EtherneTV®
MEDIA CONTROL SERVER

EtherneTV-NXG1
Video on Demand Server

NXG1 v3.0.1 VoD Release Notes

VBrick® systems, inc.

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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 over 20,000 video appliances installed across over 1,000 IP networks 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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Overview

The EtherneTV-NXG1 Video on Demand system supports live-stream and stored file access, providing a single portal for unified access. This state-of-the art deployment supports many advanced features, including scheduled playback, Live feed ingestion, true Video-On-Demand and more. The purpose of this document is to provide release notes for the EtherneTV-NXG1 VOD server. Any information contained within this document is to be considered VBrick Systems customer confidential and should not be reproduced nor distributed to non-VBrick Systems customers.

Compatibility

This release is compatible with:

- VBrick 1000 and 3000 series of MPEG-1 Encoders (Release 2.4.0 and higher).
- VBrick 4000 and 6000 series of MPEG-2 and MPEG-4 Encoders (Release 2.1.0 and higher). MPEG-4 is supported with release 3.0.1a and higher.
- EtherneTV Portal Server v3.0 or higher
- Release is based upon Redhat V8.0 and XMP 7.2.1 and the installation script contained in `vbrick_kasenna_dell_1850_3_0_1.tar`

Login

With the EtherneTV Portal Server, the EtherneTV system provides access to live, and stored video. Administrative access to the EtherneTV-NXG1 VOD server is accomplished by pointing your web browser to the location of the EtherneTV-NXG server:

`http://NXGServer/mbase/admin`

The default user name/password is admin/admin. Additional instructions are available in the *EtherneTV-NXG1/2 Quick Start Guide*

Installation Instructions

▼ To reinstall from release media:

1. Place CD 1 of 4 into the CDROM drive and (re)boot the system.
2. At the restore prompt, enter "nuke".
3. Insert CD's 2 and 3 when prompted.
4. When finished installing from the 3 recovery CDs, reboot the system.
5. After reboot, you will be prompted to configure the network parameters. Type 'n' for no to skip this step.

6. Log in as user **root**, password **omnibase**

7. Type `cd  /opt/vbricksetup`

8. Type `./conf_new_step1`, then answer "yes" to run the script.

9. Type `mkdir  /floppy`

10. Insert the license floppy into the system.

11. Type `mount /dev/fd0  /floppy` to mount the floppy drive

12. Type `cp /floppy/license.txt  /var/kasenna/license.dat` to copy the license file. When prompted to overwrite the existing file, type "yes".

13. Type `init 6` to reboot the system.

14. If you have a fiber NIC card in your system, you may see a message indicating that your license is not valid. This is normal at this stage and will be corrected after step 23.

15. After reboot, you will be prompted to configure the network parameters. This time type 'y' to proceed. Have your IP address, netmask, network address, broadcast address, hostname, and DNS server IP address ready. Consult your network administrator if you are unsure how to answer these questions.

16. You may again see the message indicating an invalid license after the network configuration script is run and after the reboot. Ignore these messages.

17. Insert CD 4 into cd-rom drive

18. Type `cp  /mnt/cdrom/vbrick_kasenna*.tar  /tmp/,` then hit return;

19. Type `cd  /tmp`, then hit return;

20. Type `tar  xvf  /tmp/vbrick_kasenna*.tar`, then hit return;

21. Type `/tmp/vbrickinstall.sh`, then hit return. This starts the script, and a log of it's actions is created in /vbrick.

22. After each task the script will print whether it was successful in performing it. If there was an error in performing a task please notify VBrick Customer support.

23. When the script is done it will say: "Script is finished."

24. Type `eject`, then hit return. This unmounts the cd-rom drive and ejects the cd.

Upgrade Instructions

This release adds support for a Fiber NIC card. If you are not using a Fiber NIC, it is not necessary to upgrade to this release. This upgrade is only available on NXG1 VOD systems running on a Dell PowerEdge 1850 server.

▼ To upgrade:

1. Power off the server as follows:

   a. Log in as user `root`, password `omnibase`

   b. Type `init 0`

   c. Wait for the power off sequence to complete and "Poweoff" to appear on your console.

   d. Power off the server with the power button on the front panel.

   e. Remove the power cords.

2. Install an Intel PRO/1000 XF Server Adapter PCI-X Fiber Gigabit network interface card in the spare PCI slot of your NXG1 server.

3. Power on the server.

4. If you have a fiber NIC card in your system, you may see a message indicating that your license is not valid. This is normal at this stage and will be corrected after step 11.

5. Insert the new NXG1 Installation CD #4 version 3.0.1 into the cd-rom drive. This replaces the CD #4 that originally shipped with your system.

6. Type `cp  /mnt/cdrom/vbrick_Kasenna_dell1850_3_0_1.tar   /tmp/,` then hit return;

7. Type `cd  /tmp`, then hit return;

8. Type `tar  xvf   /tmp/vbrick_Kasenna_dell1850_3_0_1.tar`, then hit return;

9. Type `/tmp/vbrickinstall.sh`, then hit return. This starts the script, and a log of it's actions is created in /vbrick.

10. After each task the script will print whether it was successful in performing it. If there was an error in performing a task please notify VBrick Customer support.

11. When the script is done it will say: "Script is finished."

12. Type "eject", then hit return. This unmounts the cd-rom drive and ejects the cd.

Caveats

Adding Content to the Server

Note   Ingested files are stored in the root area of the EtherneTV-NXG1 Video-On-Demand server. If this area becomes filled, it can overwrite and corrupt system files causing a catastrophic failure. Please monitor the amount of disk space remaining at all times and frequently remove unnecessary files.

- Spaces and quotes (both ' and ")cause system instability problems. All spaces and quotes must be removed from MPEG file names before they are transferred to the EtherneTV VOD NXG . Also, do not use spaces or quotes in the video name field of newly added video content.
- To ingest a pre-recorded MPEG-1, 2 or 4 file, use the Add Video feature of the ETV Portal Server.
- All assets that are installed into the server should have backup copies available in the event of disk corruption. This will allow for an easy restoration of the system.
- The live capture feature is not functional in this release.
- MPEG-1 video only files cannot be ingested onto the NXG-1.
- MPEG-2 audio only files cannot be ingested onto the NXG-1.
- MPEG4 files with Closed Captioning cannot be ingested.

General Notes

- In order to view an MPEG-2 multicast file from the EtherneTV Video on Demand server, using a VBrick MPEG2 6200, packet ordering and the jitter queue must be enabled. These parameters are set in the VBrick in **Configuration: Decoder > Network** settings.

- Core dumps may occur when changing the system name of the EtherneTV-NXG2 server. It is recommended that these files be removed from the server. The core files are located in / or a subdirectory under /usr/mbase/coredir. These files will be automatically deleted if they are present for more than 1 week.

- In order for the time to appear correctly in the EtherneTV-MCS user interface, it may be necessary to set the time zone (depending on the installation location). Directions for changing the time zone are in the EtherneTV-NXG1/2 Quick Start Guide.

- EtherneTV-NXG1 server multicast port numbering starts at 5000. VBrick Multicast port numbering ranges start from 1040 to 65535, and the default is 4444. The VBrick default multicast port number should be changed to a value of 5000 or larger if the VBrick encoders and decoders are being used as a source (record) or destination (playback) by the EtherneTV-NXG1 server.

- For MPEG-1 recordings, the audio doesn't work for EtherneTV-NXG2 server playback if the file was recorded using VBrick -xxx0 hardware encoders with the audio is set to Mono (Left to Stereo). All other VBrick encoder Audio modes work.

- Spaces and quotes (both ' and ") do not work. All spaces and quotes must be removed from MPEG file names before they are transferred to the EtherneTV-NXG2.

- The Client Test Tool does not work correctly on Linux. It displays the connection to the client of the active file being played, but disconnects during the ping test.

- A user must close the browser after logging out from the EtherneTV-NXG1 server.

- When external storage is configured, content may be ingested onto the external storage until it is full before content is ingested onto internal storage.

- On systems configured with external storage, attempts to record files larger than 2 Gigabytes may fail when there is more than 2 Gigabytes of space available on one of the filesystems.

- If the mbsnmp service is turned on, core files may appear in the root directory. Turn off mbsnmp to avoid this.

- The "find videos" query on the mediabase admin pages will display a maximum of 1000 assets. For installations that exceed 1000 assets, the use of folders and keywords is recommended. Queries can be performed by keyword, or assets can be viewed by traversing the folder heirarchy.

- The mediabase managed filesystem configuration parameter "Removal Enable" has no effect. Assets can be removed regardless of the setting of this parameter.

- Removal of MPEG4 assets may intermittently fail.

- After restoring the operating system disk drive from the recovery CDs, it is necessary to run the VBrick installation script contained on CD number 4. Failure to perform this installation step will prevent the system from booting the next time it is restarted.

- For the MediaBase GUI in Release 7.01, in order to use the graphical tools for monitoring the CPU, storage, etc., it is necessary to install the latest Java plugin for your browser, Java 2 Runtime Environment, SE v1.4.2_01. This can be downloaded from http://www.java.com/en/index.jsp

- On the Monitor Service Status screen, it is normal for the IP Multicast Routing Daemon "LED" to show up as red.

- Care should be taken to change the default passwords on all accounts. There are five accounts of interest:

  User account vbrickuser, with default password vbrickuser

User account admin, with default password admin

Superuser account root, with default password omnibase

Web management account mbase, with default password mbase-admin

Web management account admin, with default password admin

- On the mediabase "Configure Filesystems" management page you have the option to individually disable asset installation, playback, and or removal. You must not disable all three options or the filesystem will become unusable.

- The network monitor and bandwidth monitor features stop providing useful information when there are more than 136 clients.

- The bitrate subject to the licensed bandwidth limitation is the maximum bitrate of each asset being streamed, rather than the nominal bitrate of each asset. For example, an asset with a nominal bitrate of 200Kbps and a peak bitrate of 330Kbps can be streamed to a maximum of 272 clients before the 90Mbps license limitation is reached (90Mbps divided by 330Kbps = 272).

- The maximum number of streams that can be transmitted simultaneously from the NXG1 is 300. Response time is noticeably slower after 250 streams. For assets with peak bitrates above 300Kbps, the licensed maximum bitrate of 90Mbps will be reached before this limitation is relevant.

If you have any questions regarding installation or operation, please contact your authorized VBrick reseller from whom you have purchased this product. You can also obtain on-line support for EtherneTV-NXG2 FAQs at http://www.vbrick.com/support/faq.asp Or visit our technical support page at http://www.vbrick.com/support/technical_support.asp

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