

# Sam M. Walton College of Business Chooses Tintri VMstore™ for Campus-Wide VDI

VMstore



Since its founding at the University of Arkansas in 1926, the Sam M. Walton College of Business has grown to become one of the state's premier educational institutions and a nationally competitive business school. Walton College accomplishes this distinction by combining excellent academic programs with a wide range of experiential learning options, enabling its students to connect academic scholarship with real business practices. Its graduates are now being recruited by the most selective local, national, and international employers.

## The Challenge: Poor Virtualization Performance

Walton College implemented a very successful server virtualization project in 2012, using VMware ESXi and vCenter. In 2013, the College decided to expand the project by deploying VMware View virtual desktops across the campus, enabling students to work on their assignments remotely.

Scott Zemke is the senior systems engineer at the Sam M. Walton College of Business. He is responsible for ensuring 24x7 availability of all IT infrastructure for the college's 8,000 faculty, staff, and student end users. "We first tried to virtualize our labs using a streaming OS product from a competitor of VMware," noted Zemke. "But unfortunately, it didn't work nearly as well as we wanted it to, so we scrapped that project and purchased licenses for VMware View. Our initial push was to replace all of the desktops in our physical labs with Dell Wyse P25 zero clients. The P25 devices take just a twenty-fifth as much power as traditional desktops. The savings in power costs alone from the P25 zero clients and VMware View solution were very impressive."

Walton College launched its VMware View deployment using EMC storage units, but the platform didn't have the 'muscle' to meet the demands of VDI, according to Zemke. "Our EMC units couldn't deliver the IOPS needed for our 400 virtual desktops and 100 servers. We tried to fix the deficiency by purchasing a Dell EqualLogic system to boost performance. It helped a bit a first—we were able to put a lot more applications on it. But it still wasn't fast enough for VMware. We clearly needed a more powerful storage solution for our VDI environment."

## The Solution: Tintri VMstore T540

Zemke and his team started searching for a better storage option for the College's virtual environment in 2013. "We first heard about VMstore from our sales rep," noted William Allred, associate director of the technology center at the Walton College. "He used to work at VMware, so he's quite knowledgeable on the demands of virtual systems. He was very confident that VMstore could solve all of the performance problems in our VDI environment."

Walton College's IT team also evaluated storage solutions from Pure, Nimble, Dell EqualLogic, and Compellent, but both price and performance were much better with VMstore. "We listened to the Tintri sales pitch and saw a demo," Allred reported. The difference between standard infrastructure and Intelligent Infrastructure was striking. "Our IT team was very impressed with what we saw. None of the other vendors had anything that could come close to VMstore's features and performance. In my opinion, VMstore is the only game in town—it's the only storage solution designed to meet the demands of virtualized environments."

Walton College decided to purchase two VMstore 540 units in 2013. "Our Tintri rep told us if we didn't like the systems after three months, we could ship them back," said Zemke. "This took all of the risk out of the trial, since we knew we wouldn't be out anything except our time. The VMstore systems worked fabulously in our VDI environment. We never regretted our decision for a minute."

During the 90-day evaluation period, Zemke and his team tried really hard to 'break' the units. "The VMstore systems took everything we could throw at them and didn't miss a beat," Zemke admitted. "We quickly realized that it was the right solution for our VDI deployment. The two systems are working so well for our VDI deployment, we decided to move all of our virtualized servers over to VMstore as well."

## Challenges

- Provide students and faculty with remote access to campus labs and applications
- Improve performance of VDI environment
- Simplify storage management

## Solution

- Tintri VMstore T540

## Results

- Storage administration time reduced from several hours per day to zero
- Time to deploy new VMs reduced from half an hour to just a few seconds
- Higher-performing storage for virtual desktops at one-third the cost of the alternatives

## The Results: Faster Deployment, Easier Management

Walton College has now moved all of its production servers and 24TB of data over to its two VMstore T540 units. “VMstore provides the ‘best bang for the buck,’” Allred reported. “The other storage costs at least three times what VMstore does, and I’d much rather have three VMstore units than one all-flash system. A future project is to consolidate IT around our entire campus, and to do that we will need even more VMstore units.”

The VMstore deployment was incredibly fast, according to Zemke. “Deploying VMstore is so much simpler than any other storage platform I have ever used. It actually took me longer to put the rails on the rack than to hook it up and configure it. We’re talking maybe fifteen or twenty minutes max. This is a huge contrast to other storage systems we have deployed. For example, another IT department on campus recently bought a unit from Pure Storage. The support rep came out to install the unit, and after two days, he was still here trying to get that system up and running—versus just fifteen minutes to deploy VMstore.”

Before VMstore, Zemke and his team spent several hours each day managing the storage environment. “All of that complexity is now gone. We don’t have to manage our VMstore at all. It’s just there, and it just works.”

Zemke also likes using the VMstore administrative console to track VM performance and latency statistics across compute, network, and storage. “VMstore really is a zero-management environment,” Zemke explained. “We log into the administrative console every now and then just to check on performance, but that’s about it. The interface is very intuitive. I just click on the graphs and it instantly tells me what I need to do to optimize the configuration of our switches, routers, and other components across the board.”

Walton College is now running almost everything on VMstore. “It’s all about performance and virtualization,” noted Allred. “Everything is now on VMstore except our backups—they really don’t require any knowledge of virtualization or that much performance, they just need a lot of space. Since we still have a bunch of old EqualLogic’s hanging around, we are using those units for our backups. When those reach end-of-life, we will use VMstore for our backups as well.”

“Tintri Support responds to issues very quickly, usually before we even know we have a problem,” said Zemke. “Once when I was working behind one of the VMstore racks, I accidentally unplugged the power supply. Before I could plug it back in, a support engineer from Tintri called to say, ‘We noticed that your power supply has failed. We are sending a new one out. Where do you want it shipped?’ I said, ‘Thanks for noticing. But, give me a minute to plug it back and we should be just fine!’”

“Our existing VMstore system has more than enough IOPS for our existing VDI user base,” Zemke reported. “Just one VMstore system can easily support more than 2,000 virtual desktops. But we would like to get a second VMstore unit to accommodate future virtualization growth, and a third one for our disaster recovery site to enable hot failover and zero downtime.”

“With our VMstore and VMware View environment, our students are now able to use their own devices to connect to campus applications without having to go to the college’s physical lab environments,” noted Allred. “I see all of our physical computer labs going away entirely in the near future. We will still provide office space so students can work on campus when they choose to. We also plan to use VDI to provide more remote access to our class lectures. We already have one class that is exclusively offered online, and both the faculty and the students really like having the flexibility of the VDI environment.”

“When we first heard about VMstore, the solution sounded almost too good to be true,” concluded Allred. “But VMstore has surpassed even our highest expectations. We are now recommending the combined VMstore and VMware solution to our campus’s central IT team for their virtual desktops as well. VMware View is simply the industry’s best virtualization solution, and it performs so well because it’s on VMstore. I don’t have to worry about storage anymore. It’s the perfect solution for virtual environments.”

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*William Allred, PhD., Associate Director, Technology Center, Sam M. Walton College of Business*

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



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