TEXAS TECH UNIVERSITY
HEALTH SCIENCES CENTER™
EL PASO

Health-sciences center bridges healthcare and education needs with Citrix NetScaler

Texas Tech University Health Sciences Center El Paso and Citrix

The Challenge: Provide clinicians and students with reliable access to data anywhere on any device

The Texas Tech University Health Sciences Center El Paso (TTUHSC) El Paso IT team faced the challenge of providing healthcare professionals and students with reliable access to information. At the same time, it had to securely manage protected health information (PHI) and personally identifiable information (PII) in a manner compliant with the Health Insurance Portability and Accountability Act (HIPAA).

TTUHSC El Paso faced a variety of technical challenges—doubled by serving two distinct user groups. Healthcare professionals needed access to electronic medical records (EMRs), imaging systems for X-rays, magnetic-resonance-imaging (MRI) systems, and computerized-tomography (CT) scans, in addition to the virtual desktop infrastructure (VDI) used in clinics and exam rooms. And TTUHSC El Paso students needed access to shared educational tools, which required enforceable policies be put in place to support mobility and enable students to use their own devices instead of school-supplied laptops.

The university was also transitioning from Blackboard to cloud-based Canvas for its online-medical-school learning materials. It was also evaluating new EMR solution options.

The Solution: Deliver high availability by load balancing apps with Citrix NetScaler

TTUHSC El Paso chose the Citrix NetScaler solution to ensure that users get consistent, high-quality access to the data and

"Citrix NetScaler enables us to securely deliver virtual applications and desktops, while being cost-efficient, easy-to-manage, highly available, and providing a better user experience."

Iskra Jacobo | Enterprise System Analyst | TTUHSC El Paso

apps they need, regardless of location and device, and without having to overprovision resources. The NetScaler solution also helps the university remain HIPAA-compliant, more secure, and agile.

Before moving to the NetScaler solution, TTUHSC El Paso was using a load balancing solution that could not provide multi-tenancy. It sometimes failed to correctly authenticate users when they logged in, and users were unable to access the right applications. At the same time, the university was using Citrix XenApp to run an EMR application for 800 users and Citrix XenDesktop to provide 185 virtual clinical desktops in exam rooms. The IT staff was also looking for an improved Secure Sockets Layer (SSL)−enabled solution for its VPN.

According to Jorge Caballero, TTUHSC El Paso Director of Infrastructure Technology, the IT team looked into using the NetScaler solution specifically because of its "capability for redundancy and integration with the current virtualization platform—XenApp and XenDesktop—and for providing access for our users all the way to the endpoint."

Today, TTUHSC El Paso uses a NetScaler appliance to load balance apps for high availability. The university reduces its server load by offloading a variety of functions to a NetScaler appliance. With the NetScaler solution, TTUHSC El Paso can create redundant virtualized instances to prevent user downtime. Multi-tenancy means the IT team can create virtualized instances for testing development scenarios without impacting the applications in use in the production environment—all on the same box. And the NetScaler solution maintains security-enabled delivery of data across networks outside the data center to ensure regulatory compliance.

"Citrix helps us reduce infrastructure and operating costs; at the same time, we reduce total cost of ownership and increase our IT and business agility with an overall improvement in user productivity and customer satisfaction," says Francisco Rivera, Enterprise Network Engineer at TTUHSC El Paso.

TTUHSC El Paso is the only school of medicine in South Texas and the only health-sciences center on the border of the United States and Mexico. It is the area's main healthcare provider, and has cared for underserved, low-income communities and patients for more than 40 years. As one of seven universities in the Texas Tech University System, the university has to manage IT needs for healthcare professionals and medical, nursing, and biomedical student populations.
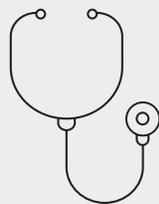
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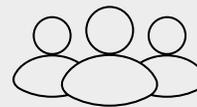
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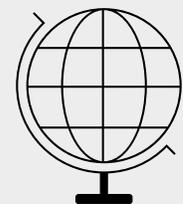
Supports nearly **650** students

Key Benefits

To address users' connectivity issues, TTUHSC El Paso now relies on the Citrix NetScaler solution to provide maximum uptime. The NetScaler solution makes it easy for the TTUHSC El Paso IT team to ensure the redundancy and reliability needed for both on-site and mobile users. Because the NetScaler solution delivers up to five times the performance of other ADC solutions, not only are users connected, they are connected at top speed.

Delivering a better user experience and increased productivity and agility

The new solution at TTUHSC El Paso has both delivered a better user experience and reduced the number of tickets coming in to the support queue. With the NetScaler solution, the IT team runs tests and stands up new instances without affecting production. All of this can be accomplished on a single appliance. Database administrators can quickly set up new instances for testing or development on their own. The IT team sees better caching and compression with the NetScaler appliance and the processors it uses than with its previous solution, and it enjoys greater control over how resources are shared and delivered.

Accessing an easy-to-manage solution

The NetScaler appliance's management console is user-friendly and enables the TTUHSC El Paso IT team to create a template instance, which the team can replicate as needed. The TTUHSC El Paso IT team manages both of its NetScaler appliances from the central dashboard. "There's no way to lose yourself if you have a basic background with NetScaler," says Caballero. "Citrix allows us to provide our users with a highly available, flexible, and more secure environment in a very efficient way."

Enabling critical security and compliance

The healthcare industry is highly regulated. NetScaler appliances support the latest encryption technologies and aid IT professionals in enforcing key compliance mandates, such as HIPAA. The TTUHSC El Paso IT team can easily use SSL offloading to control the encryption and decryption of traffic by moving all the processing off the server and onto its NetScaler appliance. "We simply feel safe with NetScaler," says Caballero.

Looking Ahead

In the future, TTUHSC El Paso is looking to extend its NetScaler product base by adding NetScaler Unified Gateway to take advantage of additional features, such as AlwaysOn, which ensures that users are always connected to the enterprise network with persistent VPN connectivity. The university is also considering HDX Insight, NetScaler Management and Analytics System (MAS), NetScaler SD-WAN for reliable branch networks, and NetScaler AppFirewall to ensure long-term use of the NetScaler solution.

Industry

• Colleges and Universities

• Healthcare

Key Benefits

• Keeping users connected with high availability

• Delivering a better user experience and increased productivity and agility

• Accessing an easy-to-manage solution

• Enabling critical security and compliance

Citrix Products

• NetScaler

• XenApp and XenDesktop

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TEXAS TECH UNIVERSITY HEALTH SCIENCES CENTER™ EL PASO

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[1] Texas Tech University Health Sciences Center (TTUHSC) El Paso and its partner hospitals provide $33 million in free healthcare services to the El Paso community every year.