Virtualization and automation help mindSHIFT Technologies achieve 21-fold acceleration in launching customer servers
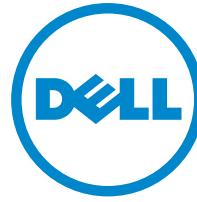
DELL

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Bill Webb, VP of Information Technology, mindSHIFT Technologies, Inc.

mindSHIFT TECHNOLOGIES

Customer Profile

Company:	mindSHIFT Technologies, Inc.
Industry:	Technology
Country:	United States
Employees:	400
Web:	www.mindshift.com

Business Need

mindSHIFT Technologies, Inc. is a managed service provider with more than 15,000 endpoints under management worldwide. The company wanted to improve the efficiency of its system administration tasks in order to provide better customer service and to maintain a constant staff size while growing revenues and the number of machines under management.

Solution

The company virtualized many internal and customer servers on a platform of Dell™ PowerEdge™ servers and Dell EqualLogic™ iSCSI SANs. Now mindSHIFT is saving IT staff time and improving customer care by automating system management processes using Dell Management Console and Symantec™ IT Management Suite.

Benefits

- **21-fold acceleration in time to launch new customer server**
- **Customers pay ongoing maintenance fee for virtual server; avoid up to $8,000 up-front hardware expense**
- **Server downtime reduced, SLA reimbursements minimized**
- **90% reduction in physical footprint of customer servers**
- **75% reduction in power used by customer servers**
- **75% reduction in physical footprint of internal servers**
- **50% reduction in power usage of internal servers**
- **Projected 200+ hours/month reclaimed for IT staff through automation of server management tasks**
- **Projected 10-fold faster customer software deployments**
- **Projected 100+ hours/month reclaimed for IT staff through automation of client software deployments**
- **Projected improvement in customer staff productivity through proactive client computer management**

At the dawn of the millennium, the founders of mindSHIFT Technologies, Inc. had a major insight about the operations of small companies. They saw that as technology was becoming increasingly complex, it was becoming integral to the functioning of organizations of all sizes. But because small to midsize businesses (SMBs) couldn't afford to employ a cadre of specialists in different areas of IT, they needed access to technology not as a product, but as a service. The result of this insight: mindSHIFT was founded to give SMBs a reliable IT infrastructure supported by world-class expertise.

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Today the company operates as a managed service provider. Customers can outsource all their IT operations to mindSHIFT, including management of clients, servers and storage devices. "We support everything from the keyboard to the Internet: desktop support, customer care, local and wide area networks, messaging, and endpoint security," says Dave Paris, the company's VP of technology.

Bill Webb, VP of information technology, says the management team at mindSHIFT has three primary goals. "We want to grow our revenue, contain our costs and increase customer satisfaction. We know these goals aren't unique, but as we've worked with Dell and Symantec to achieve them over the past few years, we've come up with some interesting ways to drive value into our business."

21-fold acceleration in deployment of customer servers

mindSHIFT manages about 20,000 endpoints worldwide, including 3,000 servers. Some servers reside on the customer's premises, while others are physical boxes in the mindSHIFT data center. Still others are VMware vSphere virtual machines, running Windows Server, that live on an assortment of Dell PowerEdge servers, supported by Dell EqualLogic PS6000XV and PS6010X iSCSI SANs.

"Our data center includes a variety of Dell machines, including several PowerEdge R710 and R810 servers with Intel Xeon processors," says Paris. "Once we started getting into virtualization and needed a large number of cores to divvy out from a virtualization perspective, we started buying Dell PowerEdge R900 servers

with Intel Xeon processors 7400 series. We've consolidated a large set of virtual machines across an R900 cluster." The data center uses Dell PowerConnect 8024 10 Gigabit Ethernet switches to support this virtual environment.

Previously, mindSHIFT customers had to buy hardware to run their applications, spending up to $8,000 for each server and related equipment. Now they can pay ongoing

Technology at Work

Services
Dell™ Support Services

Hardware
Dell EqualLogic™ PS6500E, PS6000XV and PS6010X iSCSI SANs
Dell PowerConnect 8024 10 Gigabit Ethernet switches
Dell PowerEdge™ R900 servers with Intel® Xeon® processors 7400 series
Dell PowerEdge R710 with Intel Xeon processors 5500 series and PowerEdge R810 servers with Intel Xeon processors 5000 series

Software
Dell Client Manager
Dell Management Console
Microsoft® Dynamics® CRM
Microsoft Office
Symantec™ IT Management Suite
VMware® vSphere®
Windows Server® 2008 R2, 2008, 2003 R2 and 2003

management fees and turn virtual machines off when they no longer need them. "It's a huge cost savings for our customers," says Webb. "The other benefit is that we can make a new server available overnight. Previously, it took us three weeks or more to spin up a new server, so we've increased speed to market for our customers 21-fold. Now 25 to 30 percent of the servers we have under management are virtual. This initiative has been a huge asset to us in terms of growth and sales."

At the same time, virtualization has reduced the physical footprint of servers for mindSHIFT customers by 90 percent and has reduced power consumption of customer servers by 75 percent. Moreover, says Chris Fridley, mindSHIFT director of engineering, "virtualization on Dell servers has reduced our server downtime, which has minimized our reimbursements around service-level agreements (SLAs) with customers. Not only can we offer quicker turnaround to our customers, but we've cut our costs substantially."

Internal operations at mindSHIFT have benefited as well. "For our internal systems alone, we used to have 27 physical servers, which filled two racks," says Webb. "We've shrunk that to 8 physical servers, taking up half a rack—75 percent less space—with EqualLogic storage on the back end. That infrastructure supports about 50 virtual servers. By collapsing our number of physical servers, we've cut our power usage more than 50 percent, and that translates directly into cost savings."

Automation through Dell and Symantec solutions

Another area in which mindSHIFT is pursuing dramatic cost savings is automation of system administration. For a few years, the firm has used Altiris Client Management Suite from Symantec to automate deployment of new client systems. Now mindSHIFT is extending automation to other areas of its service portfolio. "Many of our system management tasks are manual today, and our customer base is growing," says Fridley. "Instead of expanding our staff size, we want to automate more of our backend operations, including server patch management."

To achieve its automation goals, mindSHIFT is leveraging the fact that

most of its customers use Dell systems. "Our products and services aren't tied to a particular hardware platform," says Paris. "Still, the vast majority of our customers are running Dell hardware when they come to us. Dell is the premier provider for small and midsize businesses. Our infrastructure is about 95 percent Dell, both on the customer side and for our internal infrastructure, which helps our business run smoothly."

Every Dell server comes with Dell Management Console, a solution built on the Symantec Management Platform that enables IT administrators to discover, inventory and manage their Dell enterprise hardware—from physical and virtual servers to storage arrays, switches and tape libraries, to client computers and printers. The Dell Client Manager plug-in to Dell Management Console enables IT administrators to monitor the health of client system components and use remote, policy-based BIOS configuration and updates.

Dell Management Console and Dell Client Manager integrate with Symantec IT Management Suite, which mindSHIFT recently began deploying across the machines it manages. The Symantec solution includes Altiris Client Management Suite, Altiris Server Management Suite for management of physical and virtual servers, Altiris Asset Management Suite for IT asset tracking, and Symantec Workflow for process automation.

Reclaiming 200+ hours per month for IT staff

The initiative's first priority is making server administration more efficient. "Our goal for the immediate future is to automate server management, which includes checking hardware failures, running defrags and patching servers in sequential order according to their classification," says Fridley. Currently, routine server maintenance tasks require an engineer to log onto each machine, manually patch software, and then confirm that all hardware and software is working as it should. "We want to take the human factor out of that process," says Paris.

Altiris Server Management Suite allows mindSHIFT engineers to access information about the status of Dell servers and their components—as well as push out patches and updates—

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through Dell Management Console. Symantec Workflow will schedule regular checks of the hardware and will integrate with Microsoft Dynamics CRM, in which mindSHIFT stores customer information. Whenever a mindSHIFT-managed server is due for an operating system or firmware patch, Altiris Server Management Suite will run a specified set of tasks first, then patch the server, then ensure that the server is still running properly after the patch. If Symantec Workflow detects an issue at any stage of the process, it will notify the appropriate mindSHIFT operations team.

"This automation will enable our staff to spend their time on more valuable activities," says Fridley. "We expect our IT staff to save more than 200 hours a month immediately, and we anticipate that they will save even more time in the long run because we'll avoid the downtime and extra effort that can result from human errors in manual server administration processes."

10-fold faster application deployment

The server automation project at mindSHIFT is laying the groundwork for additional improvements. "We have really cool ideas about what we can do in the future," says Fridley. "We want to use the Dell and Symantec solutions to give customers more control over their software environment."

For example, if a mindSHIFT customer wants to upgrade to Microsoft Office 2010, currently someone on the mindSHIFT professional services team works with the customer to determine how and when the new version should be deployed. The mindSHIFT billing division ensures that licensing is correct, and then engineers deploy the software. "Including our account

management team, four groups within mindSHIFT are involved in something as simple as a software upgrade," says Paris. "In a perfect world, everything from the licensing to the billing to the software update would be automated."

Fridley expects this perfect world to become reality within the next year. "We're going to create a portal to Altiris Client Management Suite, linked to our CRM system, that shows customers the software applications that are available, enables them to purchase new applications or upgrades, and then automatically deploys the solution to the appropriate systems," he says.

This approach will shrink customers' time to deployment for applications. "Using manual processes, an Office 2010 upgrade could take anywhere from several days to two weeks, depending on the number of seats," Paris says. "With Symantec Workflow, we'll shorten that timeframe down to a very predictable duration of hours, for at least a 10-fold improvement. We also expect IT staff to save more than 100 hours a month when we automate client software deployments."

Proactive repairs for client machines

mindSHIFT intends to further leverage the combination of Altiris Client Management Suite and Dell Client Manager to proactively head off hardware issues. "Our customers expect us to notify them when they have a hardware failure with one of their servers, but we don't yet have that capability for desktops and laptops," says Fridley. "We're planning to use Dell Client Manager and Altiris Client Management Suite to automatically gain real-time data at a workstation level."

As an example, Fridley says, suppose a RAM chip on a customer's laptop is failing. "Our automated process will not only discover the issue, but then generate a case, send it to customer care and check to see if the laptop's still under warranty. If it is, we can put that information into the case as well so that our technicians can call Dell and arrange a time to replace the DIMM. And we can call our customer and say, 'Hey, you have a bad DIMM in your laptop. Someone will be out there tomorrow to replace it.'"

Such proactive care will make customers' staff more productive and give mindSHIFT a competitive advantage. "Remotely monitoring client computers through Dell Client Manager and Altiris Client Management Suite will provide a tremendous benefit to our customers," Fridley says. "Sometimes, when a user's workstation is slow but they don't know why, they just work on a slow computer because they don't want to spend time on the phone with tech support. Now we can offer them a better end user experience and show them that they can trust their IT processes to us."

Webb circles back to his company's three main objectives: increasing revenues, reducing costs and improving customer satisfaction. "The combination of Dell and Symantec system management tools should help us accomplish all three of our goals," he says. "Symantec and Dell are very closely partnered, so from a business standpoint it makes a lot of sense for us to move that way as well."

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