

# Protect your applications in VMware environments

## HPE Recovery Manager Central software for VMware®

Enable fast and affordable end-to-end protection for virtual machines—directly from within VMware® vCenter™

### The impact of application downtime is costly and damaging.

- Unplanned downtime costs an average \$5,600 USD per minute<sup>1</sup>
- 83 percent organizations have a downtime tolerance of three hours or less—49 percent have applications that can only tolerate downtime of 15 minutes or less<sup>2</sup>

### Federating primary and secondary systems for the next generation of data protection.

By 2018, 50 percent of applications with high change rates will be backed up directly to deduplication target appliances<sup>3</sup>

### The virtual machine data protection challenge

Protecting and recovering virtual machines (VMs) in VMware environments is proving ever more challenging in the face of unrelenting data growth, stringent recovery and restore service-level agreements (SLAs) and increasingly virtualized environments.

Traditional agent-based and proxy server-based processes provide reliable recovery and retention. But they can also impact application performance as well as adding cost and complexity.

Array-based snapshots offer fast, non-disruptive point-in-time copies of data. But snapshots alone cannot deliver comprehensive backup. They have retention limitations, corruption vulnerabilities, and dependence on the underlying storage system. Make no mistake—snapshots are at risk if the storage system fails.

A more effective approach is to combine the benefits of backups and snapshots in an application-managed, storage-integrated data protection solution.

Hewlett Packard Enterprise can help.

### The Hewlett Packard Enterprise solution

HPE Recovery Manager Central (RMC) for VMware software integrates HPE 3PAR StoreServ primary storage, HPE Hyper Converged 250 System (HC 250) for

VMware and HPE StoreVirtual VSA with HPE StoreOnce Systems to provide a converged snapshot, replication and backup service for VMware environments that augments traditional backup approaches.

Combining the performance of local and remote snapshots and replication with the protection of backups, RMC for VMware enables fast, efficient, reliable, and simple protection for VMware virtual machine disks (VMDKs) and datastores.

HPE RMC for VMware allows VMware administrators to create hundreds of non-disruptive, application consistent VM snapshots and initiate rapid online recovery.

HPE RMC for VMware backup allows VM snapshot data to be automatically backed up directly from HPE 3PAR StoreServ, HPE HC 250 or HPE StoreVirtual VSA to StoreOnce. Backup with RMC delivers up to 23X faster backups and up to 15X faster restores than traditional backup methods.<sup>4</sup>

And all of this can be monitored and managed directly from within the VMware vCenter management user interface.

### Offering the features and functions you need

#### Reduce backup windows and enable fast recovery

- HPE 3PAR StoreServ, HPE HC 250 or HPE StoreVirtual VSA snapshot technology creates consistent, non-disruptive time- and space-efficient VM snapshots, without the need for separate agents installed on individual VMs.

<sup>1</sup> "Ensure Cost Balances Out With Risk in High-Availability Data Centers," Gartner Inc., February 2013

<sup>2</sup> "Trends for Protecting Highly Virtualized and Private Cloud Environments," Enterprise Strategy Group (ESG), July 2013

<sup>3</sup> "Magic Quadrant for Deduplication Backup Target Appliances," Gartner Inc., July 2014

<sup>4</sup> Based on Hewlett Packard Enterprise testing of backup performance comparison between HPE Recovery Manager Central for VMware environments and traditional backup environments

## Solution brief

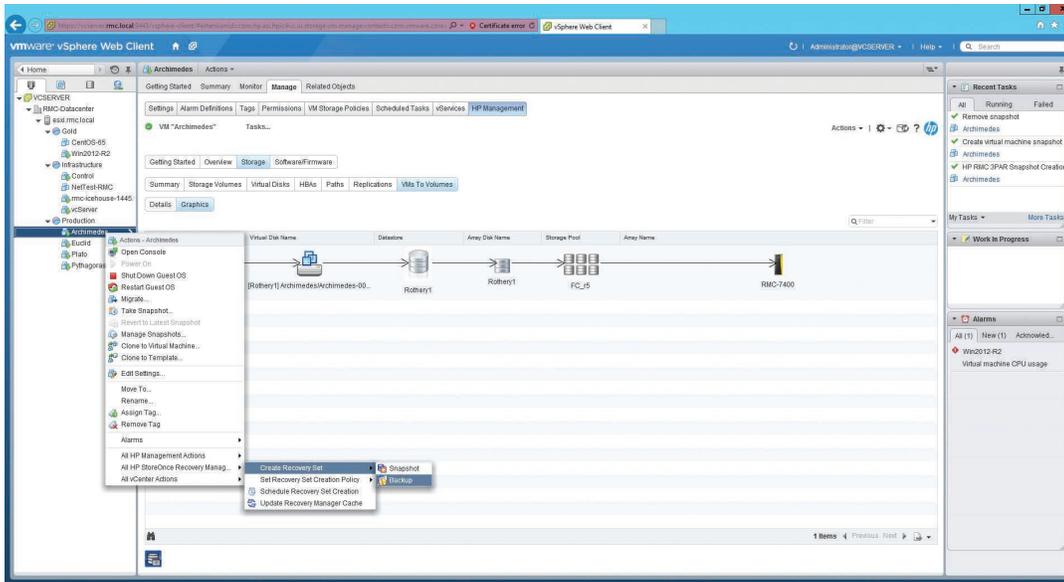


Figure 1. Easy snapshot management, backup, and recovery from within VMware vCenter

- Restore from snapshots or mount the snapshot on the host directly and instantaneously, enabling VM administrators to deliver on aggressive recovery-time objective (RTO) SLAs.
- Only changed VM blocks are sent to the HPE StoreOnce Backup System. Every multi-stream VM backup completes at the speed of an incremental but is stored as a synthetic full backup, which makes VM recovery faster and more efficient.
- RMC Element Recovery Technology (ERT) allows more granular recovery of an individual VM or an individual file within a VM, helping improve recovery RTO, and minimizing disruption and downtime of production VMs.
- Leverage Veeam Explorers for Active Directory/MS SQL/SharePoint/Exchange/Oracle to recover application items directly from RMC Express Protect backups.
- VM backups stored on HPE StoreOnce are deduplicated, thus reducing backup storage requirements. This deduplicated data can be economically stored on StoreOnce for extended periods.
- RMC for VMware scheduler feature provides automated snapshot creation on HPE 3PAR StoreServ, HC 250 or StoreVirtual VSA and automated snapshot backup direct to HPE StoreOnce.

### Reduce cost and complexity

- RMC Express Protect feature enables the backup of VM snapshot data directly from HPE 3PAR, HPE HC 250 or HPE StoreVirtual VSA to StoreOnce.



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### Reduce risk exposure

- Scalable, non-duplicative local and remote snapshots help minimize data loss and downtime with frequent recovery points, offering VM administrators flexibility when committing to tight recovery-point objective (RPO) SLAs.
- VM backups stored on HPE StoreOnce are self-contained, fully independent volumes. These can be restored back to the original or a different HPE 3PAR array, HC 250 or StoreVirtual VSA system in the event of a disaster or physical problems with the production storage environment. Backups can be copied from one StoreOnce appliance to another for disaster recovery purposes. This level of data protection cannot be achieved with snapshots alone.

### Application-managed data protection

- VMware administrators can monitor and manage snapshots, backup, and recovery directly and seamlessly from within VMware vCenter.

## In summary

HPE Recovery Manager Central for VMware seamlessly integrates robust flash-optimized HPE 3PAR StoreServ primary storage or the simple, agile, and highly available HPE HC 250 or StoreVirtual VSA virtualization system and the very fast, scalable, and highly resilient StoreOnce Backup System.

The result is a converged data protection solution that simply and efficiently delivers the end-to-end protection that your VMware environment demands.

Learn more at  
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