



RACKSPACE HOSTING ENHANCES ITS GLOBAL INFRASTRUCTURE

WORLD'S LEADING MANAGED HOSTING PROVIDER ENHANCES INFRASTRUCTURE WITH QUAD-CORE AMD OPTERON™ PROCESSORS **BY FAWN FITTER**

YOU'RE A SMALL OR MIDSIZE BUSINESS WITHOUT the time, staff or budget to buy, manage and expand your own IT infrastructure. Yet you need a Web site, data storage, security, e-mail and other applications. What do you do?

If you're one of more than 31,000 businesses in 100 countries, you call Rackspace

Hosting Inc. The company operates more than 40,000 servers in eight data centers across the United States, United Kingdom and Asia. Founded in 1998, Rackspace has grown substantially every year. CTO John Engates attributes the rapid climb and industry leadership to the company's

promise of "Fanatical Support®," which he describes as dedication to delivering world-class performance, support and customer service at a highly competitive price.

That balance of managing cost and providing superior performance is hard to achieve, especially when shrinking budgets,

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environmental concerns and escalating energy prices all point to the consolidation, not expansion, of infrastructure.

One way that Rackspace is addressing these challenges is by leveraging the upgradability and scalability of AMD platform technologies that allow for easy transitions from dual- to quad-core technology. With the new AMD technology, Rackspace hopes to obtain equipment that performs more efficiently, which could help it pass savings on to its customers. Engates says a global infrastructure as large as Rackspace's poses enormous challenges when it comes to powering, cooling, maintenance and management.

“As we upgrade our servers with the Quad-Core AMD Opteron™ processors, we can improve performance while significantly cutting our energy cost and consumption on a per-unit basis,” says Engates. “That allows us to add more server capacity in that same footprint.”

UNMATCHED PERFORMANCE

Rackspace recently added cloud computing services to its menu of hosting services. The company's new Cloud Files™, Cloud Servers™ and Cloud Sites™ offerings enable customers to store and access data, applications and entire Web sites on Rackspace servers that are shared with other customers. Combining cloud computing services with all of Rackspace's hosting offerings is an attractive alternative to in-house IT, because the combination's reliable infrastructure would come with the award-winning Fanatical Support service and enable customers to focus on their core business.

Cloud computing can be a cost-effective, flexible strategy, and Rackspace has implemented it because it enables the company to better serve its customers by helping lower costs and increase scalability. To deliver cloud computing, Rackspace consolidates many workloads by using virtualization, says Engates.

The Quad-Core AMD Opteron processor family has a large cache, fast memory, high

frequencies and other enhancements—all specifically designed to boost performance of VMware and other virtualization technologies. This meets one of Rackspace's business-critical requirements, Engates points out: It helps the company ensure that its end users enjoy the same performance “in the cloud” as they would with a dedicated server. The new processor juggles workloads invisibly, preventing customers from experiencing any delays or other potentially negative effects of sharing devices simultaneously with other customers.

HIGH PERFORMANCE, LOW COST

AMD's reputation for having consistently powerful processor architecture also made the Quad-Core AMD Opteron processor a compelling choice for Rackspace. In the past, Engates explains, every new generation of processors meant that the company had to buy new motherboards and retrain IT staff.

Today, though, Rackspace is mitigating that costly, lengthy process with AMD's backward-compatible technology. The firm can simply upgrade equipment with the Quad-Core AMD Opteron processor and extend the life of its servers as needed. Plus, he says, the AMD-V™ Extended Migration technology enables the company to migrate live workloads from one generation of the AMD Opteron processor to the next, with no interruption in service.

Engates says some of Rackspace's customers rely on the company for short-term projects or initiatives. Once those short-term projects are completed, he says, Rackspace needs the ability to reuse the equipment for another project.

“Being able to use a single processor in several chassis or swap new processors into servers we already own increases our ROI on every piece of equipment we purchase,” says Engates. “That would be very difficult without AMD's platform stability and flexibility.”

For a company that runs massive data centers, one of Rackspace's most pressing

issues is power consumption, says Chris Wetzel, director of product engineering. The sheer size of the company's infrastructure and the cost of powering it mean that even minor fluctuations in energy prices affect its bottom line.

With some projections calling for electricity costs alone to rise five to 10 percent worldwide in the next year, Wetzel says the company intends to maximize its energy efficiency in every way possible to keep its fees affordable while still delivering quality services.

Not surprisingly, then, when Wetzel's team evaluates technical requirements for new technologies, their performance-per-watt is an important metric. “The AMD product line has consistently performed well in pricing and performance, in both our testing and our customer usage models. The Quad-Core AMD Opteron processor, formerly code-named ‘Shanghai’, continues that progress,” says Wetzel. Rackspace's servers excel in terms of performance-per-watt through use of the Quad-Core AMD Opteron processor, adds Wetzel.

Engates sums it up by noting that when two industry leaders work well together, everyone wins. The Quad-Core AMD Opteron processor helps contain power consumption costs per server, which, in turn, enables Rackspace to power and cool more servers in each of its data centers with little additional expense.

AMD's new processor also delivers more computing power per server, making it easier for Rackspace to expand its offerings and support more customers. That can mean lower costs, higher revenues per server and maximum energy efficiency—and that benefits Rackspace and its customers. ■

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