



VB4000-5000-6000 Series Network Video Appliances

VBrick v4.4 MPEG-2/4, WM Appliance
Release Notes



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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.

VBDNA v4.4 Release Notes

What's New in 4.4	1
Compatibility	2
Appliance Upgrade	2
Caveats	4

These notes document the latest release of the VBDNA (VBrick Dependable Network Appliance) software for VBrick network video appliances. This release of VBDNA software runs on VBrick MPEG-2, MPEG-4, and WM (Windows Media) network appliances. Any information contained within this document should be considered VBrick Systems customer confidential and should not be reproduced nor distributed to non-VBrick Systems customers without prior written permission. The release is a self-extracting zip file containing a number of elements. This release allows configuration of the VBrick via a terminal interface, via the serial interface, Telnet, or via the Internet Explorer.

What's New in 4.4

Network Metering

Network Metering has been added as a configurable parameter for WM encoder appliances. Metering is limited to two streams *per appliance*. You must also set the encoder **Buffer Size** (on the Configuration: Encoder > Video page in IWS) to a minimum value to optimize the effectiveness of metering. See the "Windows Media Metering" topic on the Configuration: Network > Ethernet page in the *WM Admin Guide*.

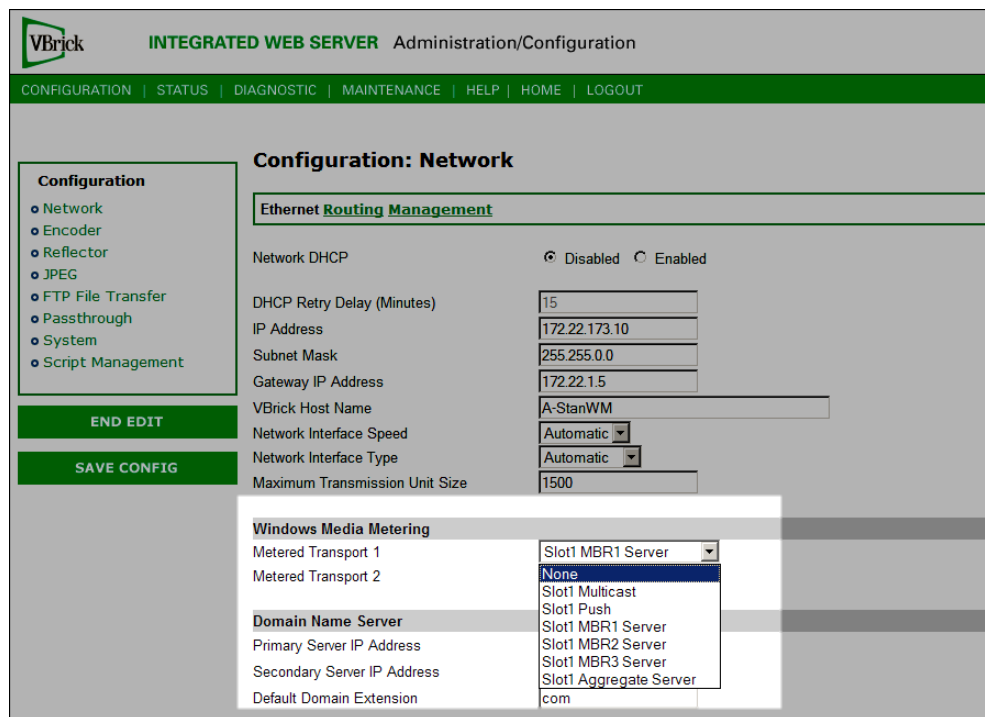


Figure 1. Network Metering Options

Note Note that Network Metering is disabled by default. **To implement Windows Media Metering you must enable metering after performing an upgrade.**

Additional MBR Resolutions

As shown below, additional MBR (Multiple Bit Rate) resolutions have been added for WM appliances. If you select 480x480 for **Video Rate1** for example, you can select 480x480 or 240x240 for **Video Rate2** or **Video Rate3**. If you select 528x480 for **Video Rate1**, you can also select 528x480 for **Video Rate2** or **Video Rate3**.

- Video Rate 1 – 480x480, 528x480
- Video Rate2 – 480x480, 240x240, 528x480
- Video Rate3 – 480x480, 240x240, 528x480

Compatibility

- This release is fully backwards compatible with previous 1.x.x and 4.x.x WM releases. Additionally, this release supersedes all VBDNA 3.x.x and earlier versions on the remaining appliance models, with the exception of ATM. ATM units must remain at software version 3.3.x or earlier. ATM models are identifiable by examining the part numbers. Two digits are reserved to indicate the presence of ATM adapters. For example a 9110-6211-0001 where -xx11-, identifies a unit with ATM. The following number representations are all ATM models: -xx13-, -xx21-, and -xx23.
- This release package includes a management application called VBDirectory which provides quick reference and access to all VBrick Appliances on a network. VBDirectory is installed with each new software release. To access VBDirectory, go to **Start > Programs > VBrick > VBDirectory**. This directory tool was developed for use with DHCP and will identify VBricks on the network running code 2.0.0 and higher.
- In order to play Windows Media streams, StreamPlayer 4.3.0 or later is required.

VBDirectory

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Appliance Upgrade

VBrick appliances are shipped with PC applications to allow for easy upgrade. All release material should be installed on a PC running Internet Explorer 6.0 or higher and using Service Pack 2 or higher. Once the release is installed, the upgrade tools become available in the VBrick program group, located under **Start > Programs**. The upgrade procedure can be invoked by using either the VBDownload application or the VBDirectory application. Either application can be used as the starting point for updating the appliance's flash memory (TCP/IP FTP transport services are used for this). Using VBDirectory is an easier method as it lets you choose the appliances by name instead of IP addresses. When VBrick appliances are not accessible to VBDirectory, the VBDownload application must be used.

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- Note**
- All saved configuration parameters are preserved when you upgrade your VBrick. There is no need to reconfigure the unit after the upgrade other than to take advantage of new features in the release. The upgrade process does require the unit to be reset, so it is important that your configuration be saved prior to the upgrade if you want to preserve the settings.
 - Part of the process takes place during the first boot after the upgrade of a new release. During this time you must avoid powering off the unit. This process may take 2–15 minutes and may include an automatic reboot of the unit. You can tell that the VBrick is ready for operation when you are able to login via IWS or CLI.
 - **VBrick strongly recommends against loading a previous version of code.** *As a general rule, never downgrade a unit to a code version older than what was originally installed at the factory.* Some new features can cause problems for old code versions. For example, if DHCP is enabled and you load a previous version of code that does not support DHCP. Also many newer boards contain newly manufactured flash devices which are not supported in older code versions. In either case, the VBrick may fail to re-start properly at which point the unit will need to be returned to the factory for repair. Before attempting to load any previous version of code, it is highly recommended that all parameters be set to defaults.
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Installing an Appliance Upgrade

- ▼ To upgrade a VBrick:
1. Double-click on the release executable (**SetupVB6000_x_x_x.exe**) to install the release on your PC. It is recommended that you accept the default destination folder which is **Program Files\VBrick\VB6000\download\ReleaseVx_x_x**.
 2. The setup programs for VBDownload and VBDirectory will automatically run after the files have been extracted. Click **Next**, follow the instructions, and use the default folders if possible.
 3. When the **Maintenance Complete** page is displayed, click **Finish**.
 4. Go to **Start > All Programs > VBrick > VBDirectory** to start the management utility. The VBDirectory program should launch in a new window showing all VBrick appliances that are available for upgrade.
 5. Select the device to be updated by highlighting the name and then click the **Upgrade** button. (If the user name and password are not set, a dialog box will appear and you will need to configure the appliances's username and password using the **Enter Username/Password** button.)
 6. In the VBDownload window, if you installed the release to the default directory, that directory will be auto-selected in the **Revision Folder**. If not, **Browse** to the directory that contains the unzipped files from the release package.
 7. Select a **Revision** and press **OK** to start the download. Since the default mode of VBDownload is **Intelligent Download** the utility will query the VBrick to determine which release components need to be downloaded. When prompted, press **OK** to allow VBDownload to upgrade the suggested components. This may take several minutes.
 8. When the download completes, reboot the appliance using the **Reset Unit** radio button and follow the prompts (or use the **Reset** button on the IR remote).
 9. Please note that part of the upgrade takes place during the first boot after the download, and may take up to 15 minutes. You can tell the upgrade is complete when you can login via IWS or CLI, or when its name entry re-appears in VBDirectory.

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10. When done close the window or click **Exit**.
 11. To verify the download has successfully installed, check the **Release Revision** in IWS. Go to **Status > System Information > Release Revision**.

Caveats

This section addresses known issues in this release, most of which have an easy workaround. For more information about any item, or help with an issue not listed here, contact your reseller or VBrick Support Services. This release of VBDNA firmware has some important restrictions as explained below.

All Models

- VBDNA v4.2 or higher is designed for non-ATM models only.
- Internet Explorer 7.0 only. When using [Click here to examine hard drive content](#) on the **Archiver** page, a web page is displayed and you can't open the links. To work around this issue, go to **Page > Open FTP Site in Windows Explorer**, close the error window, and then go to **File > Login As** and enter the user name and password (default = **admin/admin**).
- The **User Account Control** feature on Windows Vista prevents Local Users from writing to protected areas of the file system. This means that the VBrick utilities VBDownload and VBDirectory will not run on Microsoft Windows Vista unless you are logged in as an administrator. When attempting to write to protected areas (for example when installing software), non-admin users will be prompted for a user name and password with admin privileges. Admin users can simply press **Continue** to proceed.
- DHCP is now enabled by default on all VBrick appliances. The **Default All** option on the Maintenance page will not affect your current DHCP setting. The **Factory Defaults** option however, will reset all configuration parameters and override a manually entered IP Address.
- If using VBrick StreamPlayer, StreamPlayer v4.4 or later is required in order to play Windows Media streams.
- Internet Explorer 7.0 only. The Menu Bar is not enabled by default. You may have to enable the Menu Bar in order to save configuration files.

MPEG-2 Caveats

- The MPEG-2 encoder is designed to stream video indefinitely when it has a valid video input and will stream black video for up to a few hours when the video input is missing or invalid. However, if the video input has been invalid for more than a few hours you should either reset the encoder or restart it by making an audio or video configuration change.
- The MPEG-2 appliance supports low video rates. Be aware that lower bit rates may create undesirable artifacts and are not generally recommended where high-quality video is required. In low bit rate applications, the lowest video resolution (SIF) and the highest delay settings should be set. The transport rate should be maintained at or above 1.3MBps for best results. StreamPlayer products, MPEG-2 appliance decoders, and EtherneTV STBs may all exhibit differences in video quality.
- On a mixed model with WM and MPEG-2 encoders, setting the maximum Bit Rate on both encoders—and archiving on both encoders— will cause video hits when playing

back the video that was archived. To work around this issue, lower the Bit Rate on one or both encoders.

WM Caveats

- When configuring the **Announce External Server** feature on a WM Encoder or Reflector and using the **Push to a Microsoft Reflector** option, enabling the first **Push Destination** (on the Configuration > Push page) is used to transmit the External Server SAP. Enabling the other 24 push destinations will not transmit the External Server SAP.
- A dual WM encoder supports a maximum of 180 connected clients. If Remote Management is enabled, and the appliance is connected to the remote server, a dual encoder will support only 130 clients.
- The Windows Media Load Simulator 9 Series is a GUI-based tool that simulates a large number of client requests on a Windows Media server. If you are testing a WM appliance with this simulator, be aware that VBrick v4.0 or later WM Appliances are only compatible with Release 9.0.0.2939 or higher of the Windows Media Load Simulator.
- Chaining two VBrick Reflectors with the first in Push Receiver mode and the second in Pull Receiver mode may cause problems with HTTP playback from the second Reflector.
- Push publishing points on WM Servers might not accept streams from WM appliances under the following conditions: (1) a video input problem or (2) a paused digital image from a device such as a DVD player. The failure occurs only when the appliance is configured with less than the minimum **Buffer Size** shown below.

Template	Default Buffer Size	Min Buffer Size to Play
Cable/DSL-128K, High Motion	8000	2000
Cable/DSL-128K, Low Motion	5000	3200
Modem 56K	10000	1700
Security and Surveillance	10000	10000





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