commvault®

5 FUNDAMENTALS
OF VIRTUAL SERVER DATA PROTECTION

The benefits of server virtualization are compelling and are driving the transition to large scale virtual server deployments. From cost savings recognized through server consolidation or business flexibility and agility inherent in the emergent private and public cloud architectures, virtualization technologies are rapidly becoming a cornerstone of the modern data center. Read about the **5 CHALLENGES TO OVERCOME IN ORDER TO TAKE ADVANTAGE OF THE BENEFITS OF VIRTUALIZATION FOR YOUR ORGANIZATION.**

Data Protection and the Drive to Virtualization

While many businesses have been lured by the benefits of server virtualization, the consolidation of physical servers and networking is resulting in a massively converged IT infrastructure where already limited resources are being made even scarcer.

While first reaction may be to throw yet another point-level product at the problem of backing up virtual servers when traditional methods fail to deliver, a solution that spans virtual, physical and cloud storage will minimize the load on production systems, reduce administrative effort and enable enterprise wide recovery for ultimate availability and business continuity.

> "As organizations look to build out large private and hybrid cloud environments, the data protection and data management strategy must be ready for that level of scale and efficiency in order to avoid the costly re-architecture which many IT leaders are now realizing is needed."

"3 QUESTIONS EVERY CIO SHOULD ASK ABOUT VIRTUAL SERVER DATA PROTECTION," COMMVAULT WHITEPAPER, FEBRUARY 2013

VIEW FULL WHITEPAPER[1]

Five Fundamentals of Virtual Server Data Protection

1

Exploding Backup Windows

As server resources continue to consolidate and virtual environments become more concentrated, the amount of data stored on virtual machines is skyrocketing. A successful backup of multi-terabyte datastores using a traditional streamed backup approach can easily exceed a 24-hour window, far in excess of what the modern data center requires.

For environments with ever shrinking backup windows, there is simply not enough time or bandwidth to move all the VM data. Even if the infrastructure is available to copy all this data, it places a tremendous burden on the datastores as the data is read.

2

Unprotected Virtual Machine Data

The ease of deploying new VMs leads to a virtual machine sprawl, making it tedious and time consuming for administrators to keep track of new virtual machines and to ensure correct data protection and retention policies are applied to them. There is a major risk that important virtual machines may be created and never backed-up.

Today, many administrators spend a significant part of their day tracking down new VMs and manually applying data protection policies. In the modern data center with hundreds or even thousands of virtual machines, this manual approach to ensuring VM protection policies is simply an unacceptable solution.

3

Application Integration

As more and more mission critical applications – like SQL, Exchange and Oracle – are virtualized, it is necessary to provide the same level of protection and recovery capabilities for these applications as they had in a purely physical server setting, while staying within the constraints imposed by a highly consolidated, virtualized environment. The modern data center now demands data protection solutions that deliver a level of application and virtualization platform awareness in order to provide concerted backup and restore capabilities that will ensure maximum uptime of these critical applications.

4

Delivering Recovery Points

With high data growth and change rate, relying on last night's backup for recovery is no longer sufficient. In addition, as organizations deploy more critical applications within a virtual server context, they are demanding Recovery Point Objectives (RPO) of hours. In other words, it is necessary to be able to recover to a few hours ago, not to last night's backup, in order to minimize data loss and the impact to the organization as a result of any disruption. Creating frequent recovery points without impacting production activity is a huge challenge.

5

Ensuring Restore Granularity

In order to further accelerate restores, organizations require an integrated approach to restoring data granularly at the volume, file or application object level. The ability to restore an individual email or file from within a virtual machine datastore is critical for ensuring application uptime and for meeting availability and uptime SLAs. Traditional approaches which require remounting an entire virtual machine datastore (such as a VMDK) and searching through the contents to find a single user email is simply too time-consuming and resource intensive to be a workable solution. A solution is needed that delivers granular restore options down to the file or object level and does so from a single pass backup operation.

Virtual Server Data Protection Solved with Commvault® Simpana® Software

Commvault® Simpana® software addresses the data protection and information management challenges arising out of limitations in legacy data center environments, but more importantly, accelerates the shift into virtualized and cloud-enabled data centers.

With Commvault Simpana software you can:

- Protect hundreds of virtual servers in minutes with minimal impact on physical production servers.
- Securely and easily protect very large VMware environments with thousands of virtual machines
- Automate discovery and protection of new virtual machines for guaranteed protection with minimal administrator intervention
- Rapidly create and efficiently move secondary copies of data for retention and disaster recovery using embedded source side deduplication.
- Create 100% application consistent protection copies.
- Use granular protection to provide granular restores at the VM, volume, and file or application object level.

To learn more about the full benefits of Commvault Simpana software and virtual server data protection please visit: **commvault.com/virtualization**.

SUGGESTED VIDEO >>

"The Keys to Private Cloud Success".[2]

Learn how enterprises can better leverage private cloud technology, reduce costs and improve efficiency of the virtual infrastructure, presented by Forrester Analyst, Dave Bartoletti.

WATCH

Resources

[1] commvault.com/resource-library/1087/cio-guide-to-virtual-server-data-protection-whitepaper.pdf
[2] commvault.com/resource-library/2003/the-keys-to-private-cloud-success.mp4

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