CUSTOMER PROFILE
(Source: www.organicvalley.coop)

THE CHALLENGE
Expand storage capacity and functionality while controlling costs
The central mission of the Organic Valley Family of Farms cooperative is to support rural communities by protecting the health of the family farm, working toward both economic and environmental sustainability. For the Organic Valley IT team, this mission translates into building solutions that support the organization’s rapid growth while limiting administrative and data center costs.

But controlling IT costs while supporting 20% year-over-year growth has not been easy. George Neill, director of IT at Organic Valley, says that when the business grew by 29% in 2007, a dearth of storage capacity put critical processes at risk. "We were dealing with an explosion of business data, bursting-at-the-seams e-mail systems, and a wait list of application projects that required storage resources. Particularly frustrating was the fact that less than a year earlier we had quadrupled capacity on our existing FC SAN. We expected that system to last at least 18 months, but we ran it out in a year."

Curt Parr, Organic Valley’s manager of Technology Services, explains that the first inclination was to expand the current system. But there were problems. "Each solution proposed by the incumbent vendor required us to make an unacceptable compromise. For example, adding high-capacity SATA storage meant either sacrificing performance or investing months of an administrator’s time to match storage resources to applications. Alternatively, if we opted for high-performance FC disk, it would mean greater expense and the addition of another full rack of storage. Our data center is small, with room for just five racks total, so growing a rack at a time is just not acceptable. We also wanted to add iSCSI capability to give us additional flexibility and cost savings. But to do that also involved bringing in another rack of storage and Frankensteining it to the existing FC SAN."

Success Story
Storage Efficiency at Organic Valley Yields $750K Savings for Family Farms

KEY HIGHLIGHTS
Industry
Food and beverage
The challenge
Increase storage capacity and enable disaster recovery while reducing management costs and conserving data center resources.
The solution
Enhance the VMware® environment and achieve storage efficiency with NetApp® unified architecture.
Benefits
• Reduced provisioning from 13 hours to seconds
• Enabled 20-minute server/storage RTO
• Reduced storage admin to <0.25 full-time employee
• Realized >$500K capital savings
• Avoided $250K expansion + 90% higher energy costs

Another NetApp solution delivered by:
“Had we gone down the path our previous storage vendor laid out, we would have used 90% more energy and would have had to expand our data center a year ago at an estimated cost of a quarter million dollars.”

George Neill
Director of IT, Organic Valley Family of Farms

THE SOLUTION
Maximize efficiency with a business applications and DR solution built on NetApp
Working with VMPowered, the Organic Valley team outlined four requirements essential to meeting the cooperative’s storage functionality and efficiency needs:

• Simpler provisioning technology to complement a virtualized-server environment (VMware) and reduce management costs
• More seamless scalability to support rapid and often unpredictable growth
• A unified architecture for storage-networking flexibility and space efficiency
• Affordable disaster recovery to address business continuity objectives within current budget restraints

“Organic Valley already understood the enhanced functionality and cost benefits of VMware,” says Rod Lucero, chief technical architect at VMPowered. “They expected the same power in their storage architecture, but weren’t getting it with their existing SAN. Of all the solutions we evaluated, only NetApp could offer truly complementary technology in terms of scalability, reliability, provisioning, and overall resource and cost efficiencies.”

To design a fast-track transition to NetApp storage, Organic Valley teamed with Mocha Data, a NetApp partner and provider of IT solutions. At the primary data center in La Farge, Wisconsin, a NetApp FAS2050 system provides storage to a virtual application environment currently built on six blade servers and running approximately 90% of the cooperative’s business applications, including Microsoft® Exchange, as well as development and test systems. The NetApp solution enables NFS communication to ESX hosts running some 114 virtual machines.

The NetApp system also serves as primary storage for Microsoft SQL and Oracle® databases and user fileshares (via CIFS protocol). For disaster recovery, NetApp SnapMirror® software enables high-speed replication to a second NetApp FAS2050 system at another Organic Valley facility in Cashton, Wisconsin.

NetApp storage supports a broad complement of Organic Valley applications, including Infor Adage ERP, Demand Planning, Advanced Planning, and Financial Budgeting/Reporting solutions; Inovis EDI; Oracle-based Promotional Planning; SalesLogix CRM; and a variety of Web, workstation management, documentation, and other systems.

BUSINESS BENEFITS
Storage fit for VMware: 90% utilization, streamlined provisioning
Since deploying NetApp, the Organic Valley IT team reports an impressive 90% utilization of storage resources and a dramatic reduction in provisioning time—from hours to seconds. “We always understood the power of VMware,” Neill comments. “VMware gave us 15-minute virtual server deployments and a more than 50% improvement in processor and memory utilization. But with our old SAN, we never saw equivalent gains on the storage side. Even after considerable reconfiguration efforts, we never achieved better than 60% utilization.”

Parr offers a before-and-after provisioning example. “On one occasion when we ran out of capacity in the VMware VMFS, it took an administrator more than 13 hours over a weekend to expand a LUN from 10 to 15GB. That same process on NetApp takes about 17 seconds—we timed it. What’s less measurable is the impact on employee retention. In the past, allocating new capacity or trying to reconfigure to improve utilization was painful and usually had to be done over a weekend so that the business was not impacted. Our administrators called it ‘spinning wheels’ work. NetApp has eliminated all that pain and the associated costs.”

Parr reports that to avoid the pain of expanding or reallocating capacity in the old SAN, it was not unusual for administrators to allocate as much as 50% extra capacity “just in case.” Today, in addition to leveraging NetApp FlexVol® technology for fast allocation of capacity, Organic Valley takes advantage of the built-in mechanism for enabling thin provisioning to virtually eliminate wasteful overprovisioning of storage.
Deduplication, another NetApp space reduction technology, has also allowed Organic Valley to reclaim some 40% of its storage capacity by eliminating redundant data objects across a variety of data sets.

**Economic sustainability: Achieving >$1M savings for family farms**

Neill estimates that compared to an equivalent physical environment with traditional SAN storage, the VMware-on-NetApp environment has saved Organic Valley more than $500K in capital and maintenance costs to date. “That’s not considering the data center space and power issues we would have had to address. Had we gone down the path our previous storage vendor laid out, we would have used 90% more energy and would have had to expand our data center a year ago at an estimated cost of a quarter million dollars. Instead, we have greater functionality and major cost savings, and we’re well on our way to achieving our 2009 goal of a one-rack data center. Of course the ultimate benefits come from being able to enhance our cooperative’s economic and environmental sustainability. This solution contributes to both.”

Additional economic benefits have come in the form of operations efficiency. Although Organic Valley added capacity and a disaster recovery solution, the IT team has actually reduced its storage-administration load.

Managing the NetApp solution now requires less than 0.25 full-time employee. Administrative savings have come in part from having a more easily managed unified architecture that supports tiered storage (FC and SATA disk) and multiple protocols (FC, iSCSI, NFS, and CIFS) in a single platform. Parr also attributes savings to NetApp’s more effective tools for setting up and monitoring systems, performance and health monitoring, automated data protection, and provisioning workflows.

Parr compares the manageability of the NetApp solution with other systems. “Our previous vendor suggested investing in their capacity management tool to help reduce the time we spent allocating resources. But after an evaluation of the software, we realized that we’d also need to buy consulting time to help us interpret the data. In contrast, many NetApp tools are integrated, and all are more intuitive and comprehensive. If we had not purchased the NetApp, we’d have had to add at least one storage administrator to our staff.”

Neill offers another perspective on efficiencies. “When it comes to measuring IT effectiveness, I’d point out that Organic Valley currently achieves $1.2M in annual sales per employee, up from $1M per employee last year. We are consistently increasing productivity, doing more with less. And certainly this solution factors into that gain.”

**Affordable disaster recovery**

Steve Pheneger, account manager at Mocha Data, expands on the economic discussion. “The solution we originally designed did not include disaster recovery. Because of budget constraints, the IT team at Organic Valley expected to address their business continuity requirements in the next fiscal year. But taking into account the NetApp administrative and network efficiencies, in conjunction with the fact that Organic Valley can also use their DR system for other storage requirements, we were able to immediately implement a cost-effective DR solution. The NetApp solution allowed us to simultaneously address both business survivability and cost-savings objectives.”

Parr adds that before turning on the NetApp DR solution, estimating a recovery point or time objective was nearly impossible. “We thought we might be able to bring our ERP system back up in 72 hours, but we really didn’t know. Today, we know we can recover any system in 20 minutes or less. And surprisingly, we have a solution that satisfies the auditors concerned about the business impact of floods and tornados, as well as the inherently frugal natures of our farmers.”

**Flexibility for an organic future**

Neill summarizes that with the NetApp solution, Organic Valley achieved all its original objectives, from seamless capacity scaling to tiered storage and networking.
“On our old SAN, it took an administrator more than 13 hours over a weekend to expand a LUN from 10 to 15GB. That same process on NetApp takes about 17 seconds.”

Curt Parr
Manager of Technology Services, Organic Valley Family of Farms

NetApp creates innovative storage and data management solutions that accelerate business breakthroughs and deliver outstanding cost efficiency. Discover our passion for helping companies around the world go further, faster at www.netapp.com.