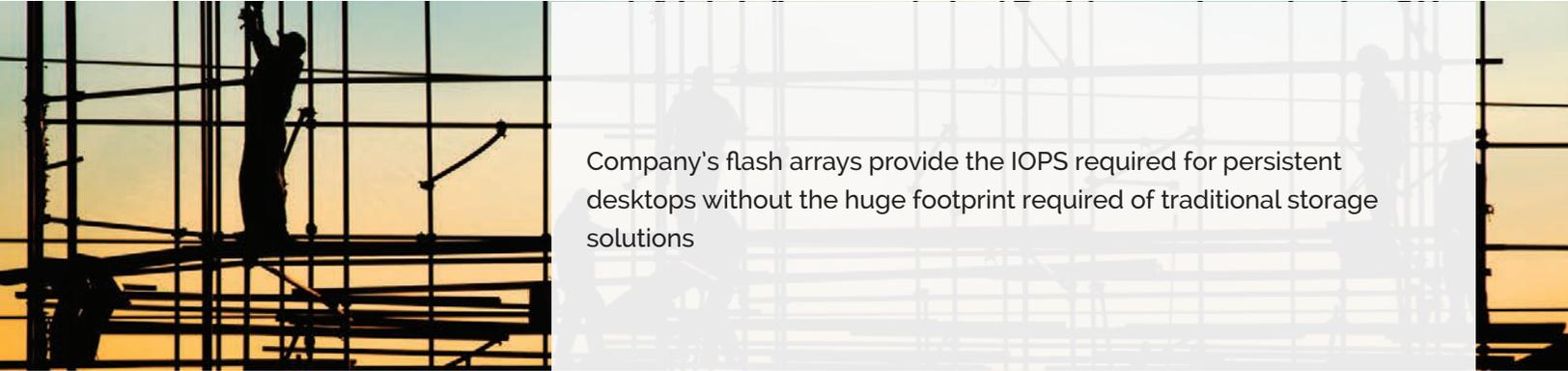


Tegile Systems Shrinks Storage Needs For Egan Company's Growing Virtual Desktop Infrastructure



Company's flash arrays provide the IOPS required for persistent desktops without the huge footprint required of traditional storage solutions



Challenges

- Virtual desktop performance challenges slowing company-wide deployment
- Field engineering workstations were cost prohibitive

Solutions

- Tegile Intelligent Flash arrays

Results

- VDI users astonished with performance improvements
- Cost of VDI storage is effectively free
- VDI users astonished with performance improvements

Egan Company is one of the largest, multi-trade, specialty construction contractors and system integrators in the Midwest. With a workforce representing more than 15 building trades serving virtually every infrastructure discipline in the industry, Egan Company provides in-house expertise in planning, design, engineering, construction, and maintenance. Core services include mechanical, electrical, industrial controls, building systems, curtainwall/glass, service and energy solutions.

Egan Company has more than a thousand employees dispersed among its Brooklyn Park, Minnesota headquarters, four permanent remote sites and myriad of temporary job sites. A staff of eight IT personnel, including five helpdesk workers (two of whom are interns), manage the sprawling infrastructure, which features physical servers and workstations at its headquarters and dummy terminals with no servers, SANs or onsite support in the field.

The Challenge: Deploying company-wide VDI implementation while overcoming associated issues of management and storage

Egan Company turned to a VMware-based VDI implementation to help manage the organization's organic growth without adding IT head count, streamline company acquisitions, and to provide support for remote sites and the job foremen.

The company needed a storage solution with tremendous speed to satisfy the IOPS requirements of the Horizon View and vSphere implementation. The solution had to be easy to provision and could self-tune to overcome staffing limitations. It needed to be efficient to keep ever-ballooning data manageable. And it needed to work with its existing Fibre Channel architecture yet would allow for the use of NFS and iSCSI if needed.

"I was told by my old SAN provider that a spinning disk SAN could do 8,000 IOPS, but the most I ever saw it do was 5,000 because VDI is write-intensive and random," said Jim Nonn, CIO of Egan Company. "SSD really is the answer. Most traditional SANs can include SSD as a tier, but that doesn't work out that well because it takes awhile for something to migrate up a tier and migrate back down a tier. That's not going to work well in a VDI environment."

Looking for a solution that would deliver enough IOPS to cover not only the amount of desktops needed but maintenance as well, Nonn considered a number of vendors and performed a side-by-side comparison test using virtual-desktops and virtual-server

Tegile Systems Shrinks Storage Needs For Egan Company's Growing Virtual Desktop Infrastructure

environment. He selected Tegile because of its multi-protocol architecture, fast performance and data reduction capabilities that massively reduced floor space and power consumption.

The Solution: Tegile Delivers Consistently High Performance as Egan Scales while Maximizing Density and Simplifying Management of Virtual Desktops

Tegile Intelligent Flash Arrays are engineered for storage efficiency, delivering the fastest possible response times while enabling organizations to significantly reduce their storage acquisition and operational costs.

Using inline compression and deduplication, Tegile arrays can shrink the storage footprint by up to 90 percent in VDI environments. Redundant OS images are reduced to a single instance and stored in flash. Hundreds or thousands of persistent VDI instances can be shrunk down to one single boot image.

IT can create and deploy hundreds of virtual desktops in minutes, not hours, and dramatically cut down on the time required for doing regular VDI maintenance tasks.

Tegile includes a VMware vCenter plug-in, enabling administrators to provision datastores, manage snapshots and restores, and monitor I/O status, space usage and latency for all of their Tegile arrays from either vCenter's Web or desktop client.

Tegile arrays support both NAS and SAN protocols. Virtual desktop images can be deployed using NFS, iSCSI or Fibre Channel while user data can be hosted on the same array and accessed via CIFS for Windows desktops and NFS for Linux desktops. Additionally, Tegile arrays are fully redundant with no single point of failure and dual active/active controllers to maximize investment in array hardware.

The Result: Tegile Reduces Storage Capacity Needs Up to 90 Percent with Ample IOPS to Handle Workload as well as Maintenance

The Tegile deployment provided Egan Company with fast, persistent desktops and a consistent end user experience. Combined with easy-to-provision and manage storage across any architecture, trouble-free maintenance and storage usage "that's so small, it's almost free," Nonn said that Tegile has provided the

flexibility to do some things that he didn't think were previously possible.

"When we switched to Tegile, a number of users came us to us and said their machine is tremendously faster and wondering what we did," said Nonn. "And that's shocking because in IT you don't hear that. You only hear when you screw it up or it's not working well or whatever.

"I firmly believe, as much as possible, if we can get our job done during the workday, that's when we should do it and not wear out my staff and myself at night with maintenance. That way you can go home at night and see your wives and your families. We do our maintenance during the day and we do it all time. We spike the crap out of this Tegile system and users don't notice a thing."

"When we switched to Tegile, a number of users came us to us and said their machine is tremendously faster and wondering what we did,"

