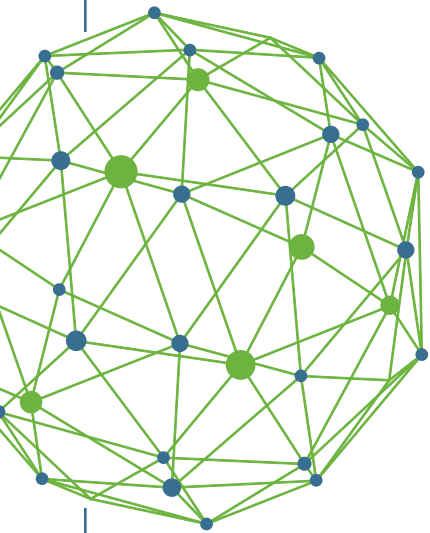


Setting a New Standard for Performance & Value



Unmatched Value for Your Virtual World
WWW.PHDVIRTUAL.COM



Setting a New Standard for Performance & Value

PHD Virtual provides the absolute best value in virtual backup and monitoring for VMware and Citrix platforms.

More than 4,500 customers worldwide rely on our products because they are effective, easier to use and far more affordable than competitive alternatives.

We're changing expectations about the virtual software experience because our products are installed and configured in minutes and provide the power, scale and flexibility to help IT professionals deliver exceptional results in demanding virtual environments.

This whitepaper describes how PHD Virtual Backup compares to other products. We hope you can see why PHD Virtual is one of the fastest growing virtual backup and monitoring companies and why were the best choice for your business.

PHD Virtual Backup: Unmatched Value

	PHVD	Veeam	vRanger	AppAssure	Legacy
Requires no physical servers, OS licenses	●	○	○	○	○
Hypervisor Management Client Integration	●	○	○	○	○
Multi-Hypervisor Support	●	●	○	◐	◐
Scale with Ease	●	◐	◐	○	○
Block-Level Data Verification	●	○	●	●	●
Backup Data Healing	●	○	○	○	○
Run VMs from Backups	●	●	○	◐	○
Physical Server Backup	○	○	●	●	●
Deduplication across All Backups on Disk	●	◐	○	●	●
File and Application Recovery	●	●	◐	●	●
VM Replication	●	●	●	◐	◐

Physical Servers and Operating System Licenses

Many backup solutions that support the virtual environment still recommend the use of a physical server to run their backup application. Even though many offer the option of running as a virtual machine, their architecture is still built on top of Windows, which requires additional licensing, anti-virus software, and general maintenance.

PHD VIRTUAL IS BETTER

PHD Virtual Backup employs a Linux virtual backup appliance (VBA) architecture. We deliver our software as a virtual machine file that is simple and quick to deploy, without the need for physical hardware or 3rd party software. This saves people time and money when managing their backups.

Hypervisor Management Client Integration

Most backup solutions require users to remotely access a backup server to leverage its management interface. The look and feel, as well as all general management activity is unique to that backup solution, which can impact your ability to quickly ramp up on a new solution.

PHD VIRTUAL IS BETTER

PHD Virtual Backup integrates directly into your existing hypervisor management client. The PHD Virtual "Plug-in" approach provides intuitive and simple menus built directly into the context of the virtual environment management clients, providing the same look and feel for backup management that administrators are used to working with every day. This means you can get up to speed on PHD Virtual Backup immediately.

Multi-Hypervisor Support

Competition in the virtualization industry is heating up, with multiple hypervisor vendors offering solutions tailored to different segments.

PHD VIRTUAL IS BETTER

PHD Virtual was the first purpose-built virtual machine backup solution to support multiple hypervisors, including VMware and Citrix. PHD Virtual is the only vendor that supports Citrix XenServer using agentless backup methods, which are far more efficient and cost-effective than legacy agent-based solutions. In 2013, PHD Virtual will extend its multi-hypervisor strategy to Hyper-V as well. While AppAssure and legacy based vendors claim support for all three hypervisors, they are strictly agent-based solutions that do not embrace the recommended agentless hypervisor backup processes. Additionally, AppAssure only supports Windows machines, pushing it even further down the list when it comes to robust virtualization data protection.

Scale with Ease

Virtual machine data is growing rapidly and your backup solution needs to be able to grow with it.

PHD VIRTUAL IS BETTER

The VBA architecture facilitates the simplest scalability model due to the fact that it is so easy to deploy and configure new VBAs in your environment. The VBA requires a much smaller footprint than Windows based backup servers, saving you critical resources for your production workloads. This is the most cost-effective and easiest way to ensure that you are protected now, and in the future.

Block-level Data Verification

Backups are worthless if you can't recover from them. Users need to know that their backup data is recoverable, using comprehensive methods that ensure both the viability of the operating system and applications backed up, as well as all of the specific user data residing within them.

PHD VIRTUAL IS BETTER

Many vendors employ different techniques to verify backup data. Veeam, for instance, relies on a very resource intensive process that spins up many VMs in your virtual infrastructure in order to ensure that a VM can boot and talk on a virtual private network. This is costly, time consuming, and does nothing to ensure that user data is viable. AppAssure is able to do block-level verification and test applications by mounting them and running some basic tools to test an application. However, they don't test the full operating environment within the backup. PHD is the only solution that does block-level verification AND allows users to run a VM directly from a backup for verification of the OS and application environment, ensuring your backup is recoverable with verified user data.

Backup Data Healing

To take things one step further with the verification process, what happens when corrupt is detected? When the original data is available, a backup solution should be able to heal corruption that is detected.

PHD VIRTUAL IS BETTER

PHD Virtual is the only virtual machine backup vendor that can heal corrupt data after it is detected. This functionality is unmatched in the industry. This provides piece of mind for those that cannot afford to copy backups off-site very frequently.

Run VMs from Backups

Decreasing RTO is a primary objective of many organizations. However, not everyone can afford the infrastructure to keep standby VMs available in case of a production failure. In today's virtual world, it is important to be able to provide the ability to decrease RTO, increasing the value of virtualization for everyone. Running a VM from a backup is the best way to provide this benefit.

PHD VIRTUAL IS BETTER

PHD Virtual allows users to quickly boot a failed VM from an existing backup. While the VM is running, you have multiple options to move the data back to your production storage, while maintaining full application availability. It is true that PHD Virtual is not the only vendor to offer a solution that addresses this type of problem. AppAssure offers this functionality. However, their solution requires a 10-15 minute process up front to recover the operating system disk. This is not an "instant" recovery by any means. While Veeam does offer a fast way to run your VM from a backup, they are far less cost-effective than PHD Virtual. As a result, PHD Virtual provides significantly more value.

Physical Server Backup

Many IT organizations have a mix of virtual and physical servers that require protection. Agent-based vendors generally support protecting both.

PHD VIRTUAL IS BETTER

When it comes to ensuring that data is protected, it is important that you have the product in place that delivers the most value. While agent-based vendors can back up physical and virtual servers in one product, they fail to efficiently protect virtual machines in the most effective ways possible and are very expensive. For instance, AppAssure does not even leverage the hypervisor APIs for data protection and costs twice what PHD Virtual costs to protect a 2-socket host.

PHD Virtual allows users to select the best choice for their virtualization backups, and provides top notch features for coexisting with physical backup strategies, such as tape. With the PHD Exporter and the option to run traditional full and incremental backups, you can move data to tape as often as needed and recover from tape quicker than any other VM backup vendor.

Deduplication Across All Backups on Disk

As your VM data grows, you want to ensure that your backup storage needs are minimized. Deduplication is a well-known technology that almost all backup vendors offer. How data is deduplicated is slightly different between vendors.

PHD VIRTUAL IS BETTER

Through our cost-effective virtual appliance, PHD Virtual is able to achieve deduplication ratios that average 30:1 or more. This is because PHD deduplicates real data across ALL backups stored on a particular backup target. vRanger does not even have deduplication, and Veeam's deduplication technology can only compare data between VMs in a single job. You get the most powerful deduplication technology from PHD, and we are the most cost-effective by far. This further exemplifies how PHD provides significantly more value in VM data protection.

File and Application Recovery

When data loss occurs, more often than not, a few files or emails are lost. It is important for any backup solution to ensure that users can recover just the amount of data they need in order to maximize RTO.

PHD VIRTUAL IS BETTER

While many backup vendors offer this functionality, PHD Virtual provides a unique approach to exposing backup data in a flexible way so users can access it, run applications against the data on it, and even use

the applications themselves – or specific application recovery tools like Digiscope for email recovery – to recover whatever data they need. No other competitor can expose data so flexibly and easily to meet the many different recovery processes employed in the industry today.

VM Replication

Virtualization has made disaster recovery much more cost-effective with the technologies enabling VM replication. This process results in copying VM data efficiently between sites, or within the same site, to a standby VM that can be powered on in case of an emergency.

PHD VIRTUAL IS BETTER

PHD Virtual is the only VM backup solution that replicates data from its backups in order to keep standby replica VMs up to date. This process has less impact on production VMs because you only have to take a single snapshot in order to get a backup and an updated replica. Other vendors use completely separate processes for backup and replication. When performing these advanced protection strategies, it is important that production resources are impacted as little as possible. PHD does this better than anyone else.

About PHD Virtual

PHD Virtual provides the absolute best value in virtual backup and monitoring for VMware and Citrix platforms. More than 4,500 customers worldwide rely on our products because they are effective, easier to use and far more affordable than competitive alternatives. Delivering the highest performance and most scalable cross platform backup and monitoring solutions on the market and pioneer of Virtual Backup Appliances (VBAs), PHD Virtual Technologies has been transforming data protection for virtual IT environments since 2006. Its PHD Virtual Monitor provides a complete, end-to-end solution for monitoring virtual, physical and application infrastructures in VMware and Citrix environments. For more information, please visit: <http://www.phdvirtual.com/>

To learn more about how you can take advantage of our unmatched value, please contact PHD Virtual by calling toll-free 1 (866) 710-1882, email us at: **SALES@PHDVIRTUAL.COM** or visit our website at **WWW.PHDVIRTUAL.COM**.



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