

October 15, 2008 | Issue 15

## Powerful New Backup Technologies

Backup is a priority for any business owner or manager who is responsible for critical business data. For years when consulting with businesses, I have preached the virtues of a good backup system. Recent changes in technology have brought some new solutions to the forefront and they are becoming affordable and practical even for the small to medium sized business. These new solutions can enhance your ability to recover from a server failure, shorten downtime, and even automate offsite data storage.

### VIRTUALIZED IMAGE RECOVERY

This solution allows you to recover very quickly from a complete server failure. In some testing we have done recently, we were able to recover a server in a matter of a couple hours on a different hardware platform. In the past, this was never possible. If you wanted to move a backup of one server to a new hardware platform, it would take a minimum of 8-10 hours to load the server, setup the backup software, restore the data, and then tweak the settings to get them back to the point where they were.

The technology that I am identifying as Virtualized Image Recovery (VIR) is comprised of two parts. These two parts are two separate technologies that give this solution its punch.

The first part of this solution is a temporary virtual server. This is a server that will host virtualization software, by Microsoft or VMware which runs multiple "virtual" images of another servers on top of its own operating system. This "virtual" server can be different hardware than your main server, and in many cases can be less robust and less fault tolerant than your main server, making it much less expensive. Its purpose is to host a copy of your main server and provide all of its

functionality in the event that the main server goes down. This virtualization technology can be used for many other purposes including consolidating servers to run on less hardware.

The second piece of this solution is a special piece of software that backs up your data in a way that allows you to do a "bare metal" restore. This means that the software creates an image or snapshot of your entire server at a given point in time. This image contains not just data, but every part of the operating system. Acronis and Symantec are major players in this image or snapshot software marketplace.

How do the pieces fit together? As part of your nightly backup, the "image" software makes an image of your server. This image can be updated regularly throughout the workday if you choose. The image is stored in several places. If you are using a tape backup, the image should be copied to tape. It should also get copied to the temporary virtual server. If your main server goes down hard, you now have the option of recovering the temporary virtual server. The image is simply recovered into a virtual session. This session provides an exact snapshot of your now down primary server and after a short recovery process of

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## 6 QUICK TESTS TO AUDIT YOUR BACKUP SYSTEM

Backups are critical to any small business. It is not a matter of if you will need a backup, it is a matter of when! How do you know that you have the right backup system?

Here are **6 Quick Tests** to insure that you have the right backup solution:

1. **Does it run automatically every night?** If it is not easy/automatic, it likely won't happen regularly and you will get caught without a backup when you need it most.
2. **Does someone in your organization check the log files daily** to make sure all important files are backed up successfully?
3. **Do you have a method of getting the backups offsite** at least weekly, and preferably daily?
4. **Are your database type systems getting backed up properly?** Often databases require a special method of "extracting" the data to get a good nightly backup. This is frequently missed in a small to mid-sized business environment.
5. **Do you have a procedure in place to do a periodic test restore?** A backup is only good if it is tested on a regular basis.
6. **Do you keep AT LEAST 1 week's worth of backups**, so you can go back to older data in the case where the most current is corrupt?

## Helping Others... Giving Back....

**1** We are very grateful for the blessings, we have been given! In the month of November, we are donating **1% of our Gross Sales to charity!**

**+1** We are giving you the opportunity to help us make a larger contribution, by making a contribution of your own. We will match your donation up to 1% of your invoice total.

**+1**  
**3%** It is pretty simple, we donate 1% of our gross sales, no matter what. We will donate up to 1% more, if you, our customers send us a donation made out to either of these charities, we have chosen in the Milwaukee area.

### Community Warehouse

The Community Warehouse is a non-profit, faith-based provider set up to serve people in the Milwaukee Community with affordable home and facility improvement materials. Their goal is to help with the rebuilding of Greater Milwaukee's under-served communities and improve the quality of life in our neighborhoods.

### SOS Center

Their mission is to provide a multi-cultural ministry of Christian love that links volunteers with people in need in the Metro Milwaukee Area. They work with families challenged by the effects of low/no income, broken families, crime and drug abuse in the Sherman Park area. They offer educational classes and after-school tutoring.

So get involved and help us help out these two great organizations whose goal is to help those less fortunate!

CT contributions are based on invoices dated in November 2008 and donations received by December 15, 2008.

as little as two hours, depending on the amount of data you have, is live with all of its data and features. You know have time to decide what to do with the down server and can even buy new hardware and recover back to the new server using the same imaging technology. You also have employees who have lost very little work time, customers who likely have not even noticed you were having an issue, and only a very limited impact on your business!

It is worth noting that there is also a virtualized method for complete automatic failover. This means that downtime can be eliminated or limited to only a few minutes or even seconds. This solution comes with a higher price-tag that often makes it less desirable to the small or mid-sized business.

### APPLIANCE BASED WEB BACKUP

Another backup solution that can provide real value in business data protection is appliance based web backup. This solution,

like the first, is a combination of technologies.

First, a small appliance is attached to your network. This appliance has built-in software tools to reach out to designated data locations on your server and backup the files to itself. It has the ability to backup standard file type data like Word and Excel, and also to backup Exchange mail databases and SQL tables. These backups are scheduled and occur at an interval that you designate. This sounds like a great solution, but if this was the entire solution, it would fall short. It lacks in that it puts all you backups on the same device and if this device fails, you are still without a backup. It also lacks in that there is no ability to take the backup offsite.

It is the second piece that makes this backup solution valuable. In addition to backing your critical data up to itself, it copies your data over the web to a hosted data storage location out on the Internet. You can choose to store multiple revisions of your data out on the web, accomplishing the goal of storing more than one copy in more than one location, as well as getting your data moved offsite.

Why not just use a web backup and skip the appliance? The appliance provides a few things that a straight web backup does not. First of all, it shortens the backup cycle time by getting the data off your server quickly. It then spools the data up to the web, which is a much longer process, without tying up your servers. It also shortens restore time significantly. For cases where there has not been a complete disaster and the appliance is still working, the data is restored directly from the appliance, which is a much faster process than going over the web, sometimes by days! Even with a very fast connection to the Internet

it takes extremely long periods of time to restore large quantities of data. The appliance gives you a local copy and the remote web copy is strictly used for a complete disaster recovery should one occur.

The appliance based web backup is a hosted solution. Vendors who provide this solution charge a monthly fee for the appliance and the web based storage. Rates range from \$100/month up, depending on the amount of data you need to backup. When factoring the cost of tapes, tape backup devices, backup software, and maintenance, this solution is certainly a viable alternative to tape.

Both of these backup solutions are reflective of some significant new developments in technology.



For more information on backup alternatives contact Scott Hirschfeld, Vice President of Computer Technologies. His firm has been supplying quality, proactive IT support to Wisconsin companies for over 17 years. Contact Scott via email, [scotth@ctaccess.com](mailto:scotth@ctaccess.com).