PELLA OPENS NEW WINDOWS OF OPPORTUNITY WITH VIOLIN SYSTEMS

Pella

IT ENVIRONMENT

- SERVER HARDWARE: HP Super- Dome II, HP ProLiant DL380, and HP ProLiant DL580

- NETWORK: Fibre Channel with 4 GB/sec Brocade switches

- SOFTWARE: Oracle ERP, Microsoft SQL Server, Oracle PeopleSoft

- Violin Systems SOLUTION: 4 Violin All Flash Arrays (2 for production; 2 for BCDR)

Pella Corporation, a leading provider of quality windows and doors, is also known for its 85-year history of innovation. When the company needed a primary storage solution for Oracle, SQL Server, and other business-critical applications, they turned to Violin All Flash Arrays as long-term strategic assets to improve performance, reduce costs, and stay ahead of the competition.

Pella Corporation is a leading creator of a better view for homes and businesses by designing, testing, manufacturing, and installing quality windows and doors for new construction, remodeling and replacement applications. As a family-owned, privately-held company, Pella is known for its 85-year history of innovation, making outstanding products, providing quality service and delivering on customer satisfaction. Headquartered in Pella, Iowa, the company provides careers for 7,000 employees and is committed to incorporating new technologies, increasing productivity, and practicing environmental stewardship.

"The bottom line is that we are basically in a no-wait I/O state; we simply don't have to wait for disk I/O anymore."
— *Jim Thomas, Director of IT Operations, Pella Corporation*

The Challenge

The downturn of the U.S. mortgage industry created extreme challenges for companies across the housing industry. Pella's leadership team set very aggressive targets to reduce long-term operating expenses, increase profitability, and remain a strong, lean organization in a downsizing market. As Jim Thomas, Director of IT Operations, explains, "We're clearly a leader in our industry, but with an 80 percent reduction in housing starts, you'd better be agile, so we're working really hard to stay the best in our business."

Pella's existing high-end, disk-based storage environment provided adequate performance for the company's Tier-1 databases and applications, but as Thomas and his team looked down the road, it became obvious that the performance of the existing storage infrastructure was going to hold the team back. "Part of our strategy of maintaining technology leadership is to understand what's taking place in the marketplace, said Thomas. "We design solutions with a five-year outlook, and we knew we had to look at different technologies on the horizon because we expected our IOPs to grow significantly. We wanted something that would grow linearly but transparently, without increasing the cost of management."

The Solution: Violin All Flash Arrays

When Thomas and his team discovered Violin Systems, they quickly realized it would enable them to make huge leaps forward in application acceleration. "We were previously running 30,000 IOPs on our ERP application and planned to have 60,000 IOPs in a couple of years. But when we realized we could have upwards of a million

IOPs for the same price or less, we steered towards the Violin solution. Some folks tried to tell me I didn't need that much I/O, however the significant capacity opens the door to solve problems I am not even working on yet!"

The Process

Pella is uniquely committed to strategic alliances and works almost exclusively with a small set of partners, so the decision to purchase Violin arrays was not taken lightly. "For us to even look outside our core partners is a big deal because we are loyal to the bone and it's a tough decision when we reach outside that ecosystem," said Thomas. But Violin's technology really caught

our attention when we realized we could use it to do more for the same price or lower while potentially taking I/O bottlenecks out of our future roadmap."

During the evaluation process, Violin representatives arranged for the Pella team to conduct an on-site visit with another Violin customer so that Thomas and his team could see the flash arrays in a real-world production environment. The customer, a major telecommunications company, allowed Thomas and his team to examine the storage implementation in depth and interview end users, giving them valuable insight into the customer experience.

After conferring with the customer, the Pella team had such a high degree of confidence in the Violin solution that they decided to purchase it immediately. "Visiting the Violin customer was the key turning point for us in terms of deciding to forego a proof of concept because we knew the solution would work and we wanted to accelerate our time-to-value."

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Results and Benefits

Pella implemented four Violin All Flash Arrays as a primary storage solution for several business-critical systems: Oracle for ERP, SQL Server for data warehousing and online quote management, and PeopleSoft to process weekly payroll for several thousand hourly employees.

For Thomas and Pella, the benefit of deploying Violin arrays as Tier-1 storage was seen immediately. "The first application we stood up was our internal data warehouse and it went flawlessly," says Thomas. "We saw dramatic improvements as soon as we went live. For example, our nightly mass data load previously took 7 hours for the original pass, but now

it takes less than half that time, all while tripling our batch throughput. The device has also compensated for some other performance issues with brute-force I/O that has really 'wowed' us." In addition, Thomas and his team have seen dramatic results in their Oracle ERP system as well, cutting MRP job runs by 38 percent and end assemblies by 57 percent.

The Violin solution also produced immediate results for Pella's PeopleSoft payroll system processing. "If you've ever had 4,500 team members working for your organization, you do not want to miss payroll. Before Violin, we were approaching over three hours to process these jobs, and this was cutting into our recovery window because we run payroll weekly. But now even in a worst-case scenario we are at 40 minutes. The bottom line is that we are basically in a no-wait IO state; we simply don't have to wait for disk IO anymore," said Thomas.

Cost Savings

Thomas also expects to save a significant amount of money by deploying Violin. "My initial target was $200,000 over the next three years and I'm confident we will exceed that number much sooner. This solution will save me $150,000 a year in depreciation costs alone compared to my existing SAN. Add on to that; space savings in the datacenter, reduced power consumption, and increased capabilities that we're going to be able to deliver by having much, much more IO than we've historically had, it's one more step forward in helping drive our costs down while delivering a better user experience."

Looking Ahead

The Violin solution at Pella is sized for 3-5 years of growth, and Thomas expects Violin to become a "pull" technology for his organization. "The best thing for us is when we get a technology that people want so that I don't have to push it on them. I'm fairly certain that as awareness of the solution grows, applications teams are going to start knocking on my door asking when they can migrate their data to Violin."

Beyond Pella's Tier-1 application storage needs, Thomas plans to leverage the Violin arrays as he expands the company's VDI environment to cover about 25 percent of their workforce. "In the first quarter, we are planning to migrate our core VDI environment and a SQL-based online system for 1,500 reps," states Thomas. "We know that as soon as we move that environment to Violin – particularly our streaming applications – there will be a huge impact."

Overall, Thomas views the Violin solution as a strategic long-term asset that will help Pella stay ahead of the technology curve and the competition. "For Pella, picking Violin was about looking to the future, continuing to stay one step ahead with our infrastructure, and anticipating where the business is going to go before it gets there."

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