

CHALLENGE	SOLUTION	BENEFIT
Decrease total cost of ownership (TCO) by migrating the mission-critical SAP® application from the UNIX® operating system running on proprietary systems to the Linux® operating system running on standardized Intel® processor-based hardware	Red Hat® Linux® operating system running on Dell™ PowerEdge™ servers that use Intel® processors and a storage area network (SAN) featuring a Dell PowerVault™ storage device	Easier deployment, simplified systems management, and lower TCO

Repackaging the data center

Packaging and plastics materials manufacturer Menasha Corporation saves money by migrating from proprietary UNIX systems to Linux-based Dell servers powered by Intel processors

Menasha Corporation traces its roots to the mid-19th century when the company manufactured wooden pails. Today, as one of the oldest privately held companies in the United States, Menasha is a leader in the packaging industry—designing, manufacturing, and supplying plastic and polymer-based packaging products. Comprising five independent companies that serve multiple industries, Menasha has 60 facilities in 22 states and eight countries and employs 5,500 people worldwide. During 2001, the company grossed more than \$1 billion in revenue.

Menasha relies on its IT infrastructure to help maintain its leadership in the design, manufacturing, and supply of products. While the company was upgrading its SAP® system from version 3.1 to version 4.6, Menasha CIO Ed Wojciechowski discovered that the new version of SAP would require Menasha to add five more UNIX® servers, which could be a sizable investment for the company. Meanwhile, the SAP application had just been qualified to run on the Linux® operating system. By switching to Linux for its SAP applications, the company could power its mission-critical enterprise system with servers using Intel® processors.

“We had already begun using Linux on some workstations and non-critical servers and found the stability was superior to any other operating system we had running on an Intel-based platform. So we were already expanding its use within our organization,” Wojciechowski says.

Dell supplies the right materials for SAP

During a hardware technology refresh the previous year, Wojciechowski collected quotes for servers from Dell and two other vendors, including the incumbent supplier. Menasha was already using Dell™ workstations in several areas of the company.

“Dell’s server price was significantly lower, particularly when

we looked at the three-year total cost of ownership,” he says. “The quality of the equipment was great, the support worked well, and the process of acquiring products using the Dell Web site only helped the situation. We haven’t looked back.”

At first, Menasha brought in Dell equipment to replace its network file-and-print servers. But, Wojciechowski says, “We wanted to standardize on one vendor for Intel-based servers because it would make deployment easier. In fact, we wanted to use Intel processor-based servers throughout the corporation.”

Menasha expanded its use of Dell servers into the company’s data center and its packaging system, which runs the largest segment of Menasha’s business. The company then began running its Oracle® database and a full suite of financial and logistics applications from SAP on the new Dell platform. Menasha plans to migrate 100 percent of its infrastructure in the coming years.

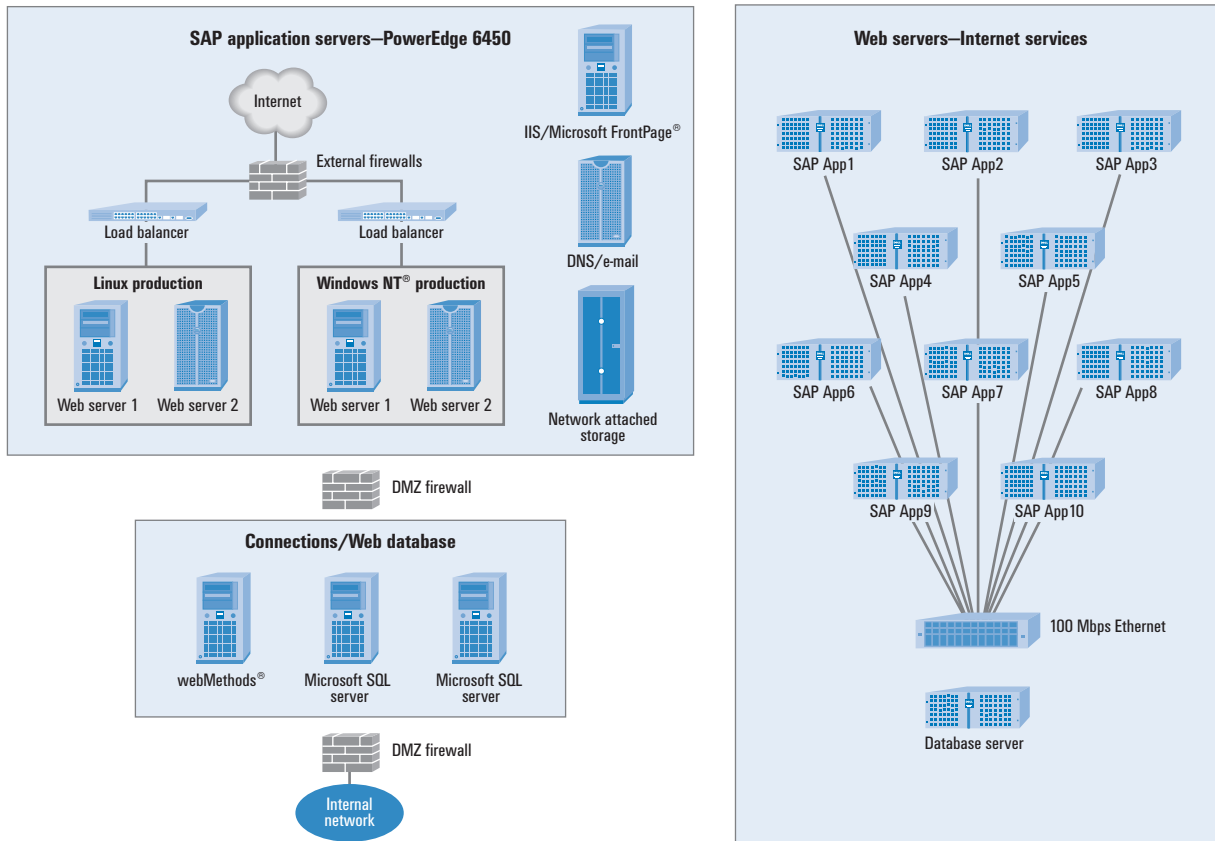
Menasha’s SAP system is now powered by 10 Dell PowerEdge™ 6450¹ servers running the Red Hat® Linux operating system. Dell helped Wojciechowski’s team evaluate the number of servers the company needed based on the numbers of users and transactions.

If Menasha had purchased the additional UNIX servers, Wojciechowski estimates the total cost—including hardware, additional software, and maintenance—would have been \$700,000 more than the cost of the Dell-Red Hat implementation.

Dell repackages the Internet infrastructure

Wojciechowski and his team also decided to make the company’s Internet infrastructure more robust by adding redundant firewalls and load-balancing equipment.

¹ Newer models are available at <http://www.dell.com>.



Menasha Corporation uses Dell PowerEdge servers running Red Hat Linux for its mission-critical systems

“Previously, our Internet infrastructure was cobbled together with servers from a different major vendor, no load-balancing equipment, and a firewall system from yet another vendor. Working with Dell, we decided to use a three-tier structure and add failover and redundancies,” Wojciechowski explains. “We created two zones for the Dell servers: one for those running Linux and one for those running Microsoft® Windows® 2000.”

Menasha also purchased Dell PowerVault™ storage to back up the Web servers and database. “Our goal is to build a SAN environment with a switch layer, a storage layer, and a server layer, and we’re maintaining a good dialogue with our Dell representative regarding our requirements,” says Wojciechowski.

Menasha saves a bundle

“Our decision to standardize on Dell was based on a simple equation of quality, cost, and value,” Wojciechowski says. “I think the primary benefit of the Dell-Red Hat solution has been the lower cost of delivering IT services to the company. Margins are not high in our business, so any time we can lower our costs, it’s a big benefit for the company.

“Today, all but one of our businesses is standardized on Dell desktops, and all businesses that are standardized on Dell servers buy their equipment directly from Dell over the Internet,” he adds.

In another successful attempt to ease IT deployment, the

company had Dell install desktop imaging. In one instance, a Menasha department received its shipment of Dell equipment, plugged them in, and began using them—all without any IT support. Previously, Menasha’s staff would have spent four to six hours per machine to set them up. Now, that’s down to zero. “All of our businesses that have used the desktop imaging service are very pleased with it,” says Wojciechowski.

The service and support Menasha has received from Dell influences Wojciechowski’s future planning. “We respect Dell as a company, and the products and services that Dell delivers. For the few times that we have needed support, we’ve been very pleased with the response times, the people who came, and the quality of their work,” says Wojciechowski.

Dell and Red Hat are an integral part of Menasha Corporation’s technology roadmap. In fact, Wojciechowski would like to include an option on the company’s desktops for those employees who wish to use the Linux operating system. “I believe the model is sustainable. We get great performance from the Dell servers and the Linux operating system,” says Wojciechowski. ☺

