PREMIER
EYE CARE

PREMIER EXPERTISE. PREMIER SERVICE.

PREMIER EYE CARE | PROBLEM SOLVED

To overcome the productivity-draining drawbacks of its previous storage solution and deliver exemplary performance to customers, Premier Eye Care implemented NetApp SolidFire all-flash storage.

Healthcare Company Cures Storage Inefficiencies with NetApp SolidFire

Founded in 1994, Premier Eye Care manages the eye care of more than 3 million insured members in multiple U.S. states through a national network of contracted optometrists, ophthalmologists, subspecialists, and surgical facilities. Headquartered in Tampa, Florida, the company manages routine vision, medical, and surgical eye-care services, as well as delegated administrative services, for its partner health plans. Premier Eye Care's IT operations serve multiple company departments: claims, reporting, provider support services, and member team services.

Backup time reduced from
9 hrs.
▶ **7 mins.**

Latency fell from
200ms
▶ **1ms**
per transaction

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> "It has completely changed the way we work. When I hit the button with SolidFire, they're getting data that is live to that second."

Rob Connock
Database Administrator, Premier Eye Care

Leading health-plan providers such as Humana, WellCare, and Magellan Health contract with Premier to manage delivery of services, including authorizations, network management, benefit design, member services, appeals and grievances, medical review, and claims payment. In their day-to-day jobs, most Premier employees use PLEXIS, a trusted enterprise administration and claims management application. To ensure that it delivers exemplary performance to this core application—for example, no health-plan customers idling on hold while help-desk staff wait for data—Premier has built a high-performance IT environment. Company data centers use VMware virtualization and Microsoft SQL Server databases with approximately 2TB of transactional data.

PRIOR STORAGE SOLUTION CHALLENGES

Before adopting NetApp SolidFire technology, Premier used a well-known iSCSI-based SAN. The product, however, posed major drawbacks. Every night, Premier would back up its production databases and deploy them to a development environment. The backups took five to nine hours and sometimes failed entirely; staff would come in the next morning and find that the database had not been refreshed from the previous night. Premier needed a development environment that could be refreshed quickly, reliably, and on demand.

Unpredictable latency and unacceptable application response times caused more problems for Premier. Company systems experienced latency of between 150ms and 200ms per transaction, as long as a minute-and-a-half application response times, and hour-long wait times just to run simple reports.

When someone ran a report, other users would sometimes get locked out if an update was run against the database simultaneously, which led to user complaints. The database administrator would have to track down the person who was running the report and have that person cancel it just so that help-desk staff could get back to work. And, because database maintenance cycles took 22 hours, they could be run only on weekends, instead of nightly as Premier would prefer.

"We had three major issues to solve: backup and recovery, latency, and reporting," says Rob Connock, Premier's database administrator. "With a growth rate of 50GB a month, we were also running out of space."

NETAPP SOLIDFIRE ACES REAL-WORLD TESTING

In response to these challenges, Premier searched for a new storage solution to improve application response time, accelerate backups, and lower costs. Also, given the small size of the company's

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engineering department, Premier wanted to provide ease of use, both in terms of learning curve and ongoing maintenance.

"The latency was just too high on our existing storage. We needed to be able to refresh in the middle of the day and universally improve storage performance for our mixed-workload environment," says Dennis Poore, Premier's director of IT infrastructure. "We knew we had to look for another solution. We wanted one that would be cost-efficient and simple to use."

Poore was researching solid-state storage solutions when a call from a NetApp SolidFire representative led to a demonstration and testing. The results were impressive and reliable because Premier was able to use its own data. "You can look at white papers, you can read studies and reviews, but until you use your data in your environment, you don't know for sure," Connock says. "Testing NetApp SolidFire, I was able to write scripts that used our actual reports, our backup and recovery. That gave us real

assurance the solution would specifically work for us."

Architected from the ground up to be the storage foundation of next-generation data centers, NetApp SolidFire reduces cost and complexity by safely consolidating mission-critical applications onto a single storage platform. The solution provides deep block storage integration with all of the industry's leading cloud, orchestration, and virtualization software, and dynamically scales storage resources to meet business demands—all with guaranteed performance."

"Implementing NetApp SolidFire was simple. We had it installed and connected to a host in under an hour," says Poore. "The user interface is very clean, very intuitive, and it provides the features we needed." The solution also proved to be highly resilient, he added. "We had a four-node system set up. We yanked out two of the nodes to see how it worked, and then added nodes back in to see how quickly it would rebuild. We were very impressed with SolidFire's ability to absorb

multiple, concurrent faults and automatically recover without affecting application performance."

PREMIER ACHIEVES MEASURABLE GAINS

By using NetApp SolidFire technology for its database workloads, Premier reduced its backup and recovery time from up to 9 hours down to 7 minutes. From the previous 150ms-to-200ms range, latency fell to 1ms or 2ms per transaction, accelerating application performance. Reports that used to take hours now take minutes. Database maintenance cycles accelerated from 22 hours to 4 to 6 hours.

Not only can Premier now refresh the development environment in minutes, but it does so with current data that resides on its NetApp SolidFire arrays instead of the previous night's backup. To accomplish this capability, NetApp linked Premier with services partner WireStorm to create a Windows PowerShell script. PowerShell is an automation platform and scripting language for Windows and Windows Server that allows users to simplify system management. Premier uses it to automate snapshot backups of the SolidFire array for use in the development environment.

"It has completely changed the way we work," Connock says. "When I hit the button with SolidFire, they're getting data that is live to that second. Now if I get a call at five o'clock on a Friday evening saying our internal users need the development environment refreshed, I can do it in minutes, then go home. And they're not getting data from the night before."

"It made a lot of sense to switch to solid-state storage. With NetApp SolidFire's scale-out architecture, we can grow storage incrementally and nondisruptively as our business needs dictate."

Dennis Poore
Director of IT Infrastructure, Premier Eye Care

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MAXIMIZING SOLUTION PERFORMANCE

In addition to the high quality of the storage solution, Poore is impressed by the service that he receives from NetApp. Starting at the moment that a customer deploys a cluster, SolidFire Active Support continuously monitors and adjusts systems to provide superior levels of availability and performance. "We're a small shop. We don't have engineers to spare to learn the nuances of a complex product or dedicate time every day to checking its performance. NetApp SolidFire is simple to deploy and includes continuous monitoring."

What's more, Poore says, when you call SolidFire support engineers, their aim is not just to close the ticket as quickly as possible. Rather, they want to make sure that you understand and want to help you get the most out of your solution. "They want to look at your environment and see if there's a way to help you improve performance," he says. "They answer any questions you have even if it's outside the scope of the ticket. That's fantastic."

COST-EFFICIENT SCALABILITY

Premier has been so successful with running Microsoft SQL Server workloads on NetApp SolidFire that the company has started to migrate heavy-traffic virtual workloads to the solution—with resulting performance increases. For example, terminal-server users now can log in within 5 seconds instead of 30. Premier will be able to cost-effectively expand its storage solution as needed and can add nodes dynamically without having to purchase another siloed SAN system. All these advantages solve the storage issues that sent Premier looking for a new solution, while also paving the way for future growth.

"We wanted reduced latency. We wanted to be able to refresh our development cycle in the middle of the day—without buying redundant storage. And we wanted ease of use," Poore says. "It made a lot of sense to switch to solid-state storage. With NetApp SolidFire's scale-out architecture, we can grow storage incrementally and nondisruptively as our business needs dictate. Not only does the solution deliver everything it promises, what also stands out is the quality of the sales engineers and support staff at the back end."

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