



Data Protection for Virtual Servers in SMB Environments

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Overview

Small-to-mid-sized businesses (SMBs) are adopting server virtualization at a pace even more rapid than larger companies. According to a recent survey, SMB server virtualization penetration has reached 54 percent. Nearly a quarter of those organizations are looking to virtualize more than 70% of their servers, with 15% shooting for 100% server virtualization.

But while more of their business-critical data resides on virtual servers, many SMBs lack simple, affordable and comprehensive data protection for their newly virtualized environments.

This LiveVault® eGuide discusses SMB data protection requirements and challenges for virtual servers, and explains a straightforward, reliable and cost-effective data protection program that will enable you to seamlessly backup and restore data residing on both physical and virtual server environments.

Why Are SMBs Embracing Virtual Servers So Pervasively?

A virtual server, also called a virtual machine (VM), is a software implementation of a server environment. Like a physical server, most virtual servers simulate a complete system platform with its own processors, memory, networking, storage, and so forth, which supports the execution of an operating system and other programs. Multiple virtual servers can (and generally do) run on a single physical server, often independent of the underlying hardware.

Key reasons for the widespread adoption of server virtualization among SMBs include:

- **Efficiency and cost advantages** - Many organizations dedicate a physical server to a single key application, like the ERP or accounting system, for instance. This can waste considerable processing power. By enabling the consolidation of several VMs onto one physical system, virtualization improves the utilization of server hardware and reduces space and power requirements.
- **Reduced IT complexity** - Server virtualization accelerates and simplifies server provisioning by allowing you to readily move virtual workloads across physical systems without impacting users. Streamlined provisioning also makes it possible for programmers and administrators to test new code in safe, isolated environments without the need for dedicated physical systems.
- **Improved business continuity** - Because virtual servers can run on a wide range of hardware, and can utilize it very efficiently, they make it easier and cheaper to implement redundancy by running multiple instances of the same application on different physical servers.



Smaller businesses face many of the same IT challenges as large enterprises, including a need to reduce the cost and complexity of their critical infrastructure. But because they have fewer technical resources, SMBs' vulnerability to data loss in the event of a disaster is often greater. This is one reason why business continuity and data protection are increasingly at top-of-mind for SMB IT executives.

The failure of even one critical server can have a major impact on an SMB's ability to maintain business continuity, perhaps costing thousands of dollars per hour of downtime. Redundancy helps minimize the impact of service disruptions, making it part of a best-practice business continuity program – provided comprehensive data protection for virtualized systems is in place.

SMB Requirements for Virtual Data Protection

To protect the critical data that resides on virtual servers in the event of hardware failures, natural disasters and other causes of system downtime, SMBs need a single backup solution that is cost-effective and simple to install and use, yet comprehensive enough to quickly and seamlessly backup and restore a mix of virtual and traditional environments.

Unfortunately, for many SMBs the virtual server backup process is slow, fragmented and/or error-prone. For example, some still rely on the outdated process of installing a backup software agent on each virtual server, which can lead to overwhelming i/o loads and long backup times. Others rely on VMware Consolidated Backup (VCB) or a similar two-stage backup/restore process that requires a staging area on disk between the physical server and the final backup target.

Today's more sophisticated solutions offer not only one-step, file-level recovery of virtual data, but also deduplication for reduced costs and shorter backup windows. An ideal solution for SMBs also provides cloud-based offsite backup, to ensure that critical data is not lost and can be quickly recovered to maintain business continuity in the event of a disaster that impacts the data center, such as a hurricane or earthquake.



Protecting Virtual Servers and Data with LiveVault

LiveVault offers SMBs an ideal solution for cloud-based data protection across both virtual and physical environments. You get centralized control from the same Windows- or web-based console you use to backup and restore physical servers. Just scan the list of virtual servers and choose those you want to backup or restore.

Other key features of the LiveVault virtual server data protection solution include:

- Support for “hot” backups of virtual servers with minimal to no disruption of VM environments.
- The capability to select one or multiple virtual servers for backup/recovery. You can use “wildcard” characters in name filters to streamline selection. You can also easily specify one or multiple VMs that you want to exclude from a backup or restore.
- The capability to restore a complete virtual server to its original location, or to an alternate location.
- The capability to restore a virtual server as its component files to an alternate location. This enables you to recover individual VM disk files and attach them to other VMs.
- The capability to restore VMs backed up from one VMwareESX Server Console to another ESX Server Console – even across vCenter clusters. (You also have the option to restore the VM and use VMotion to move it.)
- LiveVault now supports Microsoft Hyper-V on Windows Server 2008 R2, 2012 R2 and 2016.

LiveVault supports Hyper-V host level backup, which means it can take snapshots of the server itself, so in a situation where your server goes down, you not only can you restore the virtual machines running on it, but the server itself.

By supporting Hyper-V and VMWare, LiveVault supports all major VM platforms.

- Support for thin-provisioned virtual disks.

Conclusion

SMBs are rapidly embracing virtual server technology. But often they lack a reliable and comprehensive data protection solution for their fast-growing volume of virtual data. Protecting virtual data is vital to ensuring business continuity and mitigating the risks associated with data loss, such as reduced productivity, regulatory non-compliance and a tarnished brand image.

With LiveVault, SMBs get all the advantages of an advanced, online data protection solution for their virtual environments, including deduplication, fast backups/restores, robust security and great support from expert technicians – all at an affordable cost.

For more information, visit www.livevault.com.

About LiveVault

LiveVault® is the turnkey, fully managed cloud server backup and disaster recovery service of choice for thousands of enterprise customers worldwide. With more than 16 years of experience in SaaS data protection, LiveVault is a leader in streamlining and reducing the costs and complexities of companies' data security. LiveVault's 24/7 actively monitored, unified solution includes advanced systems for open file backup and offsite data mirroring, flexible long-term retention, legal hold support, and disaster recovery in the cloud. Learn more at www.livevault.com.



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