

Farm Bureau Insurance of Michigan relies on hundreds of agents to sell its policies and perform insured facing functions. When the company's legacy VDI storage system started causing long delays in access times for end-users, it was replaced by an all-flash array from Pure Storage. That ended the performance problems and greatly simplified the task of storage management. Farm Bureau was so satisfied it purchased three more Pure Storage arrays, and has found even more areas of benefit.

**BUSINESS TRANSFORMATION**

Agents have uninterrupted and accelerated access to essential applications and files. IT spends virtually no time on managing storage. And high-performing storage is accelerating the migration of key applications off the mainframe onto open-systems platforms.

GEO

North America

INDUSTRY

Insurance

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Joe Palmer, *Infrastructure Manager*

FARM BUREAU INSURANCE BENEFICIARY OF COMPREHENSIVE STORAGE POLICY FROM PURE STORAGE

Farm Bureau Insurance of Michigan serves more than a half-million policyholders in the Great Lake State, and relies on several hundred agents and customer-service reps to write policies, handle claims and maintain strong customer relationships. Agents and their staffs connect to Farm Bureau through a VDI deployment, so the performance and reliability of the company's IT infrastructure have a direct impact on revenue and policyholder satisfaction.

In early 2013, Farm Bureau was in the midst of deploying an end user compute/virtual desktop infrastructure (EUC/VDI), intended to enhance the on-line experience of agents and their staffs. As often can happen with VDI, however, the company's storage system was not keeping up with the demands being placed on it.

“By the time we exceeded 500 virtual machines, we were getting extremely poor performance from our hybrid storage array. Response times for even routine tasks were slow, and getting slower,” recalled Joe Palmer, Infrastructure Manager at Farm Bureau Insurance. Continuing storage-related errors were causing IT staff to spend nights and weekends monitoring the system and trying to resolve problems. The goal of expanding their VDI was stymied.

“VDI is the agents' only method of access for applications. So, if it's not working well, they can't sell insurance or handle claims. And if they can't process a claim, then the client isn't happy either.”

PURE STORAGE BOOSTS PERFORMANCE OF KEY APPLICATIONS

As part of a plan to redesign the storage system to better support VDI, Farm Bureau conducted a proof-of-concept trial with a Pure Storage all-flash array. Storage-related performance problems disappeared right away, Palmer noted, “and we never looked back.”

The resolution of performance issues allowed Palmer and his team to expand their VMware Horizon EUC/VDI environment and spend more of their time on new, high-value projects.

“With the benefits of the initial Pure Storage array, we saw a lot of opportunity for other areas of the infrastructure to run on Pure,” Palmer said. Since then, the company has virtualized all its desktops and servers, adding two Pure Storage arrays to support

COMPANY:

Farm Bureau Insurance
www.farmbureauinsurance-mi.com

USE CASE:

- VSI – VMware® vSphere®
- VDI / EUC – VMware Horizon
- Database – Microsoft® SQL Server
- Application – Guidewire®

CHALLENGES:

- Poor performance of a hybrid storage array caused long delays for agents and employees in accessing key applications and files.
- Expansion of the EUC/VDI environment was delayed because the storage system couldn't handle the demands.
- Poor performance and resource contention were challenging for Microsoft SQL database workloads.

IT TRANSFORMATION:

- The time to recompose 1,500 virtual machines has shrunk from 12 hours to less than 1 hour.
- Overnight batch processing is now completed several hours sooner than previously, preventing any interruption in application availability during business hours.
- The IT staff spends less than half the time it previously devoted to managing storage.

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VMware vSphere ESX servers and a third new array to serve as the basis for a new disaster-recovery site in Grand Rapids. Except for backup, Farm Bureau has replaced all of its spinning disks with Pure Storage FlashArrays.

“Since the installation of the two Pure Storage arrays to support the server infrastructure, we have seen significant improvements in the batch processes we run overnight,” noted Matt Drake, senior systems engineer. “Even when we started them at 6 p.m., we were sometimes not seeing them finish until 7 or 8 in the morning. And in some cases that meant agents who were starting their day couldn't log in to the system because the batch processing hadn't been completed. Since moving to Pure, most of these processes finish long before 8 a.m., giving us a nice buffer in case there is any problem.”

Another noted improvement, with regards to the Pure Storage array dedicated for VDI, has been the time needed to recompose VMware Horizon virtual machines. “Before, it took us 12 to 13 hours to recompose 1,500 VMs,” Palmer noted. “With Pure Storage, it's about an hour.”

SIMPLIFYING MANAGEMENT TASKS

Pure Storage offers non-disruptive upgrades, which also impressed the Farm Bureau IT team. “With the previous 12- to 13-hour recompose times, we would constantly ask people to log off the system,” Drake observed. “Now, people log in and log off whenever they please, even while we are doing maintenance. The Pure array allows this non-disruptive flexibility.”

“One of the benefits we experience most often with Pure Storage is the dramatic reduction in time that's needed to manage storage. We've easily shaved off more than 50%,” Palmer added. “It's a very simple product for engineers to manage on a day-to-day basis, and that allows them to work on other more pressing projects.”

One of those projects has been the transition of the company's key applications off mainframes onto open-systems platforms, using Guidewire software. The project is a mission-critical one for the company, as it contains all the data and functions at the heart of the business.

CONSOLIDATING KEY WORKLOADS ON FLASH

“We knew that the Guidewire project would take a large amount of compute resources and storage. With the success we'd had with the Pure Storage arrays on VDI, we knew that Pure would be a very important structural component of the Guidewire project. It has provided a lot of benefits; for example, the ability to spin up databases for test and development without having to wait for slower disks to perform, and without having to worry if there's adequate capacity.”

The performance, reliability and stability of the Pure Storage array all impressed Palmer. “It's flexible, it's scalable, and it's fast. We don't have to think about it. It just works. And we can work on other problems, not focus on storage-related issues.”

Palmer added, “Matt just spent a week troubleshooting performance problems with the Guidewire implementation, and every single time, when the team found the cause of the problem, storage was not the issue.”

Palmer reported that “our DBAs were extremely happy when we moved our databases to Pure Storage, because the performance improved so much. We have about 50 production Microsoft SQL servers running between the two arrays. And if we need a 51st, we can have that in an hour. The Pure array is capable of handling any additional workload we throw at it without a lot of engineering time to design different LUNs with different RAID types. That's all in the past. So that speeds up delivery time for our projects.”

As an organization that uses a design based on the Pure Storage FlashStack converged infrastructure, Farm Bureau “appreciates the ease of integration between our all-flash arrays, Cisco networking equipment and UCS server blades, and VMware software,” said Palmer.

The data-compression features of the Pure Storage array also elicited praise from Palmer and Drake, who noted that Farm Bureau has been seeing data-reduction ratios of about 3.4:1 on servers and 9:1 for VDI.

“The high data compression rates provide a lot of flexibility,” Palmer said. “If we have a project where we temporarily need 200 desktops for testing, I don’t have to ask if we can afford it on the capacity side. I know we have a lot of room because it de-dupes so well.”

Palmer reported that when the company had 500 virtual desktops, they consumed 30 TB on the old hybrid array. With Pure Storage, the current load of around 1,800 desktops takes up only 3 TB.

NO REASON TO LOOK AT ANYONE BUT PURE STORAGE

When Farm Bureau was ready to add more storage resources a couple of years after buying its first Pure Storage array, “we found no compelling reason not to continue with Pure Storage.”

He cited high performance, stability and reliability as key reasons, along with “phenomenal” support. “We were among the early adopters of Pure Storage, and in those days they dealt with issues quickly and did what it took to resolve them. Three years later, there aren’t very many issues any more, but Pure Storage support is still very good. They call and tell us when there’s a problem even before we know it.”

As an early customer of Pure Storage, Farm Bureau has already benefited from its participation in the Pure Evergreen™ Storage program, which guarantees non-disruptive upgrades to the latest technology for all arrays under a maintenance contract. Farm Bureau’s first Pure Storage array was an FA-300, later upgraded to an FA-400 to support its growing VDI workload. In mid-2016, the FA-400 was replaced free of charge by a FlashArray//M20. The upgrade was performed in less than two hours with no disruption in system availability.

“Thanks to Evergreen Storage, we now have an array with even greater capacity and higher performance at no additional cost over what we already paid in maintenance,” Palmer noted. “This is an unprecedented offering in my experience with storage vendors. Not only does it make the return on investment in Pure Storage even more attractive, it actually lowers our total cost of ownership.”

Palmer was already convinced that Pure Storage is a compelling value. “Any all-flash array is probably going to perform pretty well. But all the other things Pure has going for them — the data reduction, the ease of use, the support, and the relationships we’ve built — more than justify the cost. And I don’t believe it is any more expensive to start with.”

Palmer said he frequently talks to potential customers of Pure Storage who are in the decision-making process. “We always say the same thing: just buy it.”

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