



ScaleMatrix Uses HDOT to Achieve Industry-Leading Power Density

CASE STUDY | ScaleMatrix

WHO

Chris Orlando
Co-Founder and CSMO
www.scalematrix.com

ABOUT

ScaleMatrix is a Hybrid Service Provider delivering an array of cloud, colocation, managed services, data protection and connectivity options under one manageable umbrella.

INDUSTRY

Colocation Data Center

LOCATION

San Diego, California

CHALLENGES

- Density
- Uptime
- Capacity Planning

SOLUTIONS

- HDOT PDUs
- Sentry Power Manager
- Capacity Planning

The average data center cabinet requires an electrical density of 100-200 watts of electricity per square foot, or approximately 4 kW per cabinet. On occasion, this figure may reach 5 kW per cabinet. Generally, this is as high as it will get for most businesses.

San Diego's ScaleMatrix, however, a national cloud, colocation and managed services provider, is a bit different from most other businesses. Using its own proprietary platform, ScaleMatrix is able to sustain cabinet power densities that measure 17 kW, 34 kW and 52 kW – all within a single 45U enclosure.



SCALEMATRIX

Server Technology, a leading provider of High Density Outlet Technology (HDOT) power distribution units (PDUs) and real-time power management software, helps ScaleMatrix achieve these industry-leading densities while remaining efficient and cost-effective. Let's take a look at how ScaleMatrix uses Server Technology's products in its data centers.



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The Challenge

Maintaining such dense workloads is no easy task. The utmost care is needed to ensure electricity flows into cabinets in a safe manner that avoids unexpected power surges, shutdowns and fires. The only way to ensure optimal power distribution for each cabinet is to use a high quality PDU. But as ScaleMatrix Co-founder and CSMO Chris Orlando pointed out during a recent interview, not all PDUs on the market are capable of delivering an adequate level of insight, control and reliability. In fact, some PDUs can actually increase risk for data center operators. ScaleMatrix learned this the hard way.

“In the early days of our business, we ran into many problems with our PDUs. Our previous manufacturers were unable to supply us with reliable solutions. Their PDUs lacked sound reporting tools and responsive safety features, and failed to provide us with the real-time visibility that we were looking for.”

Chris Orlando
Co-founder



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The Solution

The ScaleMatrix team needed a higher caliber product to push the boundaries of electrical densities. After experimenting with several products from competing providers, ScaleMatrix switched to Server Technology's HDOT PDUs, which work in conjunction with the Sentry Power Manager (SPM) solution.

With 42 C13 outlets in a zero-U form factor, Server Technology's HDOT PDUs offer the most number of outlets per U-space. HDOT PDUs also provide alternating phase technology, which greatly simplifies the load balancing process and allows for a faster and safer setup. Plus, HDOT PDUs are able to function in high temperature environments of up to 65° C.

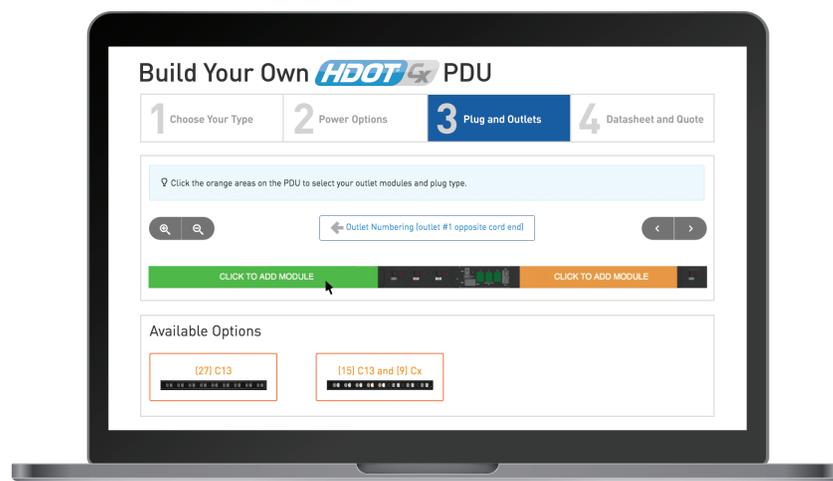
So how did the switch to Server Technology turn out? ScaleMatrix has since purchased thousands of HDOT PDUs for its facilities and continues to rely on Server Technology today.

"From a density perspective, Server Technology helps us support some of the highest density workloads in the country—if not the world today," he said. "Our data centers require specialized form factors with customizable outlet requirements and that is an area where Server Technology really excels."

Orlando is referring to the "Build Your Own HDOT PDU" feature – a four- step process for designing and customizing your own unit.

"With Server Technology, we operate in a problem-free environment nearly 100 percent of the time. The more unexpected issues we can factor out of the equation, the better we can sleep at night."

Chris Orlando
Co-founder



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Additional Benefits

Constant Visibility

ScaleMatrix uses the award-winning SPM to monitor and control all of its intelligent PDUs across its disparate data centers. SPM is an appliance-based server system that provides a single point of access for all cabinet PDU. Thanks to SPM's versatile reporting component, ScaleMatrix is able to provide its customers with unparalleled visibility and transparency into their data center infrastructure. SPM also helps ScaleMatrix streamline management across all of its facilities. It's especially useful for capacity planning purposes, and for configuration management.

Waste-Free Cooling

Most data centers today create large amounts of cool air, and then blow it beneath a raised floor into the data center to abate heat. This results in a great deal of waste. ScaleMatrix, however, uses a unique liquid air hybrid cooling system along with a smart cabinet platform — called Dynamic Density Control — to measure and generate the exact amount of air it needs for each cabinet. HDOT works in conjunction with this system, by supplying the it with real-time electrical output data.

Cost Savings

The granular control translates directly into monthly cost savings for ScaleMatrix. As a result, it provides a significant competitive advantage – especially when considering the challenging regions where ScaleMatrix operates. “You can't always choose where you are going to build a data center,” said Orlando. “We have clients in Southern California which is a very, very difficult place to operate due to the high cost of power.”

So as you can see, ScaleMatrix is one satisfied customer. Server Technology's HDOT PDUs and SPM help to maximize uptime, and minimize costs, headaches and waste.

“Being able to see the exact power reading for each rack enables us to triangulate the precise amount of resources that we need to support our real-time electrical needs in our data centers. We are able to closely monitor and control our resource consumption because of Server Technology.”

Chris Orlando
Co-founder



About Server Technology®

Server Technology, a brand of Legrand, is leading the engineering and manufacturing of customer-driven, innovative and exceptionally reliable power, access and control solutions for monitoring and managing critical IT assets for continual availability.

Server Technology's power strategy experts are trusted to provide Rack PDU solutions for data centers worldwide ranging from small technology startups to Fortune 100 powerhouses. Because power is all we do, Server Technology can be found in the best cloud and colocation providers, forward thinking labs, and telecommunications operations.

Server Technology customers consistently rank us as providing the highest quality PDUs, the best customer support, and most valuable innovation. We have over 12,000 PDU configurations to fit every data center need and most of our PDUs are shipped within 10 days.



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