



# MODERNIZING PROTECTION OF VMWARE WORKLOADS

Today's data centers are rapidly evolving, thanks in large part to the near-universal adoption of virtualization, and especially VMware. This adoption has driven the evolution of software-defined data centers, with virtual machines, virtualized storage, and even network virtualization enabling the migration of workloads between servers or to multiple clouds. Protecting those VMware workloads can be challenging, however, as VM sprawl combined with today's data deluge can lead to data protection falling through the cracks, leaving newly deployed workloads completely unprotected.

This brief looks at the challenges facing IT and lines of business when it comes to VMware data protection and highlights a new approach that promises to alleviate many of the backup burdens so enterprises can get the most from their data and meet ever-demanding service-level agreements.

## EVOLVING DEMANDS ON IT INFRASTRUCTURE

IT is suffering under a data and application deluge. The explosive growth of data has been well documented—a petabyte isn't what it used to be. Just as rapid has been the growth in the number of applications businesses use. For example, in 2019, more than 3 million non-gaming applications were available in one popular app store alone. The same is true of enterprise applications: typical enterprises use an average of 200 to 500 custom applications, according to research from Forbes and others.<sup>1</sup>

Thanks to VMware and other virtualization platforms, each of those applications no longer requires its own physical server. But yesterday's server sprawl has evolved into today's VM sprawl, with workloads often scattered across multiple on-premises data centers, public cloud platforms, and SaaS providers. As enterprises strive to achieve digital transformation to enable better agility and efficiency, IT becomes an increasingly hybrid environment but must still deliver always-on, 24/7 reliability as customers, employees, and partners require access from every time zone around the world. Virtualization—of servers, storage and networks—has created a software-defined data center, which, for all its agility, is quite complex to protect and govern.

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## THE DATA PROTECTION IMPERATIVE

Why is data protection so critical? ITIC reports the cost of downtime is \$300,000-plus per hour for most enterprises,<sup>2</sup> and this year's Ponemon data breach report shows the average cost of a single breach has ballooned to nearly \$4 million.<sup>3</sup> Those are the hard costs; data loss can also lead to loss of confidence, loss of goodwill and, ultimately, loss of customers.

Unfortunately, as the number of workloads grows, the backup windows aren't shrinking. Most businesses want an ideal IT environment in which both recovery point objectives and recovery time objectives are simply zero.

1 "Latest Enterprise Application Use Survey Results—More Use, More Risk," Forbes, July 31, 2014

2 "Cost of Hourly Downtime Soars: 81% of Enterprises Say It Exceeds \$300K on Average," ITIC, Aug. 2, 2016

3 "2019 Cost of a Data Breach Report," Ponemon Institute, 2019



## THE PROBLEM WITH DATA PROTECTION TODAY

Hybrid enterprises today face five major data protection challenges:

1. Traditional IT and workload management is complicated and manually intensive, leaving organizations to spend precious resources, time, and effort on protecting workloads when staff could be adding business value.
2. Legacy storage and most storage area network and network-attached storage platforms just aren't architected for the modern data center and are not well suited to virtualization platforms like VMware.
3. Many organizations thus deploy multiple point data protection products for their tier-one workloads and VMs, which at best are unwieldy and at worst amplify the challenges above by requiring centralized IT to deploy and support them.
4. Other solutions and appliances in the market can't scale to meet growing demand and require complex network setup that can lead to security issues down the road.
5. The lack of complete automation of workload protection can make what appeared to be "easy" backup tools a continuing challenge to operate for users and admins alike.

## WHAT BUSINESSES WANT

Although overcoming VM protection challenges may seem a daunting task, IT professionals in organizations of all types are seeking a similar list of must-haves when evaluating potential solutions.

First, organizations want self-service protection abilities so VM admins can schedule and run their own backup and restore tasks, taking centralized IT out as a bottleneck. Often, this is accelerated by VM admins having the ability to continue using their existing tools. These tools are part of a comprehensive data protection solution that delivers centralized IT governance by utilizing policies that are enforced enterprise-wide, ensuring compliance with the ever-changing regulatory world we live in.

Additionally, enterprises want top-to-bottom automation of data protection for every VMware workload, which should include automatic discovery and protection of new workloads as they spin up so nothing falls through the data protection cracks.

Finally, increasingly hybrid environments demand a single protection platform that works the same—with equally beneficial results—for any VM workload whether on premises or in the cloud.

## INTRODUCING DELL EMC POWERPROTECT DATA MANAGER AND THE POWERPROTECT X400 INTEGRATED APPLIANCE

By partnering, VMware and Dell EMC can deliver a new level of multicloud VM workload protection and jointly engineered products that make it easier for enterprises to maximize and protect their IT investments now and into the future.

PowerProtect simplifies IT operations thanks to seamless integrations, with not only VMware but also Amazon Web Services and Azure. Organizations can work with vSphere management or use the tools admins prefer.

Built for VMware from the ground up, PowerProtect Data Manager delivers unmatched scalability and faster performance, harnessing the power of the hybrid cloud seamlessly, ensuring operational consistency across on-premises and cloud environments.

PowerProtect's software-defined data protection for dynamic IT environments enables self-service data protection for VMware VMs, including ad hoc backups. It also offers a level of granularity to easily find and restore a single drive, a set of drives, or an entire VM—all from within vSphere.

This approach enables simple rules-based automation of VM policies, proxy management and backup from a single, centralized VMware interface. It also further simplifies backup and restore complexity by offering a single interface for oversight and compliance of VMware VMs.

Key benefits of PowerProtect Data Manager include:

- Centralized governance of all VM workloads to help mitigate risk while assuring SLA and service-level objective (SLO) compliance.
- Available how enterprises want to consume it, either as a software-only solution (PowerProtect Data Manager) or as a scale-up, scale-out appliance (PowerProtect X Series) with the option of all-flash performance.
- Deduplication built into both software-only and appliance versions, which translates to as much as a 50% reduction in storage, overall costs and the time it takes to complete backups.
- Automatic discovery and onboarding of new VMs that meet the criteria for predefined policies, whether on-premises or in the cloud.
- Ability to tier to cloud services and storage offerings such as AWS S3 for cost-efficient, long-term retention and disaster recovery.

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- VMware vRealize integration with popular tools including ServiceNow, Puppet and Chef.

## SUMMARY

The challenges of storage management, backup and VM sprawl are all magnified by IT's desire to transform to more agile, software-defined data centers that can span multiple locations and clouds. With operational simplicity, agility and flexibility at its core, PowerProtect Data Manager offers a simplified infrastructure with a single management console, improving the customer experience while reducing complexity and overall costs.

This enables organizations to harness the power of today's hybrid IT seamlessly, integrated with VMware, ensuring operational consistency. Now, businesses can protect, manage and recover data at scale in any environment while meeting even the strictest SLOs, with self-service capabilities for operational efficiency and centralized IT governance controls to ensure compliance.

Dell EMC delivers best-in-class data protection solutions for VMware at the edge, at the core and in the cloud.

[Click here](#) to find out more about Dell EMC  
PowerProtect Data Manager.