Top Fertilizer Company Grows Sustainable Infrastructure

Executive Summary

- **Customer Name:** Agro-Culture Liquid Fertilizers
- **Industry:** Manufacturing
- **Location:** St. Johns, Michigan
- **Number of Employees:** 100+

Challenge

- Support rapid growth with easily scalable solution
- Improve ease of management for IT staff
- Enhance disaster recovery strategies

Solution

- Leveraged VSPEX solution built on Cisco Unified Data Center and EMC VNX solutions, as well as VMware

Results

- Achieved nearly 100 percent virtualization, while increasing service quality and application performance
- Reduced data center footprint by 75 percent, as well as administrative overhead
- Reduced application migration time from weeks to days

Agro-Culture implemented VSPEX to improve scalability, increase sustainability, and deliver high-performance applications.

Challenge

Agro-Culture Liquid Fertilizers has always been known as a family business, providing quality fertilizers formulated to help farmers achieve the best results backed by honesty, integrity, and a culture built around environmental responsibility. Driven by a strong reputation and product line, the manufacturer's largest challenge throughout its more than 30-year history has been keeping pace with the growing customer demands and its own 20 percent annual growth since 2000. In turn, as the company's operations become more expansive and complex, Agro-Culture has relied on its IT department as a business enabler, demanding high-performance applications and services for all business groups.

"Agro-Culture prides itself on staying on top of technology and finding ways to improve productivity and communications across all locations," says Tracy Dunn, network manager at Agro-Culture Liquid Fertilizers. "We're committed to adopting best-of-breed technologies, from PCs and voice solutions to ERP and web-based applications that can support current and future business needs, as well as scale as our operations grow."

The company's core infrastructure was built on EMC VSPEX, including Cisco Unified Computing System™ (UCS®) servers, EMC VNX, and VMware virtualization solutions, in addition to Cisco® voice and video solutions for enhanced collaboration.

With its most recent expansion and in partnership with Cisco Gold Partner, Sentinel Technologies, Agro-Culture saw an opportunity to build on its past IT success by upgrading its server, network, storage, and virtualization solutions using trusted technologies.

> "When we want to spin up new services, time and our data center are no longer limitations. Cisco UCS solutions for EMC VSPEX have truly been a business enabler."
>
> – **Tracy Dunn**
> Network Manager
> Agro-Culture Liquid Fertilizers

"VSPEX was an attractive option for us because we had positive experiences using Cisco, EMC, and VMware solutions. We also didn't need to re-evaluate who we were buying from and knew that we could create an environment that could easily scale and be replicated as our business grows," says Dunn. This idea was also reflected in the decision to implement a second VSPEX at its disaster recovery site as Agro-Culture was eliminating its use of tape backup, opting for a more sophisticated, responsive disaster recovery (DR) strategy.

Solution

Within the main data center at headquarters, Agro-Culture implemented six Cisco UCS B200 Series Blade Servers and an EMC VNX solution with 15 TB of storage as part of its VSPEX environment. The company also implemented VMware View to support virtual desktop infrastructure (VDI) operations at its Michigan, Iowa, Kansas, California, and Montana facilities. In addition, the company chose to leverage a combination of, Cisco Catalyst® 3750 Metro Series Switches, as well as Cisco UCS 6248UP Fabric Interconnects to tie together the network.

The company's DR site mirrors the company's main data center with four Cisco UCS B200 Series Blade Servers and the same storage and switching solutions. The new DR environment also leverages a combination of Veeam software with the EMC Data Domain DD620 appliance. "The new site has provided a night-and-day transformation for how we manage disaster recovery," says Dunn. "Backup and data replication is automatic, and if something were to happen, we are confident that the interruption to service would be minimal."

Through each chassis, Agro-Culture has 80 GB of bandwidth to support its operations. By adding a few additional cables, the company can easily scale that to 160 GB, offering added flexibility as it grows. All of the company's voice, data, storage, and management flow through the same uplinks, providing a simple, easily managed solution.

Results

By adopting a more powerful, fully integrated VSPEX environment, the company has increased virtualization to nearly 100 percent within its data center, and has fully supported a companywide migration to virtual desktops. As a byproduct, the company has cut its data center footprint by 75 percent, as well as related power, cooling, and cabling costs.

"Across our business, the word 'upgrade' is synonymous with 'expansion,'" says Dunn. "With Cisco Unified Data Center solutions for EMC VSPEX, it's been quite the opposite with fewer physical pieces to manage." Equally as important, the new environment supports a culture focused on environmental responsibility and the headquarters' Gold LEED certification.

Although Agro-Culture has a smaller physical IT environment, it is not sacrificing performance. Since virtualizing its enterprise applications, including Oracle JD Edwards, Microsoft SQL Server, and Microsoft Exchange on VSPEX, end-users consistently use one word to describe performance: fast. The company's increased data center performance, combined with faster service provisioning, is encouraging rapid adoption.

"When we want to spin up new services, time and our data center are no longer limitations," says Dunn. "Cisco UCS solutions for EMC VSPEX have truly been a business enabler." For example, with the company's recent migration to Oracle JD Edwards applications, it would have taken 10 physical servers, additional licensing, and weeks to move. With the new virtualized, high-performance environment, the project took only days to complete without additional hardware purchases or expanded licensing.

Streamlined management has also been a significant benefit for the lean IT staff at Agro-Culture. With the integrated architecture, IT staff has a unified, easy-to-use set of management tools, including Cisco UCS Manager VMware vCenter, as well as improved visibility into overall performance. Additionally, with the same staff, the company can begin to focus on new initiatives and projects, including a BYOD initiative to better serve remote and on-premise employees. With virtual desktops now being supported on desktops, laptops, and tablets, employees have easier, more secure access to critical business applications with the same high-quality experience.

"We've already achieved so much with VSPEX and transformed how we manage our data center," says Dunn. "We're also confident that we have a solid IT platform and strong vendor partnerships to keep pace with our aggressive growth and changing customer demands."

For More Information

To find out more about the Cisco Unified Data Center, please visit: www.cisco.com/go/unifieddatacenter.
To find out more about the Cisco UCS, please visit: www.cisco.com/go/ucs.
To find out more about VSPEX, please visit: www.cisco.com/en/US/netsol/ns1203/index.html.