



VMware vCLOUD DIRECTOR DATA PROTECTION EXTENSION

Multi-tenant data protection service for cloud service providers



SP Solution Spotlight

VMware vCloud Director Data Protection Extension (DPE) brings Avamar-based data protection services to cloud environments that use VMware vCloud Director (vCD) through the VMware Cloud Provider Program (VCP) — enabling service providers to deliver data protection services in a true utility model. This software extension is for service providers who offer backup services to their tenants to protect applications running in the cloud. With DPE, service providers can allow tenants to access self-service data protection directly within the vCD Tenant Portal user interface, with no need to log in to a separate interface. They can also manage data protection via the vCD REST APIs, which are extended by Avamar vCloud Director DPE when it is installed in the environment.

Executive Summary

With organizations moving to the cloud in increasing numbers, service providers are facing growing demand for solutions that are simple to manage, provide comprehensive coverage for more applications and environments, and deliver higher performance at a lower cost. To address the data protection demands of these solutions, VMware and Dell EMC have partnered to offer the Dell EMC Data Protection Extension. By taking advantage of vCloud Director's data protection integration, cloud providers can deliver seamless data protection service to enterprises — and provide an easy path to IT transformation and service monetization.

Now tenants can reduce capex budgets without jeopardizing operational efficiencies, and self-service backup and recovery directly from vCloud Director make it easy to protect applications. The only solution that provides data protection fully integrated into VMware vCloud Director, the Dell EMC vCloud Data Protection Extension gives cloud providers the technology they need to gain a competitive advantage.

Key Takeaways – What Are the Benefits


2x¹
faster
backups

98%¹
less
bandwidth
required

7x¹
more
backup
streams

55:1²
average
deduplication

¹ <https://www.emc.com/collateral/analyst-reports/esg-lab-review-efficiently-protect-virtual-environments-idpa-from-dell-emc.pdf>
² Based on Dell EMC internal analysis of customer data as of May 2018.

SP Features	DELL EMC	VEEAM	COMMAVAULT 
CONSUMPTION MODEL	Software available through the VMware Service Provider Program on a true utility pay-as-you-go model	Yearly subscription per VM or perpetual license per CPU	Subscription or traditional perpetual licensing
CLOUD PROVIDER EXPERIENCE	The only solution that provides data protection fully integrated into VMware vCloud Director; competitors require a separate tenant portal	Customers must have Veeam and third-party software for extra features; third-party storage hardware, server hardware and operating system are also required	No single dashboard; cloud deployments need additional agents; dedicated network recommended
TENANT EXPERIENCE	Seamless tenant experience with fully embedded Data Protection Service from vCloud Director	Requires backups of everything by administrators via the Veeam graphical user interface	Agents in each virtual machine required for granular or app-consistent recoveries
COST	Average of 55:1 data reduction provides significant cost savings, translates directly to lower cost-to-serve for cloud providers	More storage required due to lower deduplication (typically 3:1, 4:1); tradeoff between speed and deduplication efficiency	Costly, complex and requires significant third-party resources, servers and solid-state drives; inefficient deduplication (typically 3:1 to 5:1)
FLEXIBILITY AND SCALABILITY	Data protection infrastructure easily scales out; full range of infrastructure choices can be tailored to cloud providers' specific needs	Higher replication inefficiency and backup volumes, high resource requirement for backups; synthetic full backups are inefficient, space hungry and I/O (input/output) intensive; requires third-party products to scale and provide cloud connectivity	Single stream, bandwidth-intensive backups; requires more servers at a higher spec to scale

Key Points - Why Choose Dell EMC?

COSTS UP TO 80% LESS TO PROTECT	Through the VMware Cloud Provider Program (VCP), service providers can offer their customers industry-leading deduplication, which minimizes operating costs.
AUTOMATION ACROSS THE ENTIRE VMWARE STACK	Protect the entire VMware stack by creating policies for virtual machines/Virtual Appliance (VM/vApp) protection, proxy management and backup storage data direction. These policies enable automatic onboarding of newly discovered VMs into predefined backup groups, ensuring that defined policies are applied to VMs and that each group automatically inherits the backup policy.
SUPPORT FOR MULTI-TENANT WORKLOADS	By extending data protection into the vCloud Director tenant UI, the Data Protection Extension eliminates the need for a separate backup-as-a-service portal. Cloud service providers with multi-tenant VMware environments can offer their customers robust, integrated VMware and data protection as a service.
INSTANT ACCESS WITH DATA DOMAIN AND IDPA	Instant access provides the end user with fast access to backed-up VMs by booting up the VMs directly on the backup storage appliance.
LEADING PERFORMANCE FOR PHYSICAL AND VIRTUAL WORKLOADS	Our software-defined architecture, leading automation and best-in-class deduplication enables us to provide more efficient, faster data protection. Our average deduplication rate is 55:1 with Integrated Data Protection Appliance (IDPA), and our backups are up to twice as fast as other offerings.
CHANGED BLOCK TRACKING FOR BACKUP AND RESTORE	With changed block tracking, only changed blocks from previous backups are stored during typical backups, while you still retain the ability to restore every backup as if it were a full backup. This allows Dell EMC Data Protection to significantly reduce the amount of data copied and reduces network usage by 98 percent, greatly improving backup efficiency and speed.
UTILITY PRICING THROUGH VCPP	Software-defined data protection can be purchased through the VCPP, enabling consumption-based billing.
EASY SCALABILITY	The data protection infrastructure is easily scaled out by adding new Avamar and Data Domain systems. Avamar and Data Domain can be fully software defined (virtual editions) and are also available in the form of Dell EMC IDPAs or as discrete physical instances, offering cloud providers a wide range of customizable infrastructure options.
CLOUD READY — FOR ALL PHASES OF YOUR JOURNEY TO THE CLOUD	A service provider can use Cloud Tier to further reduce the cost-to-serve by migrating data to a less expensive storage tier.

Learn more about Dell EMC Data Protection for VMware at <https://tinyurl.com/y98h79oh>

Contact a Dell EMC Expert at ga_spotlight@dell.com

View more resources at <https://tinyurl.com/y953umxm>

