

Case study

CALLEN ISD is VDI

Calallen Independent School District uses a high performance VDI solution that helps students Xcel at state tests

Improving VDI Productivity with ISE 700 Series Hybrid Storage Array

objective

Provide the students of Calallen ISD exposure to computer based, mandatory, state-wide testing with virtual desktops and reduce the excessive login times of their current environment

solution

- Microsoft Hyper-V
- Quest Workspace
- Cisco UCS
- ISE 700 Series Hybrid Storage Array

business benefits

- Reduced Login Times by 90%
- Increased Productivity
- Decreased Total Cost of Ownership
- Higher Consolidation Rates
- Lower Administrative Overhead



"It used to take students 40 minutes before they could access their desktop – just in time for class to be over. Now we have our virtual desktops configured to log in on boot up. All 270 systems across all campuses are up and running in less than four minutes."

Bryan Brown, Director of Technology for Calallen ISD

the challenge

Located in Corpus Christi Texas, Calallen Independent School District (ISD) serves 3900 students across 5 campuses ranging from grades K – 12. With mandatory state-wide testing looming, the IT department was on a tight schedule to provide 270 workstations to the students of Calallen School District before test day.

"We wanted the students to have the experience of using computers on a daily basis to familiarize themselves with the systems", said Bryan Brown, Director of Technology for Calallen ISD. *"We didn't want the first time they used a computer to be the day they sat down to take the test".*

Bryan and his team brought in solutions provider and X-IO partner, The Harding Group, to help them improve their underperforming VDI solution. For their Hypervisor they selected Microsoft Hyper-V, Quest Software as the broker, Cisco UCS, and Wyse terminals. Since they already had an array in place they elected to utilize their existing storage for the deployment. *"X-IO was the only vendor who was stressing the importance of IOPS, but since everyone else kept avoiding the subject and focusing on capacity, we felt we'd follow the recommendations of the consensus".* With the components selected and the system tested, they were ready to deploy.

It wasn't until after students started logging in that it became apparent why X-IO asserts that performance is key in a VDI deployment. *"Once we hit about 100 users logging in at one time, the system would completely freeze and no one else could log in."* With only a third of their students able to log in, and those waiting in excess of 40 minutes for their systems to load – Bryan and his team knew they needed to make a change and fast.

the solution

With the state's test day rapidly approaching, Calallen ISD had one month to get a new storage solution in place. Having remembered his discussions around X-IO's ability to provide the best price, performance, and capacity in the market, Bryan reached out to The Harding Group and the local X-IO sales team for help. *"When speaking with X-IO, it was the first time a vendor was willing to fully address our questions regarding IOPS and performance. This made us feel very comfortable with the solution. Up until and even after deployment, all the other vendors we spoke with would skirt around the topic or change subjects completely."*

The class was almost over by the time the login finally completed.

*"It took the students 40 minutes after typing their password to have the My Computer icon appear on their desktop. **Now it's a minute!"***

Bryan Brown, Director of Technology for Calallen ISD



Providing 14.4TBs of raw storage and up to 200,000 IOPS in a highly reliable 3U unit, X-IO's ISE 700 Series Hybrid Storage Array would provide more than enough IOPS for Calallen ISD's performance and capacity needs. By combining HDD and SSD into a single pool of storage, ISE 700 Series Hybrid Storage Array CADP technology intuitively places the performance starved data on the SSDs while retaining 'cooler' data in the magnetic media; reducing the overall TCO for Calallen's performance needs.

With the best price/cost/performance ratios in the industry, the purchase price of ISE 700 Series Hybrid Storage Array was definitely attractive. But it was ISE 700 Series Hybrid Storage Array's total cost of ownership; including power, cooling, rack space and administrative overhead that made X-IO a clear winner.

X-IO was not only able to get the system on-site and installed weeks before Calallen ISD's deadline, but with the assistance of The Harding Group the entire virtual environment was up and running within just a few hours after the hardware installation was complete. *"We set up the LUNs, added the VMs and really haven't touched our ISE 700 Series Hybrid Storage Array since."* With an easy to use and intuitive interface, along with ISE's zero-touch maintenance, Bryan and his team have had very little involvement since deployment. *"It just runs."*

the result

"It used to take students 40 minutes before they could access their desktop – just in time for class to be over. Now we have our virtual desktops configured to log in on boot up. All 270

systems across all campuses are up and running in less than four minutes."

With ample room to grow on their ISE 700 Series Hybrid Storage Array, Calallen ISD plans to continue to expand their virtual environment; including replacing their VMware lab and adding additional classroom VDI systems. They anticipate being able to host 1200 desktops on a single ISE 700 Series Hybrid Storage Array.

With other districts around the state looking at VDI deployments, Bryan and his team have been evangelists for their solution. *"We have been adamant that although we know this is not the only way to deploy VDI, for us it has been the best way. It works well, it is easy to manage and doesn't cause any problems".* And that is music to our ears.

A CLOSER LOOK

Calallen ISD's VDI Solution

Servers

Cisco UCS B230 M1

VDI Broker

Quest Workspace 7.5

Hypervisor

Microsoft Windows Server
2008 R2 Hyper-V

VDI Endpoints

Wyse Terminals

Storage

ISE 700 Series Hybrid
Storage Array

Applications

Microsoft Office 2010
Internet Explorer
TestNav Online
Application

