STYLMARK IMPROVES AVAILABILITY, DISASTER RECOVERY WITH RED HAT ENTERPRISE VIRTUALIZATION

Stylmark, a leading provider of customized aluminum structures, lighting, graphic displays and framing systems in retail, grocery and hospitality environments for companies seeking to create or update spaces to allure and engage their customers. A long-time Red Hat customer, the company selected Red Hat Enterprise Virtualization as a key IT infrastructure component, which has influenced the company to use additional open source solutions to enhance its own product portfolio. By using Red Hat technology, the company's IT staff can now spend more time on new applications to enhance business, while gaining a more competitive edge.

SOFTWARE

Red Hat Enterprise Virtualization

HARDWARE

HP ProLiant DL360 G6 servers, Compellent SC30 storage area network

Minneapolis, MN ●

NORTH AMERICA + GLOBAL

METAL DISPLAY DESIGN AND MANUFACTURING INDUSTRY

CUSTOMER SINCE
2005

2013 INNOVATION AWARD WINNER

RED HAT INNOVATION AWARDS

"*With Red Hat Enterprise Virtualization, Red Hat has done in five years what some of the industry leaders have taken 10, 11, or 12 years to accomplish. Red Hat Enterprise Virtualization is a product that just works.*

FREDY HERNANDEZ
SYSTEMS ADMINISTRATOR, STYLMARK

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KEEPING THE BUSINESS RUNNING—BUT ON A BUDGET

In 2011, in the middle of a severe recession, the physical server hosting Stylmark's all-important enterprise resource planning (ERP) system failed, causing Stylmark to shut down its operations for almost a full day—something it could not afford. Thinking quickly and creatively, the Stylmark IT staff worked through the night, using spare parts to rebuild the server and get the company back on its feet. That outage demonstrated better than all the presentations and capital requests from the IT staff just how important the Stylmark IT infrastructure is to the business and how much it needed an update. Still, the company also realized that spending the money on traditional commercial IT solutions would starve the rest of the company of funds for equally important capital improvements. Stylmark needed a way to modernize its IT infrastructure and improve availability and reliability, all without breaking the bank.

"We knew that we needed to virtualize approximately 12 servers to give us full coverage so if something went down, we would have a way to bring everything back up online in a very timely manner," said Joey Bertalan, IT manager for Stylmark. "Downtime of 2-3 hours was really the maximum that we would want to deal with. Less than that would be much better. The problem was that proprietary virtualization solutions were expensive and pretty much out of our price range. We had allocated some funds for creating a virtual environment, but it was not enough to complete the whole project."

Stylmark already had a custom Fedora firewall system in place, so it was familiar with Red Hat and open source technology. After several discussions with Red Hat partner Infrasupport Corporation, Stylmark decided to deploy Red Hat® Enterprise Virtualization to update its IT infrastructure.

"Along came Red Hat Enterprise Virtualization and the price was just right—and the functionality even better than we had hoped," said Fredy Hernandez, Stylmark's systems administrator. "We could do live migrations and failover without spending one extra penny. So we decided to go with it."

A SOLUTION THAT FIT INTO THE EXISTING INFRASTRUCTURE

The project started with Red Hat Enterprise Virtualization 2.2, using some existing server hardware to run a temporary Windows 2003 server. For shared storage, Stylmark carved out some iSCSI logical unit numbers in its existing Compellent storage area network (SAN). Stylmark had an expensive, unused server on hand that was intended for use in an upcoming project, but persuaded the hardware reseller to take it back in trade for two less-expensive HP ProLiant DL360 G6 hosts. For zero dollars in hardware capital costs and a few software subscriptions, Stylmark had the ingredients to begin.

When Red Hat Enterprise Virtualization 3.0 became available, Stylmark decided to upgrade and experienced performance like it had never seen before. The virtual machines met or exceeded all the physical machine performance tests.

This happened just in time, because the Stylmark Exchange 2003 server had a hard limit of 75 GB in its email store. Stylmark was approaching 70 GB. If that database grew five more gigabytes, email would shut down throughout the company. And like most businesses today, Stylmark needs constant access to its email system, so losing the email functionality meant that operations had to be halted.

Stylmark decided to try Exchange 2010 in a Red Hat Enterprise Virtualization environment. Right away, users reported faster performance with their Outlook clients, and today a small army of cell phone users now sync their messages, contacts, and calendars 24x7 on the Red Hat Enterprise Virtualization environment.

"With Red Hat Enterprise Virtualization, Red Hat has done in five years what some of the industry leaders have taken 10, 11, or 12 years to accomplish," said Hernandez. "Red Hat Enterprise Virtualization is a product that just works."

Stylmark used Red Hat Global Support Services extensively, especially during critical periods throughout the project, and a Red Hat partner. "We worked with a consultant at Infrasupport who had the virtualization experience that we just didn't have internally," said Bertalan. "Not only did he bring expertise and help us to deploy in a much more timely manner, but he also linked us to Red Hat and taught us how to communicate with the greater open source community."

One of the critical goals of the engagement was to implement a robust disaster recovery plan. "When we finished implementing the Red Hat Virtualization environment, we were able to replicate our hosts in another location in downtown Minneapolis," said Hernandez. "If one of our hosts dies, we can pull it from downtown. So disaster recovery has been covered."

A HUGE LEAP FORWARD IN RELIABILITY

Best of all, Red Hat Enterprise Virtualization seamlessly integrated with Stylmark's existing IT investments.

"By using the Red Hat solution, we were able to leverage the strengths of our existing infrastructure," said Bertalan. "The lightweight servers combined with the heavy-duty Compellent SAN provided us the greatest coverage and the highest performance possible from our available technologies.

Hernandez, who calls himself "a one-man IT shop" for Stylmark, is grateful for Red Hat Enterprise Virtualization's centralized management capabilities. "I have to oversee the network, security, email systems, databases, and the ERP system," he said. "So for Red Hat Enterprise Virtualization to give me a central management tool that allows me to pop up virtual machines in minutes, that's priceless."

The Stylmark team was particularly impressed with the personal nature of Red Hat support. "It's just way cool that you can send an email and a person who helped build the product emails you back," said Greg Scott, the chief technology officer for Red Hat partner Infrasupport. "Just try getting that kind of response from the mega-huge software operations out there."

"Red Hat has everything you need," said Hernandez.

One of the biggest benefits of Red Hat Enterprise Virtualization for Stylmark is the low risk of experimenting with new business ideas. "Red Hat has enabled Stylmark to do some R&D on several new applications that have the potential to give them a competitive edge in their marketplaces," said Scott. "Stylmark can carve out a virtual machine, try it out, and then if the application doesn't work out, destroy the virtual machine. They don't have to go buy hardware anymore to tinker and experiment. They can just do it for free. And that's huge."

This has made Stylmark much more agile. Instead of a time-consuming cycle for capital equipment approval, acquisition, and implementation, Stylmark can now rapidly provision new servers for testing and quickly respond to demands for expansion. That level of agile, rapid response to changing business conditions was simply not possible under the old IT infrastructure.

Red Hat's vision for moving to the cloud incrementally is another added value for Stylmark; it doesn't push its customers if they don't feel ready. "Red Hat's approach to the cloud is to do it gradually," said Scott. "That gives us choices. Looking ahead two years or five years, we don't know what exactly is going to be in the cloud and what's going to be local. So this phased-in approach makes a lot of sense."

Then there are the advantages of a bullet-proof disaster recovery plan. "With Red Hat Enterprise Virtualization, we're able to guarantee that even if one of our hosts fail, we can roll those machines over to the other host and be back online within an hour," said Bertalan. "Uptime is critical. If we aren't able to operate our systems, then we run the potential of being late on orders. We wouldn't be able to guarantee delivery to our customers. By using Red Hat Enterprise Virtualization, we're able to make those guarantees."

Bertalan is also impressed with the open source approach to innovation. "Unlike a larger vendor that's going to tell you what they believe is important, Red Hat takes what people are actually using out in the world, and converts that into a product that you use," he says.
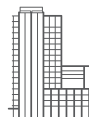
Hernandez agrees. "I have worked with other open source communities, but Red Hat brings it all together in one place," he said. "You have the assurance that the technology will be monitored, maintained, and updated. That definitely makes Red Hat Enterprise Virtualization a winner for us."

Plans for the future at Stylmark include adding more virtualized hosts and implementing Active Directory 2008 on Red Hat Enterprise Virtualization. "I want to load my Windows servers on it, provide print services, and eventually deploy some open source digital signage solutions," said Hernandez, who adds that the digital signage is likely to be deployed on Red Hat Enterprise Linux.

"As we look to the next phase of implementation, we know we're in a good place," said Bertalan. "All in all, we're very happy with Red Hat."

ABOUT STYLMARK INC.

Stylmark is a leading provider of aluminum and steel products, lighting systems, and finished fixtures for retail and other commercial environments. Its focus is on enhancing interior space through products that emphasize color, finish, and lighting. Stylmark's product offerings include retail display cases, backlit displays, light boxes, poster frames, edgelit displays, and frameless fabric displays.

ABOUT RED HAT

Red Hat is the world's leading provider of open source solutions, using a community-powered approach to provide reliable and high-performing cloud, virtualization, storage, Linux, and middleware technologies. Red Hat also offers award-winning support, training, and consulting services. Red Hat is an S&P company with more than 70 offices spanning the globe, empowering its customers' businesses.

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