



Hosting Provider Saves \$100,000, Increases Reliability with Cloud Management Solution

Overview

Country or Region: United States

Industry: Hosting

Customer Profile

Hostway is a leader in cloud, managed, and dedicated server hosting, delivering a wide range of infrastructure-as-a-service (IaaS) solutions to more than 600,000 customers around the world.

Business Situation

Hostway wanted a more comprehensive, reliable management console for its cloud computing environment so that it could reduce management time and costs and provide customers more options.

Solution

Hostway upgraded to Microsoft System Center Virtual Machine Manager 2012 to create and manage private clouds more easily, manage multiple operating systems and hypervisors, and gain a more reliable management infrastructure.

Benefits

- Single cloud management console
- Expected management savings of U.S.\$100,000 annually
- Increased reliability
- More choice and flexibility

“System Center Virtual Machine Manager 2012 is one place to go for everything we need. There’s no longer a need to run around to multiple tools to manage our cloud infrastructure.”

Grant Langhus, Senior Systems Administrator, Hostway

In 2010, hosting provider Hostway used Microsoft virtualization software to launch a line of cloud computing services. Before it could expand its cloud business, it wanted a more comprehensive management environment that would simplify its staff’s workload and enable it to add new services without adding complexity to its infrastructure. It upgraded to Microsoft System Center Virtual Machine Manager 2012 to gain capabilities such as the ability to manage multiple hypervisors and operating systems and support load-balanced clusters. The Hostway staff now has one place to go for all its cloud management needs, which will reduce management costs by an estimated U.S.\$100,000 annually. The new management console also performs much better, is more reliable, and gives Hostway more flexibility in offering new cloud services.

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Situation

Founded in 1998, Hostway is a leader in cloud, managed, and dedicated server hosting. Hostway delivers reliable, secure, and scalable infrastructure-as-a-service (IaaS) solutions to over 600,000 customers. Hostway services its clients from more than 250,000 square feet of state-of-the-art data center space, spanning four continents and 12 countries. Hostway has emerged as one of the largest cloud hosting and IaaS providers in the world due to its expertise in developing secure, multitenant hosting environments and is committed to providing small businesses and large enterprises alike with cost-effective business solutions. Hostway’s core products include managed hosting, cloud hosting, and email applications.

In 2009, Hostway deployed the Hyper-V virtualization technology in the Windows Server 2008 R2 operating system to launch a virtual dedicated server offering—a hosted virtual machine that is dedicated to an individual customer and has the privacy and benefits of a physical server even though other customers’ data is hosted on the same physical server. The company felt that Microsoft virtualization solutions provided attractive licensing advantages, liked the fact that Hyper-V supported both Windows and Linux operating systems, and felt that Microsoft System Center data center solutions provided a comprehensive set of management tools for a virtualized environment.

In November 2010, Hostway launched its FlexCloud Server line of public and private cloud solutions. FlexCloud Servers provide scalable, on-demand compute, storage, and networking services with enterprise-grade reliability, performance, and self-service resource provisioning. By November 2011, Hostway was running its entire FlexCloud business—or about 25 percent of

the company’s server holdings—on Hyper-V and managing it with System Center.

However, because the older versions of System Center solutions did not include private-cloud capabilities, Hostway had to write many of its own tools to perform administrative tasks such as cluster management and load balancing. This work took many months and developer hours to complete, and it left Hostway with a more complex management infrastructure. Administrators had to switch between multiple consoles to administer the cloud infrastructure.

Hostway also desired better performance and reliability from its private cloud management environment. “Our existing tools were quite resource-intensive, and we often had to sit at the console and wait for tasks to run,” says Grant Langhus, Senior Systems Administrator at Hostway. “The performance issues hindered our ability to scale our private-cloud business.”

Adds Preeti Nirwal, Cloud Services Product Manager at Hostway, “We promise our customers 100 percent guaranteed uptime, so when problems arise, our administrators are required to work overtime to resolve them. Adding extra administrative costs hurt our bottom line.” When a problem occurred, the company’s management tools were not very effective at identifying and tracking problems or recommending fixes. The administrative staff often had to spend time sorting out and repairing these problems.

Before expanding its private-cloud environment, Hostway wanted the flexibility to give customers what they wanted in terms of operating systems, hypervisors, load balancers, firewalls, and other elements. But Hostway did not want to add new elements to its infrastructure without

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Grant Langhus, Senior Systems Administrator, Hostway

first having a way to manage them. "Every new tool we added to our environment added complexity and costs," Langhus says.

Solution

Hostway was committed to Microsoft as its cloud technology partner. "We had looked at other cloud platforms, but we found that Microsoft was willing to work with us so that we could create cloud products that work for our customers," Nirwal says. "It also allowed us early access to new technology through Technology Adoption Programs, which give us involvement in product directions. When products are designed based on feedback from customers like us, it enables us to quickly adopt them. The Microsoft pricing model is also far more attractive than other vendors'. Microsoft offers monthly pay-as-you-go pricing while other vendors require significant up-front costs that we would have to pass along to our customers."

Early Adopter

When Microsoft announced Microsoft System Center Virtual Machine Manager 2012, the System Center solution that provides tools for creating and managing a virtualized environment, Hostway eagerly joined the Technology Adoption Program. Langhus and Nirwal liked the fact that System Center Virtual Machine Manager 2012 provided built-in private cloud creation and management tools and improved management of different operating systems, hypervisors, and other cloud elements.

"System Center Virtual Machine Manager 2012 provided one place to do everything," Langhus says. "It included all the private cloud tools that we had been developing and maintaining ourselves. We no longer have to perform the work of managing load-balanced hardware or failover clusters. We no longer require multiple tools to

manage our virtual infrastructure, which represents a time and cost savings."

Management Console for Entire FlexCloud Business

Hostway deployed System Center Virtual Machine Manager 2012 to its staging environment and is eager to complete the deployment into production in early 2012. Hostway will use the solution to manage its entire FlexCloud Server infrastructure, which currently consists of 45 host servers running more than 2,000 virtual machines.

Hostway runs its FlexCloud infrastructure on Dell PowerEdge R710 servers, each with dual quad-core or hex-core processors and 72 to 144 gigabytes of RAM. Host servers run Windows Server 2008 R2 Datacenter and Windows Server 2008 R2 Datacenter with Service Pack 1, and guest operating systems range from Windows Server 2003 to Windows Server 2008 R2 Enterprise and the SUSE, Red Hat, Cent OS, and Ubuntu distributions of Linux.

Hostway deployed System Center Virtual Machine Manager 2012 on a single host server in each of its two FlexCloud Server hosting locations—Tampa, Florida, and Austin, Texas. Each deployment can accommodate up to 4,000 virtual machines. "The new ability to separate library functions to separate dedicated servers will allow us to scale System Center Virtual Machine Manager dramatically," Langhus says. "We are able to copy templates between Tampa and Austin servers, both manually and using scripts. We're able to take advantage of the ability to segregate library function from the virtual machine/database portion of System Center Virtual Machine Manager to increase our performance and scalability."

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Preeti Nirwal, Cloud Services Product Manager, Hostway

Multi-Hypervisor Management and More

System Center Virtual Machine Manager 2012 includes several new capabilities that Hostway is using to improve and expand its cloud business. First and foremost is the ability to create a private cloud with point-and-click simplicity. Hostway can now create a private cloud by selecting host servers, networking, storage, and library resources from one console and adding or removing virtual machines as needed.

Another new capability is management of multiple hypervisors. “Currently we only manage our Hyper-V environments with System Center Virtual Machine Manager 2012; however, going forward we plan on managing our VMware environments using Virtual Machine Manager, as well,” Nirwal says. “Some of our customers have a lot of experience with VMware and prefer to virtualize in VMware environments. With one management interface, we won’t need to spend development resources to accommodate new APIs [application programming interfaces] to link the two environments.”

System Center Virtual Machine Manager 2012 also provides cluster load balancing through a feature called Dynamic Optimization, which migrates virtual machines within a cluster according to user-defined settings. Additionally, System Center Virtual Machine Manager 2012 tracks host failures in a way that makes it easier for Hostway to identify and fix issues.

Hostway can also use System Center Virtual Machine Manager 2012 to scan servers for update compliance based on a baseline, view the status of update compliance, and perform remediation by using the Virtual Machine Manager 2012 integration with Windows Server Update Services (WSUS).

This was work that Hostway previously did manually and consumed hours each month. System Center Virtual Machine Manager 2012 also provides greater user-role access granularity. Previously, if business users wanted to view detailed information about a virtual server, the IT staff had to give them full access to the management server. The IT staff can now assign access rights to certain privileges within a server, allowing, for example, the support staff to perform certain functions but not others.

Hostway uses Microsoft System Center Operations Manager 2007 R2 to monitor server and application health and connects that program to System Center Virtual Machine Manager to automatically optimize application performance. It also uses Microsoft System Center Data Protection Manager 2010 to back up databases and critical virtual machines.

Hostway licenses its System Center solutions using the Microsoft System Center Management Suite in the Service Provider License Agreement. “Using this license to purchase our System Center solutions cut our licensing costs in half over what they would have been if we had licensed the programs individually,” Nirwal says.

Benefits

By upgrading to System Center Virtual Machine Manager 2012, Hostway has gained a master management console for its cloud environment, eliminating the need to use multiple homegrown tools and reaping anticipated management savings of more than U.S.\$100,000 annually. The management environment performs much better, is far more reliable, and accommodates more hypervisors and operating systems, all of which reduces IT work and improves customer service.

“By using System Center Virtual Machine Manager 2012, we’re able to expand our private cloud environment with less management effort and fewer tools.”

Preeti Nirwal, Cloud Services Product Manager, Hostway

Single Management Console

Hostway now has one central management console for its global FlexCloud Server infrastructure. “System Center Virtual Machine Manager 2012 is one place to go for everything we need,” Langus says. “There’s no longer a need to run around to multiple tools to manage our cloud infrastructure. System Center Virtual Machine Manager 2012 gives us an overview of our entire environment.”

Today, Hostway has about a 400-to-1 ratio of virtual servers to administrators. By using System Center Virtual Machine Manager 2012, Hostway will be able to expand its cloud infrastructure without commensurately expanding its staff. With the new capabilities in System Center Virtual Machine Manager 2012, the Hostway IT staff may even be able to push some procedures—such as rebooting host servers, offloading virtual machines, and even updating host servers—to its less technical and less expensive support staff, which is on call around the clock. “We won’t need to pay IT administrators overtime or take them away from their families during early-morning maintenance windows to do this work,” Langhus says.

Expected Management Savings of \$100,000 Annually

Nirwal estimates that eliminating administrator overtime for routine management chores could reduce overall staff resources by 15 percent, valued at approximately \$100,000 annually. “By using System Center Virtual Machine Manager 2012, we’re able to expand our private cloud environment with less management effort and fewer tools,” Nirwal says. “We developed many private-cloud management features internally two years ago. Now we no longer need to maintain that code or develop new features. We can

let Microsoft do the development work rather than doing that work ourselves.”

For example, Hostway had created its own load balancer management tool, but now it will not have to spend time writing interfaces to support third-party load balancers, firewalls, and other custom requests by customers. Hostway had spent over 200 development hours creating and maintaining its tools. Rather than continuing this development investment, it can now use these resources elsewhere.

Hostway will also invest far less time in managing clusters; System Center Virtual Machine Manager works with WSUS to automatically apply security updates to individual hosts in a cluster rather than Hostway doing that work manually. Hostway will save at least 24 hours a month by not spending time managing clusters.

When Hostway begins offering VMware and other hypervisors in its public cloud solutions, it will no longer need to train its staff on multiple hypervisor management tools—another time savings worth one to two months per new employee. “This is not only a huge timesaving benefit but delivers huge profits in faster time-to-market,” Nirwal says.

Additionally, because System Center Virtual Machine Manager 2012 performs better than earlier versions, Hostway administrators enjoy a far more responsive management environment, which boosts staff productivity. Customers, too, directly benefit from quicker task completion when performing tasks like creating virtual machines or updating configuration changes.

Increased Reliability

Hostway has also increased the stability of its cloud infrastructure by upgrading to

For More Information

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www.microsoft.com

For more information about Hostway products and services, call (866) 467-8929, or visit the website at:

www.hostway.com

System Center Virtual Machine Manager 2012. "We advertise 100 percent uptime guaranteed, but when a server went down in the past, we had to work overtime to get it back up," Langhus says. "With System Center Virtual Machine Manager 2012, we'll avoid most of these host failures and reduce SLA-related overtime costs by approximately \$5,400 annually."

More Choice and Flexibility

Hostway now has the freedom to expand its FlexCloud solutions in more directions because it can accommodate multiple hypervisors, operating systems, and other private cloud elements by using System Center Virtual Machine Manager 2012. "We want to continue to enhance and extend our cloud product lines to meet our customer needs and objectives," Nirwal says. "With the time and cost savings that System Center Virtual Machine Manager 2012 provides, Hostway can more easily offer the most flexible, reliable, and easy-to-use cloud hosting solutions on the market."

Microsoft System Center 2012

Microsoft System Center 2012 helps your organization achieve IT as a service by enabling productive infrastructure, predictable applications, and cloud computing on your terms. With System Center 2012, use a self-service model to deliver flexible and cost-effective private cloud infrastructure to your business units while capitalizing on existing data center investments. Applications run your business, so System Center 2012 is designed to offer deep application insight combined with a service-centric approach to help you deliver predictable application services. Finally, by using System Center 2012, you can deliver and consume private and public cloud computing on your terms, with common management experiences across both.

For more information about Microsoft System Center 2012, go to:
<http://www.microsoft.com/en-us/server-cloud/system-center/2012.aspx>

Software and Services

- Microsoft Server Product Portfolio
 - Windows Server 2008 R2 Datacenter with Service Pack 1
 - Windows Server 2008 R2 Datacenter
 - Windows Server 2008 R2 Enterprise
 - Microsoft System Center Data Protection Manager 2012

- Microsoft System Center Operations Manager 2007 R2
- Microsoft System Center Virtual Machine Manager 2012
- Technologies
 - Hyper-V

Hardware

- Dell PowerEdge R710 servers