Ethernet TV VOD-WM Video on Demand Server

VBrick v4.2.1 VOD-WM Server Admin Guide

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About VBrick Systems

Founded in 1997, VBrick Systems, an ISO 9001 certified vendor, is a privately held company that has enjoyed rapid growth by helping our customers successfully introduce mission critical video applications across their enterprise networks. Since our founding, VBrick has been setting the standard for quality, performance and innovation in the delivery of live and stored video over IP networks—LANs, WANs and the Internet. With thousands of video appliances installed world-wide, VBrick is the recognized leader in reliable, high-performance, easy-to-use networked video solutions.

VBrick is an active participant in the development of industry standards and continues to play an influential role in the Internet Streaming Media Alliance (ISMA), the MPEG Industry Forum, and Internet2. In 1998 VBrick invented and shipped the world's first MPEG Video Network Appliance designed to provide affordable DVD-quality video across the network. Since then, VBrick's video solutions have grown to include Video on Demand, Management, Security and Access Control, Scheduling, and Rich Media Integration. VBrick solutions are successfully supporting a broad variety of applications including distance learning and training, conferencing and remote office communications, security, process monitoring, traffic monitoring, business and news feeds to the desktop, webcasting, corporate communications, collaboration, command and control, and telemedicine. VBrick serves customers in education, government, healthcare, and financial services markets among others.

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VOD-WM v4.2.1 Admin Guide

This *VOD-WM Server Admin Guide* is written for anyone who will be using or configuring a VBrick EtherneTV VOD-WM Video on Demand Server. This includes system administrators, network technicians, and others. This document explains how to set up and configure the VOD-WM server and how to perform initial administration tasks. For most common tasks like ingesting content, use the ETV Portal Server and refer to the *ETV Portal Server Admin Guide* for details. You can perform most administration tasks using the Portal Server. VOD-WM servers are a key component in VBrick's EtherneTV Media Distribution System. They provide standard VOD features for Windows Media files.

Organization

Server Overview	provides an overview of the WM server including compatibility and system requirements.
Getting Started	explains how to unpack and install the server. This includes setting the IP address and configuration in ETV Portal Server.
Managing the Server	explains how to use monitoring and performance resources on the server to track bandwidth, usage, logging, etc.
Creating Publishing Points	explains how to create authenticated and non-authenticated publishing points on the server.
Adding Content	explains how to ingest video content to the server.
Restoring Windows Media Services	explains how to restore Windows Media Services management after you change the computer name.

Font Conventions

Arial bold is used to describe dialog boxes and menu choices, for example: **Start > All Programs > VBrick**

`Courier fixed-width font is used for code elements (C++, HTML) as well as filenames, directories, etc.`

`Black Courier fixed-width font is used to indicate user input in keyboard commands, scripts, etc.`

Folder names and user examples are displayed in this sans serif font.

Folder names and user input are displayed in this bold sans serif font.

Italics are used to emphasize specific words or phrases.

Related Publications

Dell PowerEdge 1950 Documentation

Dell PowerEdge 2950 Documentation

Printer-Friendly

VOD-WM Server Release Notes

VOD-WM Server Admin Guide

Chapter 1

Server Overview

VBrick's VOD-WM Server has been integrated with the EtherneTV family of products including the Portal Server, the WM Network Video Appliance, the Scheduler, and the Network Video Recorder (NVR). The VOD-WM delivers stored Windows Media assets as unicast/multicast streams across an Ethernet network and is built on a Dell hardware platform. Other features include the ability to schedule asset playback, asset searching, user and system statistics, and more. The Portal Server is required to gain the full benefits of the VOD-WM server and is sold separately. In order to set up the Portal Server, follow the directions in the *EtherneTV Portal Server Admin Guide*. Once the Portal Server is setup, you can access video on the VOD-WM server through the Portal Server web interface.

Topics in this chapter

Feature Overview

VBrick VOD-WM servers provide interactive, on-demand playback of Windows Media video that is stored on the server with a variety of methods. The VOD-WM servers are a basic component in the VBrick's EtherneTV solution and work seamlessly with the EtherneTV Portal Server. They ingest and deliver unicast (or multicast) streams in Windows Media format. The VOD-WM Server supports Fast Forward and Rewind. The general specifications for the VOD-WM servers are shown below. See the Dell documents listed in Related Publications on page v for more information.

Table 1. VOD-WM Server Specifications

Model	Hardware †	Software ††	Content Drives (Internal)	Content Drives (External) †††
Basic	Dell 1950	Standard Edition	1–2 (300GB)	5 drives per 1.5TB (27TB max) Hardware RAID5
Basic	Dell 1950	Enterprise Edition	1–2 (300GB)	
Advanced	Dell 2950	Standard Edition	4 (146GB) Hardware RAID5	
Advanced	Dell 2950	Enterprise Edition (supports multicast)	4 (146GB) Hardware RAID5	

† Dell PowerEdge Server (rack-mounted)
†† Microsoft Windows Server 2003
††† Dell MD1000 SAS with 1.5TB – 27TB (6 x 4.5TB).

Table 2. VOD-WM Server Throughput

VOD-WM Server	Max Throughput †
VOD-WM Basic (Standard)	125 Mbps
VOD-WM Basic (Enterprise)	125 Mbps
VOD-WM Advanced (Standard)	300 Mbps
VOD-WM Advanced (Enterprise)	300 Mbps

† These are qualified throughput measurements. Actual throughput depends on bitrate, number of connections, disk fragmentation, and other factors, and may be higher.

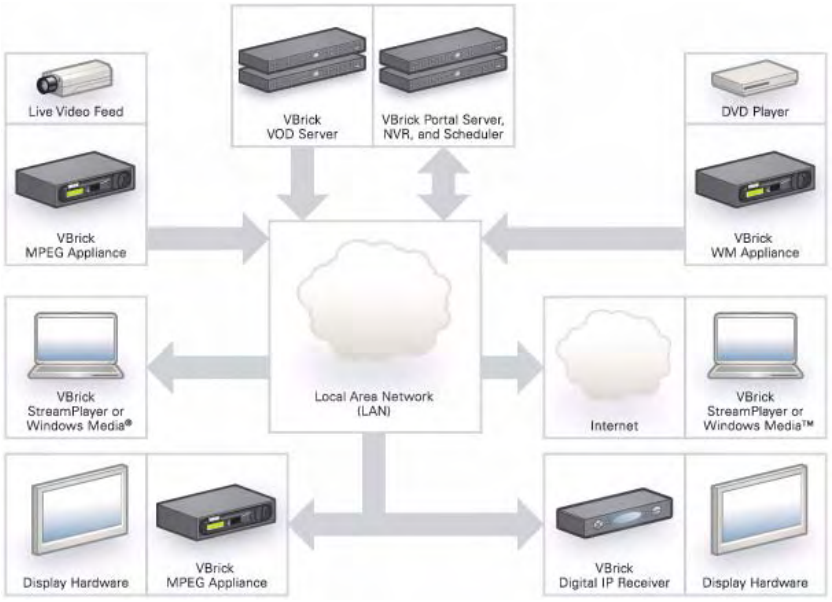


Figure 1. EtherneTV Media Distribution System

Server Compatibility

The VOD-WM servers are compatible with the following VBrick devices:

- VB6000 WM Network Video Appliances with VBDNA 1.0 or higher.
- EtherneTV Portal Server v3.2 or higher.
- EtherneTV Scheduler v3.2 or higher
- Network Video Recorder v3.2 or higher.
- StreamPlayer 4.3 or higher.

System Requirements

The VOD-WM server has been tested to provide the specified performance with no additional software installed. *Be aware that the installation of virus scanners or security software that consume system I/O resources may have an adverse impact on streaming performance.* These components are not tested by VBrick and you should test the VOD-WM for performance and reliability after installing them.

External Storage

VBrick's SAS (serial attached SCSI) ES5, ES10, and ES15 external storage arrays are fully compatible with all VOD-WM servers.

VOD-WM Server Software

All server software is pre-installed by VBrick. If, for some reason, you ever need to reinstall the software, use the Dell recovery CDs to reinstall the Windows Server 2003 (Standard or Enterprise) operating system. Contact VBrick Support Services if you need help. Each VOD-WM server has the following software pre-installed.

- Windows Server 2003 (Standard or Enterprise Edition).
- Internet Information Services (IIS).
- ASP.NET.

Note Windows Media Services are installed and a publishing point is configured on the server prior to shipment. The Computer Name of the VOD-WM Server is VODWM. If you subsequently change this name, you will temporarily be unable to manage Windows Media Services. See Restoring Windows Media Services on page 21 and/or contact VBrick Support Services for more information.

VOD-WM Server Software CD

The VOD-W Server Software CD has all server documentation including this *VOD-WM Server Admin Guide* in searchable HTML format.

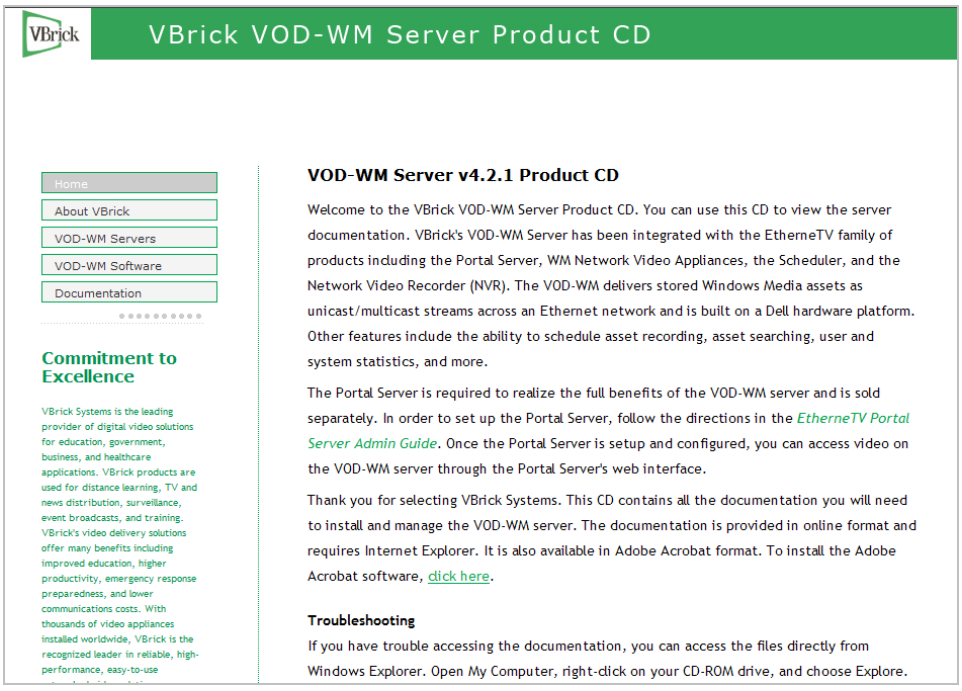
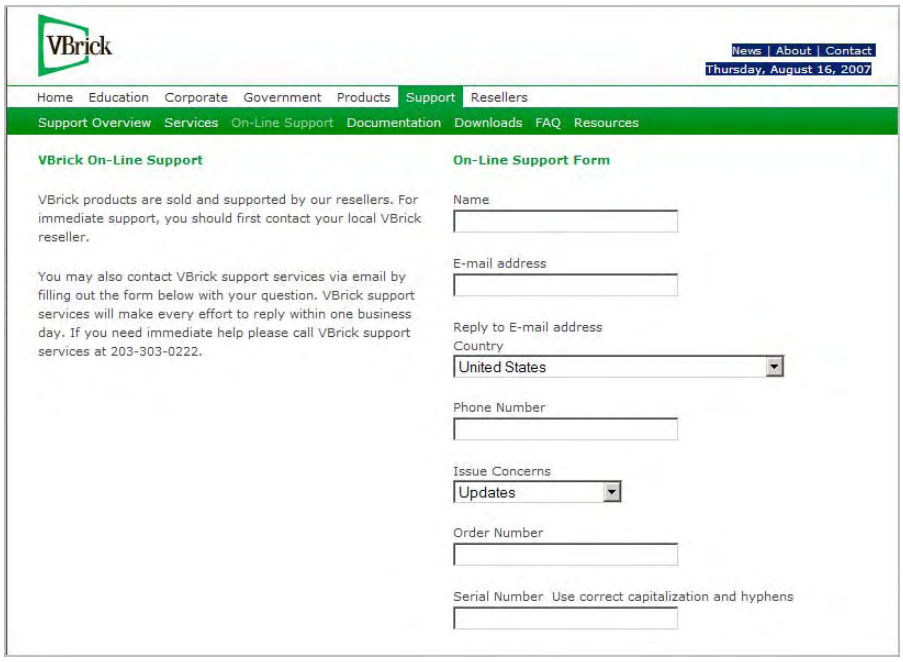


Figure 2. VOD-WM Server Product CD

Technical Support

If you can't find the information you need from the documentation or from your reseller, you can contact VBrick Support Services on the web at www.VBrick.com/support The Support Services website has downloads, FAQs, documentation, support guidelines, and an on-line form you can use to submit questions. VBrick will make every effort to answer your technical questions in 24 business hours or less.



Chapter 2

Getting Started

Installing the VOD-WM Server

The hardware installation of the VOD-WM server is straightforward. Unpack the server and connect the cables as described below. Note that all server software is pre-installed before being shipped.

▼ To install the server onsite at your location

Step 1. Unpack the Server

Each shipment comes with:

- A Dell PowerEdge 1950 or 2950 server configured with a Microsoft Windows Media streaming server.
- All power cords and cables.
- Rack mount kit.
- This *EtherneTV-VOD-WM Server Admin Guide*.
- VBrick VOD-WM Server Product CD.

Step 2. Connect the Server

Note The following steps explain how to connect Dell PowerEdge 1950/2950 servers. To connect 1850/2850 servers, refer to the previous version of this manual that was shipped with those servers. To view all VBrick product documentation, go to www.vbrick.com/support/documentation

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▼ To set up the VOD-WM server:

1. Connect the monitor, keyboard, mouse, and network cables as described below.

Figure 3. VOD-WM (Dell 1950 – Rear View)

Figure 4. VOD-WM (Dell 2950 – Rear View)

2. If rack mounting the unit, mount the VOD-WM server in the rack, using the rack mount kit provided.
3. Connect the VOD-WM server to the network by plugging the 10/100/1000 BaseT Ethernet cable into the Ethernet port 1 on the rear of the unit.
4. Connect the monitor cable to the blue video port (front or rear) on the VOD-WM server. Turn the monitor on.
5. Connect a mouse and keyboard to any available USB ports (front or rear) on the VOD-WM server.
6. Plug the VOD-WM server into a power source, using the power cords provided. (All VOD servers have redundant power supplies, each with its own cord.)

7. Turn the VOD-WM server's main power on by pressing the power switch at the front of the unit.

Figure 5. VOD-WM (Dell 1950 – Front View)

Figure 6. VOD-WM (Dell 2950 – Front View)

8. The VOD-WM server will boot and automatically load using the default settings. Wait 5–8 minutes for the unit to fully power up. As new hardware is attached (for example a keyboard and mouse) the operating system will automatically find and install the drivers.

Step 3. Login to the Server

After the server boots, the next step is to login with the default user name (Administrator). After logging in, it is always a good idea to add a password.

▼ To add an administrator password:

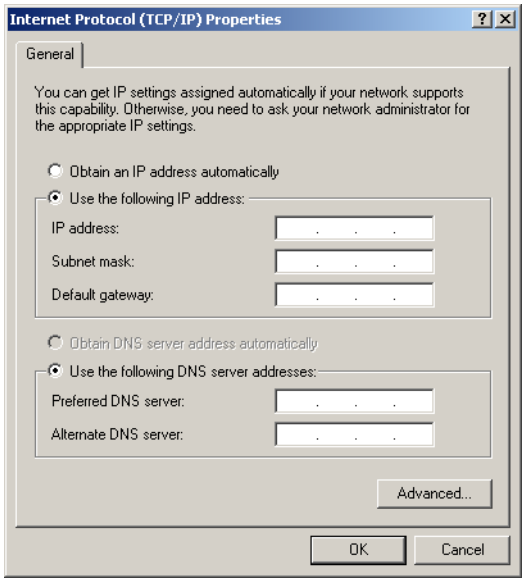
1. Go to **Start > Administrative Tools > Computer Management**.
2. In the left panel expand **Local Users and Groups** and then click on **Users**.
3. Highlight the **Administrator** user and then right-click and select **Set Password**.
4. Ignore any warning and enter and confirm an Administrator password.

Step 4. Configure the IP Address

You need to configure the IP address as explained below on the server machine. When done, be sure to reboot the machine before configuring the server in the ETV Portal Server. VBrick strongly recommends that you use a static IP address rather than a dynamically-configured DHCP. The use of a DHCP server creates a number of issues when the IP address changes. For example clients configured to point to the VOD-WM server's IP address may need to be re-configured. Also, the ETV Portal Server is configured to use the IP address of the VOD-WM server so the Portal Server configuration will have to change. You can configure the IP address by connecting a monitor to the VGA port on the server.

▼ To configure the static IP address of the server machine in Windows:

1. Go to **Start > Control Panel > Network Connections > Local Area Connection**.
2. Then click on **Properties** and double-click on **Internet Protocol (TCP/IP)**.
3. Click on **Use the following IP address** and enter the values provided by your system administrator for **IP address**, **Subnet mask**, and **Default gateway**.
4. Click **OK** when done.

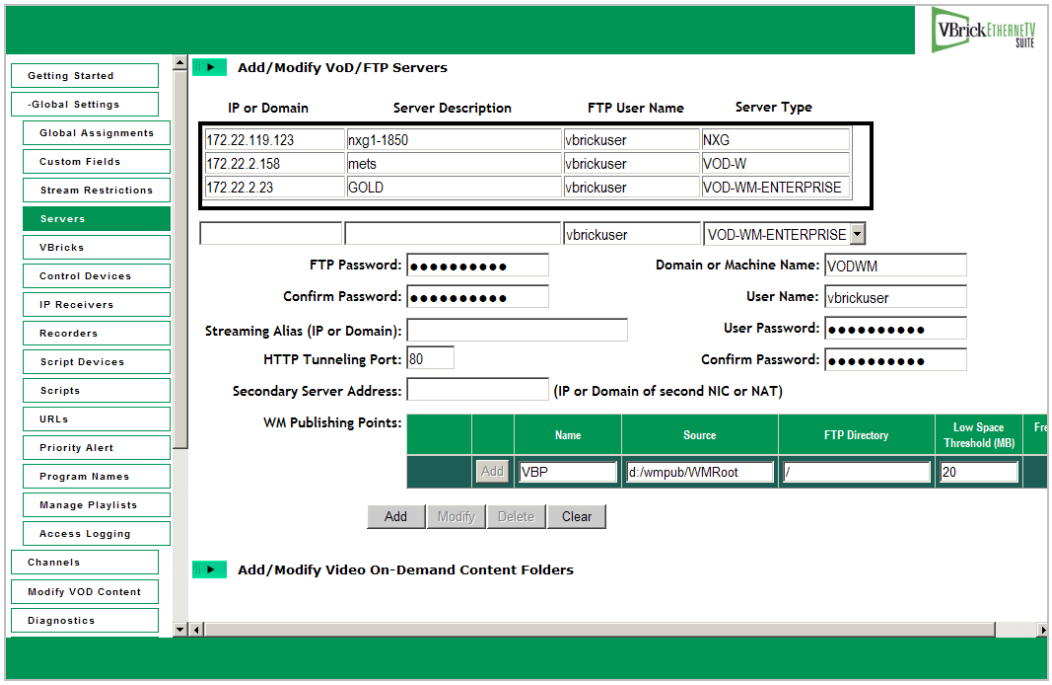


Step 5. Configure the ETV Portal Server

The VOD-WM server must be configured in VBrick's ETV Portal Server before it is recognized as part of the ETV system.

▼ To configure the VOD-WM server in ETV Portal Server:

1. Launch ETV Portal Server and login as an administrator.
2. Go to **Global Settings > Servers** and select **VOD-WM-STANDARD** or **VOD-WM-ENTERPRISE** from the dropdown list.



3. Enter the **IP or Domain**, **Server Description** (optional), **FTP User Name** (default = vbrickuser) and **FTP Password** (default = vbrickuser).
4. Accept the default **Publishing Point** parameters and click **Add** when done.

This completes the Portal Server configuration. However in order to verify the installation as explained below, you must manually sync up the VOD-WM server with the ETV Portal Server as follows:

▼ To manually sync the VOD-WM server with the ETV Portal Server:

1. Launch the ETV Portal Server admin tool and go to **Global Settings > Global Assignments > Assign VOD Polling Interval**.
2. Click **Sync Now**. Do not change anything else and exit when done.

Step 6. Verify the Installation

Use the following sequence of steps to verify the VOD-WM server is installed properly and can communicate with the ETV Portal Server. If you can use the ETV Portal Server to launch a video stored on the VOD-WM Server, you have tested connectivity and verified the installation. For more information about ETV Portal Server, see the *ETV Portal Server Admin Guide*.

▼ To verify the installation:

1. Ping the IP address of the VOD-WM server from any PC in the same network.
2. Launch an ETV Portal Server client. Open a browser and enter the ETV Portal Server hostname or IP address (e.g. http://portalserveripaddress) in the address bar.
3. Go to the **Asset Library** and launch any of the Windows Media (wmv) videos available in the **Demo** folder. If it runs, you have successfully completed the installation.

Chapter 3

Managing the Server

Topics in this chapter

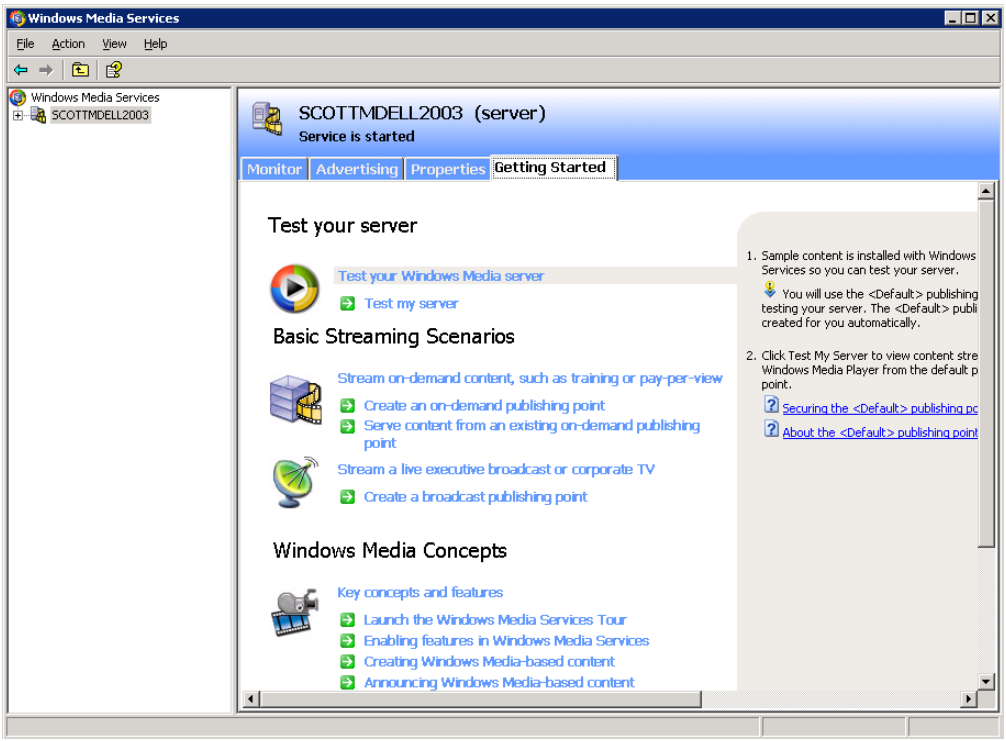
Overview

Windows Media Services provides numerous tools to help you manage a streaming media server. This section provides a brief overview of some of the resources that are available to help you manage the server. Use the **Help** pages embedded in the server application to understand the concepts and get help for specific issues. You can also go to the Microsoft Streaming Server website for additional information: http://www.microsoft.com/windows/windowsmedia/9series/server.aspx

Managing the Server

▼ To launch the Windows Media server:

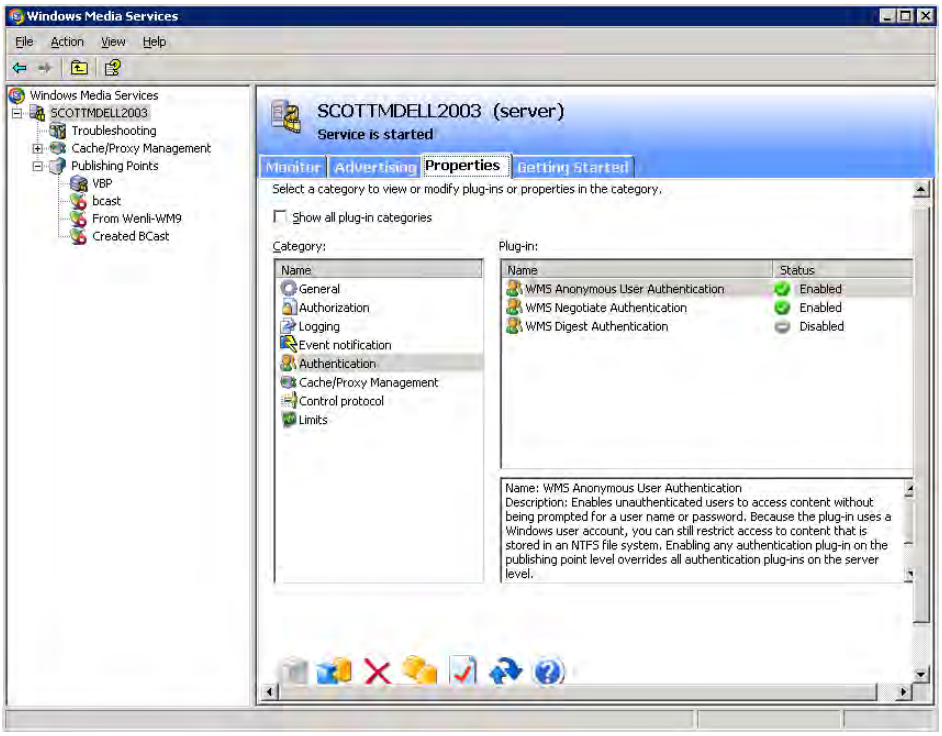
1. Go to **Start > Administrative Tools > Manage Your Server**.
2. On the **Managing Your Server Roles** page, click on **Manage this streaming media server**. This displays the **Welcome to Windows Media Services 9 Series** page.
3. Double-click on the server name to display the **Getting Started** page and expand the tree control.



This page has four tabbed windows as follows.

Getting Started	Displays various help topics to help you get acquainted with the system.
Properties	Displays various server properties such as Logging, Event notification, etc. Highlight any property in the **Category** list, then right-click and select **Properties** in the Plug-in list (or use the **View properties** icon at the bottom of the page)
Advertising	Used to add advertising content.
Monitor	Information only. Click the **View Performance Monitor** icon to launch the Windows Media Performance Monitor.

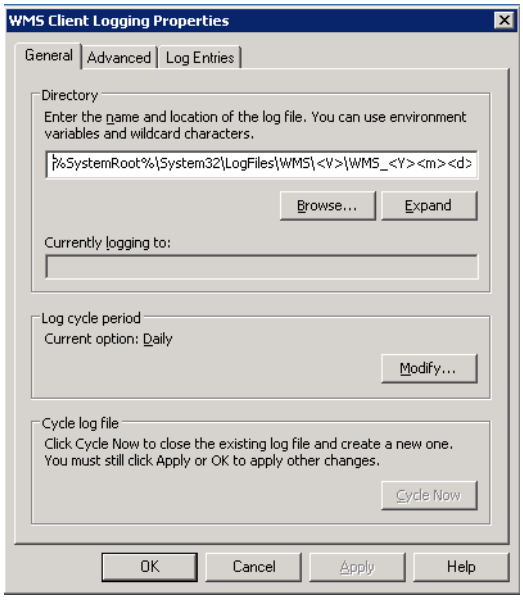
Server Properties



Note The default Publishing Point on the VOD-WM server is **VBP** and it must match the server configuration in ETV Portal Server. You can change the Publishing Point name but VBrick strongly recommends you keep the default.

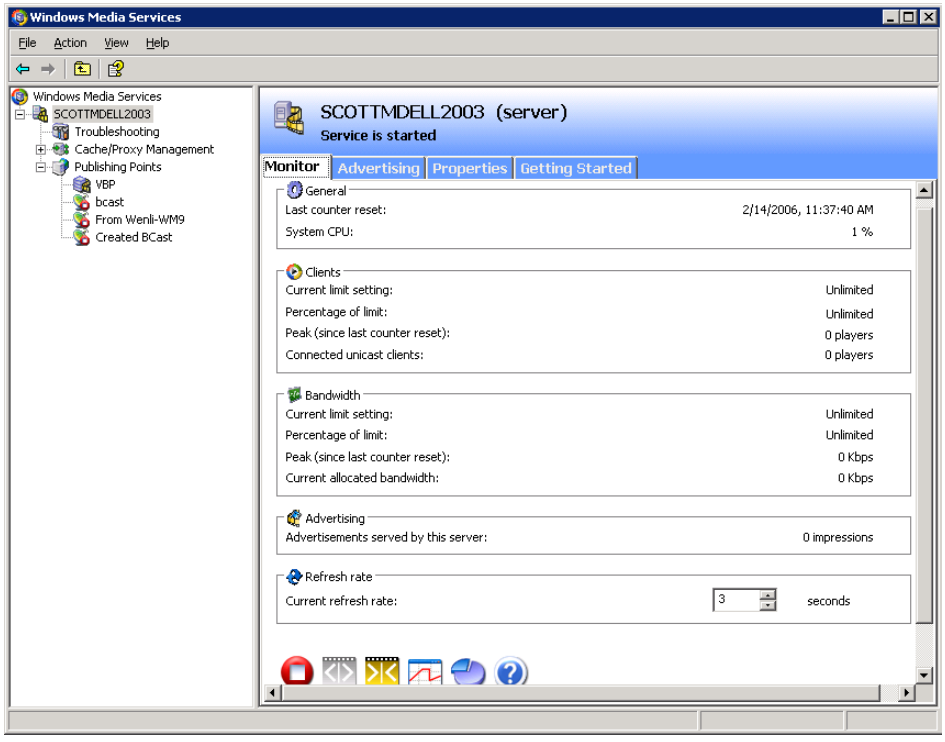
▼ To display or set logging properties:

1. Select **Logging** in the Category list.
2. Select **WMS Client Logging** and right-click to Enable/Disable logging.
3. Right-click and select **Properties** to set Logging Properties including the location of the log file.



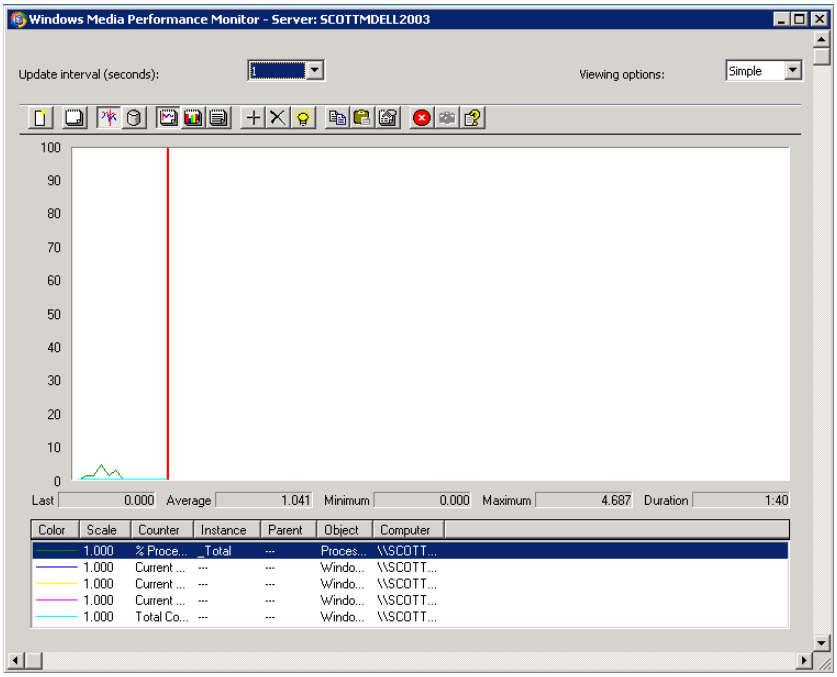
Performance Monitor

Click on the **Monitor** tab for a quick read-only view of bandwidth and usage metrics. Use the icon to Start/Stop services, reset counters, or to launch the Performance Monitor.



▼ To view the Performance Monitor:

1. Click the **View Performance Monitor** icon at the bottom of the window.
2. Use the toolbar controls above the display area to add or remove counters.

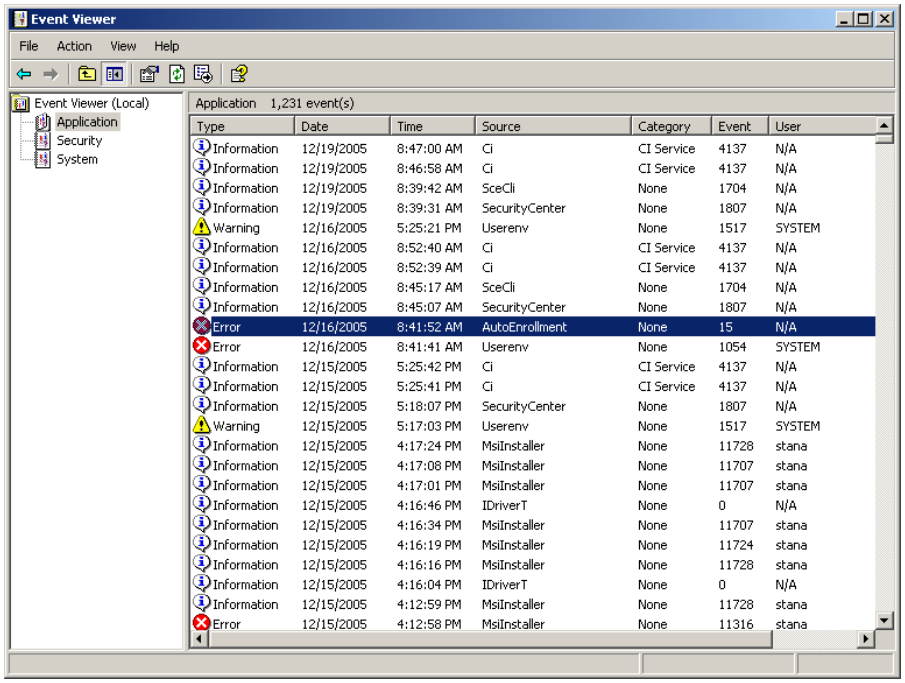


Windows Event Viewer

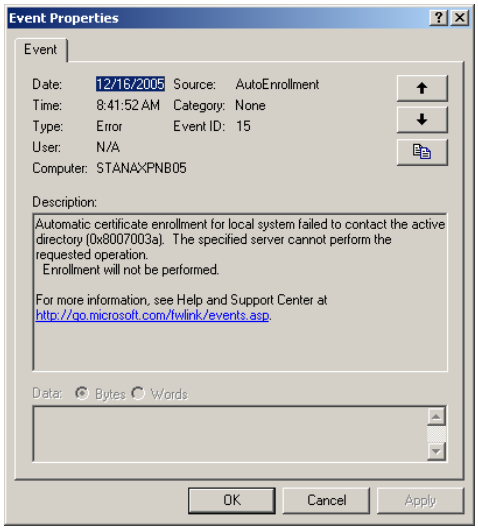
The Windows **Event Viewer** is available on Windows Server 2003 Standard or Enterprise Edition and other operating systems. Use this tool to review any system-level messages written to the Windows system event log.

▼ To launch the Windows event viewer:

1. Go to **Start > Control Panel > Administrative Tools > Event Viewer** and click on **Application** to populate the viewer with messages.



2. For more details, double-click on any event to launch the **Event Properties** window. Use the arrows buttons on this window to page through the log.



Chapter 4

Creating Publishing Points

The WM Server can also be configured with publishing points to be used as a reflector server. When used in this manner, live WM streams reflected from the WM Server can be selected and viewed from the ETV Portal Server. To have the reflected stream appear on the **Live Broadcasts** page of the Portal Server, go to the **Configuration: Encoder > Server** page in IWS and complete the **Announce External Server** section. For more information, see the "Configuration" chapter in the *WM Appliance Admin Guide*.

The following paragraphs explain how to create publishing points on a Windows Media Server to allow live streaming from a VBrick WM appliance to the server. It is important to note that, by default, **WMS Publishing Points ACL Authorization** is enabled on the Windows Media Server. This means that an HTTP push from a WM appliance will not connect to the server unless you first create a user name and password for an authorized user on the WM Server and enter that user name and password in the appliance configuration. (If you disable authorization entirely, anyone who knows the URL can view the stream.) See the *ETV Portal Server Admin Guide* and the Microsoft Windows Media Server documentation for more information.

Creating Publishing Points

The WM Appliance supports both authenticated and non-authenticated push publishing points for the Microsoft Windows Media Server. Depending on how you configure the Windows Media Server, authentication can be the default setting for all push publishing points, it can be required on a per-publishing-point basis, or not required at all. A typical deployment of the Windows Media Server will most likely have the authentication setting on to force a push device to authenticate itself before it can send data to the publishing point.

▼ To verify and enable or disable authentication:

1. Go to the **Windows Media Services Manager**. The first device directly under **Windows Media Services** in the left pane is the name of the Windows Media server.
2. Select the named Windows Media server and click **Properties** in the right pane. This displays two additional panes.
3. In the left pane, select **Authorization** and right-click **WMS Publishing Points ACL Authorization**.

In the right pane click **Properties**. If there are user names in the list, click the username to view the allowed function. The named user will have a combination of read/write/create permissions as follows:

- Read – will allow the user to read from the publishing point.
- Write – will allow the user to write (push) to the publishing point.
- Create – at the server level will allow a user to create publishing points, or at the individual point level it will allow a user to create "Copy From Points. "

Adding users and privileges at the server level will allow all inherited publishing points to acquire the same security privileges. To add individual privileges for a specific publishing point, select the **Publishing Point**, click **Properties**, select **Authorization**, and right-click **WMS Publishing Points ACL Authorization**. To add users and subsequently, permissions, the user must already exist as a domain user or as a local user on the server. The user name will be listed and can be given the desired priveleges.

Creating Authenticated Push Publishing Points

On the **WMS Publishing Points ACL Authorization** screen from above, uncheck **Allow Write Permission** for the **Everyone** user if already checked, and add write permission for a selected user or set of users by adding the user. Click **Ok** to apply the change to the server. Only the named users will be allowed to push to the server after being authenticated. If this change is done at the server level, the changes must be propagated to the publishing point level to be effective.

Creating Non-Authenticated Push Publishing Points

Either disable **WMS Publishing Points Authorization**, or keeping the default policy of authorization always on, and selectively allowing authentication to be bypassed for some, on the **WMS Publishing Points ACL Authorization** at the publishing point level, select **Allow Write Permission** for the **Everyone** user (if already on the list or add to the list if necessary). Click **Ok** to apply the change to the server. If this change is done at the server level, and the change is propagated to all publishing points, all publishing points will allow push without authentication.

Creating Pull Publishing Points

Create a broadcast publishing point on the server and use the WM Appliance's **HTTP URL** as the source for the publishing point. When you start the publishing point it pulls the stream from the appliance and you can see the server listed in the client table on the VBrick's **Status: Server Status > Slot1 Details** page in IWS. You can optionally enable the **Start publishing point when first client connects** feature in the publishing point's general properties to have the server wait for a client to connect before it starts the pull from the appliance.

Note The Windows Media Server must have the HTTP control protocol enabled to accept a push. Go to Server Properties and select **Control Protocol** in the left pane and in the right pane enable **WMS HTTP Server Control Protocol** to enable HTTP Control Protocol on your server. The HTTP control protocol uses port 80 by default so make sure you do not have other services running that also use that port. Also, the WMS Negotiate Authentication must be enabled at the server or Publishing Point level.

Chapter 5

Adding Content

VBrick strongly recommends that you use the EtherneTV Portal Server exclusively to ingest all VOD-WM content. With the ETV Portal Server you can add individual files or you can FTP or copy pre-recorded content to the ETV Portal Server for easy ingestion to the VOD-WM server. The ETV server periodically (every 5 minutes) polls certain folders for presence of content and if found ingests the content onto multiple VOD-WM servers. This process is called Automatic Content Ingestion or Auto-ingestion. The content is placed in a pre-defined subfolder under the FTP root folder. This pre-defined folder is called the auto-ingest root folder. Content can also be added by using the **Add Video** function in ETV Portal Server or by recording a live stream. See the *Portal Server Admin Guide* for more information.

Topics in this chapter

Content Backup and Recovery

VBrick strongly recommends that all stored VOD-WM video content be backed up to an external storage system, a Storage Area Network (SAN), or a tape backup system. Backing up video content onto an external system is insurance against the failure of one or more of the VOD-WM disk drives.

Best Practices

After adding a new video to the EtherneTV system using the Portal Server, it may take a few minutes or longer after ingestion before new video appears in the Portal Server content directory. Use the **Sync Now** function to make the content available immediately.

▼ To sync the server with new content:

1. On the ETV Portal Server, go to **Global Settings > Global Assignments > Assign VOD Polling Interval.**
2. Click **Sync Now**. Do not enter anything else.

Chapter 6

Restoring Windows Media Services

Introduction

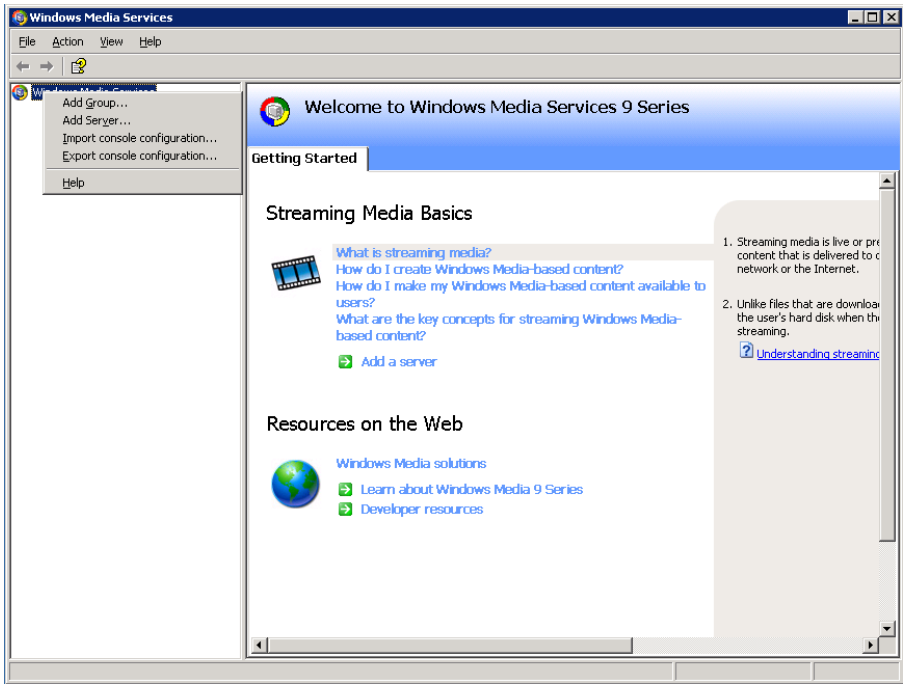
Windows Media Services are installed and a publishing point is configured on the server prior to shipment. The Computer Name of the VOD-WM Server is VODWM. **If you subsequently change this name,** the Windows Media Services branch in the Microsoft Management Console (MMC) shows no server and all Windows Media Services configuration, such as Publishing Points, are missing. Windows Media Services management is unavailable. This procedure explains how to restore Windows Media Services management after a server rename. Contact VBrick Support Services if you need help or more information.

Restoring Windows Media Services

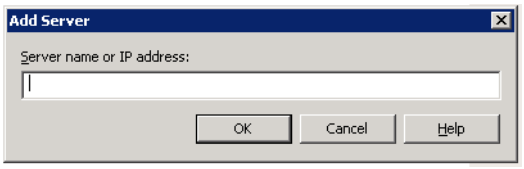
When you rename the server, using any available method, you will typically be prompted for a reboot. Run the following procedure *after* you reboot the server.

▼ To restore Windows Media Services management:

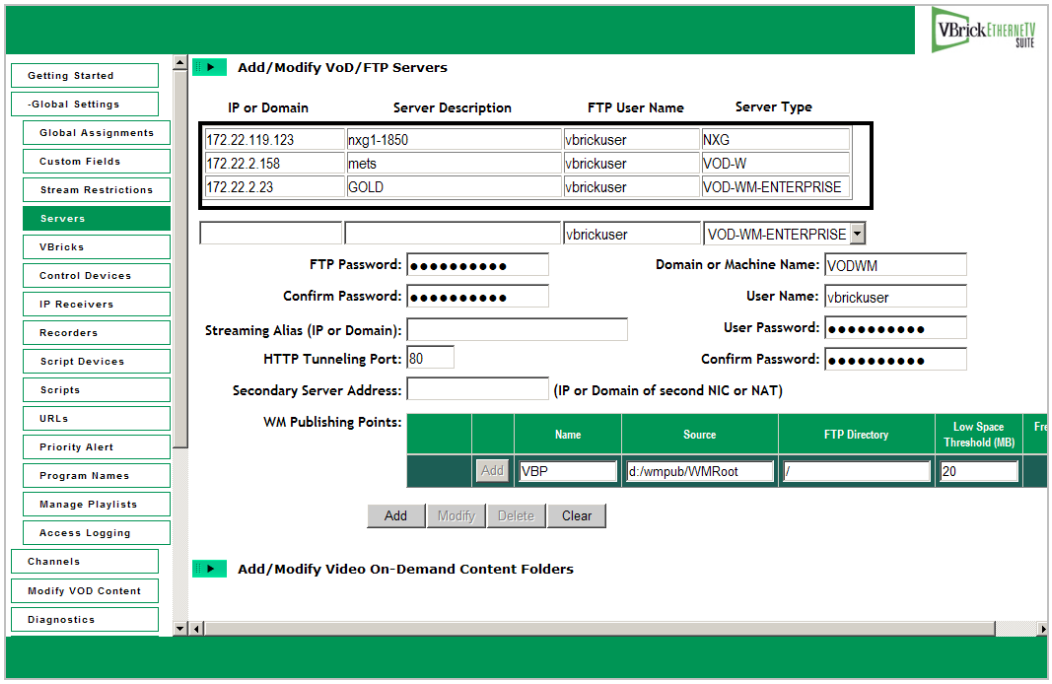
1. From the **Start** menu, select **Windows Media Services** from the panel or from **Administrative Tools**. Alternatively, select **Manage Your Server** and from the interface select **Manage this streaming media server** to launch the MMC.
2. (Ignore any popup error windows from Windows Media Services.)
3. In the left panel, right-click on **Windows Media Services** and select **Add Server** from the popup.



4. In the **Add Server** popup enter localhost or the new name of the server.



5. The new server name will appear under **Windows Media Services**. Expand the tree under the new server name and the previous configurations including Publishing Points will be visible and accessible.
6. This completes the restore procedure. Now you can launch the ETV Portal Server, go to **Global Settings > Servers**, and configure the VOD-WM Server with the new server name if necessary.



Chapter 7

Reinstalling the Software

Topics in this chapter

Reinstalling the Software

The VBrick EtherneTV VOD-WM server is shipped with Windows 2003 Server (Standard or Enterprise Edition) already installed and configured. (Enterprise Edition supports multicast; Standard Edition does not.) **Installation instructions are provided here only in the unlikely event that you ever need to reinstall the operating system.**

Initializing the Server

After Windows 2003 Server Standard or Enterprise Edition is installed, use the following steps to initialize the VOD-WM server.

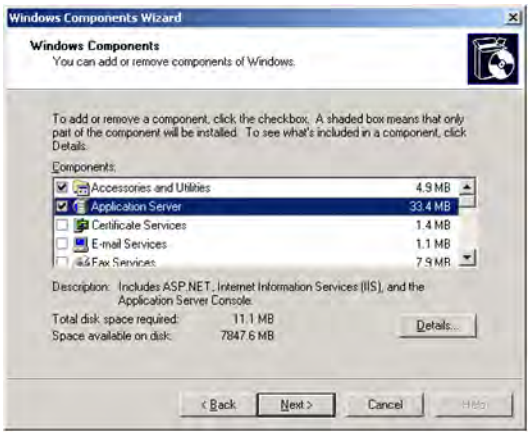
▼ To initialize the VOD-WM:

1. Apply power to the server by pressing the main power switch on the front of the unit. The server will boot up using the default settings.
2. Press any key to display the "Dell Eula" page.
3. Press any key for "Service Tag/Technical Support information."
4. Press any key for "Important Information (OS Preinstalled)."
5. Click **Next** on "Windows Setup Wizard."
6. Click **Next** on "I Accept License Agreement."
7. Click **Next** on "Regional Languages."
8. Personalize Your Software, Name: "user", Organization: "company", then click **Next**.
9. Enter Computer Name: **VODWM**, Administrator password: (leave blank) then click **Next**.
10. Adjust the computer time and time zone and then click **Next**.
11. Click **Next** on Networking Settings.
12. Click **Next** for workgroup.
13. Install Critical Update select "Step 1 Update this Server."
14. Click on **OK** on the popup windows.
15. Click on **Install** for security warning.
16. Click on the Internet Explorer updates window's **Install Now**.
17. Click on **Express**.
18. Click **Yes** in the popup windows.
19. Click on **Install Updates.**
20. Click on **I Accept** and the download will begin.
21. Click on **Restart Now** after the update completes.

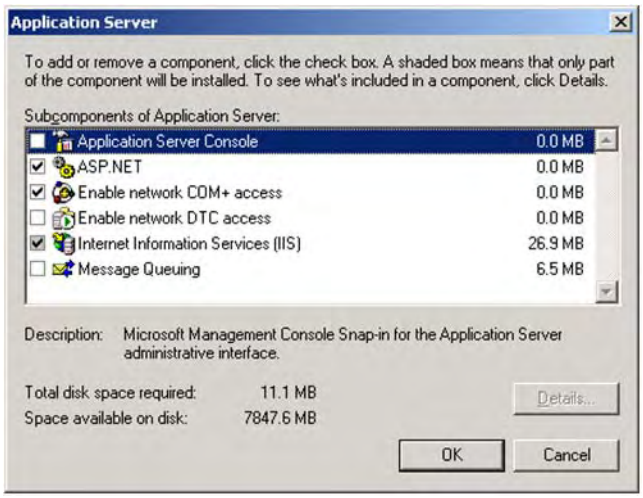
Configuring the Server

▼ To configure the server:

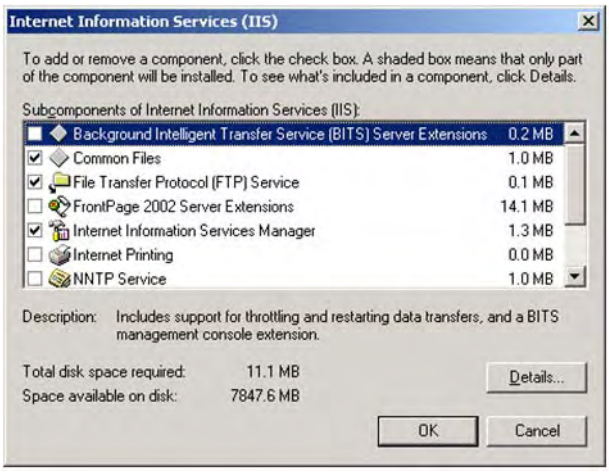
1. Login and go to **Control Panel > Add/Remove Programs > Add/Remove Windows Components**. Highlight and select "Application Server".



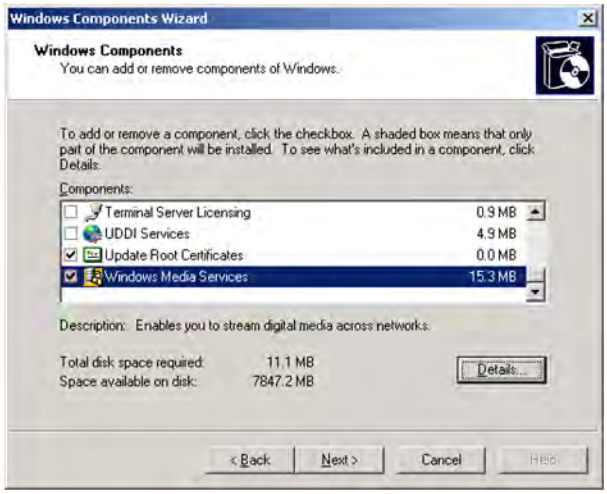
2. Select **Details** then select "ASP.NET."



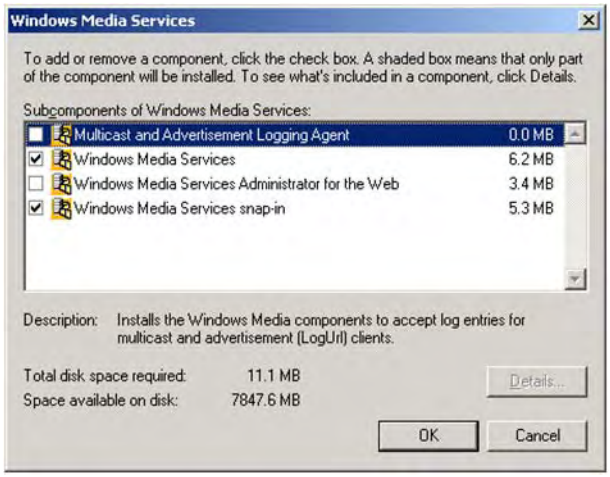
3. Highlight Internet Information Services (IIS), select **Details** and then select "File Transfer Protocol (FTP) Service". After selecting "FTP" press **OK** to close the IIS window, then press **OK** to close the Application Server Window.



4. In the Windows Components Wizard, highlight and select Windows Media Services and then click **Details**.



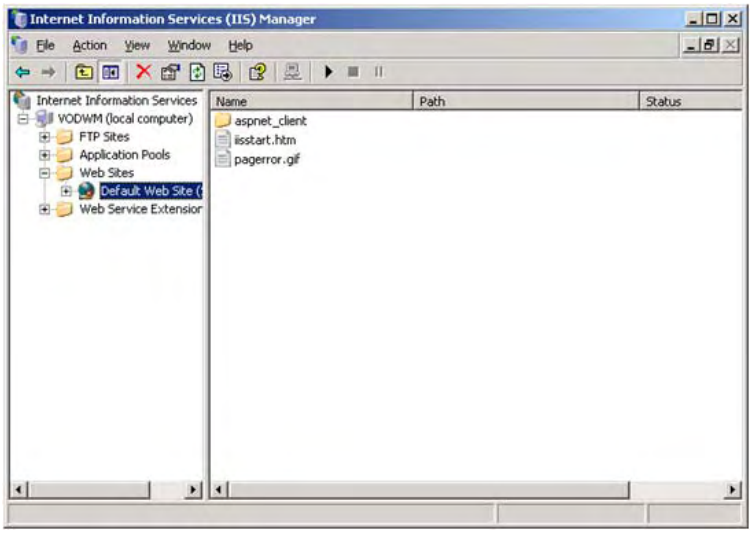
5. In the Windows Media Services dialog box, verify the "Windows Media Services" and "Windows Media Services snap in" components are selected. Press **OK** in the "Windows Media Services" box and **Next**" in the Windows Components Wizard. The Windows Components will now be installed.



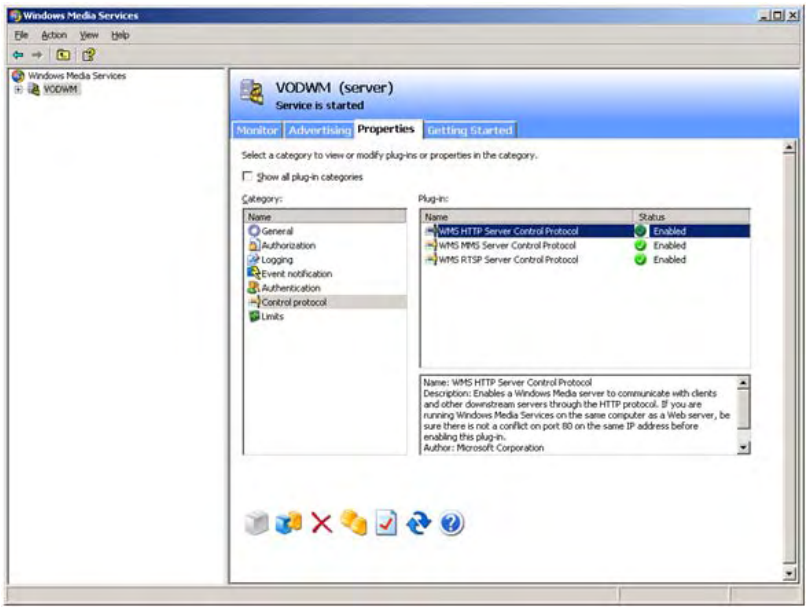
6. Using Windows Explorer, browse to drive D:\ and create a folder named **wmpub**. Then create another folder inside of wmpub named **WMRoot**. Verify the correct path was created as D:\wmpub\WMRoot (verify the correct case for WMRoot).

   Highlight the WMRoot folder, right-click and select **Properties**. In the Properties box select the **Security** tab and highlight **Users (VODWM\Users)**. Then select **Full Control** in the **Allow** column and press **OK**.

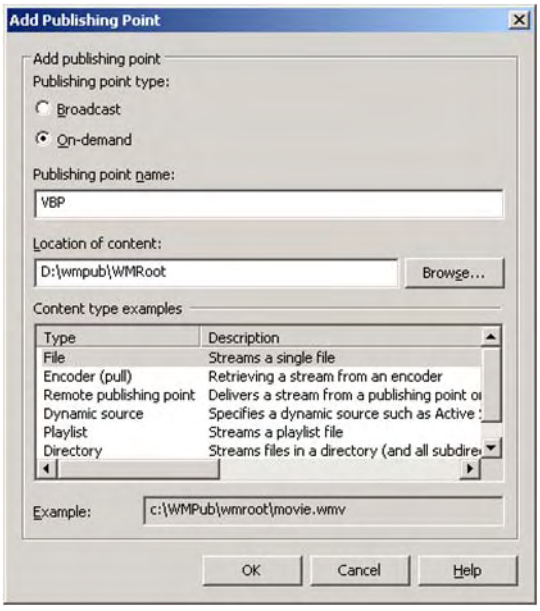
7. Go to **Start > Administrative Tools > Internet Information Services (IIS) Manager**. Select Web Sites and highlight "Default Web Site". Then right-click and select **Stop**.



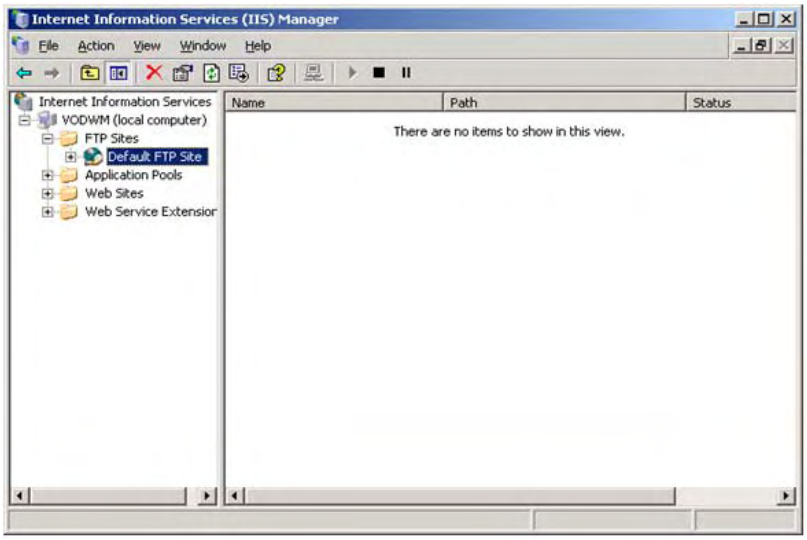
8. Open **Windows Media Services** and select the server name. On the **Properties** tab, select **Control protocol** and enable **WMP HTTP Server Control Protocol**.



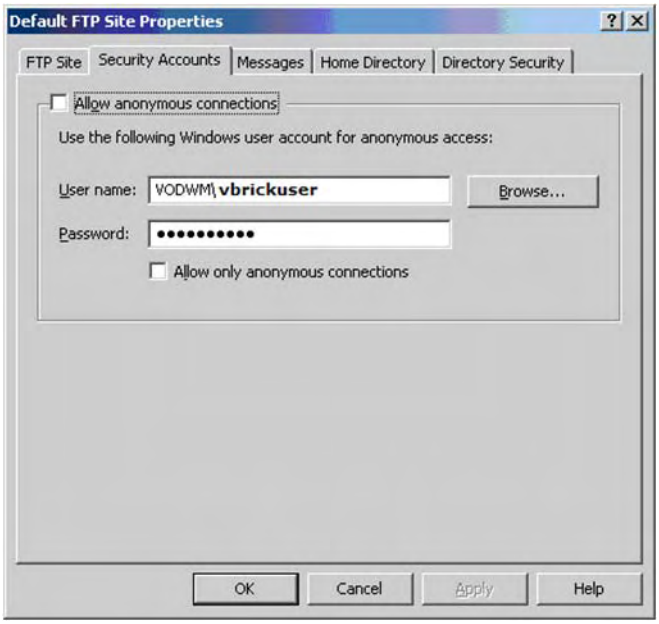
9. Highlight **WMP HTTP Server Control Protocol**, then right-click and select **Enable**. If there is an error popup verify the Default Web Services were stopped properly as explained above.
10. Highlight the server name, then right-click and select **Add Publishing Point (Advanced)...**

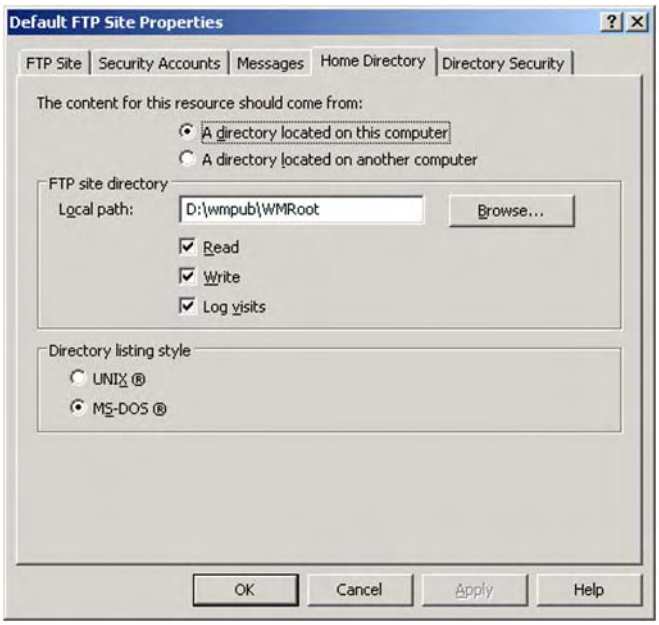


11. Select **On-demand** and **Browse** to the directory D:\wmpub\WMRoot for Location of Content and press **OK**.
12. Go to **Start > All Programs > Administrative Tools > Internet Information Services (IIS) Manager**. Select the server name, open the "FTP Sites" box and highlight the "Default FTP Site".

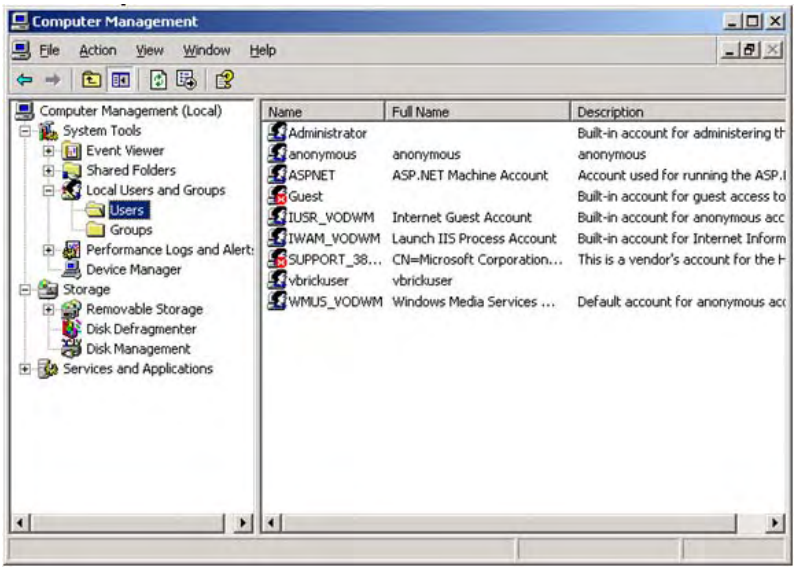


13. Right-click on the "Default FTP Site" and select **Properties**. In **Security Accounts** change the User name to **VODWM\vbrickuser**, set the password to **vbrickuser**, and then click **Apply** and confirm. Then uncheck "Allow anonymous connection" and "Allow only anonymous connections" and click **Apply**. Press the **Home Directory** tab and enter **vbrickuser** to verify the password.





14. In the **Home Directory** tab, change the Local path: to **D:\wmpub\WMRoot** and select the check box next to "Write". Click **OK** to close the "Default FTP Site Properties".
15. Go to **Start > All Programs > Administrative Tools > Computer Management** to open the "Computer Management" window. Select "Local Users and Groups" and highlight "Users". Then right-click on "Users" and select "New User".



16. In the "New User" box enter User name: **vbrickuser** and the password **vbrickuser**. Then confirm and press **Create**.
17. Highlight the User vbrickuser and select **Properties**. In the "vbrickuser Properties" box select the **General** tab. Deselect "User must change password at next logon" and select "Password never expires" and "User cannot change password". Select the **Member Of** tab and verify that "Member of:" lists "Users". If not, select **Add**, which opens the **Select Groups** box. In the **Select Groups** box select **Advanced...** then press **Find Now**. In the Search Results portion of the box select "Users" and press **OK**, then press **OK** again. Press **OK** to close the "vbrickuser Properties" box.

The Windows Media Server configuration is now complete.

Adding Content to the Server

▼ To add content to the VOD-W server:

1. Insert the Documentation CD into the CD-ROM drive of the server.
2. Copy the video demo files from the CD-ROM (E:\video*.wmv) to D:\wmpub\WMRoot\ .

Viewing and Verifying the Content

▼ To view and verify the content:

1. Launch Internet Explorer and open the Admin console of the EtherneTV Portal Server.
2. Click on **Global Settings > Servers**.
3. Enter the sever IP address, select **Server Type (VODWM)**, then click **Modify**.
4. Go **Global Assignments > Assign Polling Interval** and click **Sync Now**.
5. Logout of the EtherneTV Portal Server and open a browser window.
6. Launch the Portal Server and click on the **Asset Library**.
7. This will display the content you added above. Click on one of the demos and verify that the video plays and is of good quality.

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