

Syracuse University Department of Energy and Computing Management Implements Innovation without Risk Using the Celeros EzSANFiler iSCSI SAN

The Syracuse University Department of Energy and Computing Management (ECM) can now innovate without risk using iSCSI. The Celeros EzSANFiler XD Series iSCSI SAN it selected three years ago removed the risk and delivered the value and performance it sought at that time. Since then the list of features that Celeros offers in the form of 10 Gb iSCSI, pricing flexibility and unmatched technical support keep the Syracuse University Dept of ECM a loyal Celeros customer.

By Jerome M Wendt, DCIG Lead Analyst

Company

Syracuse University Department of Energy and Computing Management
621 Skytop Road, Suite 130
Syracuse NY 13244-5290

<http://ecm.syr.edu>



Industry

Education
Founded 1870

Challenges

- Limited IT budget
- Needed flexibility to innovate with safe back out option
- Performance intensive desktop and server virtualization applications
- Uncertainty about how well iSCSI SAN would perform

Solution

- Celeros EzSANFiler XD Series with native iSCSI support

Benefits

- Industry standard hardware that supported Ethernet or FC
- Replication and snapshot software included with EzSANFiler
- Native 1 Gb and 10 Gb iSCSI support
- Sales representatives that acted as SAN consultants

“Celeros knows who I am and works with me to solve my problems so when I buy from them, I am buying more than just a product but a service as well”

—Stephen J Rieks,
Associate Director of Systems and Services, Syracuse University Department of Energy and Computing Management

Overview

Three years ago, Stephen Rieks, the Associate Director of Systems and Services for the Syracuse University Department of Energy and Computing Management (ECM), knew he wanted an iSCSI SAN. Server virtualization was putting increased application performance demands on his environment but at the time he was looking, iSCSI SANs still seemed too risky. What he found was Celeros and its EzSANFiler. The EzSANFiler gave him the iSCSI SAN solution he wanted; Celeros gave him the flexibility, value proposition and support he needed. Now in 2009, Celeros is still delivering the value, performance and flexibility that he originally sought while providing him with new options like 10 Gb iSCSI connectivity that his performance intensive desktop virtualization applications of today demand.

Syracuse University Department of ECM Profile

Energy and Computing Management, a department with the Syracuse University Business, Finance and Administrative Services (BFAS), provides computing support to BFAS, support for the Financial, Accounting, and Budget (FAB) system, along with energy services and leadership towards a sustainable campus community.

Its mission is to foster a commitment to share information technology, provide cost-effective energy services, and provide leadership in creating a sustainable University campus. Its vision is to create an environment where all students, faculty and staff have access to the computing resources that they need to be effective.

iSCSI SAN – Right Solution but Few Pleasant Choices

In 2006, BFAS began to adopt server virtualization. As it did, it became apparent to the Syracuse University Department of ECM's Associate Director, Stephen Rieks, that an iSCSI SAN solution was the right option for his emerging virtualized server environment.

iSCSI was more economical, easier to manage and aligned well with the skill sets he and his IT staff possessed. However it appeared there were no pleasant choices when it came to safely introducing an iSCSI SAN.

In 2006, Fibre Channel (FC) was still considered a “safer” choice than iSCSI. FC performance and reliability were known quantities so he knew he could confidently deploy a FC SAN into his environment and expect it to work.

However FC also carried the burden of being many times more expensive than that of an iSCSI Ethernet solution with comparable storage capacity. Training staff on the idiosyncrasies of the Fibre Channel media and protocols would certainly add to the cost. Since FC limited his purchasing options, he first wanted to explore deploying an iSCSI SAN.

As part of his search, he was unsure a 1 Gb iSCSI SAN would meet the performance demands associated with supporting multiple virtual machines (VMs) so he needed a back out plan. To address that, he wanted the option to fail back to FC should performance problems on the iSCSI SAN surface.

iSCSI Innovation and Value; FC Security Blanket

In developing a short list of possible iSCSI SAN solutions, Rieks found Celeros fairly early on in his search as it was inexpensive, provided intuitive iSCSI connectivity and more than adequate performance for his applications. However it was Celeros' flexibility and software licensing that ultimately separated the Celeros EzSANFiler iSCSI SAN from its competitors as it mitigated some of the risks of iSCSI by giving Rieks a FC security blanket.

The flexibility that Celeros EzSANFiler's industry standard hardware platform provided was evident to Rieks early on. The EzSANFiler could support either iSCSI or FC host bus adapters (HBAs) which contributed heavily to his decision in selecting it. Rieks says, “Celeros is one of the very few if not the only provider that early on allowed me to innovate with iSCSI but gave me the freedom to switch to FC if needed and still use the same storage system.”

The EzSANFiler's replication and snapshot software features that are included with it also factored heavily into his final decision. Rieks wanted to deploy one EzSANFiler

in production and also put one in his test environment so he could experiment with features like replication and snapshots.

The upfront price of a Celeros iSCSI SAN was low enough that he could afford to purchase two EzSANFilers and still get these features since they were included. He says, "Other SAN companies entice you with a low price SAN but you cannot take advantage of their software features unless you buy licenses for them."

10 Gb Ethernet HBA – \$700; EzSANFiler Flexibility – Priceless

Three years have passed since Rieks purchased his first two Celeros EzSANFilers and during that time the EzSANFilers met his application performance requirements. But new requirements at Syracuse University again demanded that Rieks deploy another iSCSI SAN (he now has a total of four).

This time it was not server virtualization but desktop virtualization that drove his need for higher performance. More Syracuse University employees work remotely and, as they do, they still need access to corporate resources like email, corporate applications and networked file services. To facilitate this, Rieks deployed Citrix's Terminal Services (TS) but its success and growth soon called for more performance.

To accommodate this, Rieks deployed two new Dell servers equipped with Intel Nehalem processors. However the performance on a 1 Gb iSCSI SAN was no longer sufficient for these new application servers and he was again faced with a choice between a FC or iSCSI SAN.

This decision was in some respects as difficult as the original one. FC had progressed to offer 8 Gb connectivity while iSCSI had evolved to support 10 Gb connectivity.

But again, the same reasons that originally prompted Rieks to choose iSCSI and the Celeros EzSANFiler came into play here again. Not only was a dual port 10Gb Ethernet HBA cheaper (~\$700) than a dual port 8 Gb FC HBA (~\$1500), the Celeros EzSANFiler hardware platform provided him with the same flexibility it did before. Celeros again permitted him to test drive the performance of 10 Gb iSCSI while giving him the option to fall back to an 8 Gb FC implementation should it be required.

So he moved ahead and deployed a 10 Gb iSCSI SAN in conjunction with his Dell servers. Once implemented, many of his TS users immediately noticed a dramatic performance increase. While the new servers clearly helped, Rieks believes that the EzSANFiler 10 Gb iSCSI SAN combined with its underlying SAS architecture contributed significantly to this boost in application performance.

DCIG Conclusion:

Celeros Supports iSCSI SAN Innovation without the Risk

Innovation always carries with it a certain amount of risk so it takes a certain breed of individual who has the courage to move beyond examining new solutions to take action.

However Rieks did not feel like he was going at it alone. Aside from the value and flexibility that the Celeros EzSANFiler iSCSI SAN solution provided him, Celeros provided two other equally critical components that he needed to have the faith to proceed: service and support.

Celeros never put uninformed sales representatives on the phone with Rieks who steered him the wrong way. Rather Celeros representatives acted as consultants and kept him apprised of the flexibility and value that its platform offered. Rieks says, "Celeros knows who I am and works with me to solve my problems so when I buy from them, I am buying more than just a product but a service as well."

Rieks' satisfaction and commitment to Celeros has steadily grown over the past three years to where he now has four (4) Celeros iSCSI SANs. However it was Celeros' willingness to partner with him by giving him the freedom to innovate while still providing other SAN options that has proven invaluable to him.

Today Rieks remains loyal to Celeros not because Celeros backed him into a corner where he is without options and must stay with them. Rather it is the freedom to make the choices that are right for his company that give Rieks the confidence to continue to choose Celeros over competitive solutions.

About DCIG

DCIG analyzes software, hardware and services companies within the storage and ESI industries. DCIG distributes industry, company and product analysis by way of viral marketing and community building using the burgeoning BLOG infrastructures created worldwide.

About Celeros

Celeros is an ardent believer in choosing appropriate technologies that cost effectively solve today's problems and scale to address tomorrow's needs. Its mission is to make reliable, high performance storage solutions easy to operate and affordable.



DCIG, LLC | 7511 Madison Street | Omaha NE 68127 | 402.884.9594
dciginc.com