

DELL EMC DATA PROTECTION SUITE FOR APPLICATIONS

The speed and control application owners require

Essentials

Faster backup and recovery via direct backup to protection storage

- 20x faster backups and 10x faster recoveries to meet strict SLOs
- Faster full restores reduces network bandwidth with less data transfer
- Protect virtualized mission-critical applications
- Instantly access and restore application backups from Data Domain for simple granular recovery

Simple, efficient and reliable data protection

- Eliminate complexity of traditional backup
- Meet SLOs without additional infrastructure

Application owner control

- Empower application owners to control their own backups
- Simplify recovery with applicationconsistent backups

Enterprise-wide copy data management

- Consolidated oversight
- Streamline operations & optimize efficiency

Automated service-level objective compliance

- Define customized service-plans to monitor & manage SLOs
- Deploy ITaaS with multi-tenancy and APIs

Unified analytics and insight for IT environments

• Visibility into protection levels, performance and utilization

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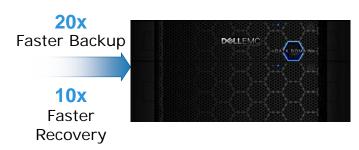
Dell EMC Data Protection Suite for Applications provides unparalleled efficiency to meet stringent Service Level Objectives for mission critical applications. By decoupling backup software from the data path, administrators can backup directly to protection storage, gaining up to 20x faster backup and up to 10x faster recovery compared to a traditional backup solution.

Application owners are empowered use native application interfaces to perform backups from the application server, primary storage or hypervisor directly to Dell EMC Data Domain, plus discovery, automation and provisioning for the entire data center. Impact on application servers during backup windows is significantly reduced, as little or no data flows through the application server.

As storage integrated data protection for the software-defined data center, Data Protection Suite for Applications provides management via automated provisioning and self-service copy creation, visibility of storage, copies, host and data paths, application governance and centralized oversight of the copy data ecosystem to reduce risk and increase protection efficiency.



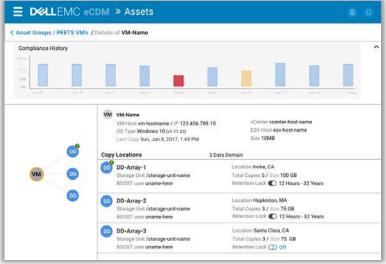
Decouple backup software from data path



Faster backup and recovery

Faster backup and recovery via direct backup to protection storage

Meet stringent application protection Service Level Objectives (SLOs) by backing up directly from the application server, primary storage or hypervisor to Dell EMC Data Domain, enabling faster, more frequent backups for virtualization-ready and mission-critical enterprise applications. By leveraging change block tracking technology, only unique blocks are sent directly to Data Domain, but are stored as full independent backups in native format. The result is faster and more efficient recovery by recovering from a full backup and by only pulling back the difference. In addition application owners can instantly access their backups stored on Data Domain for simplified granular recovery.



VM Backup copy visualization and control

All data is protected with the Data Domain Data Invulnerability Architecture, which provides the industry's best defense against data integrity issues. Inline write-and-read verification, continuous fault detection, and self-healing ensure that backup data is accurately stored, retained, and recoverable throughout its lifecycle on a Data Domain system.

Application owner control

Self-service with guardrails enables application owners with control and visibility of their backups through native integration with Oracle RMAN, Microsoft SQL Server, Exchange, IBM DB2, SAP, SAP HANA, Cloudera and Hortonworks. Empowering application owners with the ability use native tools within their applications provides the control they desire. And, by enabling cooperation and coordination between protection administrators and data owners, administrative overhead is reduced. Examples include process automation such as automated virtual machine discovery and automated provisioning for faster time to value, as well as the elimination of duplicate work streams and the creation of unnecessary silos of storage by sending data directly to Data Domain for protection storage.

Enterprise-wide copy data management

As companies continue to move away from traditional server-centric backup designed around centralized control, and progress towards providing more modern data protection designed for self-service, storage, applications and copy data, can become challenging to track. This self-service model needs intelligent, consolidated oversight of data and services levels across the business to ensure protection SLO compliance is met.

Data Protection Suite for Applications provides self-service data management with global oversight to maximize efficiency, streamline operations and ensure consistent service level compliance. Data Protection Suite for Applications can non-disruptively discover copies across the enterprise, automate protection SLO compliance and optimize operations based on actionable insight. Data Protection Suite for Applications will non-disruptively

Simple, efficient and reliable data protection

Gain efficiency and flexibility by backing up directly to Data Domain, eliminating the complexity of traditional backups and minimizing infrastructure requirements to protect mission critical data on industry leading protection storage. Only unique data is sent to protection storage, significantly reducing backup impact on the local area network (LAN) and minimizing storage area network (SAN) bandwidth requirements. With instant access, you can also restore directly from Data Domain with the ability to restore to any destination. By protecting all data on Data Domain, backup storage requirements are reduced by an average of 10 to 30x.

Supported environments

Primary storage

Dell EMC VMAX All Flash

Dell EMC XtremIO

Protection storage

Dell EMC Data Domain

- Applications and databases
 - Oracle
 - SAP
 - IBM DB2
 - SQL
 - Microsoft Exchange

Operating systems

- Windows
- Linux
- Unix (AIX, Solaris, HP_UX)

Hypervisors

VMware ESXi

discover existing copies across primary and protection storage to gain consolidated oversight of what already exists in the environment. Nondisruptive discovery maintains self-service by enabling storage administrators and DBAs to continue creating copies from their native interfaces instead of inserting a solution into the copy data path. At the same time, oversight on copy data ensures that only the correct number of copies are stored on the right tiers of storage.

Automated service level objective compliance

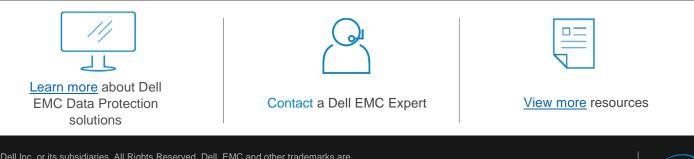
The core of Data Protection Suite for Applications is the user-defined service plans to monitor, proactively manage and enforce protection SLO compliance. For example, admins can create service plans for each department - such as Finance, Accounting and HR - to define the service level that specific data requires. Administrators can then simply monitor compliance by verifying whether the defined SLOs are being met across the organization. Alternatively, compliance management proactively ensures that all copy data is in compliance with SLOs. The combination of automated protection SLO compliance and empowering self- service data protection and copy creation enables organizations to reduce reliance on traditional centralized protection infrastructure like backup servers.

Protection SLO compliance is even more powerful when it is automated with a users' existing management portals and automation tools. Multitenancy provides rapid deployment in IT as a Service models, and an API-centric design enables advanced integration with existing automation tools and/or management portals.

Unified analytics and insight for IT environments

An analysis engine looks across the entire infrastructure to provide end-to-end visibility into protection levels, performance, utilization and more. This enables unified, cross-domain event correlation analysis – insight into the entire data protection path to ensure each component is working correctly. And that provides higher-level decision support based on defined policies. Built for cloud infrastructure, scalable, centralized multi-tenant data protection management capabilities ensure SLOs are met by enabling administrators to maintain performance as resource requirements change.

With a single pane of glass view into your entire infrastructure, every stakeholder has access to the information they need. Via customizable dashboards with role-based access control or running a specific report, viewing the most important, yet environment-wide, information on one screen enables better operational decisions.



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