

VMware vSphere Data Protection Advanced 5.5

Reliable, Efficient, and Simple Backup and Recovery for vSphere

AT A GLANCE

Traditional backup and recovery solutions that are adapted to work with the VMware platform are too expensive, slow, complex, and unreliable. Organizations that want to accelerate their journey to fully virtualized environments need a reliable backup solution that is specifically designed to protect virtual machines.

VMware vSphere® Data Protection™ Advanced is a backup and recovery solution with built-in backup data replication, Built for VMware vSphere® environments and powered by EMC Avamar, it delivers high-performance data protection through patented variable-length deduplication and network-efficient, encrypted replication of the backup data. Rapid, assured recovery and simple end-to-end management through VMware vSphere® Web Client make vSphere Data Protection Advanced the ideal backup and recovery solution for vSphere.

BENEFITS

- Reliably protect all virtual machines and mission-critical applications in any small or mid-sized vSphere environment.
- Minimize storage and bandwidth consumption to lower backup infrastructure costs.
- Reduce backup and recovery times to minimize application downtime.
- Shrink operational overhead of vSphere administrators who provision backup services to virtual machines.
- Protect backup data offsite to ensure business continuity and compliance, even in the event of site-level failure.

What Is vSphere Data Protection Advanced?

vSphere Data Protection Advanced is a backup and recovery solution with built-in backup data replication, designed for vSphere environments and powered by EMC Avamar. It extends the capabilities of VMware vSphere® Data Protection™, available with most editions of vSphere, with greater scalability and enhanced functionality. Capable of backing up an average of 200 virtual machines per virtual appliance, it can safely protect environments of several hundred virtual machines. It provides agentless, image-level backups to disk, as well as guest-level, application-consistent protection for Microsoft SQL Server, Exchange, and SharePoint. vSphere Data Protection Advanced includes network-efficient, encrypted replication to protect deduplicated backups offsite across WAN links.

What's New in vSphere Data Protection Advanced 5.5?

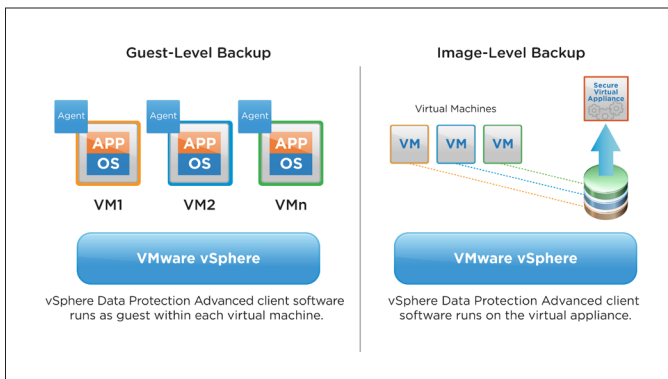
EMC Data Domain systems integration – Increase scalability when backing up to Data Domain by using vSphere Data Protection Advanced as the front end. Data Domain Boost software increases backup throughput by 50 percent and decreases network bandwidth by up to 99 percent.

Network-efficient, secure backup replication – Variable-length deduplication at the source, along with compression and encryption, ensures that backups are optimized for WAN transmission:

- **Flexible schedules and retention** – Select which backups to replicate, and define an independent replication schedule and retention policy.
- **Multiple replication topologies** – Replicate in one-to-one, one-to-many (fan-out), and many-to-one (fan-in) configurations.
- **Multiple replication targets** – Integration with EMC backup solutions offers a choice of replication targets:
 - **vSphere Data Protection Advanced** – Replicate to another vSphere Data Protection Advanced appliance.
 - **EMC Data Domain** – Use vSphere Data Protection Advanced to manage replication between Data Domain systems.
 - **EMC Avamar** – Replicate directly from a vSphere Data Protection Advanced appliance to an EMC Avamar grid.

Automated backup verification – Automated restores to an isolated “sandbox” environment according to user-defined schedules ensure recoverability without manual processes.

Microsoft SharePoint agent – Perform application-consistent backup and recovery with client-side deduplication.



Mailbox-level recovery for Exchange – Recover individual mailboxes with the improved MS Exchange agent.

Granular .vmdk files backup and restore – Reduce storage consumption and accelerate recovery.

Direct-to-host emergency restore – Restore directly to a VMware® ESXi™ host. Protect VMware® vCenter Server™ itself.

Flexible storage placement – Deploy independent storage partitions for backup data and the virtual appliance OS.

Mount existing storage to a new appliance – Remount existing data partitions to a new appliance if the original appliance fails.

Scheduling granularity – Schedule backup and replication jobs at user-defined times.

Other Key Features

Scalability – Each virtual appliance stores up to 8TB (approximately 200 virtual machines) of deduplicated backup data. Up to 10 virtual appliances per vCenter Server instance can be deployed.

Deduplication – Consumes four times less storage than alternative backup solutions:

- **Variable-length** – Data broken into segments of variable length enables the highest rates of deduplication—on average, 99 percent for file systems and 96 percent for databases.
- **Global** – Deduplication is performed across all virtual machines that are backed up by the same virtual appliance.
- **Client-side** – For guest-level backups, agents deduplicate inside the virtual machine, reducing backup time and the amount of data sent through vSphere resources.

VMware vSphere® Storage APIs - Data Protection integration – Up to eight virtual machines per virtual appliance can be backed up simultaneously:

- **Changed Block Tracking (CBT) backup** – Leverages CBT in combination with variable-length deduplication, sending truly unique changed blocks to the virtual appliance.
- **Changed Block Restore** – Reduces recovery time by a factor of six compared to full image restores, by restoring only the delta of blocks between the virtual machine and the last backup.

Management integration and simplicity:

- **Linux-based virtual appliance deployment** – The solution is simple to install, configure, and update.
- **vSphere Web Client integration** – Perform end-to-end data-protection management from a familiar user interface.

- **Automatic virtual machine discovery** – Virtual machines that are available for backup are automatically added or removed in sync with vCenter Server.

- **Simplified backup policies** – Assign backup jobs to individual virtual machines or larger containers, with specific schedules and retentions, with only a few clicks.

- **One-step recovery** – Incremental forever full backups enable simple browsing of restore points for single-step recovery of virtual machines, without the need for agents.

- **Self-service file-level recovery (FLR)** – Guest OS administrators and application owners can restore individual files and folders using a supported Web browser, without the need for agents.

Agents for mission-critical applications – A lightweight in-guest agent communicates with the application's backup APIs, delivering application consistency and granular backup and recovery:

- **Microsoft SQL Server agent** delivers granular backup and recovery of the entire application, of individual databases, or only of logs.
- **Microsoft Exchange Server agent** delivers application-consistent backup and granular recovery, and mailbox-level recovery.

Volume Shadow Copy (VSS) support enables consistent backups of virtual machines running VSS-aware applications.

Licensing vSphere Data Protection Advanced

vSphere Data Protection Advanced is **licensed per CPU (processor)**:

- No licensing fees apply for additional protected virtual machines on licensed hosts. Customers must license every CPU on a vSphere host, and every host in a cluster.
- No licensing fees apply for up to 10 additional virtual appliances per vCenter Server.
- No additional licensing fees apply for application-aware agents.

Licensing vSphere Data Protection Advanced is as simple as matching the number of vSphere licenses in the environment.

Product Specifications and System Requirements

- Requires VMware® ESX® or ESXi 4.1i or higher
- Requires vCenter Server 5.5 or higher
- Can only be managed through vSphere Web Client

For more detailed product specifications and system requirements, refer to the [Administration Guide](#).

Learn More

For more information or to purchase vSphere Data Protection Advanced, visit <http://www.vmware.com/go/vdpadvanced>.

For information or to purchase VMware products, call 1-877-4VMWARE (outside of North America, +1-650-427-5000) or visit <http://www.vmware.com/products>.

