

# FABICK CAT

EMC VSPEX provides cost-effective performance and flexibility



## ESSENTIALS

### Business Challenges

- Storage devices could not be managed as a single pool
- Projected IO requirements were more than triple existing performance capabilities

### Solutions

EMC VSPEX Proven Infrastructure:

- EMC VNX unified storage
- EMC FAST Suite
- Cisco UCS
- Microsoft Hyper-V

### Applications

- Microsoft Active Directory
- Microsoft Exchange
- Microsoft Lync
- Microsoft Office
- Microsoft SCCM
- Microsoft SharePoint
- Microsoft SQL Server
- Microsoft Windows Server



CUSTOMER PROFILE

## OVERVIEW

Headquartered in Fenton, Missouri, John Fabick Tractor Company, dba Fabick Cat, is an authorized dealer of Caterpillar construction equipment, prime and stand-by power systems, parts and service, compact construction, and rental equipment. With more than 550 employees, 14 facility locations, and a fleet of vehicles, Fabick Cat serves customers in 99 counties in mid and southern Missouri and southern Illinois.

## BUSINESS CHALLENGES

Fabick Cat had business challenges which required it to consolidate and upgrade its entire IT infrastructure—including adding capacity and increasing overall network and server performance. Because the company's storage devices couldn't be managed as a single storage pool, Fabick Cat wanted to consolidate its storage. Performance was also an issue—the company's projected IO requirements for new applications were more than triple its existing capabilities.

"We approached the project holistically," says Bob Lambrecht, Director of IT at Fabick Cat. "Rather than just replacing our servers and adding another storage device, we needed to look at everything from servers to storage to switches to the network and carry out a cost-effective upgrade that would benefit the business."

After a rigorous procurement effort, including vendors such as Dell and NetApp, Fabick Cat awarded the business to EMC partner, Alexander Open Systems (AOS), for an EMC® VSPEX™ Proven Infrastructure.

"We chose VSPEX over the competition because it was up to 30 percent more cost effective than its nearest competitor," says Lambrecht. "It is the right size for our mid-sized company, yet allows us to grow easily. I came from a NetApp company prior to this. VSPEX is an excellent product for a mid-sized company."

Fabick Cat sees IT as a "pyramid of value" with four levels. "At the base is a cost-effective and flexible provisioning of infrastructure," explains Lambrecht. "The next level is finding efficiencies for the business—automating processes and reducing time and cost. The third tier is control and reporting. Finally, at the top, there is the ability to provide new services seamlessly to our customers. The infrastructure consolidation and upgrade project was the first step up our value pyramid."

## SOLUTIONS

Fabick Cat's VSPEX infrastructure includes EMC VNX® unified storage, a Cisco network backbone, Cisco UCS blade servers, and Microsoft Hyper-V server virtualization.

## Results

- Improved performance by up to 25 percent
- Provided a solution that was 30 percent more cost effective than the nearest competitor
- Reduced software virtualization costs by 78 percent
- Enabled zero downtime since deployment

"We worked through various iterations to get the maximum business value," says Lambrecht. "AOS understood what we needed to do and provided us with the best solution with the lowest investment."

AOS implemented the entire infrastructure, leveraging its partnerships with EMC, Cisco, and Microsoft. "We upgraded our core switch infrastructure at the same time, moving to faster switches outside of the UCS chassis," Lambrecht reports. "This avoided the cost of cabling and switches found in traditional architectures."

Fabick Cat has consolidated its entire storage infrastructure on VNX, which runs applications such as Microsoft Lync, Microsoft Exchange, Microsoft SharePoint, and many other Microsoft applications, while preparing for implementation of a new Microsoft Dynamics AX financial system. The VNX implementation includes the EMC FAST™ Suite (including FAST Cache and FAST VP) and a mix of Flash and high-capacity drives. This FLASH 1<sup>st</sup> strategy provides high performance and improved storage utilization.

Fabick Cat has virtualized 94 percent of its environment using Hyper-V. Fabick Cat selected Hyper-V for its virtualization component because it lowered the company's software virtualization cost by 78 percent compared to its previous environment.

### **COST-EFFECTIVE FLEXIBILITY AND SCALABILITY**

A key factor for Fabick Cat's choice of the VSPEX solution was its easy scalability and flexibility. Based on its needs, the company can add additional servers, provision new virtual machines (VMs), or add Flash or high-capacity disk to VNX with ease.

"If we need more horsepower we buy it in the form of blades. If we need more storage we just get the right type based on speed or capacity—FLASH 1<sup>st</sup> tiers the storage based on need. That's a big change in flexibility. We have already added 20 terabytes since our initial implementation," notes Lambrecht.

**"I believe purchasing integrated systems from a particular provider adds more value than buying the solutions separately and having to integrate them yourself. The VSPEX platform has been fantastic for us."**

Bob Lambrecht  
Director of IT at Fabick Cat

Fabick Cat has been particularly pleased with the service profile feature for the Cisco servers. This automated device configuration reduces the number of manual steps required to configure servers, network interface cards, host bus adapters, and LAN and SAN switches.

"Automated device configuration allows us to virtualize machines on bare metal and bring up VMs much more quickly. It allows us to install blades in a more cost-effective way."

All of these benefits come with a cost-effective price tag. "In general, the combination of products within the VSPEX platform gives us better availability, flexibility, and scalability and has the lowest total cost of ownership for the performance characteristics we needed," notes Lambrecht.

## **BENEFITTING CRITICAL MICROSOFT ENVIRONMENTS**

In addition to Hyper-V, Fabick Cat has deployed an extensive suite of Microsoft solutions, including Microsoft Windows Server, Microsoft Exchange, Microsoft SharePoint, Microsoft System Center Configuration Manager, Microsoft Active Directory, and the full Microsoft Lync platform for unified communications. The company also uses SQL Server for data warehousing and OLTP and is in the process of moving to Microsoft Office 365, Microsoft Windows 8, and Microsoft Office 2013.

The VSPEX infrastructure is providing real benefits for Fabick Cat's Microsoft deployments.

"Our Microsoft applications and databases are critical to our business," explains Lambrecht. "We can't operate without them. Using VSPEX, we have lowered the cost of ownership by consolidating multiple Microsoft environments, while also greatly enhancing our scalability and IO performance. VSPEX is a perfect solution to support our current Microsoft investment and future growth requirements."

## **IMPROVED PERFORMANCE**

Compared to Fabick Cat's old one-gigabit iSCSI environment, the new Fibre Channel infrastructure is much faster with the UCS platform interconnected at ten gigabits and storage at eight gigabits.

"All of the storage and network connections to our servers increased by a factor of eight to ten times and that translates into a 9 to 25 percent increase in performance," Lambrecht notes. "Before, if we had to move a large 500-gigabyte or one-terabyte file, we had to do it over a one-gigabit line. Now we do it inside the disk array and it just takes seconds. From an operational performance perspective that is a huge difference. Those are real numbers we measured showing the real value of VSPEX."

In addition to the network infrastructure, VSPEX also gives Fabick Cat the ability to scale both compute and storage needs easily.

"We now have a choice in meeting our storage requirements. For better performance we add high-performance disks. For more bulk storage we just add high-capacity disks. In addition, we are investigating how to better use our new environment for faster disk-based backups as well as using other products such as EMC Data Domain® for remote-site replication and disaster recovery," says Lambrecht.

## **ZERO DOWNTIME**

Fabick Cat was also pleased with the ease of implementing the VSPEX solution.

"We replatformed the entire business and put it on a different virtualization infrastructure and nobody noticed," Lambrecht states. "To me that was a home run. We moved 100 VMs with no business service interruptions other than the migration time itself over the weekend and nights. And we have had zero downtime since we deployed the new platform. The new solution delivered savings right out of the chute compared to our previous infrastructure and I didn't have to ask the business for any additional money."

## **PROVIDING VALUE TO THE BUSINESS**

The VSPEX infrastructure has enabled Fabick Cat's IT department to focus on providing value to the business.

Fabick Cat also chose VSPEX because a proven infrastructure worked well for the mid-sized company.

"I believe purchasing integrated systems from a particular provider adds more value than buying the solutions separately and having to integrate them yourself," explains Lambrecht. "This platform has been fantastic for us. We can tune it based on our needs and get it at the best total cost. We couldn't do that before."

He adds, "Another really appealing factor is you don't get nicked and dimed with software licensing, a primary cost in IT. When I add more servers or storage capacity I don't have to add more licensing as is the case with some other vendors like NetApp. VSPEX is simple and I can understand the cost up front. That is a huge benefit."

Recalling the IT value pyramid, Lambrecht says, "This past year we put our infrastructure in place and we are positioned to move upward. Our strategy supports the strategy of the business. We plan to spend the next year working with the business and enabling the company to grow. The VSPEX Proven Infrastructure allows us to spend more time generating efficiencies and building new capabilities to help our customers."

## CONTACT US

To learn more about how EMC products, services, and solutions can help solve your business and IT challenges, [contact](#) your local representative or authorized reseller—or visit us at [www.EMC.com](http://www.EMC.com).

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