



## **Disaster Avoidance in a Virtual World:** Woodforest Finds a Summertime Home for Its Data

### **Overview**

Woodforest National Bank migrates its entire datacenter every six months to avoid disasters. The IT team encountered unique challenges when replicating virtualized production environments because the datacenter is 95 percent virtualized using VMware vSphere. Through a new replication paradigm provided by Zerto, hypervisor-based replication, Woodforest Bank is now able to effectively manage disaster recovery and avoidance needs.

A national bank headquartered in Texas, Woodforest National Bank takes an “always on” approach to relationship banking, offering 24x7 live banking with tellers and personal bankers and only closing its doors one day each year – Christmas Day. For more than 30 years, Woodforest has delivered unsurpassed quality customer service, now offering both consumer and business products and services at more than 750 branches in 17 states throughout the United States.

As Woodforest exceeds the industry standards in terms of hours of operations and customer expectations, application availability requirements are rigorous. In addition to traditional outage causes such as operator error/corruption, loss of power and fire, the bank must protect itself from the seasonal threat of hurricanes and tornados in Texas.

## Dealing With Disaster

In 2008, Woodforest experienced a disaster in the truest sense. When Hurricane Ike passed through Houston and its surrounding areas, Woodforest’s primary datacenter lost power and remained on generator power for 10 days after the storm ended. Fortunately, prior to the hurricane Woodforest migrated all customer-facing applications to a disaster recovery site.

After that experience, Woodforest transitioned from disaster recovery to disaster avoidance preparedness. Each June, all production applications are pre-emptively “failed-over” to a secondary site, with a return to the primary site by mid- to late-October, avoiding the hurricane season. If a hurricane strikes the area, all of the systems are already protected.

However, these measures are not only for disaster avoidance. Datacenter refreshes or possible future datacenter moves are now “known” events. Without this capability, refreshes and upgrades would require moderate to significant outages. Virtualization is the keystone to this level of flexibility.

## Achieving the Full Value of Virtualization

While failing over an entire datacenter on a regular basis would be a nightmare in a physical world scenario, with a virtualized infrastructure, it should be a much simpler process. Woodforest is 95 percent virtualized on VMware vSphere. Ideally, recovering applications as virtual machines makes the DR process much faster and much less error prone. However, traditional options come with an assortment of roadblocks.

Woodforest considered a variety of options. SAN-based or host-based replication is essentially LUN-level replication; all VMs located on a given LUN must be migrated/replicated at the same time. For deeper granularity, more LUN management is needed. In addition, these solutions do not provide a simple, comprehensive end-to-end recovery process for a virtual machine or group of machines comprising an application. They require additional tools, such as custom scripts, making the process as much about recovering the storage as the application. Another critical drawback of these solutions is the inability to perform consistent replication for groups of VMs, a multi-tiered application for

## Challenge

- Migrating its entire datacenter every six months to avoid disaster
- Aligning BC/DR with its virtualized environment
- Finding a flexible, efficient tool to automate and simplify the process

## Solution

- Quickly overcame traditional issues and roadblocks of replicating virtual environments
- Now protects more applications in a simpler manner through virtualization
- Found true enterprise-class replication through Zerto

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— Richard Ferrara, CTO

example, regardless of their physical position. They allow storage to restrict what can be done with the applications.

“Virtualization is supposed to be about reducing complexity, but SAN-based replication makes deploying new applications, partial failovers, and other recovery activities complex and manual processes,” stated Richard Ferrara, CTO. “This type of replication required complex, labor-intensive setup and management and didn’t allow us to take full advantage of the flexibility and mobility of our virtual infrastructure.”

Without replication and DR being fully aligned with the virtual paradigm, many of the benefits achieved through virtualization are lost. Woodforest needed a DR replication solution that would empower it to take full advantage of advanced VMware services such as vMotion, storage vMotion, HA and DRS to drive further efficiency within the infrastructure and improve time to market.

### Reaping the Benefits of Zerto’s New Approach to Replication

“Now we’re managing our applications, not our storage,” added Richard Ferrara, CTO. “Our disaster avoidance strategy is ready to overcome any disaster.”

Zerto provides a new replication paradigm – hypervisor-based replication – that removes the storage headaches from the equation. Providing full VM- and VMDK-level replication with true block-level consistency across hosts and storage devices, Zerto is fully integrated into vCenter, making end-to-end application recovery as simple as the click of a button.

“Zerto is completely storage agnostic, and therefore more independent than other replication solutions,” added Richard Ferrara, CTO. “We can protect and recover applications and specific VMs, not LUNs and volumes, thereby reducing the level of complexity in the event of a failover, as well in day-to-day operations. Zerto automates and streamlines the recovery process – all while delivering the accuracy, reliability and availability critical in the financial services industry.”

Zerto replicates VMs with block-level consistency across different storage vendors, as well as between different storage types (e.g., FC, iSCSI, NAS, DAS) and different types of data stores and VM configurations (i.e., replicating RDMs to VMDKs). With Zerto, VMs are replicated by grouping them into virtual protection groups (VPGs) that represent an application, ensuring consistent replication of all VMs and VMDKs in the group regardless of their physical location. Zerto delivers on the promise of virtualization. ■

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### About Zerto

Founded by a team of storage industry veterans, Zerto provides enterprise-class business continuity and disaster recovery solutions for virtualized infrastructure and the cloud. Zerto Virtual Replication is the industry’s first hypervisor-based replication solution for tier-one applications, replacing traditional array-based BC/DR solutions that were not built to deal with the virtual paradigm. Ziv Kedem, Zerto’s founder and CEO, previously co-founded Kashya, acquired by EMC. Backed by Battery Ventures and Greylock Partners, Zerto is dual-headquartered in Israel and the United States. For more information, please visit [www.zerto.com](http://www.zerto.com).

**Zerto**

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