

IGS Energy relies on an efficient IT infrastructure to support its diverse lines of business. When the company decided it needed to boost system performance in order to enhance productivity and customer service, it turned to Pure Storage. Installing a Pure all-flash array has sharply improved the responsiveness of key applications, giving developers access to dedicated storage without straining capacity, and greatly reduced the amount of time IT staff devotes to managing storage.



BUSINESS TRANSFORMATION

The responsiveness of customer support through the call center has improved, thanks to faster application response times. Software developers are able to complete their projects faster and more efficiently. And the IT staff spends little time managing storage so it can devote more time and attention to other IT infrastructure matters.

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Cullen Rea,
senior systems administrator

PURE STORAGE FUELS PERFORMANCE IMPROVEMENTS AT IGS ENERGY

IGS Energy is a supplier of electricity and natural gas to customers in several states throughout the U.S., and recently has been branching out into lines of business focused on compressed natural gas (CNG) and solar energy. While its existing storage system presented no obvious problems, in late 2015 IGS’s IT department started looking at alternatives.

“We needed something different,” recalled Cullen Rea, senior systems administrator. “We had a VDI infrastructure that was aging. We easily could have replaced the old SAN with something just like it, with maybe some more capacity. But we decided to go with a flash array to: a) get the de-dupe features, and b) get a little more performance. VDI, after all, is very I/O intensive.”

POC TESTING SHOWS THE ADVANTAGES OF PURE STORAGE

Rea said IGS decided to hold proof-of-concept tests with three storage suppliers — two of whom already provided equipment to IGS, and Pure Storage. “Pure was the clear winner,” Rea reported. “The biggest factor in favor of Pure was the ease of use. With the Pure interface, I can accomplish anything in three or four clicks. At first, I thought I was doing something wrong, because I figured, it can’t be this easy, can it?”

Beyond the product itself, he added, the experience of working with Pure Storage during the POC was unique. “Pure was a more polished experience. At one point or other in each POC trial, I had to engage the support department from all three suppliers. And by far I had the best level of service from Pure.” After finishing all three POC trials, IGS purchased a FlashArray//M20 from Pure.

ACCELERATING THE SOFTWARE-DEVELOPMENT PROCESS

The job of Rea and his colleagues is to run a computing infrastructure that supports around 1,000 employees, roughly half of them at company headquarters in Dublin, Ohio. A virtualized server infrastructure supports a variety of Microsoft SQL Server-based applications, among the most critical of which are forecasting tools used to monitor weather conditions and suggest possible trades on futures markets. “They are very important to our business,” Rea noted.

COMPANY:

IGS Energy
www.igsenergy.com

USE CASE:

- Database – Microsoft® SQL Server
- VSI – VMware® vSphere® (ESXi, vCenter)
- VDI – VMware Horizon®

CHALLENGES:

- Business functions running on virtual machines experienced delays in system response times.
- Legacy storage system required significant administrative attention.
- Developers experienced long wait times for access to storage, hindering project completion cycles.

IT TRANSFORMATION:

- End-users experience faster app response times, improving customer service.
- Latencies on SQL queries were cut from 50-100 ms to 2 ms.
- Developers are able to access storage more readily, boosting productivity.

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Another key application is an internally developed CRM system that Rea said requires lots of attention. Because one of Rea’s most important groups of internal customers are the software-development teams, their work is one of the first places he saw the profound impact Pure Storage has had on the organization.

“Because we operate a ‘home-grown’ CRM system, there is a lot of trial and error. That’s why our developers often require a refresh or need to revert to a previous version as they work through a project. That used to be hard to do on short notice. But with the speed and data-compression delivered by Pure Storage, we can easily satisfy their requests,” which helps them finish projects faster.

“Someone can now come to us at 11am and say they want to do some work after lunch and could we spin up a copy of a certain database; and we can have it ready for them when they come back. That kind of restore used to take anywhere from four to eight hours. Now, we can do it in under five minutes.”

Rea added, “The developers listen to people in the lines of business to determine what IT can do to help make them work more effectively. The infrastructure we provide to the developers has always been in a support role; usually a step behind. With the Pure Storage array, this is the first time we’ve ever been able to go to the developers and say ‘look what we can do.’ That’s when we get to change the game.”

IMPROVING PERFORMANCE ON KEY CALL-CENTER APPLICATIONS

Positive impacts from the Pure Storage array have also been seen in IGS’s vitally important call center. Before the new storage was purchased, Rea recalled, he observed how slow the response times were on the virtual machines used by call-center workers. “When we got the Pure Storage array in place, that completely changed. Their VMware Horizon virtual desktop machines now perform like a traditional desktop or laptop. And we didn’t change anything from the compute perspective, just the storage.”

As a result, call center employees “are able to do their job more effectively, and they’re providing a better experience to customers.”

Rea explains that the “huge improvement” the call center has experienced is the result of drastically reduced latencies on SQL queries. “A single I/O event used to take 30, 50, even 100 ms, depending on the environment. Now, it takes 2 ms.”

SIMPLIFYING MANAGEMENT

Rea is also impressed by the impact the Pure Storage array has had on the IT team. With traditional storage systems, he noted, “you really have to be a storage administrator to manage the array. You have to know how your RAID pools are distributed; and you need to know where your data is. With Pure, it’s not like that, because it is so simple. I now have a group of guys around me who are able to administer storage, even without a storage background.”

And while de-duplication and data compression were part of the reason he went with Pure Storage, Rea said he was pleasantly surprised by the results actually achieved. “Our VDI environment on our traditional array took up about 12TB. After we moved everything onto the Pure Storage array, our total footprint was 700GB. We have almost 250 virtual machines on 700GB of data. That greatly exceeded our expectations. We had to look at the interface a couple of times because we thought ‘that can’t be right!’”

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The ability of Pure Storage to perform nondisruptive upgrades is another key benefit which Rea called “phenomenal.” Noting that he has a history with traditional spinning-disk arrays, Rea said, “I was used to spending a couple of hours running pre-checks in advance of an upgrade, and then taking anywhere from four to eight hours to complete the upgrade itself. With Pure Storage, it was silly. They opened a ticket the night before, downloaded the patch, and said they’d install it the following morning. The next day, it took just 19 minutes to install the upgrade, and it didn’t impact our operations in the slightest.”

Rea praised what he called “the Pure Storage experience,” and adds, “I say the Pure experience because yes, we bought a piece of hardware and some support, the same as you would from any supplier, but with the Pure experience I have these SEs and subject-matter experts I can reach out to at any time. It seems that everyone at Pure is committed to creating a unique customer experience. And that’s definitely noticed.”



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