

## Solution Showcase

# Modern Backup and Recovery for Leading Hypervisors

VMware vSphere, Microsoft Hyper-V, Nutanix AHV, and RHeV

**Date:** September 2019 **Author:** Christophe Bertrand, Senior Analyst

**Abstract:** Virtualization has become pervasive in modern infrastructures on-premises and in the cloud, generating challenges for organizations as they attempt to protect the data and applications that live in these environments. Organizations require a platform that can easily scale out and foster data management uses beyond backup and recovery.

## Market Landscape

In today's world, most applications run on virtual machines (VMs). Virtualization has become pervasive in modern infrastructures on-premises and in the cloud. ESG research shows that 60% of organizations say that of all their on-premises production applications, more than half are run on virtual machines (VMs).<sup>1</sup>

In turn, this has created many challenges for organizations as they attempt to protect the data and applications that live on these environments and literally run the business. The amount of critical data that these generate and the heightened risks of ransomware only exacerbate the data protection issue. High data volumes is cited by ESG research respondents as one of the biggest reasons IT believes managing the environment is getting more complex.<sup>2</sup> The stakes are as high as the amount of downtime tolerance for applications is low. Fourteen percent of organizations surveyed by ESG reported that they can tolerate no downtime at all for their mission-critical or high-priority applications, and another 36% can tolerate less than 15 minutes of downtime for these applications.<sup>3</sup> This is a tall order that can only be met with the ability to effectively and efficiently protect virtualized environments.

Recent ESG research shows that the need to improve SLAs, RPOs, and RTOs was the data protection mandate that the largest percentage of organizations reported as receiving from their IT leadership, and the most-cited overall data protection challenge reported by organizations (see Figure 1). Organizations' second most-cited challenge was the protection of VMs. When asked about selecting a backup and recovery solution, 21% of IT professionals selected the ability to effectively protect VMs as one of the most important considerations, 15% indicated granular recovery from within VMs, and 14% rapid VM recovery.<sup>4</sup>

<sup>1</sup> Source: ESG Master Survey Results, [Tipping Point: Striking the Hybrid Cloud Balance](#), October 2018.

<sup>2</sup> Source ESG Master Survey Results, [2019 IT Spending Intentions Survey](#), March 2019.

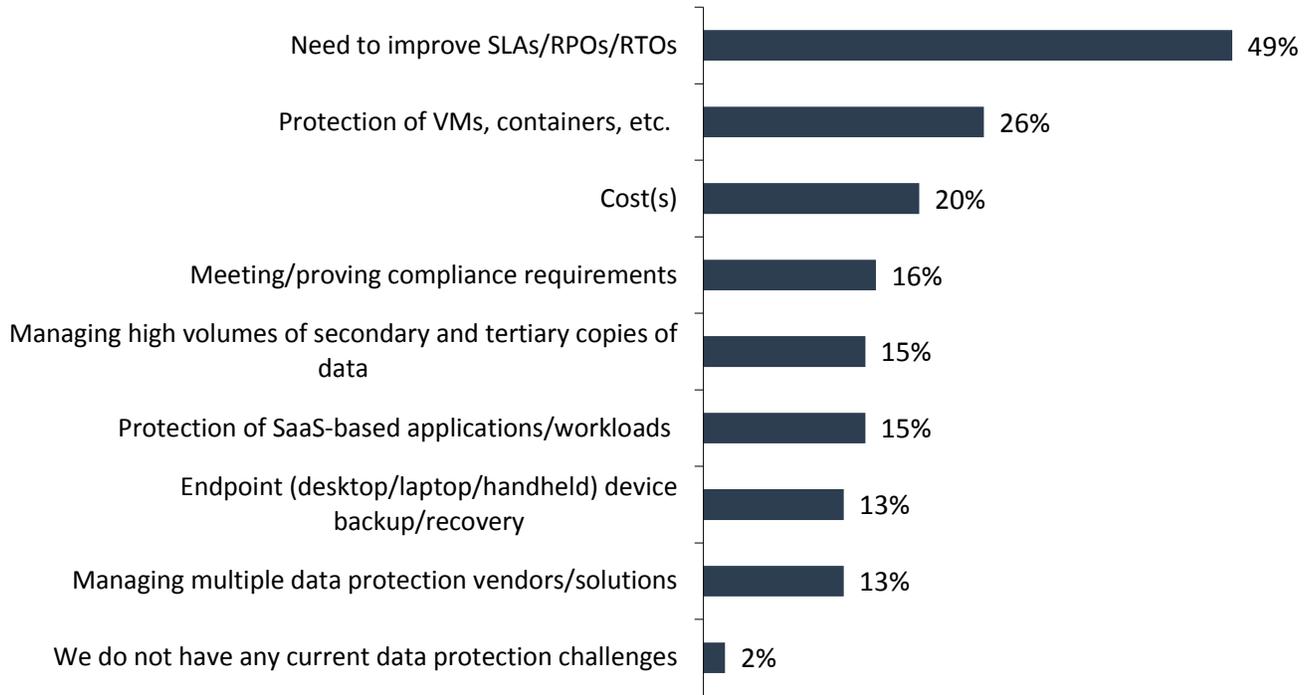
<sup>3</sup> Source: ESG Master Survey Results, [Real-world SLAs and Availability Requirements](#), March 2018.

<sup>4</sup> Source: ESG Master Survey Results, [2018 Data Protection Landscape Survey](#), November 2018.

Therein lies the challenge: how to really protect and quickly recover massive numbers of VMs, in response to a ransomware attack, for instance? Is there enough time in your backup window to protect every VM with your current solution? Are you confident that you can bring all those VMs back in a consistent and coherent fashion, every time...predictably?

**Figure 1. Top Data Protection Challenges**

**Top current data protection challenges. (Percent of respondents, N=320, three responses accepted)**



Source: Enterprise Strategy Group

### Challenges Looking for a Solution

The exponential growth of data and its fragmentation in terms of sources, types, locations, and storage platforms makes it increasingly difficult to manage and protect, let alone derive additional value from it.

It is easy to see how mass data fragmentation can contribute to operational inefficiencies, data loss, and compliance exposures. In environments that heavily rely on virtual machines and legacy ways to protect and manage their data and applications, this combination translates into the inability to effectively protect and quickly recover massive numbers of VMs.

This phenomenon makes applications prone to downtime and makes it difficult for organizations to derive additional business value from data, which requires the ability to instantly and predictably recover, search, and analyze data for compliance, dev/test, analytics, and cybersecurity purposes. This happens against a backdrop of fast-paced “hybridization” of traditional on-premises infrastructure with the advent of multi-cloud deployments...and the multiplication of VMs.

### The Cohesity Solution

Cohesity provides a software-defined web-scale solution focused on the simplification and intelligent management of data, which makes it a very natural complement to virtual environments, including VMware vSphere, Microsoft Hyper-V, Nutanix

AHV, and RHeV. The Cohesity's data management platform allows users to leverage data to address multiple use cases, such as the protection of data offsite, disaster recovery, meeting compliance requirements, defending against ransomware attacks, and easy data migration.

The platform is feature-rich and provides a plethora of advanced capabilities for hybrid environments. For virtual environments specifically, certain capabilities stand out:

- API-first approach that eliminates agents and proxies.
- Rapid snapshot-based incremental forever backup and recovery with distributed and parallel data ingest.
- Instant search and recovery of files, VMs, and individual application objects. This means the ability to globally search VMs, files, and objects across locations and instantly recover at scale to any point in time.
- Instant mass restores with the ability to restore thousands of VMs to any point in time instantly.
- Unlimited zero-cost clones to leverage data assets faster and more efficiently.
- Native cloud integration with leading public clouds.

This results in a solution that dramatically simplifies protecting leading virtual environments, while setting organizations up for efficient data reuse through the elimination of data silos, and an easy hybrid and multi-cloud integration by design. One good example is the ability to quickly spin up instances of VMs with automatic format conversion for dev/test and DR, analytics, or security. The solution also benefits from an extensive ecosystem of partners and applications.

## The Bigger Truth

At the heart of the problem that many organizations struggle with today is the extreme fragmentation of data across the environment, on-premises and in the cloud. This makes it nearly impossible to manage, protect, or extract value from the data in virtualized environments.

Many of these pain points can be alleviated by using a solution that was designed from the get-go to with a keen focus on scale and recovery. This means automatic data management of VMs, mission-critical application integrations, and full integration into vendor hypervisor environments to leverage management and operations capabilities. Addressing these challenges requires a platform that can easily scale out by design on-premises and in the cloud and that fosters data management uses beyond backup and recovery, like DevOps, for example.

This is why the Cohesity solution should be on the list of organizations looking for a trusted partner to help them with their intelligent reuse of data assets beyond just backup and recovery.

All trademark names are property of their respective companies. Information contained in this publication has been obtained by sources The Enterprise Strategy Group (ESG) considers to be reliable but is not warranted by ESG. This publication may contain opinions of ESG, which are subject to change. This publication is copyrighted by The Enterprise Strategy Group, Inc. Any reproduction or redistribution of this publication, in whole or in part, whether in hard-copy format, electronically, or otherwise to persons not authorized to receive it, without the express consent of The Enterprise Strategy Group, Inc., is in violation of U.S. copyright law and will be subject to an action for civil damages and, if applicable, criminal prosecution. Should you have any questions, please contact ESG Client Relations at 508.482.0188.



**Enterprise Strategy Group** is an IT analyst, research, validation, and strategy firm that provides market intelligence and actionable insight to the global IT community.

© 2019 by The Enterprise Strategy Group, Inc. All Rights Reserved.

