattached.

  NOTE:

  If while the drive was unattached and filers were added to that drive these files will not available when it is reattached to the Server. The space occupied by these files will remain unavailable but the Server will not see data.

What Happens if a USB Drive Becomes Unattached

A USB drive has been successfully added to the "**Servers Backup Hard Drives**" or "**Storage Hard Drives**" can become unattached to the Server. Some of the reasons a working USB drive might be unattached:

- The USB Drive loses its Power Supply.

- The USB cable comes loose from the drive or Server.

  Verify that your USB Drive has power and the Cable connecting the drive to the server is firmly seated.

USB Drive is unattached during a "Backup"

Should the USB drive become unattached for any reason during the backup, the backup will fail.
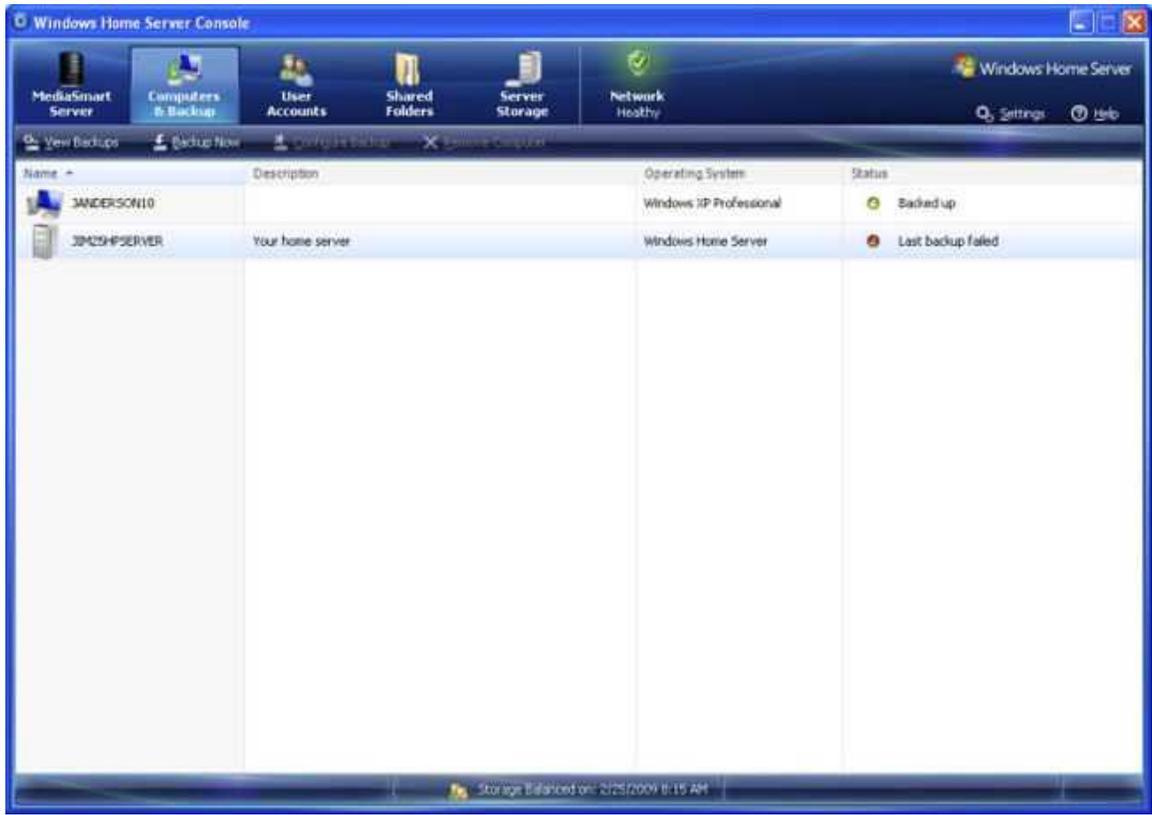
Once the USB drive has been seen by the server again, the next back up should work.
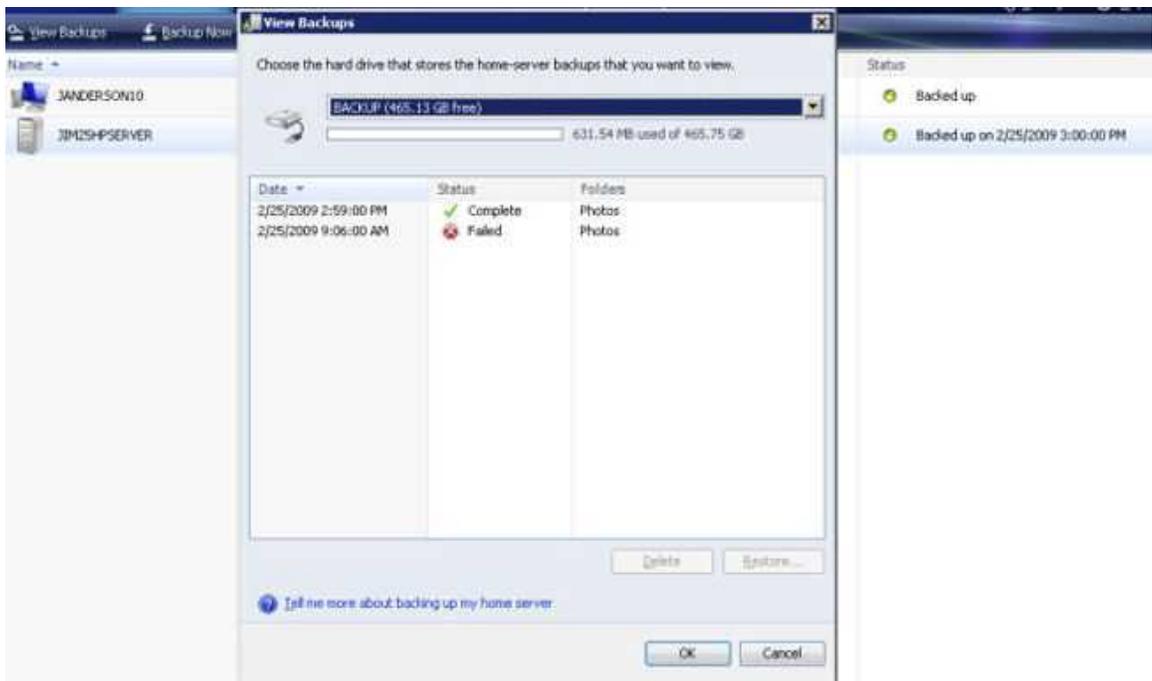
USB Drive used for Server Storage is Unattached

Should your USB drive become unattached to the server the status of the drive will show as Missing.
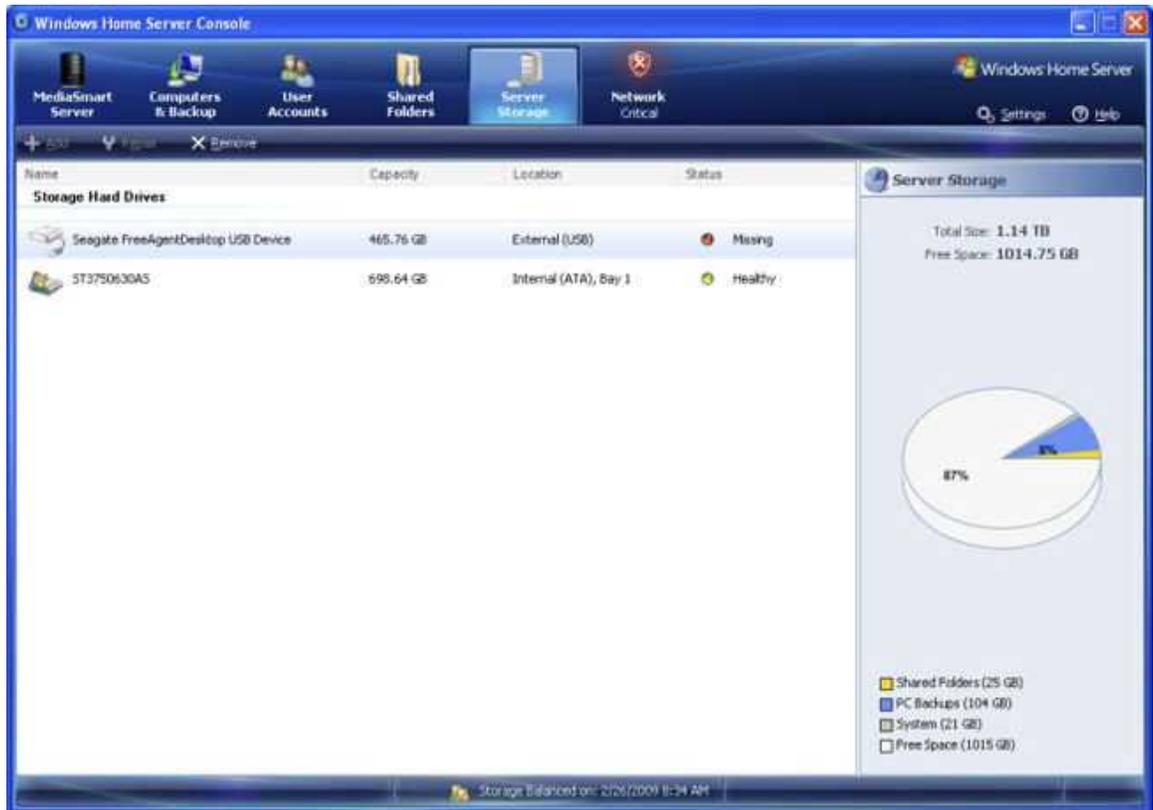
Once you have confirmed that the cables are firmly seated the status of the USB Drive will change from Missing to Healthy.

STREAMING MEDIA

iTunes Frequently Asked Questions

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.

HP Media Collector does not Appear to be Working

HP Media Collector is used by the HP MediaSmart Server to copy music, photos, and videos of users that have accounts on the HP MediaSmart Server.

There are some common causes for the HP Media Collector to appear not to work:

- No music/media in library

- The Server may not have refreshed yet

- Accounts may not match or guest account disabled

- Guest account disabled

- Media Type is not Enabled for Collection

- Home Computer is not Included as a Scanned Computer

No music/media in library

Add music to library.

Also look at the following sections for more troubleshooting ideas:

- The aggregation application that runs on the client is not running or is failing

- The aggregation application may not be accessing the desired material on the client side

- The server may be down or unreachable

The aggregation application that runs on the client is not running or is failing

At a lower level, this could also have several causes. The most likely one is that there is a problem running the automatically scheduled aggregation task. The user can browse to the list of scheduled tasks, turn on view hidden tasks, and look for a task called MediaAggregator.txt. Located at "C:\Documents and Settings\<user>\Local Settings\Application Data\Hewlett-Packard\HP MediaSmart Server"

If this task does not exist, then there has been a problem setting up the task and they should probably log out and log in again. This should cause a startup task to run (normal installation sets this up for all users). If the task exists, the user can see when it last ran, which indicates whether it ran recently enough to pick up the changes. You can check how often the aggregation is configured to run. You can also select the task and manually run it.

The scheduling, as mentioned above, can be a problem if the user has just changed to a more frequent setting, but the next scheduled run (according to the old setting) is well in the future. The changed setting won't be picked up until it runs next in the schedule, or the user logs out and in again, or until the user manually runs the task.

Other likely failures are covered below, like being unable to reach the server and unable to read the configuration file.

Also, if no user is logged in to the networked computer, the aggregation client won't run.

In these cases, look at the music share to see if the content appears there.

The aggregation application may not be accessing the desired music on the client side

The iTunes aggregator runs with the permissions of the logged on user, if the material to be aggregated is in a folder that the user doesn't have permission to access, then that folder's contents can't be aggregated when this user is logged in.

The server may be down or unreachable

If the network computer cannot access the shares or the console on the server, the server may be down, so aggregation cannot occur.

The Server may not have refreshed yet

1. Click the **Eject** button on the Server Bar in iTunes.

2. Click the **HP MediaSmart Server** button on the Windows Home Server Console and your music files should now be seen.

Accounts may not match

If family members want to access information on your home network from an Internet café, coffee shop, or other location outside of your home, they need individual user accounts with strong passwords.

When you create user accounts on the server, use logon names and passwords that match the logon names and passwords of existing user accounts on your home computers. Creating matching user accounts enables family members to automatically log on to the server when they log on to their home computer.

If the user accounts and passwords do not match, you will be prompted to type a user name and password when you open the server's shared folders.

Create a User account that matches your computer's account.

1. At the computer, double-click the Windows Home Server icon in the system tray.

2. Log on to the Windows Home Server Console.

3. Click the **User Accounts** tab.
   If you have already dismissed the **Windows Home Server** user help dialog, then skip to step 6.

   The **User Accounts Setup** dialog displays. Click **Set Policy** to force a password strength for all user accounts and click **OK**. (optional)

   User accounts that are enabled for remote access in the **Add User Account Wizard** in step 6 below, require a strong password regardless of what is selected on the Set Policy page.

4. Click **OK** on the User Accounts Setup dialog to begin creating user accounts.

5. Click **Add**, and then complete the Add User Account Wizard.

6. Check to enable remote access if the family member wants to access the home network from outside of the home.

7. Repeat for each user account that you want to add.

Guest account disabled

If you want everyone to use the same logon account to access the HP MediaSmart Server, enable the guest account. If the guest account is enabled with no password, family members are not required to logon when they use home computers. Additionally, all family members can have Full access to all shared folders through the guest account.

📝 **Note**
If you enable the guest account, everyone that connects to your home network has the same privileges. That may mean that they all have full access to shared folders and other resources on your server. The guest account cannot be used to access the server from outside of the home using remote access.

1. At the computer, double-click the Windows Home Server icon 🔾 in the system tray.

2. Log on to the Windows Home Server Console.

3. Click the **User Accounts** tab.

4. The **User Accounts Setup** dialog displays. Click **Enable Guest**. See picture in step 5 above.

Media Type is not Enabled for Collection

The HP MediaSmart Server may not be set up to scan for photos, music, or videos. Check your HP Media Collector settings to make sure the media type is configured for collection.

1. At the computer, double-click the Windows Home Server icon 🔾 in the system tray.

2. Log on to the Windows Home Server Console.

3. Click **Settings**.

4. Click **Media Collector** in the left menu of the Windows Home Server Settings dialog.

5. Click the **Photos**, **Music**, or **Videos** tab.
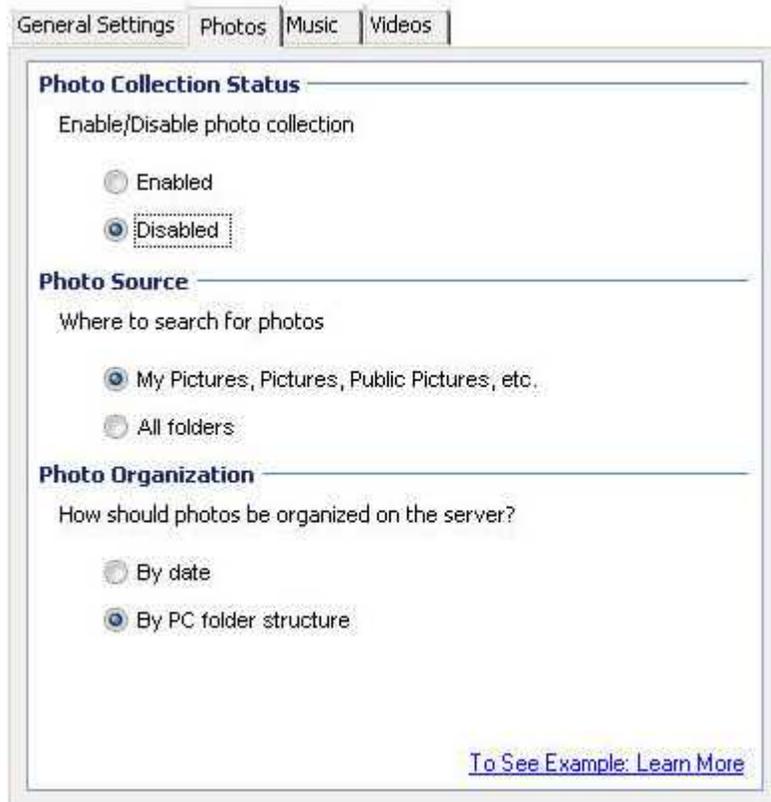
6. Check that the media collection status is set to **Enabled**.

7. Click **OK**.

Home Computer is not Included as a Scanned Computer

The HP MediaSmart Server may not be set up to scan one of your network computers. Check your HP Media Collector settings to make sure all of your home computers are included.

1. At the computer, double-click the Windows Home Server icon in the system tray.

2. Log on to the Windows Home Server Console.

3. Click **Settings**.

4. Click **Media Collector** in the left menu of the Windows Home Server Settings dialog.

5. On the **General Settings** tab, check that all of the necessary computers are **Included** in the **Scanned Computers** list.
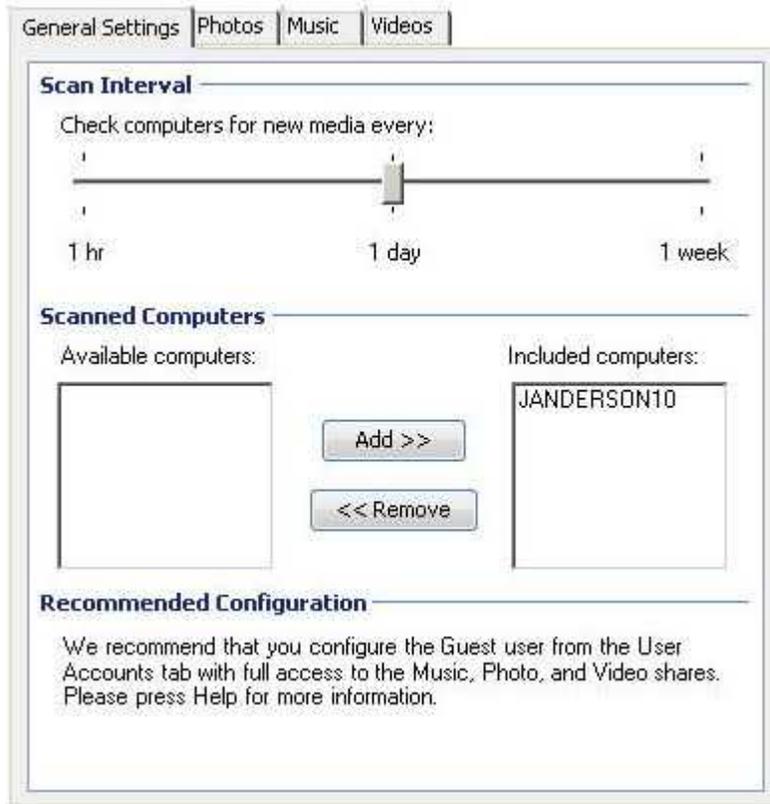
6. Click **OK**.

Why my Files Do Not Show Up on DMA?

- [Once WMC has been enabled to share a shared folder, it continually monitors the folder for new files.](#)

- [If your DMA does not display WMC from the HP MediaSmart Server, or none of your files are found by the DMA.](#)

- [If some of your files (e.g., files newly copied to the server) are not found by the DMA.](#)

  Digital Media Adapters (DMA, or Digital Media Receivers - **DMR**) use the Universal Plug 'n Play (**UPnP**) protocol to automatically discover Digital Media Servers (DMS). The HP MediaSmart Server uses Windows Media Connect 2.0 (WMC) as its DMS. In order for a DMA to discover the HP MediaSmart Server and access its content, WMC must be enabled. WMC defaults to being disabled; it is automatically enabled for all DMAs when the server administrator selects one or more of the three media **shared folders** (Music, Photos and Videos) for media sharing. On your DMA, you should then see the HP MediaSmart Server listed as:

  <YourServerName>: 1 : Windows Media Connect

📝 **Note**
Some DMAs aggregate the content from all DMSs into a single view; in such a case you may not be able to identify each DMS individually. Further troubleshooting steps form DMA follow:

253

Once WMC has been enabled to share a shared folder, it continually monitors the folder for new files.

1. Open the **Control Center** on one of your home PCs.

2. Select the **Tools** tab at the bottom.

3. On the Tools tab, click on the **Home Server Console (HSC)** icon.

4. On the HSC password screen, type in the **Administrator's password**.

5. When the HSC comes up, click on the **Settings** button near the top right.

6. In the left pane of the Settings panel, select Media Sharing .

7. In the right pane of the Settings panel, you must now select at least one of the shared folders for sharing by selecting the On radio button.

8. Click **Apply**.
   This will automatically start WMC, which will then share all of the files in the selected shared folders.

If your DMA does not display WMC from the HP MediaSmart Server, or none of your files are found by the DMA.

1. Check that WMC is enabled (use the above steps to get to the Media Sharing settings, and verify that at least one of the shared folders is On).

   Check that the HP MediaSmart Server 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 Smart 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. Note that if one of these folders is enabled for media sharing; then all folders below that are also enabled for media sharing.

2. Re-enable the shared folder for media sharing.

   - Go to the Media Sharing Settings panel (see the instructions above for how to get here).

   - 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 Smart server.

Media Files (Audio/Video) of Supported Format Aren't Seen by Device.

Possible naming convention issues.

Double check names on server, make sure they start with a letter, and not a number or symbol.

Windows Media Connect 2.0 and TwonkyMedia Comparison

The following tables provide a detailed comparison of Windows Media Connect 2.0 and TwonkyMedia features.

At a high level, TwonkyMedia

- Allows your digital media adaptor or digital media receiver to see photo thumbnails for pictures and album artwork for music

- Supports a lot more media formats

General Features

Comparison of General Windows Media Connect and TwonkyMedia Features		
Feature	**Windows Media Connect 2.0**	**TwonkyMedia**
DLNA Support	Some Capability	1.0 compliant 1.5 reference
Number of Shared Folders	Music Photos Videos	User Controlled
Shared Folders/Media Types	Music/all media types Photos/all media types Videos/all media types	Music/music media types Photos/all media types Videos/video media types User selectable folders/media types
Album Art/Thumbnail Support		Music album art Photo thumbnails
Picture Scaling	Limited	JPG_MED support
Video Trick Modes	No	Yes

Comparison of General Windows Media Connect and TwonkyMedia Features		
Feature	**Windows Media Connect 2.0**	**TwonkyMedia**
Server Side Shuffle	No	Yes
Status/Summary User Interface	No	Yes
Folder Monitoring	Yes	Yes
DMR Exclusion	No	Yes

Views

Comparison of Windows Media Connect and TwonkyMedia Views		
Views	**Windows Media Connect 2.0**	**TwonkyMedia**
Music Views		
Album	X	X
All Tracks	X	X
Artist	X	X
Artist Index		X
Artist/Folder		X
Folder	X	X
Genre	X	X
Genre Index		X
Genre/Artist		X
Playlist	X	X
Year/Artist		X
Picture Views		
Album	X	
All Photos	X	X
Date	X (flat)	X (hierarchal)
Folder	X	X

Comparison of Windows Media Connect and TwonkyMedia Views		
Views	**Windows Media Connect 2.0**	**TwonkyMedia**
Playlist	X	
Video Views		
Actor	X	
Album	X	
All Videos	X	
Folder	X	
Genre	X	
Playlist	X	

File Formats

Comparison of Windows Media Connect and TwonkyMedia File Formats		
File Formats	**Windows Media Connect 2.0**	**TwonkyMedia**
Music Formats		
3gp		X
ac3		X
aiff		X
asf	X	X
FLAC		X
LPCM		X
m4a		X
mp1		X
mp2		X
mp3	X	X
mp4		X
mpa		X
ogg		X

Comparison of Windows Media Connect and TwonkyMedia File Formats		
File Formats	**Windows Media Connect 2.0**	**TwonkyMedia**
wav	X	X
wma	X	X
Picture Formats		
bmp	X	X
gif	X	X
jpg/jpeg	X	X
png	X	X
tif/tiff	X	X
Video Formats		
3gp		X
asf		X
avi	X	X
DivX		X
dvr-ms	X	X
m1v		X
m4v		X
mpe		X
mpg/mpeg	X	X
MPEG-1	X	X
MPEG-2	X	X
MPEG2-TS		X
MPEG-4		X
vdr		X
vob		X
wmv	X	X
Xvid		X

Comparison of Windows Media Connect and TwonkyMedia File Formats		
File Formats	**Windows Media Connect 2.0**	**TwonkyMedia**
Playlist Formats		
m3u	X	X
pls		X
wpl	X	X

Why do I see duplicate songs, pictures, or videos on my DMA list?

If you are streaming content from shared folders using both Windows Media Connect and TwonkyMedia, you may see duplicate entries of your songs, pictures, or videos on your digital media adaptor. To eliminate this problem, disable media sharing for one of the shared folders.

For additional information on these programs, see Windows Media Connect 2.0 and TwonkyMedia Comparison.

To disable a shared folder in Windows Media Connect 2.0

1. At the computer, click **Start**, **All Programs**, and then select **HP MediaSmart Server**.

2. In the **Control Center**, click the **MediaSmart** tab.

3. Click **Settings** in the upper right corner.

4. Click **Media Sharing** in the left menu.

5. On the right side under **Media Sharing Library**, click **Off** for the shared folders that you do not want to use for streaming content using Windows Media Connect.

6. Click **OK**.

    For additional information on using Windows Media Connect, see Media Sharing in the Windows Home Server help.

To disable a shared folder in TwonkyMedia

1. At the computer, click Start , All Programs , and then select HP MediaSmart Server .

2. Click the TwonkyMedia tab.

3. Click Media Server Settings on the menu bar.

4. On the **Media Sharing Photos** tab on the right side, select a shared folder and click **Remove** for each folder that you do not want to use for streaming content using TwonkyMedia.

5. Click **OK**.

   For additional information on using TwonkyMedia, click **Help** while on the TwonkyMedia tab of the Windows Home Server Console or click **Help** on any of the TwonkyMedia dialog boxes.

Why does HP MediaSmart Server show up twice on my DMA list?

If you are running both Windows Media Connect and TwonkyMedia, they will both show up when you view menus on your digital media adaptor.

Once you turn on media sharing using Windows Media Connect, this program will always display the HP MediaSmart Server in your digital media adaptor list. However, you can disable media sharing for the folders under the HP MediaSmart Server. See Why do I see duplicate songs, pictures, or videos on my DMA list? for information on disabling media sharing for shared folders.

Alternately, you can turn off TwonkyMedia media sharing and remove the duplicate HP MediaSmart Server from your digital media adaptor list. See the steps below.

For additional information on these programs, see [Windows Media Connect 2.0 and TwonkyMedia Comparison](#).

261

To turn off TwonkyMedia media sharing

1. At the computer, click **Start**, **All Programs**, and then select **HP MediaSmart Server**.

2. In the **Control Center**, click the **MediaSmart Server** tab.

3. Click **TwonkyMedia** in the left navigation.

4. Click **Stop Sharing**.

Chapter 14.
Product Information

PRODUCT SPECIFICATIONS

The product specifications contain information about the HP MediaSmart Server, its requirements, and standards.

- [Minimum Client-computer Requirements](#)

- [HP MediaSmart Server Specifications](#)

- [Network Information](#)

- [Environmental](#)

- [Electrical and Power](#)

Minimum Client-computer Requirements

One or more computers that meet or exceed these requirements:

Computer Requirements

Any computer capable of running the supported operating systems listed in the following table.

Operating Systems

Supported Operating Systems		
Windows Vista[a]	**Windows XP**[b]	**Mac OS X**
Windows Vista Home Basic with Service Pack 1 (SP1)	Windows XP Home with Service Pack 2 (SP2)	Mac OS X 10.5 or later
Windows Vista Home Basic 64-bit with SP1	Windows XP Professional with SP2	
Windows Vista Home Premium with SP1	Windows XP Home with SP3	
Windows Vista Home Premium 64-bit with SP1	Windows XP Professional with SP3	
Windows Vista Ultimate with SP1	Windows XP Media Center Edition 2005 with SP2 and Rollup 2	

Supported Operating Systems		
Windows Vista[a]	**Windows XP[b]**	**Mac OS X**
Windows Vista Ultimate 64-bit with SP1	Windows XP Media Center Edition 2004 with SP2	

a. Remote access is not supported by Windows Vista Home (all versions); the Business, Enterprise, and Ultimate versions of Windows Vista support remote access. For more information, see **Why can't I connect to some computers?** in the Windows Home Server Console Help.

b. Windows XP Professional and Windows XP Media Center Editions support remote access. Windows XP Home does not support remote access.

Client-computer Hard Drive

25 MB free for software installation on client computers

Other Client-computer Requirements

CD-ROM drive for client-computer installation

DVD-ROM drive for Server Recovery

HP MediaSmart Server Specifications

Internal drive storage

750 GB (EX485)

1.5 TB (EX487)

Drive expandability

3 Serial ATA expansion bays (EX485)

2 Serial ATA expansion bays (EX487)

4 USB 2.0 ports

1 eSATA port

Maximum storage space: unlimited

Dimensions

Width: 14cm (5.5")

Height: 25cm (9.8")

Depth: 23cm (base)-25cm (top) (9.2"-9.5")

Weight

EX485: 5.2 kg (11.4 lb.)

EX487: 5.8 kg (12.7 lb.)

Network Information

Default Network Name

HPSERVER

Network Requirements

Network Requirements	
Requirement	**Recommended**
Server connection	100 Mbps to 1000 Mbps (Gigabit Ethernet) wired connection.
Home computers	One or more computers running a supported operating system with a wired or wireless network connection.
Internet Connection	Broadband connection, such as DSL or cable, required for remote access functionality.
Router	An external Internet broadband router with 100 Mbps (or faster) Ethernet connection to the server for remote access functionality and wired or wireless connections to the computers on the network. Additionally, your router must have DHCP enabled to provide automatic IP address to the server.

Connector types

Ethernet: RJ45

eSATA: I-Type

Maximum transmission distances

Ethernet: 100 meters

eSATA: 2 meters

USB: 5 meters

Browser

Internet Explorer 6.0 or greater

Netscape 8.0 or greater

Firefox 2.0 or greater

Safari 3.0 and greater (Mac only)

Environmental

Temperature

Operating: 5 to 35 °C (4 to 95 °F)

Nonoperating: –30 to 65 °C (–22 to 149 °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: 2.1 Grms

Electrical and Power

Electrical Ratings

AC input 100–127V ~5A max or 200–240V ~3A max, 50/60Hz

Power Consumption

Power Consumption			
Number of drives	Sleep Mode (Watts)	Idle (Watts)	Active Data (Watts)
1 (EX485)	1	44	50

2 (EX487)	1	55	60
3	1	65	70
4	1	76	81

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 60950-1 plus amendments

EN60825 plus amendments

REGULATORY STATEMENTS

The HP MediaSmart Server complies to the following:

- Federal Communications Commission Notice

- Modifications

- Cables

- Declaration of Conformity for Products Marked with the FCC Logo (United States only)

- California Perchlorate Material Notice

- Canadian Notice

- Avis Canadien

- WEEE Declaration

- REACH Statement

- 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).

268

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.

[Top]

California Perchlorate Material Notice

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.

[Top]

Canadian Notice

This Class B digital apparatus meets all requirements of the Canadian Interference-Causing Equipment Regulations.

[Top]

Avis Canadien

Cet appareil numérique de la classe B respecte toutes les exigences du Règlement sur le matériel brouilleur du Canada.

[Top]

WEEE Declaration

Disposal of Waste Equipment by Users in Private Household in the European Union

This symbol on the product or on its packaging indicates that this product must not be disposed of with your other household waste. Instead, it is your responsibility to dispose of your waste equipment by handing it over to a designated collection point for the recycling of waste electrical and electronic equipment. The separate collection and recycling of your waste equipment at the time of disposal will help to conserve natural resources and ensure that it is recycled in a manner that protects human health and the environment. For more information about where you can drop off your waste equipment for recycling, please contact your local city office, your household waste disposal service or the shop where you purchased the product.

[Top]

REACH Statement

Chemical Substances

HP is committed to providing our customers with information about the chemical substances in our products as needed to comply with legal requirements such as REACH (Regulation EC No 1907/2006 of the European Parliament and the Council). A chemical information report for this product can be found at: http://www.hp.com/go/reach

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:
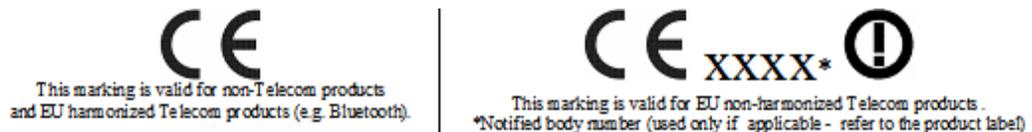
Hewlett-Packard GmbH, HQ-TRE, Herrenberger Strasse 140, 71034 Boeblingen, Germany

Japanese Notice

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Content providers are using the digital rights management technology for Windows Media contained in this device ("WM-DRM") to protect the integrity of their content ("Secure Content") so that their intellectual property, including copyright, in such content is not misappropriated. This device uses WM-DRM Software to play Secure Content ("WM-DRM Software"). If the security of the WM-DRM Software in this device has been compromised, owners of Secure Content ("Secure Content Owners") may request that Microsoft revoke the WM-DRM Software's right to

acquire new licenses to copy, display and/or play Secure Content. Revocation does not alter the WM-DRM Software's ability to play unprotected content. A list of revoked WM-DRM Software is sent to your device whenever you download a license for Secure Content from the Internet or from a PC. Microsoft may, in conjunction with such license, also download revocations lists onto your device on behalf of Secure Content Owners.

LIMITED WARRANTY AND TECHNICAL SUPPORT STATEMENT

HP MediaSmart Server Limited Warranty

Duration

Hardware: 1 year Limited Warranty

Software: 1 year Technical Support

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Exclusions

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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, 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

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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.

HP MEDIASMART SERVER 2.5 UPDATE READ ME

As always, the HP MediaSmart Server helps you centralize, organize, and share your digital content. The 2.5 update improves on existing HP MediaSmart Server features, making them even more robust. Additionally, new features were added to make your music, photos, and videos more mobile than ever before. With the HP MediaSmart Server, your media is where you are…wherever you are. Read on to discover what's new!

HP Video Converter

The HP MediaSmart Server automatically converts your video library (including unprotected DVDs) into a format that will play in the home and remotely on PCs, Macs, XBox 360s, PlayStation 3s, and other popular media streaming devices. The video converter transcodes many popular video formats into an MPEG-4 video file using an H.264 video codec and AAC stereo audio codec with both original and mobile resolutions. The original video resolution streams to most devices attached to your home network including PCs, Macs, and gaming systems. The mobile video resolution streams remotely to your PC or Mac using a secure remote log on to your server and can be copied to popular mobile devices.

HP Media Streamer for Videos

The HP Media Streamer always supported music and photos. Now it supports videos!

Whether you are at home, on campus, at work, or visiting friends and family, you can use a web browser and your HP MediaSmart Server personal web address to securely log on to your server and use Media Streamer to stream music, photos, and videos to wherever you are. No additional player is required. Media Streamer does it all—it streams your media and offers several playback options.

MediaSmart Server iPhone Application

The MediaSmart Server iPhone application is a free download that allows you to securely stream photo, music, and video libraries from your home server to your iPhone or iPod Touch. And since your MediaSmart Server is designed to stay on 24/7, all of your media files are now just a fingertip away. Wireless or 3G connection is recommended for best performance. The iPhone application is only supported on EX 487 and EX 485 HP MediaSmart Servers.

Defect Fixes and Enhancements

The following defect fixes and enhancements are included in this update.

1. Public and private capabilities were added to HP Photo Viewer albums.

2. Made a number of improvements to the Mac Backup feature, including the ability to resize the backup disk.

3. Fixed a number of TwonkyMedia server issues, including the case where songs would not play all the way through.

4. Improved the HP Media Streamer interface, including adding support for streaming video files, column sort functionality, and new album art views. See HP_Media_Streamer_for_Videos above.

5. Added streaming support for iPhone. See MediaSmart_Server_iPhone_Application above.

6. Added the HP Video Converter which transcodes common video formats to an H.264 video codec and AAC stereo audio code. See HP_Video_Converter above.

7. Improved Media Collector by displaying progress details, status information, and client connectivity to shared folders.

8. Improved The HP MediaSmart Server dashboard functionality.

9. The User's Guide was updated to match HP MediaSmart Server software changes.

Chapter 15.
Licenses, Copyrights and Notices for Open Source Components

FLICKRJ:

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Apache Organization Components: Axis2; Apache Commons: Beanutils, Codec, Discovery, FileUpload, HTTPClient, IO, Logging; Tomcat

Maverick

Spring Framework

StAX

Apache License

Version 2.0, January 2004

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283

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Legal Mini-FAQ

A lot of legal questions arise when discussing multimedia technology. This mini-FAQ attempts to address these issues. Note that much of this discussion is based on precedent, or what has happened in the past under similar circumstances. Very little consideration is given to what could happen. If you use your imagination, you can visualize any dire scenario and cease doing any productive work.

Q: Does FFmpeg use patented algorithms?

A: We do not know, we are not lawyers so we are not qualified to answer this. Also we have never read patents to implement any part of FFmpeg, so even if we were qualified we could not answer it as we do not know what is patented. Furthermore the sheer number of software patents makes it impossible to read them all so no one (lawyer or not) could answer such a question with a definite no, those who do lie. What we do know is that various standards FFmpeg supports contain vague hints that any conforming implementation might be subject to some patent rights in some jurisdictions, examples for such statements are:

For H.264:

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Q: Is it legal to use such patented algorithms?

A: Patent laws change wildly between jurisdictions. Besides, even in places where software patents are recognized, there is serious doubt about the legitimacy of such legislation. Note that patents on algorithms are illegal in many countries. Plus the use of patents to prevent the usage of a format or codec on a specific operating system or together with specific other software might violate antitrust laws.

Q: Bottom line: Should I be worried about legal issues if I use FFmpeg?

A: Are you a private user working with FFmpeg for your own personal purposes? If so, there is remarkably little reason to be concerned. Are you using FFmpeg in a commercial software product? Read on to the next question...

Q: Since FFmpeg is licensed under the LGPL, is it perfectly alright to incorporate the whole FFmpeg core into my own commercial product?

A: You might have a problem here. Sure, the LGPL allows you to incorporate the code. However, there have been cases where companies have used FFmpeg in their projects, usually for such capabilities as superior MPEG-4 decoding. These companies found out that once you start trying to make money from certain technologies, the alleged owners of the technologies will come after their protection money. Most notably, MPEG-LA (licensing authority) is vigilant and diligent about collecting for MPEG-related technologies.

Q: You called the patent license fee protection money, is this a joke?

A: No. The legal validity of these patents is highly questionable. Still in many current legal systems it is very easy to ruin a company with patents even if the patents are invalid. Paying the (small) license fee is much cheaper than a patent lawsuit during which you would not be able to sell your product as the patent would be valid until you win the lawsuit 5+ years in the future. That is assuming you did not go bankrupt in the meantime...

Q: Can I be safe if I have paid my protection money.

A: You can never be safe as long as your country recognizes software patents as valid. There are companies that own many patents, pay and cross-license for other companies patents, but even such companies are being found guilty of infringing some obscure little-known patent and end up paying millions for it. That's why lobbying against software patents is in your own interest. Of course none of this is related to you using FFmpeg or another codec implementation. If you want to be safe the only option is not to touch any software at all.

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Modified version of mc.drawWedge prototype by Ric Ewing (ric@formequalsfunction.com) - version 1.3 - 6.12.2002

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Real-Time Video Coding

Contents

Background

The objective of the Real-Time Video Coding group is to research and develop intelligent multimedia software components and delivery systems that adapt to congested and low infrastructure network environments. The emphasis is on jointly-optimised or co-operative behaviour between the delivery context, as in real-time network conditions, and the video/audio encoder rate control mechanisms. Innovative solutions are sought to enhance the Internet video experience in a developing world context where bandwidth is a scarce resource.

Current research within the group is concentrating on optimal and weighted context-based bit allocation techniques and implementations within international standard video codecs. A scalable and bandwidth adaptive multimedia broadcasting platform is under development to encompass the novelty of the bit allocation research.

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Seminars

30 September 2007 - IEEE students seminar at UCT

13 March 2008 - Seminar at UKZN

14 May 2008 - Guest lecture on Video Coding at University of Pretoria

Papers

Papers will be available here once complete.

Downloads

A part of the objective of the Real-Time Video Coding group is to utilise open source frameworks and to contribute to the open source community as well as to provide source code that is available for general usage. Please send comments, feedback, suggestions to rtvc[at]meraka.org.za.

DirectShow Filter Downloads

The following DirectShow filters are available for download as DLLs. These need to be registered using the regsvr32 command. Download the documentation below for more information about the filters.

Filter	Version	Description
ScaleFilter	v1.1	The ScaleFilter is a DirectShow filter that can scale RGB24 media to specified target dimensions.
CropFilter	v1.3	The CropFilter is a DirectShow filter that can crop RGB24 and RGB32 media.
RGBtoYUV420Filter	v1.0	This filter converts RGB24 or RGB32 media to a YUV4:2:0 Planar format whilst retaining the original VideoInfoHeader of the media.
YUV420toRGBFilter	v1.0	This filter converts the custom packed YUV420 planar format back to RGB24.

Source Downloads

- **Base classes and interfaces** - DirectShow base classes and interfaces have been written which simplify the creation of a transform filter. The CCustomBaseFilter class provides a base class for filters with a single input and output pin. The MultiIOBaseFilter project provides support for writing DirectShow transform filters with multiple input and output pins such as multiplexers and

demultiplexers. All Meraka RTVC filters inherit these base classes, which are available in the download. The base class have been compiled into a static library which the user can reference in the project.

- **Filter Source Code** - The download also contains the source code for the above-mentioned scaling, cropping and color conversion filters.

- **Image Utilities** - The ImageUtils folder contains source code for various image processing such as cropping, scaling, etc. These files have been compiled into a static library which is also referenced by filters that require such functionality.

- **DirectShow LiveMedia RTSP Live Audio Streaming Server** - This project provides an example as to how the DirectShow framework can be integrated with a RTP/RTCP/RTSP streaming library in order to stream live audio.

  [Source Code v1.3](#)

  [Documentation](#)

Links

- **DirectShow related**

  - [Blog containing free DirectShow filters and GraphStudio](#), which offers some improved functionality over GraphEdit

  - [DirectShow training](#)

- **RTP/RTCP/RTSP related**

  - [Open source RTP/RTCP/RTSP](#) library that covers framing, sending of many media formats with a high level of importance based on standards. Main support via mailing list.

    Media

- [CSIR researcher profile series](#): Streamlining delivery of internet video broadcasting

- [DST-Innovation Fund investment boosts collaborative research on real-time video broadcasting project](#)

- [Innovation Fund investment boosts collaborative research on real-time video broadcasting project](#)

Glossary

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 LAN.

anti-virus software: Software that checks a hard drive for viruses (harmful computer code) that may infect a computer.

B

BIOS: Basic Input/Output Services—the firmware code run by the HP MediaSmart Server when first powered on. The BIOS prepares the server for operation and allows the server software to load, execute, and assume control of the server. This process is also known as booting up.

Browser window: A browser window is used to display web pages either on a web site or stored locally such as the HP MediaSmart Server's User's Guide.

C

client computers: A client computer is a computer that accesses the HP MediaSmart Server by the home network. This term also applies to computers using remote access to the server.

D

DHCP: Dynamic Host Configuration Protocol—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.

Digital Living Network Alliance: A set of standards (that includes UPnP A/V) for sharing media between devices. PVConnect is DLNA compliant. Windows Media Connect is not. This compliance allows PVConnect to work with more DMRs.

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.

DMR: Digital Media Receiver (DMR), Digital Media Adapter (DMA), Digital Media Player (DMP)—a consumer electronic device that communicates with the HP MediaSmart Server and brings digital media streams—such as photos, music, or video—to your entertainment center.

DNS: Domain Name System—a server that associates network names with IP addresses. Also see IP address.

F

folder duplication: Folder duplication duplicates folders and files across multiple hard drives. If you enable folder duplication and one hard drive fails, you will not lose any files stored in a shared folder. Any folder that has folder duplication enabled uses twice the amount of server storage.

H

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.

I

IP address: An IP (Internet Protocol) address is a number that uniquely identifies devices, such as computers, on a network.

L

LAN: Local area network—a small number of computers that are connected together in a small area, usually in the same building.

logical: A device, such as a partition named by the logic of a software system, regardless of its physical relationship to the system. For example, a computer with a single physical hard disk that contains two logical drives, C: and D:. Another example is an HP Media Vault with two hard drives that contains a single logical volume spanning both drives.

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 streaming: Media streaming sends media—music, photos and video files—from the HP MediaSmart Server to other devices that can play the media. The HP MediaSmart Server includes functionality that allows media to stream to a Digital Media Adapter (DMA). Also see DMR.

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 MediaSmart Server—on the network are given IP address 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.

P

partition: A logical division of a physical hard disk. Partition data refers to the information contained within the divisions on the drive. For example, some computers are formatted with a C: and D: drive, both of which use the same physical hard drive.

password hint: A password hint helps you remember your password. The password hint can be seen by anybody who clicks the link to display it.

physical hard disk: The actual hard disk (hard drive) located in a device that stores files and data.

port 80: Usually, an HTTP client, such as a Web browser, initiates contact to a server, such as the HP MediaSmart Server, through port 80. After contacting the server, the server sends back a response, such as a Photo Webshare page.

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.

R

router: A device connected to your computer that joins two or more networks. For example, a router connects your local network to the internet.

S

SATA: Serial Advanced Technology Attachment (or Serial ATA) is an interface standard that moves information to and from a storage device, such as a hard drive.

shared folders: A "share 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 stores 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.

SMTP: Simple Mail Transfer Protocol—The main protocol used to send email on the Internet, consisting of rules for how programs sending mail should interact with programs receiving mail.

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 DHCP.

strong password: A strong password must be at least 7 characters long and must fulfill three of the following four character criteria: uppercase characters, lowercase characters, numbers, and symbols (such as !, @, #, and so on.) Also see password hint.

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.

System drive: The hard drive (or drive partition) containing the operating system.

T

TB: Terabyte—refers to a data storage capacity equal to approximately 1000 gigabytes.

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: TCP/IPv4 is the standard TCP/IP protocol in use today.

TCP/IPv6: TCP/IPv6 is the standard TCP/IP protocol used by Windows Vista. IPv6 main advantage is the increase in number of available addresses.

U

UNC: Uniform Naming Convention—identifies shared network devices, such as the HP MediaSmart Server. 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, \\SERVER\software. Also see LAN.

UPnP: Universal Plug and Play—a networking protocol that allows for many different types of devices to interact with one another. UPnP is the protocol used by media streaming.

V

Visitor: HP Photo Webshare albums can be shared with people outside your local network, called visitors. If you use the HP MediaSmart 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.

W

WAP: Wireless Access Point—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.

Web browser: An application used to access information on networks, on the internet, and in help systems. Common web browsers include Internet Explorer, Netscape, and Firefox.

Webshare Manager: A type of user account that is enabled with Webshare Manager permissions. 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.

WEP: Wired Equivalent Privacy—a protocol that encrypts data on a wireless system for security.

WPA: Wi-Fi Protected Access—a technology that allows for increased security with wireless networks.

Index