datanetworks

DELIVERING VIRTUAL DESKTOP INFRASTRUCTURE at a Foreign Language Research Institute

About the Customer

This foreign language research institute is dedicated to improving our country's capacity to communicate in languages other than English. It provides multi-lingual instruction, translation, consulting, and related services to organizations nationwide. Its clients include policy-making agencies at all government levels, private sector companies and non-profits. The Information Technology staff at the institute support the business from a single data center, mainly utilizing virtual technology.

What Data Networks Did for the Customer

- Replaced legacy desktop and application virtualization technology with next-generation Dell hardware and VMware software-centric virtual desktop infrastructure (VDI).

- Improved end-to-end virtualization performance, delivery, and end user experience.

The challenge

This Maryland-based foreign language research institute's IT infrastructure constantly supports 200 end users through desktop and application virtualization: deploying virtual desktops to end users, optimizing network connectivity and provisioning end users with access to enterprise applications. An existing Citrix-based virtual machine (VM) provisioning and management system had been in place for approximately 10 years. Using a Citrix console, the institute's IT staff would maintain desktops based on a "master" departmental image and terminal services, and selectively grant each of their endpoints (some of which resided in external networks) access to departmental applications. According to the institute, their virtualization, and to a large extent their entire infrastructure, needed a fresh set of unbiased eyes to help them recognize specific opportunities for improvement.

The solution

As a technology solution provider with a broad range of expertise, Data Networks was well positioned to serve the institute's needs. To ensure the best long-term solution for the institute, the Data Networks consulting team first huddled with the institute's IT staff for a roadmapping session. It was during this roadmapping session that Data Networks consultants targeted the replacement of the institute's legacy Citrix technology and simultaneous implementation of state-of-the-art virtual desktop infrastructure as a likely solution.

At Data Networks, we're attentive not only to our clients' short-term improvement needs, but also to a long-term vision. Our roadmapping sessions let us develop a three-year plan in collaboration with our clients to positively transform their IT infrastructure.

When it comes to VDI, Data Networks offers several advantages over competing solution providers. Data Networks solution architects and engineers possess the breadth and depth of virtualization expertise required to produce a very high success rate for these types of projects. This is especially true in the education industry. Another advantage: Data Networks' high-level partnerships with world-class VDI hardware and software technology companies.

For virtual environment hardware, Data Networks relied heavily on Dell components, selecting and installing Dell as the backbone of the

institute's new infrastucture. Leveraging Dell's Solution Configurator, Data Networks recommended and installed a Dell Compellent SAN (consisting of 500 TB capacity, (8) 8 GB Fibre Channel (FC) ports and (8) 1.9 TB solid-state disks (SSDs)) along with three Dell PowerEdge R730 servers as the new VDI's hardware layer.

The combination of the Compellent SAN and R730s represented tremendous value for the institute. As a solution, it is enterprise-level VDI storage and provisioning hardware requiring only departmental-level physical space (occupying only a handful of rack space in the institute's available data center capacity) and cost. In addition, Compellent SANs and R730 servers both scale easily. Moreover, the institute's Compellent SAN would support the separation of high- and low-velocity data into tiers for effective caching purposes, and the R730s had the high data acceleration capability needed to sustain the institute's VDI and its entire virtual environment. Last but not least, because Dell hardware is generally open-standard in terms of connecting with switches and other network gear, the institute could maintain its pre-existing FC switches and networking gear.

Next, Data Networks engineers installed software to support the new VDI. Again, the Dell hardware proved advantageous. VMware virtualization management applications are "battle-tested" on Dell SANs and servers. Data Networks installed VMware's Horizon View series of VDI applications (Connection Server as the virtual server-VM communication platform, Composer for VM desktop pool administration/master image deployment updates through "linked clone" technology, and Security Server to enable secure connections between the data center and remote users in other security networks) for VM and user application access management.

For the institute's IT staff administrators, Data Networks installed vRealize Operations for Horizon as a VDI architecture-wide monitoring and reporting solution. After completing the VMware software installation, Data Networks consultants finished by using the institute's existing "master" desktop image to create a new desktop image template.

They then provisioned this image template to all 200 end users and led a series of VDI desktop management and application distribution testing. A few issues arose. However, Data Networks doesn't merely resell leading virtual technology from Dell and VMware – we have relationships with them. So, when the institute's Horizon Security Server initially couldn't make successful connections from the data center to remote user desktops, Data Networks engineers worked together with VMware to easily get to the root cause of the problem and fix it permanently.

The result
Since Data Networks' completion of the VDI project, the institute's desktop and application virtualization technology performance and practices have improved substantially. The institute subsequently requested from Data Networks an additional 100 Horizon View licenses in order to onboard additional groups of end users for whom virtualization had never been planned.

About Data Networks
Data Networks provides effective technology-based solutions to meet your unique needs. Our solutions are specifically developed to reduce IT complexity and help you accomplish more.

INNOVATIVE TECHNOLOGY
By partnering at the highest levels with the industry's most respected manufacturers, Data Networks can deliver the right products for your environment with the most aggressive pricing possible. Our strong vendor relationships also bring technical training opportunities, expedited help desk resources, and professional service liaisons for consulting and project engagements.

INSPIRED ENGINEERING
Our goal is to be your trusted technology advisor. So we staff highly-qualified engineers who bring years of experience and the most advanced technical certifications to every engagement. We assign them a single area of technical focus, a unique approach that allows them to continually update their skills and expand their specialized technical knowledge. And we arm them with documented best practices developed over more than 30 years of successful solution delivery.

We invite you to learn more at datanetworks.com or by calling 800.283.6387.