Silicon Mechanics

Silicon Mechanics Helps OpenDNS Deliver Web Security to Millions

Company
Silicon Mechanics, Inc.

Location
Bothell, Washington

Contact
www.siliconmechanics.com

Primary Focus
Manufacture comprehensive range of rackmount servers, storage and high-performance computing clusters; collaborate with customers to create best-fit solutions at competitive prices; offer unique website that enables customers to easily configure hardware, compare alternatives, and evaluate technical and financial implications of their options

Silicon Mechanics was founded in 2001 to sell commodity-based Linux servers, but the market was soon awash in competitors offering similar systems. In order to differentiate itself, Silicon Mechanics was reinvented as a provider of custom-built systems that combine extraordinary configurability with exceptionally individualized sales and service support. The company's remarkable growth in the years since has been a direct result of this customer-centric approach.

As Tony Vetter, associate product manager, explains, "Our website has always been one of our strongest assets, and the site really revolves around the customization of our products. Ten years ago people could go to the big-name server OEMs, who had their preconfigured systems, but there wasn't much flexibility there.

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I think that's really where we came into our own, addressing the customizable, small rack-mount server markets. And it still holds true today."

Silicon Mechanics has garnered an enviable reputation (and an impressive array of top-tier clients spanning business, academia and the public sector) by always putting the needs of its customers first. So when a young, tech-savvy startup known as OpenDNS needed hundreds of custom-configured servers equipped with vast storage capacity, it naturally turned to Silicon Mechanics . . . and the Seagate® Constellation® ES.2 capacity-optimized hard drive.

Billions Served Daily (and Securely)

In just five short years, OpenDNS has achieved a level of success that's stunning, even by the lofty standards of its Silicon Valley neighbors. Now boasting over 30 million very passionate users around the world, OpenDNS has become the industry's safest, fastest, smartest and most reliable provider of DNS (Domain Name System) services. Its remarkably diverse user base employs OpenDNS for a variety of reasons.

The company initially gained notoriety for its superior speed, handling DNS queries far faster than the relatively sluggish DNS servers employed by most ISPs; new users flocked to the service, which by its first month end had already handled a billion DNS queries.

But best-in-class Web security and content filtering are the core of the OpenDNS value proposition; clients from Fortune 100 enterprises to individual home users can easily configure online security tools that protect against malware, phishing and botnet infections, as well as enabling selective traffic blocking to undesirable sites. Web-based reporting tools also enable any of its 30-plus million users to analyze their usage statistics— entailing a hefty storage burden on OpenDNS.

George Patterson, director of operations at OpenDNS, elaborates: "We do approximately 32 billion DNS requests per day. Many of our customers choose to have us store their networks' DNS traffic data for analytics and security purposes. So we need lots and lots of reliable storage that is fast to access. Because of how our storage and reporting services are built, with lots of servers holding lots of hard drives, the performance and reliability of each drive is paramount in building an overall system that delivers a high-performance solution with the utmost reliability."

More Than Just Raw Capacity

With those requirements in mind, Silicon Mechanics chose the 3TB Seagate Constellation ES.2 hard drive for the hundreds of servers it custom-built for OpenDNS. According to Shane Huntress, inside sales team manager at Silicon Mechanics, "It wasn't just the specific strengths of the Constellation ES.2 drives that convinced us, Seagate excels on everything else too.

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Seagate

As far as reliability, channel support . . . Seagate is really good to us. We definitely prefer them for those reasons, as well as price, availabilities, all the things that matter to the channel. Very impressed."

Patterson concurs: "The 3TB Seagate Constellation ES.2 drives were just a really great fit for us. Plus we've always been treated right by Seagate, so I'm pretty happy with them."

Purpose-built for rigorous 24×7 storage duties like those found at OpenDNS, the capacity-optimized Constellation ES.2 drive delivers enterprise-class storage in bulk-data environments by combining best-in-class reliability (1.2 million hours MTBF), vast capacity (up to 3TB) and class-leading rotational vibration tolerance (key to maintaining consistent, reliable data access and performance in high-density applications such as rack servers).

Furthermore, Constellation ES.2 drives operate on average at fewer than 12W, the lowest 3TB drive operating power in the industry. And storage professionals can save up to 54% more on energy usage costs by implementing Seagate® PowerChoice™ technology's on-demand idle power savings feature, standard on every Constellation ES.2 hard drive.

Powerful Partnerships

So in this case Seagate just happened to be the storage vendor of choice? "Well, it's not really so much that they're our drive vendor for this particular application," Huntress of Silicon Mechanics continues. "They're our drive vendor because of a lot of reasons: They provide a competitive price, a great product line covering pretty much every performance and capacity point that customers are interested in, and drives are available in both SAS and SATA interfaces. Overall, we prefer Seagate drives, using them in about 80% of our storage solutions."

Patterson of OpenDNS is similarly enthusiastic about his partnership with Silicon Mechanics: "Their website is outstanding. It lets me try different types of hard drives and RAM and actually design the system we want without having to order all the components and build it ourselves," explains Patterson. "And Shane is great about showing me better ways to achieve my goals. It's really helpful having a vendor who's technical like that, who can ensure we're getting the right system or configuration. It definitely makes my job easier."

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