



Dierbergs Switches from Microsoft Hyper-V to VMware vSphere, Ending System Outages and Reducing Management Time 60 Percent

INDUSTRY

Food and beverage, retail

LOCATION

Chesterfield, Missouri

KEY CHALLENGES

- Managing a resource-intensive Hyper-V environment with a small IT staff
- Navigating a complex ecosystem with multiple management tools providing conflicting information
- Experiencing five major system outages in a single year due to unannounced “hot fixes”

SOLUTION

Dierbergs migrated from Microsoft Hyper-V to a more stable, mature, enterprise-ready VMware vSphere environment. The vSphere solution provides a single view across the company’s entire virtualization ecosystem.

BUSINESS BENEFITS

- Cut management time by more than 60 percent while eliminating major outages
- Empowered junior administrators to complete more tasks without supervision
- Enabled senior administrators to devote more time to strategic tasks such as improving security

The IT team at Dierbergs Markets experienced five major outages in its data center in one year using Microsoft Hyper-V, which was supposed to be a cost-effective approach to virtualizing systems. That prompted Dierbergs to move to VMware vSphere® software. The result is a 66 percent reduction in IT management time, freeing junior administrators to do their jobs with less supervision while giving senior administrators the opportunity to focus on more strategic projects such as point-of-sale security.

Dierbergs is a supermarket chain operating 25 stores in Missouri and Illinois. Since its founding in 1854, the company has grown into a major presence in the metropolitan St. Louis area, employing more than 4,000 people and generating in excess of \$650 million in annual sales revenue.

The Challenge

Dierbergs maintains an exceptionally lean IT organization, with 21 full-time employees supporting the complex needs of a large regional supermarket chain. The company is always looking for ways to improve the efficiency of its IT function while controlling costs, so virtualization was a natural choice. “At some point, we either needed to virtualize our environment or build a whole new data center,” says Chris Lindloff, IT infrastructure manager at Dierbergs. “We chose the more scalable approach, and before long we were 100 percent virtualized.”

The company began its journey to virtualization using VMware® solutions. In 2011, however, the IT organization began to migrate to Microsoft Hyper-V, believing that the move would substantially reduce licensing costs. “We’re mostly a Windows shop, so the move seemed to make sense,” says Lindloff. “We’ve had very good experiences with other Microsoft products. But Hyper-V ultimately failed to live up to its promise. To begin with, it’s much more resource intensive to manage. On average, I spent 30 percent of my time managing Hyper-V, versus 10 percent or less with VMware solutions.”

Multiple factors contributed to this situation. Hyper-V does not support in-cluster upgrades, forcing Dierbergs to build entirely new clusters. An upgrade that once took a few hours suddenly required an entire month. Cumbersome management tools caused further problems, with Hyper-V offering multiple tools for different purposes. Sometimes a change in one tool would cause a cryptic error message elsewhere, forcing Lindloff to run cleanup scripts against the Microsoft System Center Virtual Machine Manager (SCVMM) SQL Server database.

These complexities were especially challenging for junior network administrators, who were wary of making changes in Hyper-V for fear of causing an unexpected chain reaction. “We needed to spend a lot more time helping our junior staff navigate the Hyper-V environment,” says Lindloff. “With such a small team, we simply don’t have the luxury of duplicating our efforts like that.”

“With the VMware solutions, we spend more of our day focusing on strategic initiatives, which in turn helps IT drive real value back into the business.”

Jim Shipley
Chief Information Officer
Dierbergs

Even more problematic were the “hot fixes” necessary to keep Hyper-V running, which were not automatically supplied by Hyper-V support. Dierbergs experienced five major outages in a single year, taking down critical machines necessary for inventory and product ordering. “Even with the highest level of Microsoft support, we had difficulty resolving every outage,” says Lindloff. “Some of our outages lasted as long as 12 hours. One outage even corrupted a critical database server that we needed to restore from backup, resulting in significant data loss.”

Dierbergs simply could not sustain such a complicated and unstable environment. After nearly two years of frustration and late-night fixes, the IT team began discussing the need for a change.

The Solution

The decision to move back to VMware technology was an easy one. “We had used VMware solutions in the past with great success,” says Lindloff. “VMware is the market leader in x86 virtualization. The technology is stable, mature, and enterprise ready. And while Hyper-V promised to be less expensive, that simply wasn’t true in practice. The total cost of ownership was far higher because of the need for additional management time and extensive support.”

In switching back to VMware solutions, the Dierbergs IT team relied on the same infrastructure, from servers to switches. “We didn’t need to build a whole new environment,” says Lindloff. “Everything is the same, except it works now. The whole VMware ecosystem is much leaner and simpler to navigate, making configuration far easier. Just the basic process of building a host would take up to six hours with Hyper-V. With the vSphere Auto Deploy™ feature, we can do that in an hour. And when you consider the fact that we’ve never had a major outage with VMware solutions, there’s simply no comparison.”

Lindloff also noticed major improvements around drivers and patching. Whereas the VMware solution includes the status of all drivers in the VMware vSphere Update Manager™ feature, Hyper-V drivers could come from a number of sources, including the server manufacturer, Windows Update, or a third-party component manufacturer such as Intel. If Dierbergs encountered an issue with a driver, the IT team often had difficulty determining which vendor they needed to contact for assistance. “With VMware technology, we don’t get the VMware drivers from Dell or Intel—we get them from VMware,” says Lindloff. “Everything comes through a single vendor, and everything can be managed from a single interface. That makes a huge difference from a troubleshooting perspective.”

Business Results & Benefits

With a simpler environment managed entirely through a single pane of glass with the VMware vCenter Server™ interface, junior staff can do their work with confidence, giving senior administrators the opportunity to devote their time to other IT projects. “A lot of our team members have permission to make significant changes in the VMware environment,” says Lindloff. “With Hyper-V, most of those changes would end up on my plate. Now our junior admins can work more independently, and our developers no longer need to wait for my assistance before they make alterations in QA or dev. We can move much faster as an organization.”

Lindloff cites an example: A Microsoft Exchange mailbox server was running out of disk space. If that happened with Hyper-V, the IT team would need to send out an email to all business users telling them that some departments would experience email downtime. “Growing the disk space was very slow with Hyper-V,” he says. “With vSphere features like Storage vMotion® and Storage Thin Provisioning, I can make the change after business hours without taking the server offline. Our business users experience no interruption.”

Executives have taken notice. “We knew our team was spending significant time, and a lot of late nights, running fixes on the system just to keep the lights on,” says Chief Information Officer Jim Shipley. “With the VMware solutions, we spend more of our day focusing on strategic initiatives, which in turn helps IT drive real value back into the business.”

VMWARE FOOTPRINT

VMware vSphere® 5.1, running on 17 hosts in the Dierbergs data center

APPLICATIONS VIRTUALIZED

Microsoft SharePoint

PLATFORM

- 354 virtual machines running Windows Server and Microsoft Virtualization Desktop Infrastructure
- Dell PowerEdge R610 and R620 servers
- Storage on Dell EqualLogic Internet Small Computer System Interface (iSCSI)

Looking Ahead

Going forward, the Dierbergs IT team is planning to deploy VMware vCenter™ Operations Manager™ software next year for even better visibility into their system, says Lindloff.

They're also considering a VMware backup solution. "Whatever we decide, it's a simple fact that our environment is running more smoothly and cost-effectively than ever. Everyone's thrilled with the changes. Just this morning, I heard a member of our IT team say something that I've been hearing a lot in recent months: 'I'm so glad we switched back to VMware.'"

