YOUR POWER STRATEGY EXPERTS

# Improved Uptime for a Security Company* Case Study

**CASE STUDY -** Security Company* | May 2015

**INDUSTRY**
Cyber security products and solutions

**LOCATION**
United States

**KEY CHALLENGES**
> IT Power capacity utilization and planning for existing labs.
> Profiling IT loads to conform to colocation facility power and cooling
> Enhanced LDAP support.

**SOLUTION**
> Switched POPS with PIPS
> SPM

**BENEFITS**
> Visibility into rack power redundancy status.
> SNAP to remotely manage and configure CDU's
> Ability to aggregate rack line amperage in a row to estimate row feeder breaker load.
> Remote reboot for development teams
> Granular data resulting in better understanding for IT, Operations, and Facilities teams.

Server Technology
Quality Rack Power Solutions

## Learn how Server Technology® Improved Uptime for a Security Company


**Client enables organizations to prevent, detect, and respond to advanced malware and other cyber attacks targeting the data center that routinely bypass conventional signature-reliant defenses.**

Our client seeks out the vulnerabilities in customer systems, finding the unknown before "Zero Day" malware has a chance to do the same. Coupled with their services for post intrusion determination of who, what, and how, our client's products and solutions provide continuous coverage and assurance to the most security conscious customers.

The Senior Infrastructure Engineer of Global Labs for our security client is responsible for managing the team in charge of lab infrastructure worldwide used by the hardware engineering, software engineering, sales engineers, and customer support teams.

### The Challenge

Our client uses their global lab infrastructure to test various hardware, software and network configurations in order to identify advanced persistent threats and other "zero day" vulnerabilities in the global infrastructure of the internet. For a variety of reasons, our client places some of their development systems in remote colocation facilities. The power and cooling systems of the colocation providers vary by facility, and are different

*Official company name is confidential.

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**Name Withheld**
Senior Infrastructure Engineer of Global Labs

*"Each step up the 'improvement ladder' was successful. And when there were issues, Server Technology quickly helped me to remediate the issue."*

from those within our client's internal lab environments. Successful deployment of gear at the colocation provider requires a detailed understanding of how much power is consumed while performing a variety of software algorithms. Our client sizes their racks for 15kW maximum power consumption, and roughly 9kW when idle.

When the Senior Infrastructure Engineer joined our client's team, he was faced with determining how to put a 50 rack expansion of the lab into a colocation facility. The new racks were to have a high number of compute nodes that averaged 1.2kW each. Inside the internal labs, their infrastructure engineer was seeing a number of potential power related problems that came from having end of row breakers that were incapable of remote monitoring and power measurement. In his experience, he felt he was likely to see the same situation in many of the potential colocation providers. In order to avoid oversubscribing the upstream breakers, he needed to identify power draw and current requirements of each IT rack in his datacenter, along with looking at the hardware that would be required for the colocation deployment. Furthermore, he needed a way of aggregating the rack level data from the internal labs in near real time to provide alarms and warnings whenever the power draw was likely to exceed the capacity of the end of row breakers.

## The Solution

Our client's Senior Infrastructure Engineer found existing cabinet PDU hardware and management software from Server Technology that was in place already within the their facility. They already had PDUS with Per Inlet Power Sensing (PIPS) and Per Outlet Power Sensing (POPS). By working with the Power Strategy Experts from Server Technology, the Senior Infrastructure Engineer learned that they had latent capabilities in the STI gear and Sentry Power Manager that could help him gather the data he needed to ensure his colocation deployment would be successful, as well as provide a high level of confidence that he could prevent the end of row breakers inside the lab from tripping.

Our clients Senior Infrustructure Engineer worked with his Sales Engineer from Server Technology to come up with an outlet naming convention for the PDUs that allowed him to rapidly identify assets, cabinet and row location. Once that was applied to the PDUS, the information presented within Sentry Power Manager (SPM) began to make more sense to their team. Further work with his Sales Engineer helped the Senior Infrustructure Engineer to understand the true value of the information available from the PIPS functionality of his PDUS. By knowing the input power to each rack, he was able build a virtual circuit within SPM that could tell him the aggregate power draw through his upstream end of row breakers. He was then able to set a threshold in SPM of 160A for the virtual circuit with the 200A upstream breaker. This let him respond quickly to potential impending circuit trips in the lab. After running in this fashion for

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a period of time, he correlated the readings from his STI PDUS with PIPS to readings from clamp on meters. He found them to be in agreement. He could now feel confident that he understood the power requirements for the colocation deployment.

In communicating with the Server Tech team, the Senior Infrastructure Engineer also found that he needed to have SPM updated to have LDAP support for names with a period in them. By working with his Server Technology team, our client was able get the changes needed in SPM for his LDAP requirement. "Each step up the 'improvement ladder' was successful. And when there were issues, Server Technology quickly helped me to remediate the issue," said our clients Senior Infrastructure Engineer.From there, he expanded into using the capacity planning features of SPM to decide where new hardware could be deployed in the lab, as well determining when new power circuits were required. By profiling hardware power consumption in his labs, he was able to deploy new gear in colocation facilities with a high confidence that he would not be overloading their circuits. Using SPM, he can also determine whether or not his colocation infrastructure is receiving the power that they paid for.

## The Results

Thanks to their diligent efforts, our clients team have been able to see the numerous tangible benefits of implementing Switched PDUs in their labs along with Sentry Power Manager from Server Technology. They have experienced improved uptime resulting fewer power outages. They gained a better understanding of where they have available capacity, and thanks to the trending capabilities of SPM, where they most likely to experience power issues in the future.

## For More Information

www.servertechnology.com
http://www.servertech.com/solutions/capacity-planning-solutions
http://www.servertech.com/products/sentry-power-manager
http://www.servertech.com/products/switched-pdus/

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## Why Server Technology

Server Technology's power strategy experts have provided power solutions for labs, data centers, branch offices and telecommunications operations for 30 years. Over 60,000 customers around the world rely on our cabinet power distribution units and award winning power management solutions to reduce downtime, facilitate capacity planning, improve energy utilization, and drive efficiency. With the best quality, best technical support and most patents, Server Technology products provide uncompromising reliability, innovation, and value for the datacenter. Only with Server Technology will customers Stay Powered, Be Supported and Get Ahead. www.servertech.com

Interested in learning more about how Server Technology can help you manage and distribute power in your data center?
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From Your Power Strategy Experts


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