Yavapai Enrolls Students in Cost-Effective VDI Solution with Tintri VMstore™

VMstore

Yavapai College (YC) is a community college in Arizona established to provide high-quality, convenient, and cost-effective learning opportunities for the diverse populations of Yavapai County. Across its six campuses, YC enrolls more than 15,000 students. YC serves a large county with students commuting from more than fifty miles away.

The Challenge: Existing Storage Could Not Support Large-Scale VDI

YC wanted to virtualize student desktops to deliver a more accessible, cost-effective, and secure environment while preserving the same positive user experience as a physical desktop infrastructure. YC found through a proof-of concept that their existing storage would not be able to provide adequate performance for a large-scale virtual desktop infrastructure (VDI) deployment.

YC deployed traditional storage systems for infrastructure server VMs. "We are a long-time VMware customer and have virtualized most of our server environment except for couple of large databases," said William Earles, YC's Director of Infrastructure Services. With experience in virtualization, YC wanted to deploy virtual desktops to improve access to services for students. "From the pilot we conducted with VMware View running on vSphere, we realized that our existing storage would not cost-effectively scale to support our VDI deployment," Earles said.

One of the major considerations for the VDI project was to provide a user experience on par with physical desktops. "Adobe Photoshop and streaming video applications are heavily used and delivering a quality experience meant we needed ample performance from our storage system," said Earles.

Management complexity with traditional storage systems was also an issue. "We were looking for a simple plug-and-play management for the VDI storage" said Earles. "From the pilot project, I could see that setting up LUNs, creating multiple datastores, zoning, and ongoing maintenance would have been a huge issue for a large-scale deployment on traditional storage."

The Solution: Tintri VMstore T540

YC was excited to leverage Tintri VMstore's flash-based solution for the VDI deployment. "We certainly wanted to conduct a large-scale pilot using our most demanding desktop applications to prove VMstore's fit in our VDI installation," said Earles.

At its Prescott campus, YC deployed a Tintri VMstore system that provided 13.5TB usable capacity in a single datastore for serving virtual desktops. "Installation of the Tintri VMstore T540 appliance was very simple and within the hour we had deployed VMware View linked-clone desktop VMs," said Earles. "The pilot test showed that we could easily deploy more than 500 virtual desktops with performance to spare."

The Result: Smooth Operation for VDI

The difference between standard infrastructure and Intelligent Infrastructure was obvious to YC from the beginning. "We knew going in what we wanted and the VMstore appliance is able to handle about 30% more desktops than we expected," said Earles. "We are able to run the VDI environment smoothly and provide user experience that is on par or better than with physical desktops," said Earles. "Most importantly, we are able to deploy virtual desktops at less than half the cost of physical desktops, which is crucial given our budget constraints," said Earles.

"From our experience, I know we will be able to run even more VMs on the VMstore appliance. I know this may not be such great news for them, but it will reduce our cost per desktop even further," said Earles. "I know we will be memory bound on our vSphere hosts before we max out the VMstore system."

Challenges

- Reduce cost of desktop deployments with VDI
- Deliver a good user experience for streaming video and photo processing software
- Manage the complexity of traditional storage

Solution

- Tintri VMstore T540

Results

- Able to deploy virtual desktops at less than half the cost of physical desktops
- Able to support more than 500 desktop VMs on a single 3RU appliance
- Ease of provisioning and managing VMs

Tintri
Intelligent Infrastructure

"Day-to-day administration of the system is very minimal and VMstore's intuitive GUI significantly simplifies administration," said Earles. "VMstore's VM-level management abstraction lets us keep tabs on resource consumption for each individual desktop and proactively address potential problems and plan for growth," said Earles.

"Given the tremendous success with VMstore in our initial VDI deployment, we look forward to virtualizing staff desktops as well," said Earles. "One feature I would like to see is native cloning at VM level. It would add tremendous value in creating persistent desktops required for staff. I know it is on Tintri's roadmap," he said.

"We are able to deploy virtual desktops at less than half the cost of physical desktops, which is crucial given our budget constraints. At the same time, we are able to run the VDI environment smoothly and provide user experience that is on-par or better than with physical desktops."

William Earles, Director of Infrastructure Services

Experience Different! For more information on how Tintri VMstore can turbo-charge your business success through a simple, Intelligent Infrastructure, visit tintri.com/vmstore.

Tintri
Intelligent Infrastructure

| @tintri | www.tintri.com | info@tintri.com |

VMS-CS084-0620-01