

County VDI Deployment Comes Alive with Pure Storage

END USER PERFORMANCE SIGNIFICANTLY INCREASED WITHOUT MANAGEMENT COMPLEXITY

The Challenge: Eliminate Storage System Failures and Make VDI a Reality

Muskegon County is located in Western Michigan and borders the shores of Lake Michigan. The county has 174,000 residents and is responsible for the county jail, operates major courts, files mortgage deeds and administers public health regulations.

The IT team of Muskegon County began deploying a VDI infrastructure under a very aggressive schedule to modernize a computing infrastructure that hosted a large number of older, mostly outdated computers. During the deployment, they experienced frequent server crashes associated with their VDI appliance. It was unable to protect against simultaneous writes, causing instability for the servers and producing VMkernel errors. This caused system crashes every three days, grinding the VDI rollout to a halt and leaving users unsupported in the interim. With users losing confidence in the project, the IT team needed a more effective storage solution that would enable them to justify and execute a VDI deployment across the county.

I hope Pure never loses focus on customer service because that's one of the things that makes them priceless.

Heath Kaplan
Finance and Management
Services Director

The Answer: Pure Storage FlashArray Enables Fast, Scalable VDI Deployment

After identifying the root of the system crashes, the County's IT team researched potential flash storage vendors. They specifically sought a solution that offered a stable platform, data management capabilities and top-notch product support capabilities. The team brought in the Pure Storage FlashArray for a proof of concept, attracted by its proven track record and long time on the market, data redundancy and guarantee. Once the FlashArray was deployed, Muskegon County's VDI system no longer crashed and all VMkernel errors were eliminated. The IT team quickly purchased a second FlashArray for use at the County's backup location and all virtual servers are being moved over to the FlashArray.

The IT team was impressed with the ease of management of the FlashArray and the level of customer service provided by Pure Storage. As soon as they plugged in the FlashArray and began testing, a Pure Storage customer service representative proactively called to see if they had any questions.

The Solution: Dramatically Increased Performance Plus More Available Capacity

After deploying the Pure Storage FlashArray, Muskegon County saw an immediate performance increase across its VDI system. All virtual desktops are refreshed after every login and image re-compose occurs once per week, generating high performance loads of 10,000 - 25,000 IOPs. With the FlashArray, the system was able to deliver system latency as low as .4 milliseconds, significantly less than the previous system that had a latency of 2 to 4 milliseconds despite utilizing flash. "We were seeing performance that we have never seen on a flash array before," said Rob Schraeger, CIO of Muskegon County.

The FlashArray's robust data deduplication capabilities enabled the 500 desktops currently deployed to only utilize 15% of current disk space, whereas the previous system was at 50% storage capacity with only 40% of the virtual desktops deployed. The 8:1 data reduction level has effectively enabled the IT department to utilize a modern, enterprise class SAN while only needing to purchase 5TB of disk space and still have the ability to expand for quite some time.



SOLUTION

- VMware Horizon View 5.1 with Pure Storage FA-320
- Deployed 500 virtual desktops, with plans to deploy up to 800

SYSTEM IMPROVEMENTS

- Achieved 8:1 data reduction
- Reduced latency to sub-millisecond
- Eliminated all system crashes in the VDI environment
- Highly responsive product support from Pure Storage

INCREASED PERFORMANCE

