Oneida Nation is a federally recognized Indian Tribe and is one of the largest employers in Brown County, Wisconsin. The IT environment that supports its diverse and demanding operations relies on advanced IT processes to deliver those services effectively and cost-efficiently. Having virtualized its server environment, the tribe's IT department found that the cost and management demands of storage were an increasing burden. After installing Pure Storage FlashArray™ arrays, application performance has increased sharply, and management of storage is radically simpler.

BUSINESS TRANSFORMATION

End-users throughout the Oneida Nation find daily applications now perform much faster. In addition, new applications and services can be deployed faster and at less cost. Plus, the IT department spends virtually no time managing storage resources.

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"We look at what it takes to run the Pure Storage array, and we're saying 'OK; that's it? How can it be that easy?'"

Vicki Krueger, *systems administrator*

ONEIDA NATION REAPS MORE BENEFITS FROM VIRTUALIZATION THANKS TO PURE STORAGE

With over 50 business and enterprises located in the Oneida and Green Bay area, the Oneida Nation provides services for its enrolled members throughout the world. Regionally those services include but are not limited to health care, housing, elder services, K-12 education and law enforcement. Those services are funded, in part, from revenues derived from a number of for-profit enterprises. The Oneida Tribe owns and operates a number of successful operations including class III gaming, hotel and hospitality and multiple convenience stores branded *Oneida One-Stop*.

For the Oneida Nation, respect for culture and tradition over its centuries-long history are primary values, but when it comes to its IT infrastructure, everything is modern and forward-looking.

The tribe relies on a robust, advanced IT environment to support a broad range of activities for its 16,000 members in Wisconsin, including education programs, social services, health care, public services, and a diverse set of business interests, such as finance, construction, hospitality, gaming and retail.

The tribe has invested heavily in virtualization, with all of its servers running on VMware and vSphere. Like many enterprises adopting virtualization, it found that storage resources can be heavily taxed while supporting virtual machines. "We were seeing performance issues with our desktops," said Vicki Krueger, systems administrator with the Oneida Nation. In response, the tribe's IT team looked into another leading-edge technology — flash storage. What it found by adopting all-flash arrays from Pure Storage exceeded its expectations.

INSTALLING FLASHARRAYS COULDN'T BE EASIER

Krueger said the search for a new storage solution began at VMworld, where she and colleagues evaluated several suppliers of all-flash or hybrid storage solutions. At the end of their evaluation, "Pure made the most sense," she said. "It had the best combination of performance, features and ease of management."

To support the department's philosophies of continuous improvement and leveraging previous investments, simplified management was high on her list of priorities. "I really didn't want to have to dedicate someone to being a storage expert again, and I certainly didn't want to be one myself."

COMPANY:

Oneida Nation
www.oneida-nsn.gov

USE CASE:

- VSI – VMware® vSphere®
- VDI – VMware Horizon View

CHALLENGES:

- Move to virtualized environment put increasing pressure on storage capacity and performance.
- Desirable new applications required more storage, raising costs.
- Needed to improve SAN administration and manageability.

IT TRANSFORMATION:

- Application performance has been greatly improved for end-users.
- Storage management is now radically simpler.
- SAN utilization is more efficient increasing the return on investment.

"The data-compression numbers have exceeded our expectation by a long shot."

Vicki Krueger, *systems administrator*

Instead of engaging in a proof-of-concept trial, Krueger and her team decided to get comfortable with the Pure Storage array by testing it with their own virtual machines. "We were surprised how easy it was to set up and get running," she recalled. "We looked at each other and said, "Don't we have to do something else?'"

IMPROVING PERFORMANCE ON HIGH-IMPACT APPLICATIONS

After successfully testing the Pure Storage arrays on their own, the IT team easily moved its VDI workloads onto Pure. Again, the process went smoothly. "It was phenomenal how easy it went in." Positive results from the change were quickly evident.

"We saw big performance improvements right away," Krueger noted, especially in areas such as education and health care. "These are high-visibility applications, like exam rooms in clinics where they rely on electronic medical records, and computer labs in schools, which use them for testing, reading and other work. We heard back from users very quickly that they saw their computers perform much better."

Behind the scenes, Pure Storage arrays also have made life easier for the IT department.

Pure's superior de-duplication and compression features have resulted in data-reduction ratios across all Oneida applications of between 10:1 and 12:1, Krueger reported, and at times as high as 18:1. "The numbers have exceeded our expectation by a long shot," she said. "That means we can pursue important software-development projects without worrying if we have enough storage, and we won't have to buy nearly as much storage in the future."

The Pure Evergreen™ Storage program, which provides non-disruptive controller upgrades for as long as the arrays are on support, was also a benefit of Pure Storage, she added. "The fact that there's no downtime is very important, because it allows us to maintain up-time on applications like gaming, which runs 24/7."

EXCEEDING EXPECTATIONS FOR SIMPLIFIED MANAGEMENT

Oneida's expectations for ease of management with Pure Storage also have been exceeded. "The difference between managing our spinning-disk system and managing Pure is night and day," Krueger noted. With the previous spinning-disk system, "you had to go in and create a pool, create the volumes, mask the volumes, and on and on. With Pure, the plug-in to vSphere is just right-click, go through the wizard, and you're done. It saves so much time."

Kruger says both she and a colleague had extensive experience in working with their legacy system, so the contrast is startling. "We look at what it takes to run the Pure Storage array, and we're saying 'OK; that's it? How can it be that easy?'" The difference, she added, is "five minutes versus one hour."

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