

COMBINED INTEL-MICROSOFT TECHNOLOGIES SUPPORT GROWING WEB SERVICES COMPANY



"We have strong relationships with both Intel and Microsoft, and we know their hardware and software is built to work together – that makes a huge difference in our buying decisions."

– Kurt Widmann, Vice President,
Sales and Marketing

Introduction

Do more, and do it with less. That could be the mantra for Web services provider Adhost Internet, as well as the company's more than 3,500 customers. With two data centers stretched nearly to capacity and a third six months away from completion, Adhost needed to upgrade its infrastructure quickly to deliver more computing power in the same footprint. At the same time, the company needed to address increasing customer demands for affordable and scalable cloud solutions.

To respond to these challenges, Adhost integrated Intel® Xeon® E5530 processors and Windows Server® 2008 R2 on 15 new Dell® servers—all in less than three months. The solution effectively cut power and cooling costs while conserving floor space and delivering a dramatic increase in computing capacity to its growing customer base.

CHALLENGES

- Limited amount of floor space to meet growing computing demands
- High cooling and power costs
- Growing demand for flexible, scalable cloud servers

SOLUTIONS

- Quad-core Intel Xeon E5530 processors, integrated with Windows Server 2008 R2, SQL Server® 2008 and System Center Virtual Machine Manager
- Implemented complete solution in less than 90 days

The Challenge: More performance in less space

Seattle-based Adhost, a Microsoft® Gold Certified Partner, is one of the Pacific Northwest's leading providers of server colocation, shared hosting, server management, and dedicated server solutions. Kurt Widmann, vice president of sales and marketing, said that after 15 years, the company's growth led to a challenge: "We forecasted that we'd be temporarily out of data center space until our new data center was completed in October."

The company's two existing data centers were running out of available space, and power and cooling costs were high. A third data center with 120 high-density cabinets would be ready to provide relief late in 2010. In the meantime, the company continued to acquire new customers—including a growing number of small and medium-size businesses that were seeking low-cost cloud solutions.

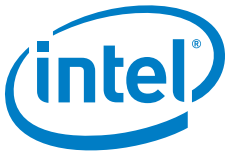
"Businesses with a limited number of dedicated servers are increasingly moving to cloud environments, where they can scale resources up and down as needed. In response, we needed to create a cloud environment that was scalable and flexible enough to meet their needs and would also be easy for us to manage," said Widmann.



“We chose the Intel Xeon 5530E processor because it gave us the most bang for our buck – the most virtual machines and the best performance at a competitive price.”

– Widmann, Adhost

SOLUTION PROVIDED BY:



The Solution: Combined Intel-Microsoft networking technologies

To achieve the needed processing performance as well as lower power and cooling costs, Adhost selected the quad-core Intel Xeon 5530E processor, which delivers a five-fold improvement in power management compared to the first Intel® quad-core server processors.¹ Just as importantly, Intel® Virtualization Technology supports software-based virtualization to maximize power and service per square foot of server space. To implement the new processors, Adhost selected Dell 710 servers running Microsoft Hyper-V, providing them with an unprecedented level of virtual server density.

After evaluating several virtualization technologies, Adhost chose to combine the Intel Xeon 5530E processor with Windows Server 2008 R2 Hyper-V™ and System Center Virtual Machine Manager R2. The company found Hyper-V technology provided excellent configuration options and was about 20 percent less expensive than VMware, and it configured seamlessly with the Intel processor.

“We were able to bring up 75 virtual servers per physical Web server—those are dedicated servers that would normally require a couple cabinets of servers, and they’re now up on a single box,” said Widmann.

Adhost’s cloud solution can now support up to 400 dedicated hosts, using one-third as many servers. Hardware requirements have been reduced as much as 65 percent, and electrical costs to run and cool the data center are 80 percent lower for the cloud environment.

In addition to meeting Adhost’s data center needs for cloud solutions, Adhost now also recommends and installs similar dedicated hardware for customers requesting private clouds hosted in Adhost data

centers. Some clients also take advantage of hybrid solutions using the Adhost cloud for the front end of their Web site, connected to a dedicated server for their database. For this scenario, most customers leverage a combination of Dell servers, Intel processors, and SQL Server 2008.

“We’re very pleased with our revenue per server,” said Widmann. “We’re leveraging our cloud offering with existing clients, and we’re advertising it heavily—it’s a significant part of our plans for continued growth.”

Conclusion: Better results through combined technologies

After implementing the Intel and Microsoft technologies on Dell servers in less than three months, Adhost was able to leverage the combined technologies to increase data center capacity, improve efficiency, dramatically improve performance and reduce operating costs. As Adhost prepares to add a third data center, the new technologies provide the greater computing capacity the company needs to serve existing and future customers—all in the same power and space footprint, and at a lower cost per server.

Learn More

For more about Intel Xeon processors, visit www.intel.com/xeon.

For more about Windows Server 2008 R2, visit www.microsoft.com/windows-server2008.

For more about SQL Server 2008, visit www.microsoft.com/sqlserver.

For more about Windows Server 2008 Hyper-V, visit www.microsoft.com/hyper-v.

For more information about Adhost Internet products and services, visit www.adhost.com.

¹ Sources: Customer measurements (Kingsoft). February 2009. Intel® Xeon® processor X5500 series, 2.8GHz; 12 GB, 6x2GB DDR3-1333 vs. Intel Xeon Processor E5400 series, 2.83GHz; 12GB, 6x2GB DDR2-667 FB. Intel internal measurements, February 2009 Intel Xeon Processor X5500 series, 2.4GHz; 72GB (18x4GB) DDR3-1066MHz vs. Intel Xeon Processor E5400 series, 2.83GHz; 32GB (8x4GB) DDR2-667MHz.

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