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Solution Showcase

HPE VM Explorer: Designed for an SMB's Needs

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Abstract: Small and midsized organizations often struggle to support their virtualized IT environments when it comes to finding efficient, reliable, and "right-sized" data protection solutions. Sometimes, they settle for mediocre protection. Other times, they are forced to deploy costly, complex tools meant for larger companies. These SMBs may want to examine HPE's new VM Explorer software, which is able to support both VMware and Hyper-V environments. It could provide an easier, more agile way for them to protect their VMs and important data.
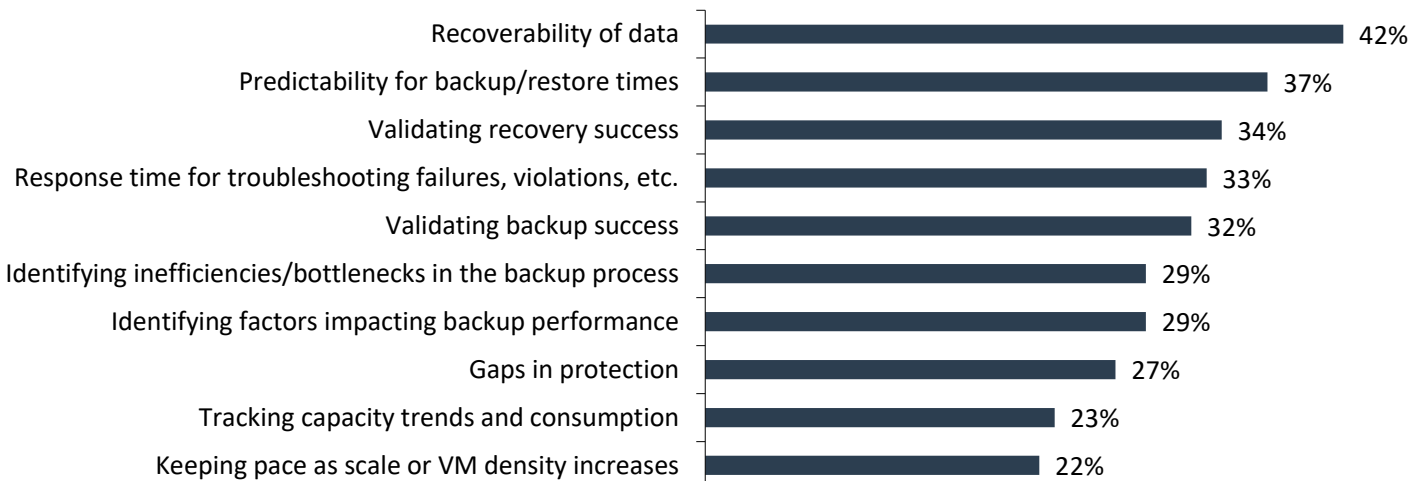
Overview

Regardless of size, industry, or locale, nearly every organization today recognizes that virtualization accelerates IT delivery. However, many general-purpose data protection products haven't kept up with the innovations necessary for smaller and midsized organizations to adequately and reliably protect their virtualized environments.

While larger enterprises have access to cutting-edge, best-of-breed data protection tools across myriad platforms, those technologies aren't as readily usable by SMBs due to complexity or cost. When ESG surveyed SMB IT decision makers about their data protection challenges (see Figure 1), it found recoverability of data and speed among the most cited issues.[1] SMBs also frequently mentioned their visibility-related challenges. Apparently for SMBs, the abstraction of hosts, data centers, networks, etc. that occurs in virtualized environments makes production IT better—and data protection harder.

Figure 1. SMBs' Challenges in Protecting Their Virtual Environments

Ten most commonly cited challenges with protecting virtual server environments among SMB (50 to 999 employees) organizations. (Percent of respondents, N=154, multiple responses accepted)

Recoverability of data	42%
Predictability for backup/restore times	37%
Validating recovery success	34%
Response time for troubleshooting failures, violations, etc.	33%
Validating backup success	32%
Identifying inefficiencies/bottlenecks in the backup process	29%
Identifying factors impacting backup performance	29%
Gaps in protection	27%
Tracking capacity trends and consumption	23%
Keeping pace as scale or VM density increases	22%

Source: Enterprise Strategy Group, 2016

[1] Source: ESG Research Report, *Trends in Protecting Highly Virtualized Environments in 2016*, to be published.

SMBs Deserve Strong Protection for Their Virtual Environments: *But What Should They Look for*?

Every IT organization, regardless of size, requires certain crucial capabilities in a virtualization protection solution. However, SMBs are often frustrated to find a lack of marketplace options able to conform to their operational size and budget limitations, while still fulfilling their recoverability requirements.
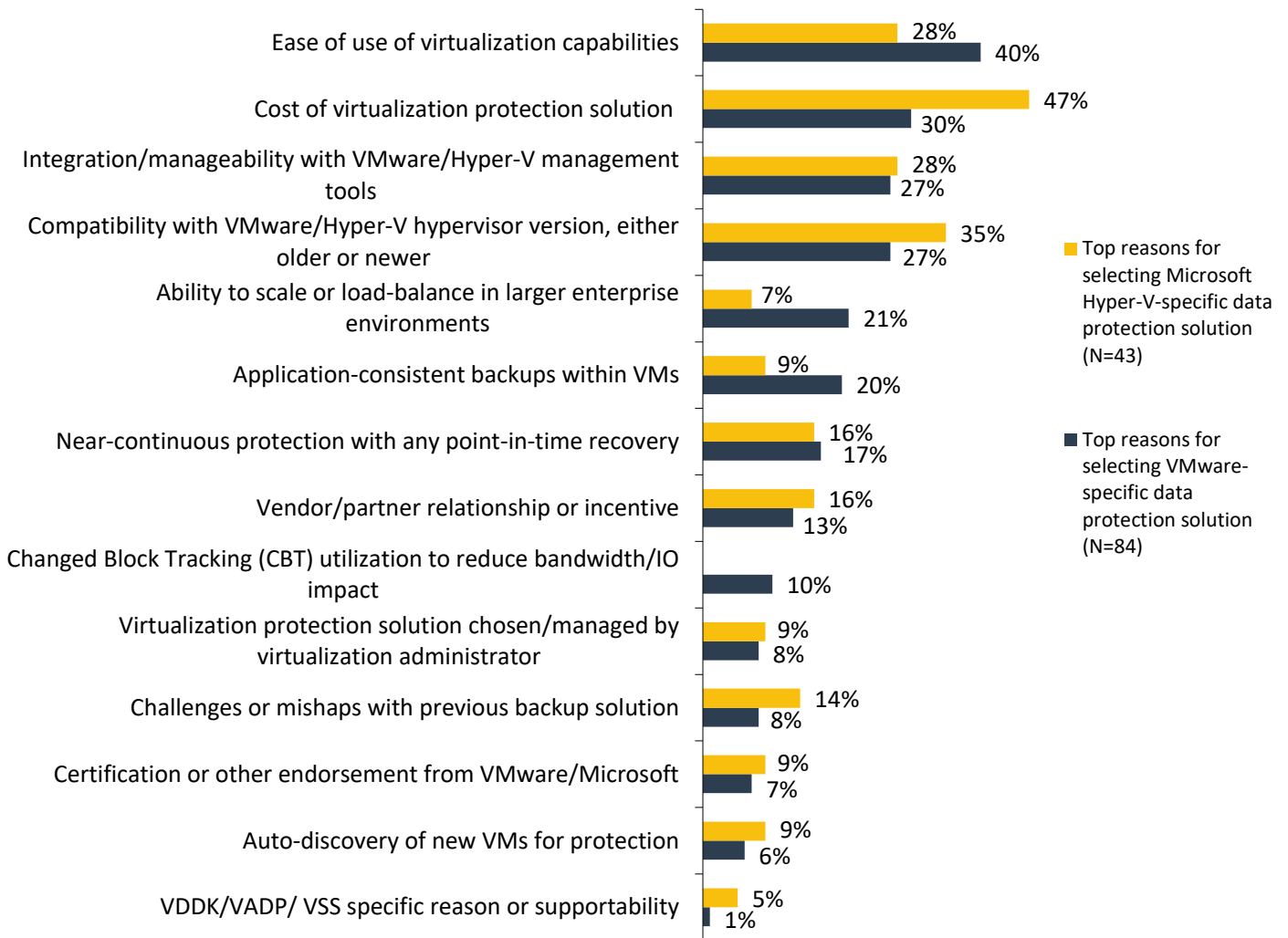
The three most important characteristics in a modern, SMB-suitable virtualization protection solution come down to:

- Ease of acquisition, deployment, and use.
- Virtualization "savviness."
- Agile recovery.

Figure 2 identifies the characteristics that surveyed SMBs take into consideration when choosing a data protection solution to support VMware and Hyper-V virtual machines and the data those VMs generate.[2]

Figure 2. SMBs' Reasons for Selecting a VM Data Protection Solution

Reasons SMB (50 to 999 employees) organizations cited for initially selecting VMware-specific and/or Microsoft Hyper-V-specific data protection solutions. (Percent of respondents, three responses accepted)

Reason	Microsoft Hyper-V-specific (N=43)	VMware-specific (N=84)
Ease of use of virtualization capabilities	28%	40%
Cost of virtualization protection solution	47%	30%
Integration/manageability with VMware/Hyper-V management tools	28%	27%
Compatibility with VMware/Hyper-V hypervisor version, either older or newer	35%	27%
Ability to scale or load-balance in larger enterprise environments	7%	21%
Application-consistent backups within VMs	9%	20%
Near-continuous protection with any point-in-time recovery	16%	17%
Vendor/partner relationship or incentive	16%	13%
Changed Block Tracking (CBT) utilization to reduce bandwidth/IO impact		10%
Virtualization protection solution chosen/managed by virtualization administrator	9%	8%
Challenges or mishaps with previous backup solution	14%	8%
Certification or other endorsement from VMware/Microsoft	9%	7%
Auto-discovery of new VMs for protection	9%	6%
VDDK/VADP/ VSS specific reason or supportability	5%	1%

Source: Enterprise Strategy Group, 2016

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[2] ibid.

What to Look for Regarding Ease of Acquisition, Deployment, and Use

The most important qualities for SMBs consistently seem to center on *ease*—namely, ease of acquisition, ease of deployment, and ease of ongoing use:

- **Ease of acquisition**—For an SMB, ease of acquisition is vitally important. Too many of them have struggled with projects dedicated to finding, right-sizing, and ensuring alignment between data protection software components, application servers, and storage. When the components of that stack are mismatched, SMBs inevitably end up either overpaying for their protection, or being underprotected.

- **Ease of deployment**—Unlike enterprises that usually have internal experts specializing in practically every relevant aspect of IT, "SMB IT" is often handled by generalists and by outside consulting partners. That approach can exorbitantly increase the cost of implementing a protection platform. The good news is that solution components engineered by a data protection vendor to work *together* will require far less attention and incur far less stress, with far greater consistency in terms of results.

- **Ease of use**—As stated, IT tasks at small and midsized organizations tend to be driven by generalists more than by specialists deeply experienced in niche areas of data protection or virtualization. As such, a protection solution designed for SMBs absolutely must feature valid, genuine ease of use as a foundational design element.

What to Look for Regarding Virtualization 'Savviness'

Virtualization protection solutions can be insufficient when it comes to important functions of backup success reporting, recovery success reporting, bottleneck reporting, and helping IT to spot and resolve other errors. Of course, such challenges are not specific to SMBs; they are the result of virtualization's inherent abstraction.

With a *physical* server, if something is going wrong (e.g., the server is not backing up or recovering well), one can easily check whether the agent and OS are working—and even visually track the cable connecting the backup server to the production server to pinpoint the problem. With virtualization, such details are obfuscated. One cannot "eyeball" which VM, on which host, on which data store, on which SDN has made its way to a proxy server and then to protection storage.

However, a virtualization-savvy data protection solution *knows* that data and the hardware supporting it are all virtualized and that all the parts are in motion. It treats everything accordingly. It cuts through the abstraction to help IT ascertain what is really going on in a natively virtualized environment.

SMBs considering a more modern protection approach for their virtual environments should look for a solution specifically designed to accommodate and support an environment in which VMs, hosts, and data stores behave highly dynamically.

What to Look for Regarding Agile Recovery

When considering "agility" in a virtualization protection solution, it's necessary to take two kinds of agility into account:

- **Instant or rapid *recovery* of a VM without first having to *restore* that VM**—Many backup technologies require VMs to be *restored*; in other words, data must traverse from the backup server back to a production hypervisor before repair. But modern virtualization protection solutions can boot up a VM within the backup server without having to move the data first. As a result, user productivity resumes far sooner. (As an analogy, imagine having a flat tire: "Restore" equates to patching the hole in that tire. "Recover" equates to swapping it for the spare.) Rapid recovery means being able to spin up a VM nearly immediately, without having to first move the data back to a production host.

- **Restoring less than a whole VM**—Often, one does not (or should not) restore an entire VM; the business may simply need to restore a subset of granular files or similar objects in a particular VM. In that case, agility centers on the

flexibility of restoring only part of a VM or restoring that VM somewhere other than where it originally "lived" (i.e., restoring it to a different host).

Importantly, modern virtualization protection and recovery solutions should offer both the ability to recover without restoring, and the flexibility to enable granular or redirected restoration.

One Solution to Consider: HPE VM Explorer

VM Explorer from HPE is a solution designed for virtualization protection specifically for SMBs. The maker of this software, previously known as Trilead, was acquired by HPE in early 2016.

According to HPE, VM Explorer (see Figure 3), which supports both VMware and Microsoft Hyper-V, boasts several appealing features related to right-sized virtualization protection and recovery.

Figure 3. VM Explorer User Interface
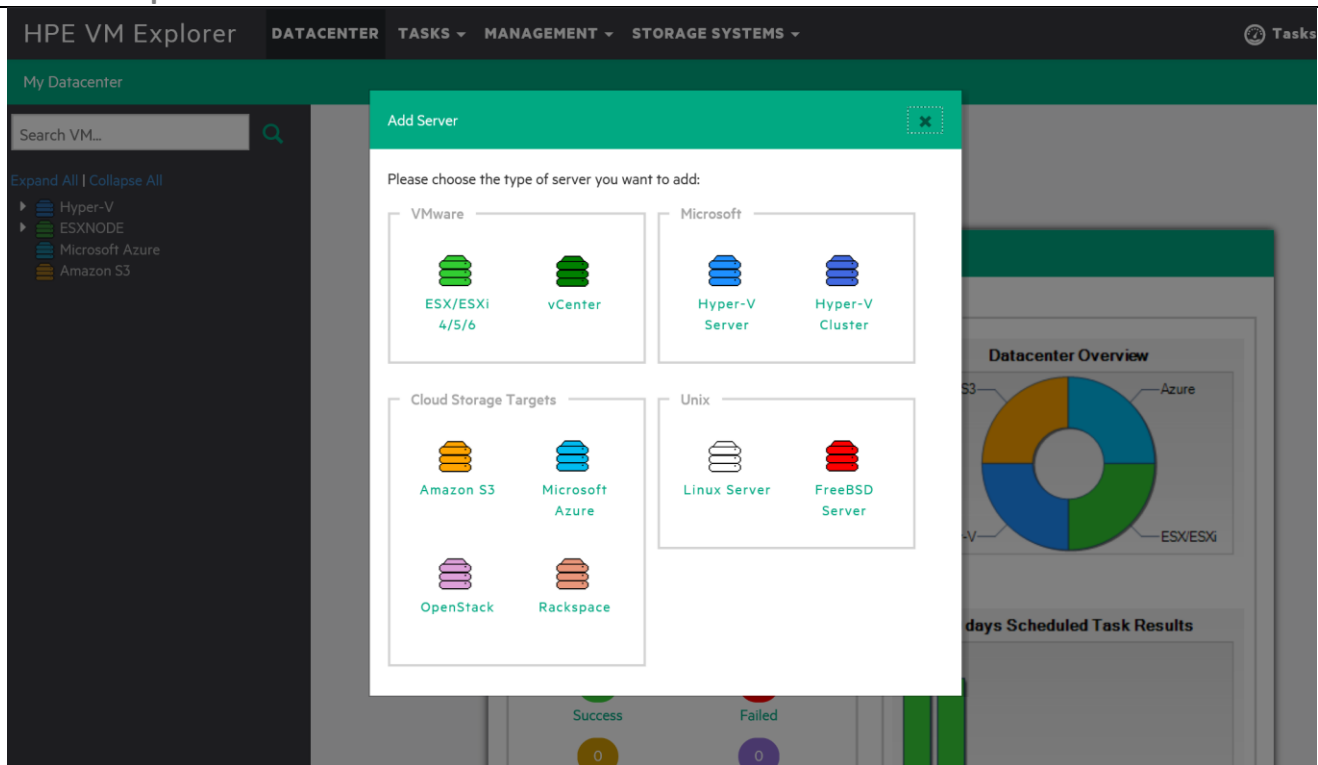
Source: HPE, 2016

HPE VM Explorer and Ease of Use

VM Explorer provides ease of use through the following capabilities:

- **Quick installation and configuration**—VM Explorer's lightweight installer completes its work in less than a minute. Configuration requires a few simple clicks, and within minutes, a typical IT admin is able to begin running backups and initiating replications of virtual machines.

- **Easy administration**—VM Explorer is configured and managed through an intuitive web-based interface that supports MS Active Directory integration and multi-user access. The integrated job scheduler allows an IT admin to perform unattended periodic backups of the virtual infrastructure. Jobs may also be started using the web interface, which provides/maintains a simple overview of all backups. The software's ability to filter and sort backups per organizational requirements makes quick restoration, with just a few clicks, possible.

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HPE VM Explorer and Virtualization Savviness

For several reasons, VM Explorer appears to be a great fit for SMBs needing virtualization "savviness." Typically, price-conscious SMBs don't invest in the expensive, full-featured enterprise tool sets available on the market (e.g., they may decide to use VMware ESXi Free Edition hypervisor instead of paying for a full-version license). Although low-cost and free tools help SMBs reduce CapEx, such tools also restrict them in terms of not providing comprehensive features to manage, monitor, and protect a virtual environment. For these SMBs, VM Explorer could offer benefits including:

- **A single web interface** through which they can view the running status of VMs, power VMs on/off as needed, and manage snapshots.

- **Backup and recovery capabilities** that allow for automated scheduled backups and provide detailed reporting.

- **Reports** that are written to the Windows Event Logs, which in turn support other centralized IT management tools typically used to monitor physical servers and monitor the status of backups and recoveries.

- **Email alerts and reporting** on the status of backup tasks, including options for daily and weekly reports.

HPE VM Explorer and Agile Recovery

VM Explorer enables agile recovery scenarios, including recovery without the requirement of a restore and utilization of a good level of granularity. Specifically, VM Explorer's advanced recovery options include Instant Virtual Machine Recovery (IVMR) technology, which enables the powering up of a VM directly from a backup, restoration, and single-item recovery. IVMR's ability to recover VMs in a matter of seconds directly from a backup reduces unplanned downtime and improves service availability.

Similarly, its granular, file-level recovery capability enables rapid restoration of single files and folders directly from *any* backup—full and incremental backups alike, on-premises or in the cloud—without the time and effort that a full-backup restore task can involve.

The Bigger Truth

At this point in the evolution of information technology, the benefits of becoming highly virtualized are beyond question. But unfortunately (and as is the case with many other aspects of IT), small and midsized organizations often struggle more than their larger counterparts to attain sufficient levels of IT and business agility without also incurring extra burdens of cost and complexity.

Both VMware and Microsoft, the two biggest virtualization vendors, have worked hard to adapt their offerings to better accommodate SMBs' needs overall. But virtualization *protection* solutions have not been as forthcoming. There are fewer SMB-scale than enterprise-scale offerings on the market today.

A notable exception is HPE VM Explorer, especially when combined with HPE's other right-sized "Smart IT" offerings. It appears to be an offering particularly worthy of consideration for protecting SMBs and their business-critical VMs.