

PHD Virtual esXpress 4.0

Release Notes

August 2010 / v4.0-5

This document provides an overview of the changes made to esXpress for the version 4.0 release. It contains system requirements, new features, changes, and fixes for the latest version of the product as well as information about each product update.

esXpress consists of the following main components:

- esXpress Management Appliance v4.0-5
- esXpress DeDupe Appliance v4.0-5
- Host side install base (RPM) v4.0-5

Note: The Management and DeDupe appliances are optional components and are not required to run esXpress.

To download the latest versions:

- **Current customers:** use the Check for Updates appliance text menu options. If you are not using either appliance, you must install the latest RPM files manually.
- **New customers:** visit PHD Virtual's web site (www.phdvirtual.com) and register to download the latest version of esXpress.

For installation and configuration information, refer to the latest [esXpress documentation](#).

What's New in 4.0

- **esXpress Appliance Deployment Wizard** – Deploy and configure the esXpress appliances using a Windows-based executable. The deployment wizard (formerly the PHD esXpress Installer) is included in the esXpress zip file.
- **Central GUI Restores** – Restore backups directly from the esXpress Management Appliance.
- **Change Block tracking** – Take advantage of VMware's Change Tracking API to significantly reduce time and storage space required for backups.
- **Stats Updates** – DeDupe Appliance Stats page now includes a Trim Report and other tabs to organize the statistics display.
- **Add Hosts from vCenter** – Add hosts directly to the Management Appliance by importing a list of hosts from vCenter.
- **Quorum updates** – The Management Appliance Quorum now uses SSH by default for host communications. NFS is also still available.
- **System Pages**– The esXpress appliance web pages each now have a System page which displays useful information about the appliances including hostname, IP addresses, and available space.
- **Online Help** – Context-sensitive searchable help was added to both appliances and is available by clicking the help button on each page.
- **Enhanced product support** – esXpress now supports VMs with IDE disks and experimentally supports Distributed Switches with Ephemeral Ports (no binding).
- **Bug fixes and functionality improvements.**

esXpress Updates

4.0-5 - August 2010

- Fixed a problem where restoring backups with special characters in their names would fail when using the Management Appliance, Restore Now interface.
- Fixed an issue where reports may have been incorrectly stored in the root directory of the ESX server..
- The option to attach PDFs to the emailed backup reports now controls whether or not a PDF report is created and stored on the Management Appliance as well as whether or not it is attached to the emailed backup reports.

4.0-4 - July 2010

esXpress 4.0-4 supports ESX version 4.1

Management Appliance

- The following steps were removed from the Setup Wizard: Quorum, Host Group, Target Team, and Assign Target to Team. Default settings are now used for these configuration options.
- When adding new backup targets, type is set to PHDD by default.
- VBA Location dropdown options will now display VMDK file size limits based on the block size of the selected storage location. For example, "Storage1 (256 Max VMDK size)." See "[Known Issues](#)" (on page 7) for additional information about storage volumes and file size limits.
- Fixed a bug where restores from the Management Appliance (Restore Now page) would not work when scheduled task was not enabled.
- Fixed a bug where host list would display deleted hosts when using filters.
- Fixed a bug where the Info tab of the Hosts page displayed an incorrect esXpress version number.
- Added email Configuration option, "Emailed Status Reports logs deleted after" for retaining emailed reports.
- Fixed a bug where the period character was removed from Matches and Does Not Match values.

DeDupe Appliance

- Fixed a bug with DeDupe backups where the backup process would timeout and cause the CBT backups to reset (a * CBT backup would be taken, not an incremental).

Host Side Install Base (RPM)

- Fixed a bug where restoring a VMX over an existing VMX would hang.
- Fixed a bug where restoring a VMX from VMFS would fail.
- Fixed a bug where backups restored with snapshots were pointing to the wrong stub file.

- Enhanced the Daily Backup Report. The new report contains a simplified HTML view displaying the status of each VM backup as well as links to the full PDF report stored on the Management Appliance. The PDF report will no longer be attached to the automatic daily backup report emails. They will still be attached to other non-daily backup reports run.
- Fixed a bug where the host stopped checking in to the SSH Quorum when AD authentication was used.
- Changed log message from an Error to a Warning for VBA power on issues during successful backup.

Installation Components

- PHD esXpress Installer.exe was renamed to deploy-appliance.exe to better reflect the purpose of the application (deploy esXpress appliances).
- The appliance deployment wizard login panel will now use the VI Client registry to display available servers.
- The final wizard page indicates the default login credentials for the appliance Web pages.
- When deploying a DeDupe appliance with an attached VMDK for backup storage, a warning is now displayed if creating the disk will cause the volume to drop below 15% free space.
- Additional usability enhancements and bug fixes,

4.0-3 - May 2010

Management Appliance

- Fixed a bug with filtering backups on the Restore Now page.
- REVERIFY option is now selected by default for hosts added after upgrading to 4.0-3. For existing hosts, use the Management Appliance web page, Advanced tab to ensure this option (Reverify PHDD blocks after write) is enabled and also ensure the setting is published to your hosts (click Publish).
- CBT is now disabled by default when upgrading from 3.6-x.
- Fixed a bug where the VBA Location and Network values were empty when upgrading from a version prior to 3.6-8.
- Updated help files and documentation.

DeDupe Appliance

- Fixed a bug where File Level Restores would not work correctly when VM name and Display name were different.
- Fixed a bug where the VM tab would not show bad backups when Type was set to All.

Host Side Install Base (RPM)

- Fixed a bug where CBT backups could not be restored (including FLR). After upgrading to 4.0-3, all CBT backups will be forced to run an initial "" backup (initial CBT backup). Subsequent backups will then begin regular CBT backups.
- Logs will no longer display extra "Block Write Failed" messages.
- Fixed a bug that caused Delta backups to fail when VMDK sizes were irregular (for example, 15.39493939 GB).
- CBT is now disabled by default when upgrading from 3.6-x.

Installation Components

- Usability enhancements and bug fixes, including invalid login crashes, DeDupe Storage panel variable resets, and displaying incorrect virtual machine folders.

4.0-2 - April 2010

Management Appliance

- Fixed a bug where Delta backups would use incorrect Full backup during restores.
- Added new re-verify option to Advanced tab.
- Updated help files and documentation.

DeDupe Appliance

- Fixed an issue with File Level Restores where Virtual Machines with underscore characters in their names were not available (VM would not expand in FLR tree).

Host Side Install Base (RPM)

- Fixed an issue with Windows 2008 Server when indexing SMB targets.
- Fixed a bug when handling multiple versions of JRE.
- Added new re-verify option to Backup Options menu.

Installation Components

- Multiple usability enhancements including updated appliance IP address entry text box and improved tab ordering.

4.0-1 - March 2010 - GA Release

Management Appliance

(Previously known as the Configuration and Deployment GUI Appliance)

- Restore Now – you can now restore backup files directly from the Management Appliance using the new Restore Now page.
- Added the option to enable Changed Block Tracking to the Advanced Options. Take advantage of VMware's API to read only the blocks that have changed between backups.
- Fixed an issue in the daemon where the delete program was not called correctly.
- Added vCenter Import to add hosts directly from Virtual Center.
- The esXpress Quorum was updated to use a single, restricted SSH user account on each host device, by default.
- esXpress task updates:
 - The option, **Enable Dynamic Tasks**, which controlled the esXpress daemon, was removed from the Basic tab.
 - On the Hosts page, the **Enabled** button was renamed to **Scheduled Tasks** and now controls only the esXpress cron job (which in turn controls the daily backups). Disabling this button disables all daily backups as well as all scheduled backups ([x12], etc.) for the host. Special and one-time backups will continue to work, as they are controlled separately by the esXpress daemon. This allows you to disable all scheduled backups for maintenance, etc., but still run backups for mission-critical devices on an individual basis.
- When adding new licenses, you can now choose to import license information automatically from your license file.

- Added a new System page which displays relevant appliance information.
- All non-alphanumeric characters in VM Names and VMDK names will be changed to '_' on import into the DB.
- Fixed stats for VMs.
- Added context-sensitive online help and updated all tooltip help.
- Added help icons for online help and tooltip help items.
- The modify host option now allows you to uninstall the product and the host page now reflects the esXpress installation state on each host.
- Fixed an issue with assigning a license to a host where the first license could not be selected.
- Fixed an issue where email addresses entered were not validated for proper formatting.
- Removed the ability to rename, disable, or delete built-in accounts
- Setup Wizard now contains inline help at the top of each page instead of pop-ups.
- Added a Quorum page to allow users to switch the quorum mode.
- Table layouts, borders, and paging styles are now consistent.
- Pre-compiled user interface for increased performance and reliability.
- Increased field length for **Globally SKIP VMDKs that match disk ID**.
- The Replication tab was renamed to Restoration to better reflect the available options. Also, some options were reorganized into more logical sections.

DeDupe Appliance

- The Stats page has been updated and now contains additional tabs and drill down capabilities.
- Updated the System page layout to display relevant appliance information in a more user-friendly format.
- Added context-sensitive online help.
- Removed the ability to rename, disable, or delete built-in accounts.
- Increased the timeout when enumerating files and folders for FLR information.
- Improved the auto delete performance.
- Validation marker files (.OK files) are now set to zero size.

Host Side Install Base (RPM)

- Change Block Tracking added - when enabled, esXpress will read only the blocks that have changed to determine what needs to be backed up, significantly improving backup performance.
- Added [t1] to [t24] notation for VM Name and Notes which designates the hour to backup VM. [t2] = 0200, [t17]=1700, etc.
- Added [target=x,y,z] command to set backup target within VM Name or VM Notes. Priority is Special, [target=], then local configuration.
- Added [s1] to [s24] commands. Similar to [t] commands, in addition to the nightly backup, you can use the [s] commands to run a Special backup at a specific time.
- Added experimental support for Distributed Virtual Switches with Ephemeral Ports (No Binding)

Known Issues

Problem	Upgrading to version 4.0 DeDupe Appliance from version 3.6-11 or 3.6-12 fails when using the Summary Page Check For Updates button. If you used the Check for Updates process to upgrade to a version 3.6-11 or later DeDupe Appliance, you will not be able to upgrade to version 4.0 using the Summary Page, Check For Updates button.
Workaround	Use the DeDupe Appliance text menu, Check for Updates option to upgrade to version 4.0.
Problem	Backups fail to run after upgrading esXpress version 3.6-10 or earlier when using an expired license.
Workaround	Contact PHD Virtual to upgrade your license.
Problem	If the esXpress VBAs are stored on a VMFS volume with the default formatting of 1 MB block sizes, you will be able to backup VMDK files up to 256 GB, only - you will not be able to backup files larger than 256 GB.
Workaround	If you need to backup VMDK files larger than 256 GB, you will need to store them on a VMFS volume formatted with larger block sizes. 1MB block size = 256GB max file size 2MB block size = 512GB max file size 4MB block size = 1024GB max file size 8MB block size = 2048GB max file size
Problem	Snapshot names appear as "esXpress v3 Backup" and should be "esXpress v4 Snapshot"
Workaround	None. This will not affect backups.
Problem	Selecting some items in the Management Appliance navigation tree (for example, License, Restore Now, Action Log, or System) causes expanded tree items to collapse.
Workaround	None.
Problem	The OVF installer (PHD esXpress installer.exe) fails to deploy the esXpress OVF.
Workaround	Make sure the esXpress OVF is located in the same directory as the installer executable.
Problem	When a backup is run for a VM that is already running a backup, it reports the duplicate backup as ALL GOOD.
Workaround	None.
Problem	When configuring Weekly Delta backups using the Management Appliance web interface, if FULL Backup Frequency is set to MONTHLY , the FULL backup takes place when the first Delta is scheduled. The option Day of Month for Fulls is ignored.
Workaround	Do not use the option Day of Month for Fulls as it is invalid. The Full backup will take place when the first Delta is scheduled each month.

Problem	CBT backups do not occur if the backup target is not the first target in the Target Team. Regular backups will still occur - they just will not take advantage of CBT.
Workaround	When running CBT backups, ensure you are using the first backup target in the target team. This will be resolved in a future update.
Problem	Restore fails (Argument list too long) when performing VBA restores on ESX 3.5.
Workaround	Perform a service console restore by disabling VBA restores.
Problem	VMs that contain the ' (apostrophe) character in the VM name or directory path are skipped during backups. Also, these VMs are not visible within the PHD text menu to select for backup.
Workaround	Rename the VM or the directory path and run a backup again.
Problem	Restoring bad backups that appear in the Management Appliance or PHD text menu fails.
Workaround	Use the DeDupe Appliance web page, VMs area to check if a backup is bad before attempting a restore.
Problem	Error "unable to login" when using the Add Hosts from vCenter feature.
Workaround	Remove any ESXi hosts from the vCenter Server you are connecting to and try the import again.
Problem	A VM restored from Full/Delta backup results in error "File <unspecified filename>" when powered on.
Workaround	This is due to a missing stub file. Use the stub file generator or use the PHD text menu to re-create the stub file for the restored VM.
Problem	With a Datacenter inside a folder in vCenter, the PHD Deployment Wizard fails during ISO upload.
Workaround	Move the Datacenter outside of the folder using vCenter and run the deployment wizard again.
Problem	Backups fail when CBT is enabled for ESX 3.5 hosts.
Workaround	Use the Management Appliance to disable CBT.
Problem	Adding or removing ESX 4.1 hosts from the Management Appliance fails.
Workaround	For ESX 4.1, VMware changed access permissions to the service console limiting it to accounts with Administrator permissions, only. This includes SSH access, which is required when adding and removing hosts to the esXpress Management Appliance. To ensure you can still add or remove hosts, use a user account that has SSH access (add the user to the root group or enable SSH access individually)

System Requirements

View the following table for esXpress system requirements.

Table 1 - esXpress System Requirements

VMware version	ESX Server Version 3.5x, vSphere
esXpress Appliance VM Memory	1 GB of memory allocated to each VM
Management Appliance VM Storage Requirements	A Minimum of 8 GB of disk space is required on the VMFS partition of the ESX host to import the compressed Management Appliance VMDK file.
DeDupe VM Storage Requirements	A Minimum of 8 GB of disk space is required on the VMFS partition of the ESX host for the DeDupe system data VMDK. Additional storage (NFS or VMDK) is required for your data disk.
VBA Memory Requirements	256 MB of memory allocated to each VBA
VBA Storage Requirements	3 GB minimum of VMFS space for each running VBA during backups.
Minimum supported browsers for esXpress Appliance Web Interfaces	Internet Explorer 7, Firefox 3.0.7
Other Requirements	VMware Virtual Infrastructure Client 3 (VI3), or vSphere Client. ESXi is not supported at this time.
Quorum Requirements	Traffic must be routable between the esXpress Quorum and each host. If you've configured the esXpress Quorum to use an NFS share (instead of SSH), a VMKernel IP is required for each host. The appliance VM must also be on the same network as the VMKernel with the same VLAN ID or the network traffic must be routable between the VMKernel IP and the assigned Management Appliance IP for SSH and NFS connections.
esXpress Appliances deployment wizard (deploy-appliances.exe)	Virtual Center 2.5, vCenter Server (vSphere) VMware ESX 3.5 or 4.0 (vSphere) host (formerly PHD esXpress Installer.exe)

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