Microsoft Server Product Portfolio
Customer Solution Case Study

Energy Firm Manages Growth and Avoids IT Costs of $236,000 by Using Virtualization

Customer: Valerus Compression Services
Website: www.valerus-co.com
Customer Size: 1,000 employees
Country or Region: United States
Industry: Manufacturing—Oil and gas
Partner: Catapult Systems

Customer Profile
Valerus Compression Services of Houston, Texas, provides products and services that aid in the collection and distribution of natural gas.

Software and Services
- Microsoft Server Product Portfolio
  - Windows Server 2008 R2 Enterprise
  - Microsoft System Center Configuration Manager 2007 SP2
  - Microsoft System Center Data Protection Manager 2007
  - Microsoft System Center Operations Manager 2007 R2
  - Microsoft System Center Virtual Machine Manager 2008
- Technologies
  - Hyper-V

Hardware
- Dell PowerEdge 1950, 1955, M600, and R900 servers

For more information about other Microsoft customer successes, please visit: www.microsoft.com/casestudies

"By building a high-availability infrastructure using virtualization, we saved $170,000 in [hardware] costs and another $66,000 annually on data center expense."

Buck Carraway, Director of Information Systems and Technology, Valerus Compression Services

Rapidly growing Valerus Compression Services needed to contain IT costs and remain agile in the oil and gas industry. To speed server deployment and improve application availability, Valerus adopted a Microsoft data center management and virtualization solution. The company is managing more servers with no staff increase, and has avoided U.S.$236,000 in additional hardware and associated costs. The IT staff can also respond faster to business needs.

Business Needs

Valerus Compression Services has grown rapidly since its establishment in 2004, multiplying revenues from U.S.$14 million to more than $500 million in six years. The company provides products and services that play a critical role in collecting and distributing natural gas. However, the oil and gas business is cyclical, and management wants to keep operational costs lean to better weather slow periods.

In the IT department, two staff members worked valiantly to set up new servers and software as fast as the company needed them, but lacked the tools to automate routine data center chores. "By 2007, we were supporting employees in 20 offices around the world and managing more than 20 servers," says Buck Carraway, Director of Information Systems and Technology for Valerus Compression Services. "It took two weeks to order, configure, and test a physical server, and several hours to set up a new PC. With the company growing so quickly and requiring so many servers, it was difficult to meet business needs for new capabilities. The cost of physical servers also represented a big capital expense."

Adds Jarod Hazlett, IT Manager for Valerus Compression Services, "We knew that we couldn't keep adding more IT people; we

Catapult Systems

Microsoft

needed a smarter way to manage our IT infrastructure."

Solution

To help find a solution to contain IT costs and remain agile, Valerus brought in Catapult Systems, a Microsoft Gold Certified Partner and National Systems Integrator based in Austin, Texas. In October 2007, Catapult used the Microsoft Core Infrastructure Optimization model to assess the Valerus technology infrastructure. Catapult recommended a Microsoft System Center data center solution to help automate routine infrastructure tasks.

Specifically, Valerus deployed Microsoft System Center Configuration Manager 2007 SP2 to standardize and shorten the process of building and deploying software images, and manage them more effectively once deployed. "Using System Center Configuration Manager greatly increases our efficiency at managing our client computers," Hazlett says. "It also helps us with [U.S.] Sarbanes-Oxley Act compliance by enabling us to consistently apply and manage security updates to the servers running our financial applications."

To monitor servers and applications, Valerus uses Microsoft System Center Operations Manager 2007 R2. The company also uses System Center Data Protection Manager 2007 to automatically back up files to disk and tape, and provide rapid file recovery.

While Valerus was able to deploy and monitor servers more effectively, it was still adding servers at a rapid rate. By 2009, it was up to 50 servers. To slow server proliferation, Valerus deployed the Windows Server 2008 R2 Enterprise operating system with Hyper-V virtualization technology on eight new Dell host servers in Houston—two configured as a high-availability cluster—and two in Austin, where the company maintains a disaster recovery facility. On these 10 host servers, Valerus has created 57 virtual machines to date—avoiding the purchase of 57 physical servers—and still has expansion room.

After deploying Hyper-V, Valerus installed Microsoft System Center Virtual Machine Manager 2008 to ease virtual machine creation and centralize management of both virtual and physical host servers. "We've integrated System Center Virtual Machine Manager with Operations Manager so we can monitor the health of our entire server and application environment," Hazlett says. "We get alerts if anything needs attention, so we can proactively add resources such as memory or processing power to avert failures."

Benefits

By using its IT management and virtualization solution, Valerus has avoided more than $236,000 of data center costs while managing more servers and applications with no staff increases. In addition, Carraway and Hazlett can respond faster to business needs and keep critical applications running even in catastrophic circumstances.

"By building a high-availability infrastructure using virtualization, we saved $170,000 in [hardware] costs and another $66,000 annually on data center expense," Carraway says. Plus, the company has plenty of growing room in its existing host computers. Carraway estimates that the continued use of Hyper-V will enable Valerus to avoid an additional $60,000 in server hardware over the next year, and another $33,000 in annual data center costs. "Virtualization has worked so well for us that we have a 'virtual first' mentality," Carraway says. "Unless there's a specific need for a physical server, we create a virtual server. Hyper-V enables us to expand our IT resources without more space and power."

By using System Center Configuration Manager, Valerus has reduced deployment time from weeks or hours to about 20 minutes per machine, an important time-saver considering the rapid growth in employees, PCs, and servers. "As of April 2010, we are supporting 700 client computers and 110 physical and virtual servers with only two help-desk staff and two server technicians," Carraway says.

Valerus also has a more dynamic and flexible IT environment to meet business needs. "If a business group asks us for a new application, we are able to respond very quickly," Hazlett says. "For example, we implemented Microsoft Office Communications Server 2007 R2 in just one week. There was no need to order and configure hardware; we set up virtual machines in an hour [and] then deployed and tested the software."

Because its servers are located in the coastal city of Houston, Valerus is always concerned about business continuity in the face of hurricanes. But with critical applications now running on virtual machines, Carraway and Hazlett can move those workloads to another location if a server—or entire server site—is in trouble.

"Our business can continue running even if our Houston office is disabled," Carraway says. "By using System Center and Hyper-V, we are better able to ensure business continuity and manage costs in the face of rapid growth."

Document published June 2010

Microsoft