

The Five Essential Building Blocks to Deliver Centralized, Simplified Enterprise Data Protection are available in the HPE Product Family

By DCIG Lead Analyst Jerome Wendt

Simplified enterprise data protection may sound more like a pipe dream than an achievable objective to many enterprises. To achieve that reality, enterprises must choose a solution that contains the five essential building blocks to realize that goal. Using HPE's product portfolio which includes HPE 3PAR StoreServ, HPE StoreOnce, and HPE Recovery Manager Central (RMC), enterprises can start to implement the components needed to create a consolidated, centralized, and simplified enterprise data protection strategy.



Hewlett Packard Enterprise

COMPANY

Hewlett-Packard Company
3000 Hanover Street
Palo Alto CA 94304-1185
650.857.1501

Founded 1939

www.hpe.com

INDUSTRY

Computer Systems

ENTERPRISE DATA PROTECTION CHALLENGES

- Complex configurations
- Multiple consoles to manage different data protection functions
- Difficult to orchestrate data movement between storage devices
- No consolidated console to manage data and storage

SOLUTION

- HPE Data Protection Product Portfolio; HPE 3PAR StoreServ, HPE StoreOnce, HPE RMC

BENEFITS

- HPE 3PAR StoreServ arrays offer high availability, snapshots, and replication for primary data protection
- HPE StoreOnce scales to over 1.7PB and deduplicates backup data to achieve up to 20:1 deduplication ratios (34PB logical)
- HPE RMC centralizes the management of data and storage onto one console to include orchestrating data movement between HPE storage platforms
- HPE RMC integrates with other common tools to allow enterprises to use their preferred management console

Centralized, simple, end-to-end data protection remains an elusive goal at the enterprise level. The number of applications and operating systems that enterprises manage combined with the hundreds, or even thousands, of virtual and physical machines found in their data centers makes any allusions to "simple data protection" sound more like a pipe dream than a realistic goal. This is where HPE's data protection solution differs. It provides a scalable, end-to-end offering that satisfies the requirements of enterprise environments while remaining easy to centrally implement and manage.

The Five Building Blocks of a Comprehensive Data Protection Strategy

Enterprises more so than any other size organization stand to benefit from implementing a centralized, consolidated, and simplified data protection strategy. Doing so automates backups and recoveries; makes predictable, successful outcomes more likely; and, reduces the time needed to complete them.

Despite these benefits of adopting such a strategy, enterprises still struggle to achieve this ideal. They find it difficult to successfully implement and manage data protection in all of its different forms (*backup, high availability, snapshots, replication, and/or recovery*) across multiple different platforms without excessive cost and complexity. Further aggravating the situation, enterprises depend to varying degrees on each of these different platforms and/or technologies to deliver a sustainable, comprehensive data protection strategy.

The five building blocks that form a comprehensive data protection strategy for today's modern data centers include:

1. A highly available, reliable storage array.

A storage array provides the first level of data protection. Redundant hardware components throughout ensure non-disruptive maintenance and upgrades for high levels of availability and reliability. This gives enterprises the confidence to centralize and simplify the storage and management of data from multiple applications and operating systems onto a single platform.

2. Application snapshots and snapdiffs.

Using a storage array snapshot feature, enterprises can take the next step in data protection by creating near,

real-time copies of their data. Snapshots occur almost instantaneously with minimal to no disruption in application performance and make it possible for organizations to restore application data and be back up and running in mere minutes.

3. **Data replication.** Replicating data to another location or another site helps to ensure application and data availability even in the unlikely event of a storage array outage or a natural disaster that may take an entire data center offline.

"HPE overlays its product portfolio with its Recovery Manager Central (RMC) software to give enterprises the tools they need to centralize, consolidate, and simplify their data protection."

— Jerome Wendt, DCIG Lead Analyst

4. A cost-effective storage solution for long term data retention.

While the majority of application and data recoveries need to occur within days, hours, minutes, or even seconds of data loss, enterprises still need to retain copies of data for backup purposes on low-cost storage platforms to satisfy internal and/or external compliance and data retention requirements.

5. Orchestration software.

This critical building block is often the one missing in many enterprises. Recovery Manager Central (RMC) works across and interacts with the various applications, operating systems and storage platforms to orchestrate the short- and long-term protection and recovery of data.

HPE Storage Serves as Foundation for Enterprise Data Protection

DCIG recognizes both the HPE 3PAR StoreServ and StoreOnce storage product lines as "Best in Class" in their respective product categories. All of the HPE 3PAR StoreServ storage arrays from the 8000 Series midrange storage arrays to the 20000 line of high end storage arrays essentially define the features that an enterprise class storage array should possess. HPE

designs all of its arrays for six nines or greater of availability while offering the best snapshot and replication technologies on storage arrays.

Further, HPE optimizes its 3PAR StoreServ storage arrays for use with flash. This gives enterprises the flexibility to implement either a hybrid (*disk and flash*) or an all-flash configuration on the array that may be used to store production copies of their data as well as backup copies.

Similarly, HPE StoreOnce deduplicating backup appliances scale to achieve the highest capacity and performance among this class of appliances. It then complements its available capacity with deduplication to drive data deduplication ratios to a guaranteed ratio of 20:1. Finally, using its federated design, enterprises may centrally protect data regardless of the amount of data that they have or where it is located.

HPE's Software Overlay: Recovery Manager Central (RMC)

HPE's portfolio of 3PAR and StoreOnce solutions is impressive as these platforms create a firm foundation for a comprehensive data protection strategy. Yet the real key to any enterprise unlocking the full value of HPE's storage portfolio is the ability to centrally manage all of the product features and the movement of data between each product using one interface. To accomplish this, HPE overlays its storage portfolio with its RMC software that gives enterprises the tools they need to centralize and consolidate their data protection under one roof.

RMC centralizes and orchestrates all aspects of data protection across HPE storage to include:

- Creating snapshots and snapdiffs on all HPE 3PAR StoreServ arrays
- Managing the frequency and retention of snapshots on HPE 3PAR StoreServ arrays
- Setting up replication between HPE 3PAR StoreServ arrays
- Backing up specified snapshot data from HPE 3PAR StoreServ arrays to HPE StoreOnce for short and long term backup retention
- Recovering data from the most appropriate location. It can retrieve a snapshot from a HPE 3PAR StoreServ array or a backup from a HPE StoreOnce appliance
- Recovering data to any HPE 3PAR StoreServ array

HPE RMC sets itself apart from other data protection tools by simplifying backups. By managing the creation and retention of array-based snapshots and then scheduling the movement of some of them to the HPE

StoreOnce appliance, enterprises simplify and accelerate many of the processes associated with backups today by providing an alternative to traditional backup software. Further, HPE weaves data protection, data movement, and data management into an enterprise's overall storage management structure, which is where it probably rightfully belongs for most enterprises anyway.

Snapshot Management from Your Application

HPE's vision of weaving together data and storage management is evidenced in how enterprises can access RMC. While enterprises may opt to perform all of these tasks through the RMC management console, RMC also has hooks into existing management consoles and database backup tools such as VMware vCenter, Oracle RMAN, and SQL Server BACKUP. For example, RMC for VMware® vSphere allows VMware administrators to create hundreds of non-disruptive, application consistent virtual machine (VM) snapshots and backups and initiate rapid online recovery directly from within the VMware vCenter management console.

RMC even offers APIs. A number of enterprises, especially managed service providers (MSPs), have written their own software to manage the data and devices in their infrastructure. Using RMC's APIs, these organizations can write their code that leverages RMC to back up and recover data as well as move data between these various HPE storage platforms.

HPE Provides an Expressway to Simplified Enterprise Data Protection

Enterprises today more than ever need to create a manageable, scalable, simple, and reliable data protection strategy that manages both their data and storage as one cohesive entity. HPE puts them on an expressway to achieving that objective.

HPE 3PAR StoreServ storage arrays centralize and consolidate production data. Optimized for flash and high availability and offering the best snapshot and replication technologies available, organizations can know their production applications and data is available and protected. The HPE StoreOnce appliances then complement the 3PAR StoreServ by providing the availability, scalability, and flexibility that enterprises need for short and longer term data preservation and retention.

Yet it is the HPE RMC software that joins these two storage platforms to make the data management and movement seamlessly work together. By integrating with these HPE storage platforms and giving enterprises a choice in how to implement RMC, enterprises can finally turn the dream of centralized data protection that simply, reliably, cost effectively, and predictably backs up and recovers data into a reality. ■

About DCIG

DCIG empowers the IT industry with actionable analysis that equips individuals within organizations to conduct technology assessments. DCIG delivers informed, insightful, third party analysis and commentary on IT technology. DCIG independently develops and licenses access to DCIG Buyer's Guides and the DCIG Analysis Suite. It also develops sponsored content in the form of blog entries, customer validations, competitive advantage reports, executive white papers, special reports and white papers. More information is available at www.dcig.com.

About HPE

HPE creates new possibilities for technology to have a meaningful impact on people, businesses, governments and society. The world's largest technology company, HPE brings together a portfolio that spans printing, personal computing, software, services and IT infrastructure at the convergence of the cloud and connectivity, creating seamless, secure, context-aware experiences for a connected world. More information about HPE (NYSE: HPE) is available at <http://www.hpe.com>.


**Hewlett Packard
Enterprise**

DCIG DCIG, LLC // 7511 MADISON STREET // OMAHA NE 68127 // 844.324.4552
dcig.com

©2016 DCIG, LLC. All rights reserved. Other trademarks appearing in this document are the property of their respective owners. The information, product recommendations and opinions made by DCIG, LLC are based upon public information and from sources that DCIG, LLC believes to be accurate and reliable. However since market conditions change, the information and recommendations are made without warranty of any kind. All product names used and mentioned herein are the trademarks of their respective owners. DCIG, LLC assumes no responsibility or liability for any damages whatsoever (including incidental, consequential or otherwise) caused by one's use or reliance of this information or the recommendations presented or for any inadvertent errors which this document may contain. Any questions please call DCIG, LLC at 844.324.4552. This executive white paper was commissioned by HPE.