

Green Revolution Cooling Introduces Minimus Servers - Customizable Servers Cut Data Center Costs in Half



AUSTIN, TX – April, 27, 2016. Green Revolution Cooling has introduced Minimus Servers in partnership with hardware giants Supermicro and Gigabyte. The Minimus platform offers reliable, purpose-built servers for a fraction of the cost of OEM servers. The core of Minimus’s price-effectiveness is that customers get exactly the configuration they need, but without the added costs of extraneous features and “brand”-related premiums that are normally tacked on to OEM offerings. With a real-time pricing calculator interface that resembles the automotive website mainstay *Build Your Own* interactive feature, MinimusServers.com allows end users to configure their own servers by picking the exact components and features they need.

After many years of working with some of the most innovative data center operators in the field, the Green Revolution Cooling team noticed that rackmount servers were being sold far above their intrinsic value. “We saw that most OEM servers were not only full of unused features, they also cost significantly more than the cost of their components,” says Christiaan Best, founder and CEO of Green Revolution Cooling, “There was a time in the industry when everyone believed that *‘nobody gets fired for buying blue do (IBM)’*. But those days are long gone, servers are becoming a commodity and paying a \$2,000 premium for a nameplate is no longer acceptable...or necessary.” He adds.

Immersion cooling purveyor Green Revolution Cooling is not new to custom server design, they have helped a number of customers build cost-effective and efficient servers for use with their liquid cooling systems. Noticing the significant price difference between OEM servers and individual components, a group of engineers at GRC

decided to take a deeper look into why more companies aren't building their own servers. "We found that their biggest challenge was reliability. So, we looked into the reliability of the whitebox servers in our immersion cooling and found that the annual failure rate was less than 1%," says Alex McManis, Applications Engineer at Green Revolution Cooling. Next, GRC worked closely with Supermicro and Gigabyte to develop a standardized design based on the ATX motherboard platform, offering a wide variety of compatible and commoditized components.

GRC launched the pilot for the Minimus in 2015 with an installation of over two thousand commoditized servers. The company has since deployed the servers at multiple other locations, and has now made the standardized design available to the wider market.

Building servers from the ground up is not a new practice for major cloud and internet companies. Amazon, Google, Microsoft, and Facebook have all been dumping traditional server manufacturers and replacing them with component manufacturers, who are helping them assemble stripped-down, customized servers to meet their computing needs. In fact, a number of these companies are also a part of the Open Compute Project (OCP) that Facebook started to share and collaborate on custom hardware designs.

In reality, however, only a handful of companies have the scale and resources required to design and build reliable whitebox servers themselves. Even adapting OCP designs can be challenging for organizations that do not have the scale and volume of companies like Google and Facebook. "OCP is a great platform for the cloud giants to exchange designs that work for them, but for anyone who doesn't have that kind of scale, OCP hardware turns out to be more expensive than off-the-shelf, OEM servers," explains Christiaan Best. While there are some relatively smaller cloud hosting and HPC centers that are customizing servers, concerns regarding reliability, component compatibility, and thermal management have prevented wide-scale adoption.

The Minimus offers its customers an easy and cost-effective way to not just design, but also procure custom servers. The standardized platform allows mixing and matching components without any reliability or compatibility worries. Minimus Servers come integrated with rack-based cooling and power distribution that delivers a controlled environment for the servers to operate both efficiently and reliably, all this made possible by the use of liquid cooling technology from the likes of providers such as Green Revolution Cooling.

Apart from cost and reliability, Minimus Servers also offer superior energy efficiency, consuming an average of 10% less energy than similar OEM servers. These energy savings are enabled by the removal of extraneous parts such as chassis fans, which are no longer required when using the GRC cooling system.

The icing on the cake, Minimus offers transparent pricing via its interactive price calculator (minimusservers.com/server-price-calculator) that allows customers to configure an instant price quote with a complete line item breakdown for each component. In an industry forever cluttered with separate list prices, web prices, and special prices, this new transparent pricing is sure to give big brand OEMs a run for their money.

About Green Revolution Cooling

Green Revolution Cooling creates the most powerful, efficient, cost effective solution for data center cooling in the world. GRC offers the CarnotJet System, a liquid submersion cooling system for any rack-based OEM server. It uses a non-toxic mineral oil with 1,200x more heat capacity by volume than air with end results which allow for 95% less cooling power used, 10-25% less server power used, dramatically reduced infrastructure costs and increased server reliability. Visit www.grcooling.com for more information.

Connect with GRC on Twitter (twitter.com/GRCooling), Youtube (youtube.com/GRCooling), and LinkedIn (linkedin.com/company/green-revolution-cooling).

About Super Micro Computer Inc.

Supermicro (NASDAQ: SMCI), the leading innovator in high-performance, high-efficiency server technology is a premier provider of advanced server Building Block Solutions® for Data Center, Cloud Computing, Enterprise IT, Hadoop/Big Data, HPC and Embedded Systems worldwide. Supermicro is committed to protecting the environment through its “We Keep IT Green®” initiative and provides customers with the most energy-efficient, environmentally-friendly solutions available on the market.

About Gigabyte

Founded in 1986, GIGABYTE is committed to providing top-notch solutions that “upgrade your life”. We are regarded as a pioneer in innovation with groundbreaking excitements such as Ultra Durable™ — a revolutionary technology that redefines the industry, WINDFORCE™ — exclusive heat dissipation design that builds for extreme performance, G1™ Gaming series—the perfect solutions for gamers and enthusiasts, P series — a powerful gaming laptop less than an inch thick, and BRIX series—a versatile mini-PC in the palm of your hand. GIGABYTE has continuously brought unique new ways of digital world and created marvelous products that empower you with meaningful and charming experiences.

