PHD Virtual™

PHD Virtual™ Backup for VMware vSphere™

v5.4.2

Release Notes

May 3, 2012

This document provides an overview of the changes made to PHD Virtual Backup for the version 5.4.2 release, as well as system requirements, known issues, and licensing information. In addition, information about each product update is included in the Updates section.

This document contains the following sections:

To get the latest version of PHD Virtual Backup:

- **New customers**: visit PHD Virtual's web site (www.phdvirtual.com) to register and download the latest version.
- **Existing customers**: Packages are available for download from the PHD Virtual Web site that contain the latest updates.
- **Upgrading from version 3.x or 4.x**: Upgrading from previous versions of PHD Virtual Backup for VMware (esXpress) is not supported. Refer to the Migration Guide for additional information about migrating from earlier versions.

For installation and configuration information, refer to the latest documentation included with the installation package or on the PHD Virtual web site.

Updates

v5.4.2 - May 3, 2012

Fixes

- Fixed an issue introduced in version 5.4.1 that could result in potential backup data corruption. After updating to v5.4.2, to ensure data integrity, the next time backup jobs run they will be forced to create new backups by reading all blocks of data again. This will not affect storage, but will result in longer backup times, initially. After this run, backup times will return to normal.

v5.4.1 - April 23, 2012

Enhancements

- Virtual Storage Pool functionality lets you attach multiple virtual disks to a PHD VBA to create attached disk backup data stores greater than 2 TB. To take advantage of this new feature, deploy a new PHD VBA and select Attached Virtual Disk as the backup storage type. Then add as many virtual disks to the PHD VBA virtual machine as needed to create the backup data store size desired. Note, existing (pre-5.4.1) attached disks cannot be used as part of a Virtual Storage Pool. After a Virtual Storage Pool has been created it cannot be modified. If you need to increase the size of a backup data store after its been created you can either deploy a new PHD VBA and create a larger backup data store initially or contact support for assistance.
- Added Delete and Post Processing Queue Depth totals to the email reports for increased visibility when troubleshooting issues related to PHD VBA performance.
- Disabled jobs now display job status as disabled instead of inactive.
- Enhanced the process used to synchronize license information across multiple PHD VBAs.
- Additional performance enhancements.

Fixes

- Fixed a problem where replication jobs would fail with error, "ERROR - Exception while calculating datastore usage: 'uuid'." When encountered, the replication job will now continue and only report error for the affected VM.
- Fixed a known issue where licenses could fail to synchronize across PHD VBAs.
- Fixed an issue where an intermittent problem loading backups within the PHD Console could cause the entire Backup Catalog to fail to load.
- Backups run at midnight of the current day will now show in the correct Backup Data Connector folder. They will no longer be included in the Yesterday folder.
- You will no longer be prevented from editing or creating new replication jobs based on the amount of size available in the target destination. A free space message/warning is now displayed instead.

- Fixed an issue where the PHD Console displayed incorrect Last Updated time for Replicas when the local machine was set to certain timezones.
- Fixed an issue that caused the PHD Virtual Backup configuration information to become corrupt (PHD Console error: "Appliance returned an error: internal server error: No section: 'PHDVB'" during a maintenance reboot of the PHD VBA.
- Fixed a logging error that could prevent some daily jobs from running.
- Fixed a problem that could cause an entire job to fail when a single VM encountered a compromised meta file.
- License file names that contained extensions in all caps will now be recognized by the PHD Console.

v5.4.0 - February, 9 2012

Enhancements

- With the new Disable job option, you no longer need to delete jobs or adjust schedules to prevent them from running, temporarily.
- Overall logging was improved and now includes additional, updated status and error messages. As a result, the Debug Logging option (on the PHD Console, Configuration > Support tab) is now disabled by default.
- Manage and view product license information from a single, central location, including expiration dates and the number of licensed hosts, using the new License Manager area of the PHD Console. With the License Manager, it is now much easier to apply and update licenses on all of your PHD Virtual Backup Appliances at once as well as manage which hosts are backed up or used as replication targets.
- To avoid scenarios where backup storage could reach capacity if unchecked, the default Retention Type for newly deployed PHD VBAs is now set to Typical (keep the 5 most recent backups as well as backups from the last 7 days, 4 weeks, 12 months, and 5 years).
- Additional improvements were made to the overall responsiveness of the PHD Console. With these changes, PHD Console Dashboard timeout issues were resolved and PHD VBA and replica information will now be displayed much faster.

Fixes

- Fixed an issue where data streams (worker threads) could hang when the Trim process included a large number of files for delete.
- Editing daily replication jobs will no longer cause the replication job to run when the wizard is closed.
- Fixed an issue where replication could be skipped based on incorrectly calculated free space thresholds (threshold calculations did not account for pre-existing replicas)
- Fixed an issue where email addresses that contained longer domain address (for example, user@domain**.local**) would fail validation when entered as From or Recipient addresses for on the Email tab of the PHD Console.

Known Issues

General

- When editing network settings using the PHD VBA's text-based network configuration interface (CTRL-N), both DNS options are required. If you do not have an alternate DNS, enter the primary DNS address again to save your settings. (DCK-934)
- When the PHD Console computer's regional format is set to allow time formats that use a dot (for example Italian time formats allow HH.mm), creating jobs with a specified start time may not work correctly (a 500 error is displayed and incorrect times may be reported in the PHD Console). To workaround this issue, you can change the computer time format to use a colon (HH:mm). Note that you may also need to change the region to one that allows the selection of a time format with colon (for example, English (US). (DCK-723)
- Non-ASCII characters are not currently supported. Backing up and restoring VMs that include non-ASCII characters in the VM name, disk name, or text fields (Annotations , etc.) can cause the VBA to hang or crash. (DCK-508)
- Datastore names that contain square brackets [ ] can prevent backups and restores from functioning correctly. (DCK-378)
- Jobs that use quiesce may fail due to a hypervisor limitation. This is related to the issue described in the following VMware Communities article: http://communities.vmware.com/docs/DOC-11987. To work around this issue, create smaller, separate jobs for only those VMs that require quiesce. Do not use the quiesce function in larger jobs that include many VMs that do not need to be quiesced before backing up.
- Currently , vNetwork Distributed Switches are not supported for backup, restore, or replication.VMs that use these switches can still be backed up, but network information will not be available for restore. Refer to the Restore section, below, for specific issues and workarounds.
- When restoring a thin-disk VM that had a snapshot at time of backup, the restored VM disks are created as thick on vSphere 4.x. This is a known issue with VMware version 4.x, "When a virtual machine with thin disk has a snapshot, the redo log is incorrectly created as thick disk." The bug was fixed in vSphere 5. For version 4.x, you can first commit or remove the snapshot before taking the backup. (DCK-2168)

PHD Console

- When selecting multiple backups in the Backup Catalog, the Restore button is not active. To restore multiple VM backups, you can select a single backup to open the wizard, then select any additional backups. (DCK-1578)
- PHD Console does not refresh after a PHD VBA's IP address has changed. Close then open the PHD Console to reestablish the connection to the PHD VBA using the new IP address. (DCK-909)
- If the PHD Console does not open from vSphere Client, make sure you are logged in to vCenter with an account that has vCenter permissions. Accounts with permissions at a Datacenter level are not sufficient. (DCK-593)
- iSCSI mounted backups may fail to delete in the PHD Virtual Backup Console even though they are not connected to an initiator. If a machine is connected to a PHD backup via its iSCSI initiator and that machine is restarted, you may not be able to delete the iSCSI mounts from the PHD Management Console File Recovery catalog. Restart the VBA and the mounts will be automatically deleted from the File Recovery catalog. (DCK-557)

- PHD Virtual Backup Console does not detect iSCSI Initiator when using Windows 2003, 64-bit. Make sure the iSCSI Initiator is installed then use the Windows Start menu to run the program and manually mount any iSCSI targets that you've created using the iSCSI Initiator. (DCK-450)
- The System Alert Viewer displays backup times based on the time zone of the machine on which the PHD Console is installed. If the PHD VBA uses a different time zone, the backup time shown in the Backup Catalog will not match what is displayed in the Alert Viewer. Verify the time zone of the PHD Console before looking for backups included in the alert reports. Any backups with an alert will have an alert icon displayed next to the backup name.

Backup

- Physical RDM disks are not actually excluded in the Backup wizard resulting in warnings in the backup report. These warnings will not affect performance. (DCK-1124)
- When backing up a container (Cluster, folder, etc.) the although the Backup Wizard includes the PHD VBA size in the calculated Data Size, the PHD VBA is not included in the actual backup job. (DCK-452))

Restore

- With an unavailable host, the Restore wizard fails to retrieve any datastore information. (DCK-2027)
- Some virtual machine attributes are not included with restored virtual machines. For a complete list, refer to the User Guide.
- The Default Network menu in the Restore wizard is empty when using only vNetwork Distributed Switches, preventing you from continuing. To workaround this issue you can create a dummy network to select in the Default Network menu, then manually configure the restored VMs after the restore has completed. (DCK-1959)
- If a selected network becomes unavailable before a restore job is run, VMs may be restored without a network interface card. Make sure any networks selected for use with each restored VM are valid. (DCK-1946)
- When the Restore wizard is opened, all VM backups are expanded - if you had selected a VM before opening the wizard, you may need to scroll to find the selected VM. (DCK-1916)
- Archived backups do not display an archive icon in the Restore wizard Select VMs list. This is a cosmetic issue that does not affect functionality. (DCK-1710)

Replication

- With an unavailable host, the Replication wizard fails to retrieve any datastore information. (DCK-2027)
- The Default Network menu in the Replication wizard is empty when using only vNetwork Distributed Switches, preventing you from continuing. To workaround this issue you can create a dummy network to select in the Default Network menu, then manually configure the replica VMs after the initial replication has completed. (DCK-1959)
- If a selected network becomes unavailable before an initial replication job is run, replicas may be created without a network interface card. Make sure any networks selected for use with each replica are valid. (DCK-1946)
- If an error is encountered when adding a backup storage location for replication, an error is correctly displayed in the PHD Console, but the location is still added to the list of available data stores. Attempting to use this location for replication will not work correctly. To resolve the issue, you can remove it from the list and add it again. (DCK-1874)
- After refreshing the list of VMs available for replication, if a specific backup is not displayed, you can force an update by either 1) remove, then add the backup storage location as a replication store, or 2) change the contents of the backup catalog by running another backup or deleting a backup. After trying either workaround, refresh the list again and the missing backup should be displayed. (DCK-1871)

- When editing a Replication job, the replica VM suffix, network, and storage values may not be preserved. If this is the case, you can modify the values again using the wizard. (DCK-1832, DCK-1839)
- When a source virtual disk size has changed, the next replication job will report an error. To replicate the updated disk you will need to remove the replica then run the job again. (DCK-1544)

PHD Exporter

- Exporting backups of VMs that include USB attached storage fails to create the OVF. A fix will be included in a future release. (DCK-2040)
- When using any paths that include special characters, OVF creation may fail. Paths to backup storage that contain special characters are not currently supported. (DCK-2034, DCK-2028)
- If you cannot edit a previously added backup store (Save fails with an "inaccessible" error), remove the backup store then add a new store with the updated backup location information. (DCK-1940)

System Requirements

The following requirements must be met to install and use PHD Virtual Backup.

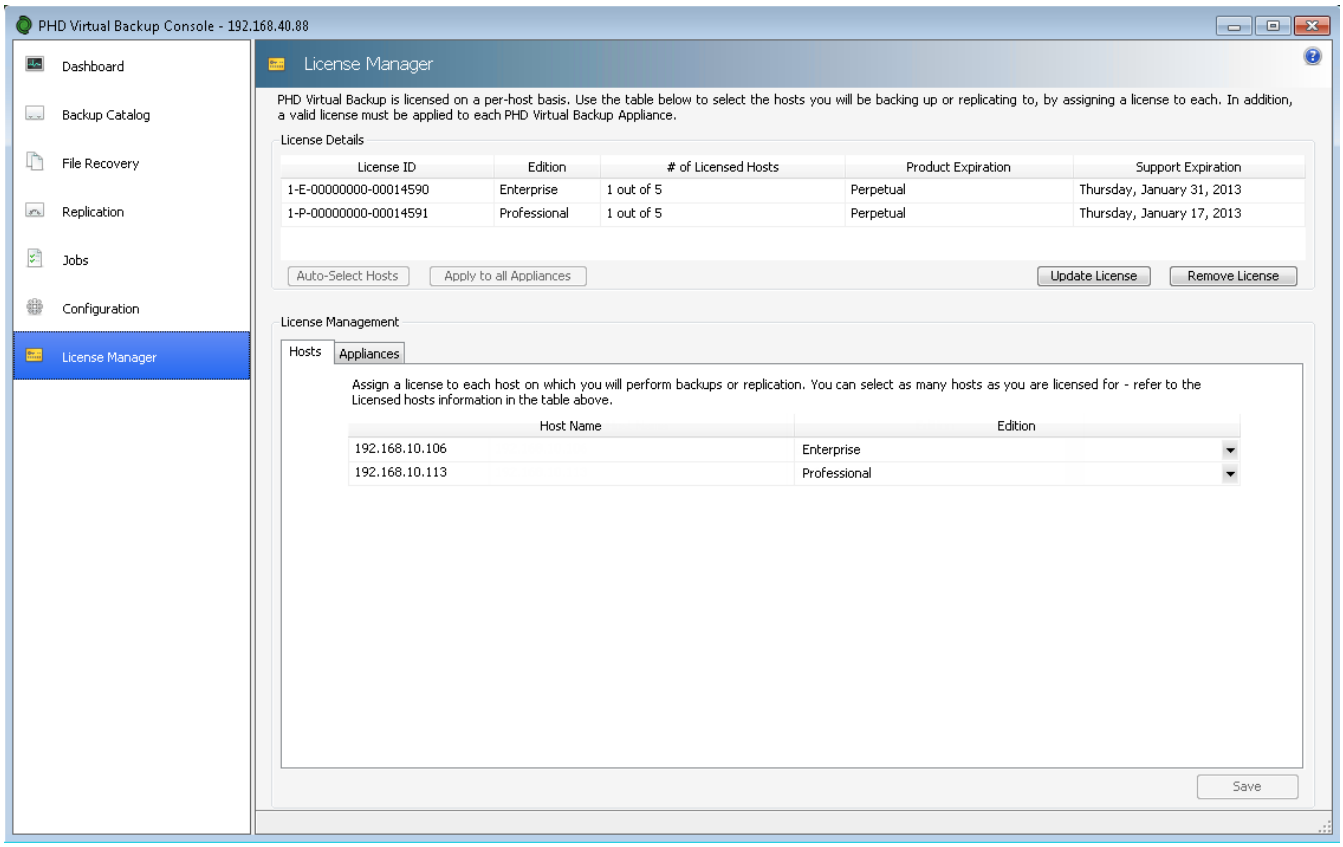
Table 1 - PHD Virtual Backup System Requirements

PHD Virtual Backup Appliance	VMware vSphere 4.x, 5.0 *VMware vSphere Hypervisor™ (the free version of ESXi) is not supported.* 8 GB free space is required for the VBA's virtual disk. Additional free space is required if an attached virtual disk is used to store backups. 64-bit host machines must have VT (Virtualization Technology) enabled. **vSphere 4**: If the PHD VBA is stored on a VMFS volume with default 1 MB block size format, backups are limited to VMDK files up to 256 GB. To backup larger VMDK files, store the VBA on a volume with a larger block size format (1 MB block size = 256 GB max file size, 2 MB block size = 512 GB max, 4 MB block size = 1024 GB max, 8 MB block size = 2048 GB max file size).
PHD Virtual Backup Plug-in (for integrated menus)	vSphere Client 4.x, 5.0
PHD Virtual Backup Console	Windows XP, Windows Server 2003, Windows 7, Windows Server 2008, Windows Server 2008 R2, or Windows Vista, with .NET Framework version 2.0 SP2 installed.
Backup Storage	Refer to the Backup Storage topic in the Installation Guide for details and best practices about backup storage.
Networking	To initially configure a PHD VBA, it must receive an IP address either through DHCP or by assigning it a static address. To assign a static address, refer to the product documentation. HTTPS access is required for communication between the PHD VBA and Console as well as each vSphere host and vCenter Server.
File Level Recovery	To recover files from backups when using Windows, the Microsoft iSCSI Software Initiator must be installed and running. If you are using Linux or Unix, install an Initiator for your operating system.
VM Replication	VM Replication may require additional PHD VBAs - at least one deployed at a primary site and possibly another deployed at a secondary (disaster recovery) site - depending on your environment and replication requirements.
PHD Virtual Backup Exporter	Windows Server 2003 (32 bit) or Windows Server 2008 R2 with .NET Framework version 2.0 SP2 or later installed.

PHD Virtual Backup Licensing

Each PHD Virtual Backup Appliance is deployed with a trial license, by default, which allows you to backup from, and replicate to, any hosts in your environment. Although multiple appliances can be deployed within a single environment, PHD Virtual Backup is licensed on a per-host basis. This means that after the trial period expires, you will need to select the hosts you will be backing up from and replicating to using the License Manager area of the PHD Console. In addition, you will need to apply a valid license to each deployed PHD VBA.

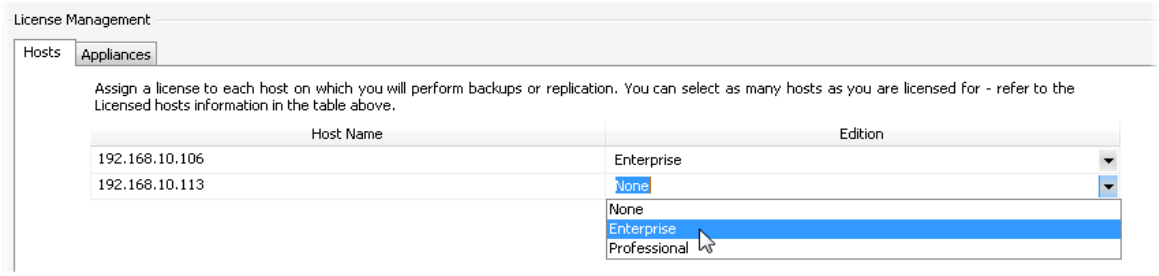
Figure 1 - License Manager area of the PHD Console



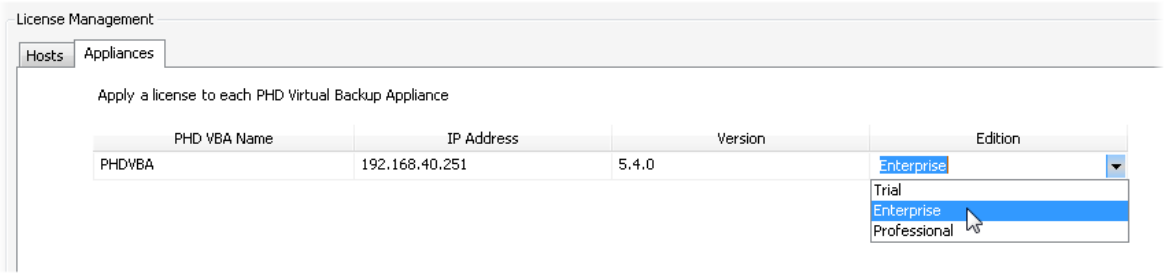
The following steps explain how to upload and apply a new product license. Additional details about using the License Manager options are included in the User Guide and online help.

To upload and apply a new product license

1. Open the PHD Virtual Backup Console to the **License Manager** area.
2. In the **License Details** area, click **Add License**.
3. In the dialog that opens, select your new license file and click **Open.**
4. Next, in the **License Management** area, identify the hosts you will be using for backup and replication by assigning a license edition to each in the **Hosts** tab. You can enable as many hosts as your license supports, as displayed in the **License Details** table, **# of Licensed Hosts** column.



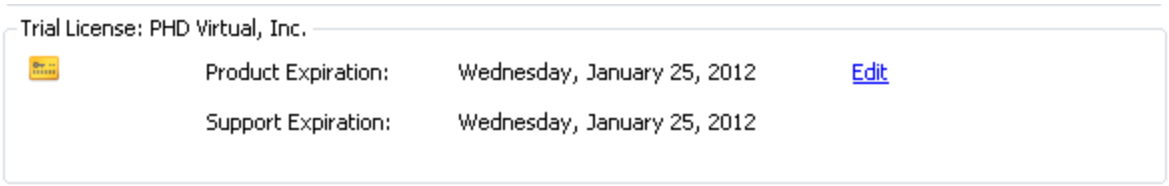
5. Click the **Appliances** tab and apply the new license edition to each deployed PHD VBA.



6. Click **Save**. The license information is applied.

In addition to the License Manager, license information for each individual PHD VBA is displayed at the bottom of the **General** tab in the PHD Virtual Backup Console's **Configuration** area.

Figure 2 - PHD VBA License Information displayed on the General tab



- **Product expiration** is the date when the PHD Virtual Backup trial license expires. This does not apply to purchased licenses. After the product expiration date, you must update the license to use the product.
- **Support expiration** is the date when your support subscription expires. A current support subscription is required to receive support from PHD Virtual and to install product upgrades.

Legal Notices

PHD Virtual Backup for VMware vSphere Release Notes

Support, Sales, Renewals, and Licensing

For information on new sales, licensing and support renewals you can email sales@phdvirtual.com or info@phdvirtual.com.

For additional information about PHD Virtual's products and services, go to: http://www.phdvirtual.com.

To license and register this product, go to: http://www.phdvirtual.com.

For customers and partners with an active support agreement, you can use the support web board or http://phdvirtual.com or email support@phdvirtual.com for information about software patches, technical documentation, and support programs.

Note: A valid support agreement is necessary to receive new release and software updates.