



*“Once we saw what the VMware solution could do, it was like hearing angels singing... It was the perfect solution to use with our SAN to address all of the challenges we’d been having in setting up a business continuity solution.”*

— Paul Troyer  
Web and Systems Administrator,  
Tropics Software Technologies

#### KEY HIGHLIGHTS

##### Challenge

Create a business continuity/disaster recovery strategy for a small business

##### Solution

VMware technology streamlines IT infrastructure and provides the ideal platform for business continuity initiatives.

##### VMware at Work

VMware Infrastructure 3 Enterprise, featuring:

- ESX Server 3 with VMFS
- VirtualCenter 2
- VMotion
- Distributed Resource Scheduler (DRS)
- High Availability (HA)

##### Deployment environment

- Dell 2950 servers with 16 GB RAM, attached to NetApp FAS 250 SAN
- Guest operating systems: Windows 2000, Windows 2003, Windows 2008
- Virtualized Production Applications: Custom software running Oracle application databases, Microsoft Exchange 2003, Microsoft Office and Web Server applications
- Virtualized Pre-Production Applications: Windows 2000, 2003, and 2008 server for web servers; Windows 2003, 2008 for Oracle 9, 10, 11 database servers

## Tropics Software Technologies

Headquartered in Sarasota, FL, Tropics Software Technologies (Tropics) offers workers’ compensation software to benefits administrators and insurance companies throughout the United States.

As the company grew, its server environment expanded to include more than 30 physical machines, and the company’s data-protection requirements could no longer be addressed by simple tape backups. Tropics needed a comprehensive business-continuity solution and a way to contain server sprawl. As a small business with under 50 employees, Tropics searched for a solution that was as practical and affordable as it was reliable.

VMware Infrastructure 3 allowed the company to easily virtualize mission-critical applications, such as Microsoft Exchange, Microsoft Office, and custom applications running off of Oracle databases, and migrate the applications from physical servers to virtual machines. Using networked storage, Tropics is able to take snapshots of its virtual machines automatically multiple times each day and back them up to a remote location, providing a high degree of data protection.

“Most of the business-continuity solutions on the market seemed to be really expensive or really complicated—usually both,” said Paul Troyer, Web and Systems Administrator for Tropics. “The VMware platform was simple and straightforward. We were able to hit the ground running and implement a reliable and scalable business-continuity plan simply and quickly.”

### Results

- Achieve 10:1 server consolidation ratio. “We have 20 virtual machines running on just two VMware ESX hypervisors,” says Troyer. “That simplifies IT management and reduces power and cooling costs as well.”
- Increase performance of mission-critical applications. “There was a huge performance increase once we virtualized our applications because the virtual machines were running off of modern, dual core servers with plenty of RAM,” says Troyer. “It was a noticeable difference.”
- Reduce server downtime from hours to seconds. “If I need to upgrade an ESX hypervisor, I can migrate my virtual machines to another server with the VMotion feature,” says Troyer. “Users won’t even know I’ve moved them to a different server.”

