Case Study

INDUSTRY

Manufacturing

LOCATION

Pella, Iowa

SOLUTION

Data storage & protection

Virtualization & consolidation

Business continuity & disaster recovery

DATALINK SERVICES

- Analysis
- Design
- Implementation
- Support

BENEFITS

- Refresh storage for growth, efficiency
- Enable on-the-fly scalability
- Maintain 24x7 data availability
- Improve DR with faster, simpler recoverability
- Shrink backup times by >20%
- Eliminate bottlenecks with transition to 10GbE
- Reduce storage costs with deduplication, thin provisioning
- Save $350K over 4 years

Vermeer partners with Datalink on Storage Refresh for Enhanced IT Services, Flexibility and more than $350K Savings.

THE CUSTOMER: VERMEER CORPORATION

Vermeer Corporation manufactures a wide range of agricultural and industrial products serving the agricultural, construction, landscaping, organic recycling, rental, surface mining, tree care, and wood-waste industries. The family-owned company, founded in 1948 and headquartered in Pella, Iowa, distributes products through a global dealership network with more than 570 locations in 50 countries. In 2010, Vermeer Corporation CEO Mary Andringa was appointed to the President's Export Council to serve as a private-sector representative for business, industry, agriculture, and labor.

In 1944, farmer Gary Vermeer built a mechanical hoist that dramatically accelerated grain-wagon unloading. In 2010, the company he founded introduced the industry's first flex-angle drill to streamline geothermal field loop installations. For nearly 70 years from family farm to global enterprise, the Vermeer Corporation has stayed relentlessly focused on delivering innovation and efficiency to its customers.

One key to its success is the company's use of leading-edge technologies and processes to control costs and engineer inventive, timely, and high-value solutions. Brent Westerkamp, IT systems engineer at Vermeer, elaborates, "Diversifying product lines, accelerating time-to-market, and implementing lean manufacturing processes have helped our business thrive, even in the face of increased global competition and struggling economies. As a Kaizen shop, we're committed to continuous improvement across all of our engineering, manufacturing, business, and management processes. That extends to our IT infrastructure, where we're constantly working to drive down costs while simultaneously improving service to the business. In these days of lean staffing and increasing demand for IT services, Vermeer relies on Datalink to help find and deploy best-fit, business-enabling technologies that meet stringent requirements for functionality, reliability, and efficiency."

THE CHALLENGE: REFRESH STORAGE FOR BUSINESS FLEXIBILITY, ASSET AND SERVICES PROTECTION, COST REDUCTION

Westerkamp says that managing data growth has been one of the IT organization's major challenges. Most recently, shrinking backup windows, at-capacity storage systems, and complicated data mirroring and disaster recovery (DR) processes prompted a re-assessment of existing solutions.

Vermeer engaged Datalink to evaluate backup processes in light of current data protection and recoverability demands. At the time of the assessment, backups had begun to exceed available windows, taking as much as 38 hours to complete and threatening to impact performance during business hours.

"We see an up-leveling in the demand for IT services, even as we are asked to operate with increasingly lean staffing and budgets. To meet such challenges, we need trusted vendors like Datalink that can help us more quickly and comprehensively research, implement, and support technology solutions. The Datalink engineering staff augments our in-house team with both resources and a breadth of expertise that spans storage, virtualization, networking, and business processes. From providing routine support for our Symantec and NetApp systems, to needs assessment and design of large-scale IT solutions, Datalink has proven to be a vital partner in our success."

BRENT WESTERKAMP
IT SYSTEMS ENGINEER
VERMEER CORPORATION

Datalink also worked with the Vermeer IT team to address expanded capacity and DR requirements. Options included adding trays to existing storage systems that were approaching the end of three-year support contracts or pursuing replacement storage architectures. With the existing SAN storage at 90% capacity, the project took on particular urgency in light of the company's expected engineering data growth, requirements for an expanded VMware environment, desktop virtualization plans, and scheduled upgrades to critical applications, including an ERP system.

Objectives of the projects included:

- Ensuring scalability to support growth and flexibility for new business initiatives
- Streamlining and accelerating backup processes to protect critical data assets
- Simplifying data mirroring and improving DR for faster recoverability
- Reducing storage costs

THE SOLUTION: IMPLEMENT NETAPP METROCLUSTER FOR BUSINESS CONTINUITY, GROWTH, SAVINGS

Vermeer worked with Datalink to complete a detailed needs assessment and compare alternative storage solutions. A hands-on session at the Datalink lab facility allowed the Vermeer IT team to evaluate storage integration with VMware and to assess critical functionality, including point-in-time copy and remote mirroring capabilities, deduplication technology, and configuration and provisioning processes.

Upon completion of the evaluation, Vermeer determined the best-fit solution to be NetApp FAS Series systems with NetApp MetroCluster software. Integrating efficiencies in hardware, copy and replication technologies, and provisioning software, the NetApp solution supports Vermeer objectives for growth and savings. For business continuity, the MetroCluster solution combines array-based clustering with synchronous mirroring to deliver continuous availability and zero data loss. As a self-contained solution, MetroCluster enables transparent recovery from failures so that mission-critical applications continue uninterrupted. The solution also eliminates many manual processes to reduce administrative overhead and the risk of human error.

Datalink deployed NetApp systems at the primary data center in Pella and at the company's secondary data center, which is one mile from the primary data center. MetroCluster enables automated synchronous mirroring between the two sites. Datalink installed the NetApp systems, assisted in migration efforts, and provided hands-on training for the Vermeer IT team.

Today, the solution delivers approximately 19TB of usable capacity to some 2,100 Vermeer users, including 175 development and test engineers. The storage resources support physical servers and two VMware hosts running more than 30 virtual machines (VMs). Working with Datalink, Vermeer has to-date migrated to NetApp nearly 75% of all critical systems and data, including fileshares, SolidWorks PDMWorks engineering drawing vaults, Microsoft Exchange Server, and Microsoft SQL Server databases.

Based on Datalink recommendations, Vermeer also consolidated two tape-based backup environments and integrated its Symantec NetBackup server into the company's new Cisco-based 10-Gigabit Ethernet (10GbE) network. The consolidated solution simplifies backup processes and allows Vermeer to stream more backup jobs across the high-speed fabric without performance degradation or business-disrupting bottlenecks.

THE BENEFITS

Data protection, reliable access, business continuity

"The NetApp MetroCluster solution was something Datalink uniquely brought to the table," comments Westerkamp. "Other vendors we contacted offered more traditional approaches that would not have given us the simplicity and seamless failover benefits of MetroCluster. It's a good example of Datalink's consistent efforts to look at the company's

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needs in light of its larger business objectives, rather than simply responding to a checklist of desired features. The Datalink team takes the time to understand our current issues, as well as the roadmap of IT services we need to deliver to the business over time."

Westerkamp contrasts the benefits of the new MetroCluster solution with the company's original host-based mirroring solution: "Although we had the capability to mirror data to our DR site, recovering from a failure event required a re-synchronization of data when the storage came back online. That recovery process was complex to manage, and, in the event of a major failure, could put enough traffic on the SAN to negatively impact performance. During a recent 3 pm workday power failure, the MetroCluster solution performed as expected—we lost no data, and no business systems were disrupted with synchronization processes."

Centralizing storage also enables better protection of VMware environments. Westerkamp elaborates, "We use Snapshot technology to nearly instantaneously create space-efficient copies of data and VMs. In the past, as many as 19 servers could have gone down in the event of a failure on a single VMware host with internal disk. Today, with virtual servers stored on the NetApp, we can easily run those systems on an alternative VMware host with minimal to no downtime.

"Since we consolidated our NetBackup environments, we've also reduced tape backup times by more than 20%. All of these solutions contribute to high availability of IT services to Vermeer users, as well as to dealers requiring routine access to many of our systems. At any time of the day or night, a user, remote branch office or dealer somewhere around the world is likely accessing our data or application services. Maintaining 24x7 availability and ensuring business continuity is essential to keeping the company's global workforce and dealer network productive."

Scalability for growth, efficiency and flexibility for business

Westerkamp reports that the solution provides capacity and scalability to support the comapny's current project list, including an ERP system upgrade, consolidation of engineering data from branch offices, desktop virtualization, and an expansion of the VMware environment: "NetApp thin provisioning capability and deduplication technology allow us to conserve enough capacity to accommodate an additional year's data growth of 30% without purchasing additional storage. Technologies like deduplication will be particularly beneficial in a cost-effective virtual-desktop deployment. Without NetApp deduplication, desktop environments could easily require 10 TB of storage, making it cost-prohibitive to roll out hundreds of virtual desktops.

"During Phase II of this project, we expect to move all of our remaining systems, including our Oracle RAC environment to NetApp storage. At that point, in the second year of this transition, all of the company's production SAN storage will use NetApp. Looking at the project over four years, we estimate that the NetApp solution implemented by Datalink will result in a cost savings of $350K as compared to an expansion of our existing architecture."

Westerkamp adds that NetApp also provides greater flexibility to respond to business needs and opportunities. "Previously, scaling storage required a weekend outage. Today, we can provision new capacity in minutes. Such flexibility allows us to more quickly respond to our users, and they in turn can more quickly respond to opportunities. Our ability to rapidly address customer requirements and accelerate product introductions helps Vermeer compete through innovation, product differentiation, and timely solutions."

Finding the better way

Working with the Datalink team helped Vermeer successfully meet an aggressive project schedule. "We saved time at every phase of the project," Westerkamp recounts. "Our IT team, for example, accomplished in one day at Datalink's lab what would have taken us more than a week of research on our own. Likewise, the training they provided eliminated the need for our staff to work through lengthy tutorials. Datalink's knowledge transfer ensured that we implemented best practices to simplify ongoing administration and maximize the value of our solution investment."

Vermeer corporate lore attributes to founder Gary Vermeer the internally popular mantra of "there has to be a better way." That philosophy drives Vermeer employees to constantly look for better ways to address customer needs, innovate, and leverage cutting-edge technologies to build quality products.

Westerkamp suggests that Datalink plays a vital role in the process: "We see an up-leveling in the demand for IT services, even as we are asked to operate with increasingly lean staffing and budgets. To meet such challenges, we need trusted vendors like Datalink that can help us more quickly and comprehensively research, implement, and support technology solutions. The Datalink engineering staff augments our in-house team with both resources and a breadth of expertise that spans storage, virtualization, networking, and business processes. From providing routine support for our Symantec and NetApp systems, to needs assessment and design of large-scale IT solutions, Datalink has proven to be a vital partner in our success."

Making IT happen

A complete data center solutions and services provider, Datalink helps Fortune 500 and mid-tier enterprises get the most from every IT investment – with storage, server, and network expertise across the infrastructure. We deliver greater business results throughout, designing what we sell, deploying what we design, and supporting what we deliver.

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