

University of Pennsylvania School of Dental Medicine Turns Traditional PC Environment to a Virtual Workstation Fleet

Premier dental school, clinical care facility, and research institution seeks a more secure, efficient, and cost effective desktop user experience for students, staff, and faculty

Customer Overview:

University of Pennsylvania School of Dental Medicine (Penn Dental), located in Philadelphia, Pennsylvania, has approximately 250-300 employees and workstations, not including students or adjunct faculty. The IT needs for this organization are managed by Maria Mejia, IT Director of User Services & Support.

Challenge:

Before contacting Devon IT, Penn Dental's IT department was tasked with implementing an electronic medical record system to be utilized chair-side throughout its three primary locations.

With a limited staff and budget, it was already challenging to maintain and provide ongoing support with traditional desktops in every location, much less adding 250+ computers in a clinical/high-availability environment. This would have added another layer of decentralized complexity when their resources were already stretched.

Security

Penn Dental needed to protect privileged information per federal and state regulations such as patient and student data. Another factor in their consideration was the ability to securely share patient data without offloading to the client device. Furthermore, Penn Dental had to protect its users from unauthorized access, malware, and viruses. Lastly, they demanded consistency. Penn Dental required the "look and feel" of a virtual desktop to be exactly the same across multiple clinics.

Efficient Management

Without centralized management, Penn Dental would have found efficient administration of their 250+ desktops (in a clinical setting) to be an unwieldy task. Penn Dental needed to offer a standardized desktop user experience to students, residents, and faculty across multiple disciplines. They also needed to manage multiple desktops with limited staffing and budgetary concerns.

Space Constraints

Before working with Devon IT, Penn Dental was primarily a PC environment with a small fleet of public uses kiosks/thin clients. Many traditional desktops take up a greater physical footprint than thin clients; thus, IT equipment would have consumed already limited space on a dentist's cart or in their operatory.

Solution:

Penn Dental purchased ~175 TC5D and ~25 FX170 for a total of ~200 units.

The software used was the DeTOS connecting to a VMware View environment deployed by VMWare View. This solution allowed users to access internal websites for Penn Dental and the University, their electronic medical records system, digital x-ray image library and their file shares. Penn Dental found that the virtual desktop strategy addressed their core needs.

Results:

Initial Results

By switching to Devon IT's virtual solution, Penn Dental clinicians and support staff were able to access the data that was most important for them from anywhere including: charts, x-rays, and prescriptions. Conveniently, they no longer needed to be locked into a single location which gave the clinicians and staff access to the same programs, shares and network printers.

"Because we are a healthcare institution, there are a host of non-standard peripherals that we use on a daily basis," stated Maria Mejia, IT Director of User Services & Support of University of Pennsylvania School of Dental Medicine. "For example, we ran into problems with device connectivity for our x-ray sensors but we worked with Devon IT and our other manufacturers to resolve the issues. Peripherals you might find in any business/industry such as printers, scanners, keyboards, and mice posed minimal problems."

Benefits

Devon IT's virtual desktop solution provided them with increased efficiency for both end-users and IT staff. Users were able to access patient information from every operatory regardless of clinic location. Less support was needed, compared to traditional desktops and there was minimal equipment needed.

These virtual solutions increase their security and control, due to the fact that they are using non-persistent desktops and helped to reduce physical footprint, which allowed for a de-cluttered patient care space.

Unexpected Benefits

Training users, with little to no IT background, to triage common end-user problems was relatively easy with Devon IT's virtual solution. This proved to be a boon to their remote offices and allowed them to be more self-sufficient.

"Also, it added a greater sense of being connected to campus," says Mejia. "Some of our remote users might have felt 'disconnected' or 'disengaged' from campus because they had to wait until IT support was available to visit their location. A virtual desktop eliminates this concern."

Expected Long Term Results

Penn Dental expects to expand their fleet for both persistent and non-persistent desktops. They will be increasing their pool of non-persistent desktops to replace their existing remote access solution. Such a transition will provide users with a desktop experience akin to what they are used to at their desk or in the clinic. Penn Dental will also increase their band of persistent desktops to transition away from a physical desktop and accommodate administrative users seeking to use their own device.

Conclusion:

Over the next year, Penn Dental expects to replace aging workstations with thin clients or convert traditional hardware with VDIBlaster for administrative users. This group is an ideal test subject because their needs are straightforward (e.g. access to file shares, MS Office, and web applications). They also expect to decommission their Citrix environment and use persistent desktops as their remote access solution for both staff and faculty.