



## Praetorian Financial Group

### Ensuring against disaster with a recovery management solution from EMC

#### BUSINESS VALUE HIGHLIGHTS

#### SOLUTION SNAPSHOT

- **Software:** VMware<sup>®</sup> ESX Server<sup>™</sup>, EMC RepliStor<sup>®</sup>, EMC NetWorker<sup>™</sup>, EMC Celerra<sup>®</sup> Replicator
- **Primary Applications:** Citrix, Crystal Reports, Microsoft Exchange 2003, Active Directory, web services, insurance processing applications
- **Storage Infrastructure:** EMC CLARiiON<sup>®</sup>
- **Processing Environment:** Windows Server 2003
- **Overall EMC Environment:** In addition to the EMC recovery management solution, Praetorian relies on other EMC storage, such as EMC Celerra network-attached storage for file serving, and EMC software, including EMC PowerPath<sup>®</sup>, EMC SnapView<sup>™</sup>, and EMC VisualSRM<sup>™</sup>

**Profile:** The Praetorian Financial Group is a leader in specialty insurance, focusing on writing “non-commoditized” short and mid-tail coverage; specialty lines, niche business, and unique programs for customer and affinity groups. With headquarters in New York City, Praetorian has branch offices in Illinois, Tennessee, Kansas, and Nebraska, and has partnered with leading specialty insurance general agents throughout the 50 states.

**Challenge:** Praetorian needed a more flexible and cost-effective infrastructure to provide central IT services for multiple business units across the country, with a solid recovery management strategy to protect critical data and comply with insurance regulations.

**Business value:** EMC designed and deployed a new centralized and virtualized IT infrastructure, using EMC CLARiiON storage, EMC RepliStor, EMC NetWorker, VMware software, and EMC Services to:

- Replicate Windows-based virtual machines in real time to achieve near-continuous protection for all critical business applications
- Compress former recovery times of weeks to a recovery time objective of 24 hours and recovery point objective of 15 minutes for all core business applications
- Eliminate the backups at individual offices with centralized and automated backup of 12 terabytes of data
- Consolidate from 52 physical servers to nine physical servers running 60 virtual machines, contributing to an ROI of nearly 600 percent in just four months and a more secure infrastructure

#### Business overview

The Praetorian Financial Group is a leader in the specialty insurance business, offering its clients unparalleled expertise and service. With headquarters in New York City, Praetorian has branch offices in Illinois, Tennessee, Kansas, and Nebraska, and has partnered with leading specialty insurance general agents throughout the 50 states.

Praetorian’s patchwork of servers and storage across multiple branch and agent offices was no longer keeping up with the business challenges of this rapidly growing firm. In particular, Praetorian needed to increase protection of business and customer data, comply with strict state and federal regulations, and achieve the business flexibility necessary to stay competitive in the dynamic insurance industry. To address these challenges, Praetorian embarked on a major enterprise project to deploy a centralized,

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leading-edge IT infrastructure that would ensure full recovery management while lowering IT costs and supporting strategic business initiatives.

Praetorian engaged EMC to design and implement the new storage infrastructure, using EMC® software and storage. Praetorian uses VMware® ESX Server™ virtualization software to run multiple instances of Windows operating systems on Dell servers for all its business applications, including Citrix, Microsoft Exchange, and the company's underwriting and claims processing applications. To achieve near-continuous protection of these applications, Praetorian also uses EMC RepliStor® to replicate the Windows-based VMware virtual machine system disks in real time from the primary data center in New York City to a disaster recovery site thirty miles away.

“Replicating our VMware virtual machines with RepliStor allows us to recover full operation of our core applications in a shorter period of time, with no more than fifteen minutes of data loss, compared with the weeks of recovery we endured before. And the efficiency of running a virtualized environment delivers outstanding financial benefits, such as lowering our total cost of ownership by 50 percent, while delivering a return on investment of nearly 600 percent in only four months. Together, VMware and RepliStor have provided us with an extremely powerful and cost-effective solution for recovery management.”

Michael Anselmo, CIO

Michael Anselmo, Chief Information Officer at Praetorian, said, “We face the kinds of challenges many businesses have today: achieving secure data protection, greater flexibility, regulatory compliance, and lower operational costs. By consolidating our IT infrastructure and using leading-edge technologies from EMC, we can respond very dynamically and cost-effectively to the needs of our business units, and assure them that their data is well protected at all times.

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### Services expertise assures secure and agile IT infrastructure

With the size of the business expected to grow significantly, Praetorian made a strategic decision to centralize and virtualize its infrastructure and adopt an internal service-provider model for IT that could be more responsive and economical in meeting the diverse needs of the business. Recognizing EMC and Dell as leaders in IT storage and server infrastructure, Praetorian brought in service professionals from both companies to assist in the design and implementation of the new infrastructure.

Ismaeel Abdur-Rasheed, Praetorian's vice president of infrastructure and operations, said, “We required world-class solutions that could scale, and we needed the flexibility to respond quickly to new application requests from our users, while ensuring that critical business data was well protected. EMC Services provided the specialized expertise we needed to design and implement an infrastructure that could meet our needs. They also provided the added value of a close partnership with Dell, which resulted in a well-coordinated implementation of both the server and storage environments.”

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“With professional services from EMC and Dell, we really got the best of both worlds,” added Anselmo. “EMC brings the storage and business continuity expertise and Dell has the server and networking knowledge. Having two partners working together like that was especially important where we are virtualizing our server environment using a combination of EMC software and storage, as well as Dell servers. The result is an agile and secure infrastructure that is way out in front of what most other insurance companies our size are doing today.”

The resulting infrastructure consists of Dell servers running Windows 2003 guest operating systems on VMware ESX Server software. VMware creates a layer of hardware abstraction, providing multiple virtual machines that run independently of the physical hardware. The environment also includes high-performance EMC CLARiiON® fibre channel storage and EMC Celerra® storage for core business applications, such as Citrix, Crystal Reports, and Exchange, with Cisco networking. Celerra Replicator provides array-based replication of application data to the disaster recovery site.

### **Reducing business recovery from weeks to hours**

With the majority of all the company’s applications running on Windows guest operating systems as virtual machines, Praetorian required a highly reliable solution for ensuring efficient recovery management for its most critical applications. Praetorian found the ideal solution with RepliStor. By replicating the virtual machines in real time, RepliStor achieves near-continuous protection for all the applications running on the Windows guest operating systems.

“There are changes and updates occurring constantly to the application environment, reflecting the company’s business activity throughout the course of a day,” explained Abdur-Rasheed. “We need to protect these applications and ensure absolute business continuity by capturing these changes as they occur, which would be impossible using a traditional backup-to-tape strategy as we were before. Instead, with RepliStor, we capture changes within the virtual machines on a continuous basis and have an exact copy available at our remote site for very rapid recovery.

“Unlike other types of storage replication, we needed a way to detect changes occurring inside the Windows guest operating system,” added Abdur-Rasheed. “RepliStor provides this capability and works very well with VMware, so it was the ideal choice for our replication strategy.”

Praetorian has established a set of recovery time objectives (RTOs) and recovery point objectives (RPOs) according to the criticality of various business applications. With a staggered recovery plan, the company can restore applications based on business need, with the highest level of recovery reserved for core services, such as claims processing systems, which are stored within the VMware virtual machines. For these applications, Praetorian has an RTO of 24 hours, with an RPO of 15 minutes or less. Essential, but non-critical, services such as financial systems have an RTO of 48 hours, also with an RPO of 15 minutes. Other non-essential services are then restored on an as-needed basis.

“We’ve tested our business continuity strategy by starting up our VMware ESX servers at the disaster recovery site and launching the replicated Windows virtual machines, and everything worked perfectly,” reported Anselmo. “With our use of RepliStor and VMware, we’re very confident that we can meet our RTO and RPO objectives during a true negative event. We now know that we can simply fire up the virtual machines over at our recovery site and have the same functionality that we have today at our production site—all in a matter of hours, instead of the days or weeks it would have taken us to recover and re-build physical servers. That’s real business protection.”

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## Centralizing backup for greater protection and efficiency

As further protection, Praetorian uses EMC NetWorker™ software to backup to tape all of its virtual machine images and data files residing on CLARiiON storage at its production site. The company also uses NetWorker to backup files from EMC Celerra network-attached storage to tape. With its previous architecture, Praetorian's individual business units had responsibility for backup, but now everything is centralized, providing greater efficiency and cost savings.

"From an administrative standpoint, we have one place to back everything up," said Abdur-Rasheed. "That provides savings because we only need one staff, instead of many scattered around the country. Also, now that everything's aggregated, we can invest in the very latest technology, which benefits everyone from a reliability and efficiency standpoint. Data retention is critical to our business, so it's important that we have both a reliable replication strategy and a backup plan to make sure our data is properly protected. This requires that the content affecting all our organizations be properly replicated, backed up, and administered, which EMC enables us to do very effectively."

## Achieving an ROI of 600 percent in four months

The use of VMware also enables Praetorian to improve overall server utilization and disaster recovery efficiency, reducing TCO and delivering an impressive ROI. VMware allows Praetorian to extend the value and utilization of its server hardware, essentially creating many virtual machines, out of one physical machine. This capability has enabled the company to consolidate from 52 physical servers in its legacy infrastructure to just nine physical servers today running approximately 60 virtual machines.

VMware also provides Praetorian with added value in its day-to-day operations by reducing administrative requirements and enabling the company to get more out of each physical server.

Anselmo said, "By physically reducing the number of servers under management, and then getting more out of each server, we can actually run IT for less. That's how we've been able to reduce our TCO by almost 50 percent. Plus, we calculated an ROI of nearly 600 percent, which we achieved in just four months. That's a lot of value that comes right back to our bottom line."

## Scaling new heights with confidence

Praetorian Financial is growing rapidly and is expecting to add new businesses, expanded locations, and many more new users in a relatively short period of time. With its leading-edge infrastructure and the support of EMC technology and services, the company is well prepared to handle growth.

"EMC has the software and storage we need to adopt ILM and better manage our data as its value changes over time," said Abdur-Rasheed. "With EMC software, we can create policies to automatically manage where the data sits. So we can continually optimize the storage environment for performance and cost. Plus, it will help us gain greater control over managing data growth to contain our backup windows and maximize service to our end users."

"We built our infrastructure to scale cost-effectively, protect growing volumes of data, and respond more dynamically to changing business needs," said Anselmo. "We have a solid business continuity strategy with VMware and RepliStor—the foundation is in place and I'm confident we can build on it in virtually any direction as we add business units and employees."



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