

# THE RIGHT TOOL FOR THE JOB

Dell completes virtualization deployment for heavy-equipment dealer Kelly Tractor in 20 days



**SOLUTION**  
• VIRTUALIZATION

## **KELLYTRACTOR**

### **CUSTOMER PROFILE**

**COUNTRY:** United States

**INDUSTRY:** Retail/Wholesale

**FOUNDED:** 1933

**NUMBER OF EMPLOYEES:** 800

**WEB ADDRESS:** [www.kellytractor.com](http://www.kellytractor.com)

### **CHALLENGE**

An aging, proprietary enterprise resource planning (ERP) system at Kelly Tractor limited the company's ability to integrate information from separate departments and build new, innovative sales and services tools.

### **SOLUTION**

Kelly Tractor worked with Dell to design and deploy preproduction Microsoft® Dynamics™ AX on Dell™ PowerEdge™ 2950 servers running VMware® ESX Server and supported by a Dell/EMC CX3-40c storage area network (SAN).

### **BENEFITS**

#### **Get IT Faster**

- Dell helped complete deployment in 20 days, an estimated 80 percent faster than Kelly Tractor IT staff could have managed alone

#### **Run IT Better**

- Moving to Dell servers helped reduce maintenance time and labor, freeing up staff time to focus on business-oriented projects
- Virtualization on Dell servers is expected to help reduce disaster downtime from days to hours

#### **Grow IT Smarter**

- New ERP system running on Dell servers will help Kelly Tractor to better manage its business and improve customer satisfaction



For more than 75 years, Kelly Tractor has changed with the times while never losing sight of the company's core mission. Known primarily as a dealer for Caterpillar tractors and other machinery, Kelly Tractor sells, services, and leases heavy equipment to businesses and individuals in southern Florida. "Anything that Caterpillar builds and sells, we carry—along with products from other carefully selected manufacturers that complement the Caterpillar line," says Ernie Hughes, network operations manager for Kelly Tractor. "We are a family-owned business, currently being run by the third generation of Kellys."

## **"THE DELL POWEREDGE 2950 SERVERS DELIVER OUTSTANDING PERFORMANCE WITHOUT TAXING EITHER OUR PHYSICAL OR POWER RESOURCES."**

**Ernie Hughes**, network operations manager, Kelly Tractor

Operations at Kelly Tractor are highly automated and have been since the early days of mainframe computers. Since 1993, the company has relied on an IBM® AS/400® system running a proprietary ERP application developed in COBOL/RPG by Caterpillar. "Our ERP system is the heart of our business; it touches every part of the company and drives our operations," says Hughes. "The parts counters use it to check inventory levels and process sales, the sales force processes transactions through the system, our leasing team uses the system to record and maintain lease contracts, and everything feeds back into our accounting department."

Building on past IT successes, the company's principals saw exciting new opportunities to use IT to expand the business and increase the efficiency and capabilities of the company's highly skilled and experienced workforce. "We wanted to integrate information about our customers and products across our departments and branches so that we could improve our efficiency and customer service," says Hughes. "For example, when a customer calls our service department, the system should recognize the number and automatically bring up a case history."

However, it quickly became clear that extending and integrating the disparate modules of the existing ERP system would be time-consuming and expensive—if it could be done at all. "The application from Caterpillar served us really well

over the years, but it was extremely challenging to move beyond the functionality that they provided," says Hughes. "Any code that we customized would have to be re-integrated whenever Caterpillar released a new version."

As a result, the Kelly Tractor management team decided that the company needed more capabilities than the proprietary AS/400 application could provide at an acceptable cost. After careful analysis, the decision was made to move the business to a new ERP system based on Microsoft Dynamics AX and industry-standard PC hardware. "From our evaluations, it was clear that the Microsoft platform would give us the flexibility that we needed to continue to grow," says Hughes.

Hughes had also been conducting research on the benefits of moving the Kelly Tractor PC server infrastructure from physical servers to virtual servers. He was convinced that moving to a virtual server platform would help reduce maintenance and administrative costs while increasing the overall resiliency of the company's IT infrastructure. When early estimates of the server needs for the new ERP system suggested that the company would need to add as many as 50 new servers, Hughes proposed deploying as much of the new system as possible on a virtualized server pool, and taking the opportunity to migrate the entire company to a virtual server infrastructure.

### **ATTENTION TO DETAIL MAKES THE DIFFERENCE**

With a strategy in place, the Kelly Tractor team turned their attention to the servers that would form the backbone of the new IT infrastructure. The team wanted a hardware partner that could provide the necessary systems, the expertise to get those systems up and running in time to meet a tight deadline, and the ability to simultaneously train the Kelly Tractor staff so they could independently manage the new system.

After evaluating proposals from several vendors, the Kelly Tractor management team decided that the combination of Dell servers, storage, infrastructure consulting, and life cycle support would provide the company with the best overall value. The Dell team's attention to detail convinced Hughes that the Dell engineers had thoroughly investigated the Kelly Tractor project. "The Dell recommendation was specific, detailed, and significantly more thorough than the other proposals," says Hughes. "The advance work that the Dell team showed even before they won the contract gave us confidence that they would be able to complete the project on time and on budget."

With the partnership in place, the Dell and Kelly Tractor teams faced a significant challenge: the software and hardware decision process had taken longer than expected, leaving less time for deployment. "The preproduction system needed to



# “WE INSTALLED THE DELL/EMC SAN FIRST WITH THE HELP OF A DELL ENGINEER, AND IT ONLY TOOK US TWO TO THREE DAYS TO SET UP AND CONFIGURE.”

**Ernie Hughes**, network operations manager, Kelly Tractor

be up and running by a given date,” says Hughes. “Even though we made it difficult by holding off on making the decision, the Dell team committed to meeting our deadline.”

Over the next three weeks, Kelly Tractor IT staff and the Dell team deployed the hardware that would both host the preproduction ERP application and serve as the new core infrastructure for the company. At the heart of the new system are five Dell PowerEdge 2950 servers with dual quad-core Intel® Xeon® processors running VMware ESX Server and acting as the virtual server farm. Two more Dell PowerEdge 2950 servers rounded out the deployment, one running VMware Virtual Center and one acting as a backup server. The Kelly Tractor IT staff uses Symantec® Backup Exec™ to write daily backups to a Dell PowerVault™ TL4000 tape library, providing automated, compact archiving. The organization also uses Vizioncore vRanger Pro to create periodic image backups of its virtual servers, which are stored on disk and eventually archived to tape.

According to Hughes, the Kelly Tractor IT team chose Dell PowerEdge 2950 servers because they offered an optimal balance of performance, scalability, and rack density for the ERP application. “So far, we have 53 virtual servers running, and we expect to add many more,” says Hughes. “The Dell PowerEdge 2950 servers deliver outstanding performance without taxing either our physical or power resources.”

Hughes knew that reliable, high-performance shared storage would be the key to making the most of the organization’s new virtualized server infrastructure. To maximize system availability and performance, Hughes chose a Dell/EMC CX3-40c SAN loaded with 15.7 TB of storage and connected by two Brocade Fibre Channel switches, providing Kelly Tractor with a high-performance, scalable storage system. Hughes especially appreciated the way that the SAN smoothly integrated with both the new servers and the existing IT infrastructure.

“We installed the Dell/EMC SAN first with the help of a Dell engineer, and it only took us two to three days to set up and configure,” he says.

## **DELL HELPS REDUCE DEPLOYMENT TIME BY AN ESTIMATED 80 PERCENT**

With the Dell team working alongside the Kelly Tractor IT staff, the entire deployment was completed only 20 days after the initial order—a process that included building, shipping, and installing the new systems. Hughes estimates that the installation alone was completed as much as five times faster than his team could have managed unassisted. “We had never worked with VMware before, so we would have needed training before taking on an implementation of that size,” says Hughes. “The total timeline would have probably stretched out to three or four months.”

Hughes assigns much of the credit for the rapid, successful deployment to the expertise of the Dell team. “We had a very tight deadline, but the Dell team created a thorough, detailed plan for how they would meet our schedule, and then delivered on that commitment—they never missed a step,” says Hughes.

## **ERP SYSTEM RUNNING ON DELL SERVERS OPENS REVENUE OPPORTUNITIES**

The new ERP system’s flexibility gives the Kelly Tractor IT team the ability to create new and better tools for staff in all departments to serve their customers and increase revenue. One improvement that Hughes expects will be implemented quickly is a unified customer data repository that brings together all orders and purchases from a single company, even if they were made by different purchasing agents at that company. With this new capability, the Kelly Tractor sales force will have a more complete picture of their customers’ activities and can make better recommendations that should lead to increased sales. “Our new ERP system will open up opportunities for every part of our company,”

## **HOW IT WORKS**

### **HARDWARE**

- Dell™ PowerEdge™ 2950 servers with dual quad-core Intel® Xeon® processors
- Dell/EMC CX3-40c SAN
- Dell PowerVault™ TL4000 tape library
- Brocade Fibre Channel switches

### **SOFTWARE**

- Microsoft® Dynamics™ AX
- Symantec® Backup Exec™
- Vizioncore vRanger Pro
- VMware® ESX Server
- VMware Virtual Center

### **SERVICES**

- Dell Global Infrastructure Consulting Services

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says Hughes. “Working with Dell and Dell servers, we are better able to integrate with our customer base and move forward as a leader in our industry.”

**MOVING TO DELL SERVERS HELPS REDUCE IT MAINTENANCE TIME AND LABOR**

Hughes looks forward to spending less time on maintenance and more time driving new projects that will enable the business to work more effectively. “Virtualizing our infrastructure and moving to Dell servers will help simplify our maintenance and administration tasks and improve the IT staff productivity,” says Hughes

**KELLY TRACTOR EXPECTS VIRTUALIZATION ON DELL SERVERS TO HELP REDUCE RECOVERY TIME FROM DAYS TO HOURS**

As part of the revamped IT infrastructure, the Kelly Tractor IT team is planning to open a data disaster recovery site in Atlanta, Georgia. Information from the company’s main store and headquarters will be replicated to the Atlanta site, so Kelly Tractor can continue operations even if a storm knocks out all communications, as Hurricane Wilma did in 2005. “Construction and demolition equipment is a key ingredient when you’re battling through and recovering from weather damage,” says Hughes. “By basing our new infrastructure on Dell servers, we are able to ensure that we can recover from an outage in a few hours and provide service to our community when it is needed most.”

**DELL HELPS KELLY TRACTOR EXTEND ITS TRACK RECORD OF INNOVATION**

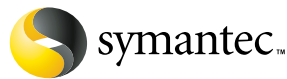
Moving from proprietary software running on legacy hardware to an application running on standards-based Dell servers and infrastructure will help the IT team at Kelly Tractor improve the functionality of the tools available to the entire business and create new opportunities for revenue. However, the team is also blazing a technological trail that other equipment dealers are likely to follow. “We’re one of the first Caterpillar dealers in North America to move away from the Caterpillar software, so we have a lot of other dealerships looking at us right now, and they’ll probably use a lot of the things that we develop,” says Hughes. “It’s tough to be a leader in this industry, and our partnership with Dell helps Kelly Tractor stay ahead of the competition.”

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**KELLYTRACTOR**



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