

DEFINING A NEW GLOBAL STANDARD

Flow International standardizes on Dell hardware to increase enterprise efficiency, cut new PC deployment time by up to 10 hours, and foster collaboration among global divisions



Harnessing the power of advanced technology has been central to the success of Flow International. Over the past 35 years, the company has integrated its ultra-high-pressure water jet technology into powerful tools that cut automotive glass and airplane composites as well as machines that clean ships' hulls and roadways.

SOLUTIONS

- SYSTEMS MANAGEMENT
- CONSOLIDATION
- MANAGEMENT/UTILITIES
- VIRTUALIZATION



CUSTOMER PROFILE

COUNTRY: United States

INDUSTRY: Manufacturing

FOUNDED: 1974

NUMBER OF EMPLOYEES: 650

WEB ADDRESS: www.flowcorp.com

CHALLENGE

Flow needed to make its enterprise more efficient, facilitate collaboration among global business divisions, prepare for business growth, and improve worker productivity.

SOLUTION

The Flow International IT group conducted a major overhaul of its global IT infrastructure, creating virtualized data centers with VMware® software, Dell™ PowerEdge™ servers, and Dell/EMC storage, and replacing outdated clients with Dell Precision™ workstations, Latitude™ laptops, and OptiPlex™ desktops.

BENEFITS

- Deployed the new IT data center infrastructure across five global data centers in just six weeks with help from Dell ProConsult services, allowing workers to capitalize on updated technologies quickly
- Reduced the time to deploy new PCs from as many as 12 hours to 2, refreshing 650 client systems without adding staff
- Helped workers stay productive by cutting PC repair times from up to several days to frequently under an hour
- Simplified management of a global infrastructure, enabling IT staff to refocus on more strategic tasks
- Deployed an infrastructure that can foster collaboration among Flow employees in 17 worldwide locations, building a single, global enterprise
- Created a scalable, virtualized infrastructure that can host more applications and support continued company growth

DELL

“BY STANDARDIZING ON DELL HARDWARE ACROSS THE ENTERPRISE, THE IT GROUP SPENDS MUCH LESS TIME ON FIXING PROBLEMS. NOW OUR IT STAFF WORKS MORE DIRECTLY ON PRODUCTS THAT SUPPORT THE BUSINESS INSTEAD OF JUST MAINTAINING THE EQUIPMENT.”

Scott Rollins, IT consultant to Flow International

Despite the company's success in producing innovative technology, its own IT infrastructure needed a major overhaul. Corporate acquisitions in new global regions and years of restricted capital spending resulted in a complex, fragmented, and outdated IT infrastructure that was more a liability than an asset.

“Technology was supposed to hold the global company together, but the internal IT infrastructure was falling apart,” says Scott Rollins, IT consultant to Flow International. “We were using more than 200 software applications to process and track customer transactions. As a result, core processes such as picking, packing, and shipping products varied from one company location to another. That variability increased costs and hindered the company's ability to scale effectively. We also had data integrity issues that introduced risk to the company, our customers, and our suppliers.”

Managing this infrastructure was a tremendous drain on resources. “Hardware broke down frequently, and those problems affected worker productivity,” says Rollins. “In addition, there was no attempt to implement IT standards as companies were acquired. The company was using 30 brands, 145 models, and 345 configurations of PCs across the enterprise—for only 700 employees. Simple administrative tasks, such as installing new monitors for employees, could take up to 45 minutes for each computer because administrators had to download and install different drivers. The IT group spent all its time just trying to keep the infrastructure running instead of contributing to strategic projects.”

To restore IT to its place as a strategic asset, Flow International launched in 2007 a four-year initiative that would encompass 63 IT projects. “The primary goals were to create company-wide standards, simplify IT, and build an integrated infrastructure that would eliminate silos and bring us together as one global company,” says Rollins. “To provide the robust hardware foundation for new applications and software updates, we planned to deploy a full range of new equipment, from servers and storage to desktops, workstations, and laptops.”

It was imperative to work with a global hardware company. “We needed a vendor that could work with our U.S. team to develop standard configurations, and then implement those standards in our offices around the world. We also wanted a vendor that could help us make changes fast. The infrastructure had been broken for too long.”

DELL OFFERS A GLOBAL APPROACH TO IT

After evaluating a variety of hardware vendors, the Flow team decided to work with Dell to refresh its servers and storage. “Dell was the only company that could engage with us directly on a global scale to implement standards across our entire enterprise and then help us manage and support those configurations on a global basis,” says Rollins.

Early on, the Dell account team demonstrated its ability to deliver results fast. “The Dell team was very responsive,” says Rollins. “We received proposals and sample configurations within a

HOW IT WORKS

HARDWARE

- Dell™ PowerEdge™ 2950 servers with Intel® Xeon® processors
- Dell/EMC CX3-20c storage area networks
- Dell OptiPlex™ 755 and 760 desktops
- Dell™ Precision™ M6400, M6300, and T3400 workstations
- Dell Latitude™ E6400 and D630 laptops
- Dell PowerVault™ ML6010 LTO-3 tape libraries

SOFTWARE

- EMC® Navisphere® Management Suite
- EMC RecoverPoint™/SE
- Microsoft® Dynamics® AX 2009
- Microsoft Exchange Server 2007
- Microsoft Office Communications Server 2007
- Microsoft SharePoint Server® 2007
- Microsoft SQL Server® 2003, 2005, and 2008
- Microsoft System Center (DPM, SCCM, SCOM)
- Microsoft Windows Server® 2003 and 2008 (Standard, Enterprise, and Data Center)
- Microsoft Windows Vista® and Microsoft Windows® 7
- VMware® vSphere™ Enterprise 4

SERVICES

- Dell ProConsult
 - Server Virtualization Services
- Dell ProSupport

“THE DELL POWEREDGE SERVERS PROVIDE THE RIGHT BUILDING BLOCKS FOR OUR VIRTUALIZED ENVIRONMENT. THEY GIVE US THE FLEXIBILITY TO RUN A WIDE RANGE OF MISSION-CRITICAL APPLICATIONS AND THE SCALABILITY FOR EXPANDING THE ENVIRONMENT, ALL AT THE RIGHT PRICE/PERFORMANCE RATIO.”

Martin Walker, global director of IT architecture and engineering, Flow International

few days of talking with the Dell account team. We couldn't even arrange a phone call that quickly from some of the other vendors.”

DELL HARDWARE PROVIDES THE FOUNDATION FOR A VIRTUALIZED INFRASTRUCTURE

The IT group selected Dell PowerEdge servers to provide a flexible, scalable foundation for a server environment virtualized with VMware vSphere™ Enterprise software. The new environment uses 40 physical servers to host more than 200 virtual servers. “The Dell PowerEdge servers provide the right building blocks for our virtualized environment,” says Martin Walker, global director of IT architecture and engineering at Flow. “They give us the flexibility to run a wide range of mission-critical applications and the scalability for expanding the environment, all at the right price/performance ratio.”

By using an industry-standard hardware platform for the virtualized environment, the IT group could easily accommodate the Microsoft® Windows Server® OS and the Microsoft applications—including Microsoft SQL Server® 2005 and 2008, SharePoint Server®, Exchange Server 2007, and Microsoft Office Communications Server 2007—that allow employees worldwide to access information easily, share files, and communicate effectively. Through a collaborative project with Microsoft, the IT group also deployed Microsoft Dynamics® AX 2009—an enterprise resource planning (ERP) solution that helps to consolidate and standardize processes across the enterprise.

To provide robust, scalable storage for the virtual infrastructure, the IT group deployed Dell/EMC CX3-20c storage area networks (SANs) in its

global data centers. Each SAN has between 4 and 10 TB of capacity with a mix of Fibre Channel and serial ATA (SATA) drives. The IT group uses EMC® RecoverPoint™/SE with the SANs to conduct block-level replication for disaster recovery. “The Dell/EMC SAN delivers the reliability, performance, and easy scalability we need,” says Walker. “It also offers the flexibility to support both Fibre Channel and Internet SCSI (iSCSI) technologies so we can protect our investment as we make changes in the future.”

“In addition, the SAN provides good management capabilities right out of the box with the EMC Navisphere Management Suite,” says Walker. “We did not want to spend extra money on software to manage our storage, and with the Dell/EMC SAN and Navisphere, we don't have to.”

DELL HELPS DEPLOY FIVE DATA CENTERS IN FOUR COUNTRIES— ALL WITHIN SIX WEEKS

With help from the Dell ProConsult team, the Flow IT group adopted a clear plan for deploying the new servers and storage. “The Dell team had a comprehensive set of predefined best practices ready for our deployment,” says Rollins. “That detailed planning helped to ensure a very smooth and efficient deployment process.”

Beginning in the U.S., a Dell ProConsult engineer set up the initial VMware servers and configured the storage and switches. He then traveled to each of the major Flow International data centers around the world and did the same. “The deployment covered five data centers in four countries, and with help from Dell, it was completed in about six weeks,” says Walker.

“Our employees were able to capitalize on the latest versions of applications and experience performance improvements rapidly.”

FLOW STANDARDIZES ON DELL CLIENT SYSTEMS ACROSS THE ENTERPRISE

The success of the server and storage deployment led the Flow IT group to work with Dell again to refresh the company's client systems with Dell Precision workstations, Latitude laptops, and OptiPlex desktops all running Microsoft Windows operating systems. “Initially, we did not commit to working with a single hardware vendor,” says Rollins. “But we were so impressed by the Dell team's work with our servers and storage, we decided to extend our relationship to client systems.”

“Compared with products from other vendors, Dell clients were able to deliver the greatest return on our investment,” says Walker. “Dell OptiPlex desktops and Latitude laptops can provide outstanding reliability for the entire three- or four-year life cycle while hitting the sweet spot on the price/performance curve. We also selected Dell Precision workstations for engineers who need extra compute performance, graphics capabilities, memory capacity, or storage to do 3D modeling, use computer-aided design (CAD) applications, or develop software.”

The Flow team is evaluating the Microsoft Windows 7 operating system on Dell Latitude laptops and Dell Precision mobile workstations throughout the company in advance of a broad, enterprise-wide deployment. “We anticipate that Windows 7 will provide users with better performance, good backwards compatibility, and strong system stability that will help drive down

service calls," says Steve Bell, group manager of IT infrastructure engineering and operations at Flow International. "Because we can continue to use our existing Microsoft System Center Configuration Manager 2007 structure for deployment, updates, and support, we expect a smooth transition from an IT perspective."

STANDARDIZING HELPS ACCELERATE NEW CLIENT DEPLOYMENT FROM 12 HOURS TO 2

Adopting industry-standard hardware enabled the IT group to create a company-wide software image that has helped dramatically simplify PC deployment and repair. "Today we have a single, global software image with different language packs that can be deployed very quickly," says Walker. "We can plug in a new Dell system and press F1 to select the image. The base OS is installed in a half hour. We then push additional software onto the system using Microsoft System Center Configuration Manager, and we're done. It used to take us 12 hours to set up a new computer; now it takes just 2."

By reducing the time for deploying new PCs, the IT group completed a global refresh across 17 offices in 15 countries without adding costs. "We deployed 650 PCs in just over a year without having to hire more staff," says Walker. "On an ongoing basis, we can get employees up and running quickly while focusing our IT resources on more strategic tasks."

FLOW CUTS TYPICAL PC REPAIR TIME FROM UP TO SEVERAL DAYS TO UNDER AN HOUR

Standardization has also helped accelerate repairs. "Our staff can diagnose and repair hardware problems much faster than before," says Walker. "Software issues can be resolved faster, too. We replicate data stored on each employee computer to the network. If we can't fix the PC right away, we can re-image the hard drive or swap it out with a new one quickly. In the past,

troubleshooting problems, repairing systems, and recovering data might have taken more than a day—now we can often get a user back up and running in under an hour. By implementing hardware and software standards, we have enhanced the responsiveness of IT and improved the quality of the user experience significantly."

Though the IT group has not had to use Dell ProSupport frequently, they know that they can count on Dell to resolve hardware problems quickly and correctly. "With our previous infrastructure, hardware broke down frequently," says Walker. "Now problems get fixed. With Dell ProSupport, it's much easier than before to keep our employees productive."

STANDARDIZED, UNIFIED INFRASTRUCTURE HELPS FLOW COME TOGETHER AS A COMPANY

The new infrastructure has helped significantly reduce the time and resources needed for IT management. "By standardizing on Dell hardware across the enterprise, the IT group spends much less time on fixing problems," says Rollins. "Now our IT staff works more directly on products that support the business instead of just maintaining the equipment."

The infrastructure has also helped employees around the world work together more effectively and improved the efficiency of operations. "Whether engineers in different locations are designing a new water jet system, global logistics teams are establishing new packing and shipping processes, or customer service representatives are coordinating technical support, Flow employees can now use technology to facilitate efficient collaboration," says Rollins. "With the new infrastructure based on Dell hardware, we can move ahead as a single, global enterprise."

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