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VIRTUALIZATION BACKUP:

TOO MUCH DATA, TOO LITTLE TIME

10

critical requirements

for optimizing backup and data protection in a virtual environment

In the world of backup, change is here...

We all know it so well. A backup window extends over the deepest, darkest hours of the night — a necessary operation that takes place after your company has closed for the day, but before it opens for the next. It's repeated time after time, every day or week or month. But, this very familiar business process is changing...

“Last night's backup” — a timeframe that's becoming a thing of the past.

Once, in the not so distant past, a nightly (or less frequent) backup might have been sufficient for your company's backup and recovery needs. But no longer. Now, with the increased importance that many companies are assigning to their data — indeed, now that these companies are truly data dependent — a nightly backup is beginning to look as antiquated and inadequate for today's needs as an old-fashioned typewriter. And no wonder. The value of the data to be managed is growing exponentially — seemingly, it's all mission-critical now. As a result, the sheer volume of data that's generated is going through the roof, to the point where it's estimated to be increasing by 20% to 50% per year*. But are more resources being devoted to managing and backing up the data? Generally, the answer is “no.”

Consider that with server consolidation and the proliferation of virtual machines (VMs), there are fewer physical resources available to back up the same (or even larger) amounts of data. This leads to a three-step outcome:

- Each VM's backup is competing with another VM's for the same limited resource
- You get caught in a total squeeze that extends backup timeframes beyond the breaking point — a period during which other tasks cannot be performed
- It becomes quickly evident that legacy backup solutions are failing miserably at their mission

How does a timeframe that exceeds 24 hours sound to you? Absurd, of course. And yet it is quite literally what certain companies are facing today.

The benefits of virtualization are real. So are the backup challenges it creates every day.

According to a recent survey by IDG Research Services, over 50% of IT managers say that long backup windows are one of the top backup challenges they face**. Given the bottleneck with physical resources — and with backup traffic now fighting with virtual applications for limited network bandwidth — this is not surprising.

But it is only one of the ways a virtual environment makes your backup operation more problematic. You must also contend with two other factors that call into question whether your VMs have been assigned backup in the first place:

- **It's not so easy to detect and backup new virtual machines.** With virtualization, you can create new VMs so easily. But it's not necessarily a simple task to detect when the VM is created. Is your backup software integrated with your virtual operating system? Even if it is built in, it still needs to be configured in order to detect the VMs. And besides, what is the alternative — having IT colleagues always tell you when they've created new VMs?
- **If you migrate now, can you back up your VMs later?** In your virtual environment, your VMs can move from one physical server to another. With traditional backup, this migration won't cause a problem, because it's transparent to the agents inside the VMs. However, with virtualized agent-less backup solutions, the migrating VMs won't be assigned to any backup agent and therefore may not be protected. That is a big challenge

10 requirements for a present-day virtual environment backup solution.

- 1. Image backup of entire system.** Implement a solution that combines state-of-the-art disk imaging technology with a highly-intuitive user interface — making backup and recovery of the entire system as simple as a few clicks. This will eliminate possible mistakes, free your administrators for other work, and speed up your recovery process. In fact, once it's required, you'll want the image containing the operating system, applications and data to be fully recovered in minutes, instead of hours. Or be able to recover individual files, folders or applications that have been accidentally deleted or lost — a huge advantage over solutions that can't do granular restore.
- 2. Recovery that's 100 times faster.** That's right, new technology innovations allow you to far surpass traditional methods — and recover data up to 100 times faster than was previously possible. That's a staggering capability and it's available NOW.
- 3. Protection for unlimited number of VMs on one physical host.** Dealing with VM sprawl? Your costs won't go up if you have this unlimited capability.
- 4. Support that specializes in your particular virtualization platform,** whether you're using one or any combination of these hypervisors:
 - VMware vSphere/ESX
 - Microsoft Hyper-V
 - Red Hat Enterprise Virtualization
 - Citrix XenServer
 - KVM
 - Parallels
 - Oracle VM Server
- 5. Any-to-any backup and recovery — virtual and physical.** Suppose disaster strikes. You want to be able to simply boot a PC or server from a bootable CD or flash drive and start a recovery in just a few clicks. Adjust Windows or Linux configuration, too, and inject necessary drivers to ensure that it will boot on any physical hardware, or as a virtual machine.
- 6. Single license supporting unlimited migrations.** We're talking all types of migrations — physical-to-virtual, virtual-to-virtual, virtual-to-physical, and even to the cloud.
- 7. Cross-vendor choice and flexibility.** Perhaps you don't want to be locked into a single vendor, and prefer cross-hypervisor data migration, backup and disaster recovery — executed across disparate systems, different sites and multiple vendors. By all means, go multi-vendor...or go single vendor...just make sure you have a choice between the two. (And by the way, beware of certain vendors who claim to be multi-platform, but in reality, can't restore backup from one platform to another.)
- 8. Reliable cloud storage.** Get an extra layer of data protection in the cloud. Be certain you can store your PC or server backups, or make a secondary copy of local backups, to reliable and highly secure cloud storage.
- 9. Pathway to the future.** Here today, but here tomorrow? Have a solution in place that enables you to take advantage of the NEXT wave of virtualization and cloud computing. They'll be here before your competitors know it.
- 10. The total package.** Don't settle for a partial solution that meets only a few of these requirements. Instead, adapt an all-in-one solution that gives you the complete capabilities you're looking for, including fast restore of the operating system, applications, files and data...broad storage support...extensive platform support...and increased reliability and secure archives. All geared toward giving your data the protection it needs in a virtual environment.

Want more information on locking down these 10 requirements — and in the process, solving today's virtual backup problems and securing the right applications support? Acronis might be just what you're looking for. We just happen to make next-generation requirements part of everything we do. For more information, contact Acronis today.

<http://www.acronis.com/business/backup-advanced/>

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