VMware Case Study

Group Health Centre delivers Access to Epic Hyperspace for 800 Care Providers in One Weekend with VMware AlwaysOn Point of Care

Group Health Centre (GHC) in Ontario, Canada, needed a comprehensive replacement of its user device infrastructure and a virtual desktop infrastructure (VDI). In the space of one weekend, GHC’s IT team deployed the VMware Horizon® platform and virtual desktops for 800 staff members, providing anytime, anywhere access to vital medical records, increasing doctors’ efficiency, easing the job of IT staff, and ensuring seamless provision of patient care.

Group Health Centre is Ontario’s largest and longest-established alternatively funded healthcare organization, serving more than 71,000 residents of the Sault Ste. Marie and Algoma districts. Established in 1963, GHC provides quality healthcare to patients through primary and specialty physicians and allied health professionals. It’s one of Canada’s first consumer-sponsored healthcare facilities, built with private funds donated by local union members.

The Challenge

GHC was one of the first healthcare organizations in Canada to adopt electronic medical records (EMR) back in 1997. While the EMR vendor had provided updates over the years, the software was becoming obsolete. Then, in 2010, the vendor announced it was eliminating support, and GHC had to figure out what to do next. “We had to decide: Do we rip and replace the EMR, or do we reinvent our technology to support future needs?” recalls GHC Chief Information Officer Ralph Barker.

The EMR system was deployed in a Citrix environment and clinicians struggled to access the applications they needed. Staff members were required to enter a Citrix login, an application login, and a desktop login. It was a laborious, annoying process for staff simply to get to their core applications every day, made more onerous by the fact that staff routinely access applications from a number of different locations, including exam rooms, desktop stations, nursing stations, counter stations, and more.

“It made the day too complicated,” Barker says. “Performance was poor, accessibility was poor, and workflows were compromised—and that was on a good day. On a bad day it was all break/fix.”

The goal: to be one of the first Canadian healthcare organizations to deploy the next-generation Epic EMR system and to do it with VMware Horizon desktop and application virtualization and the VMware AlwaysOn Point of Care™ solution.

INDUSTRY
Healthcare

LOCATION
Group Health Centre, Ontario, Canada

KEY CHALLENGES
• Upgrade to Epic electronic medical records system
• Develop a unified platform for user devices
• Provide a personalized virtual desktop for healthcare facility staff and physicians

SOLUTION
Group Health Centre deployed VMware Horizon desktop and application virtualization platform to deliver fully customizable personal desktops to 800 healthcare facility users, with anytime, anywhere access and near-instant login.

BUSINESS BENEFITS
• Improved efficiency for doctors and other health workers
• 90 percent reduction in break/fix issues for IT department.
• Scalable, flexible platform for new technology initiatives
“VMware just works better. It’s more reliable, easier, and performs better.”
- Ralph Barker, CIO, Group Health Centre

**The Solution**

Barker knew the new Epic system running on a virtual desktop environment promised a fix for GHC’s ailing EMR system, but he needed to be sure it would work. His primary mandate was a virtual desktop infrastructure that would give all staff an entirely customizable personal desktop with performance equal to a PC. He narrowed the solutions to Citrix and the VMware Horizon platform and evaluated both thoroughly. VMware was the clear winner.

For example, Barker wanted to deliver robust videoconferencing to user desktops, be it through WebEx, GoToMeeting, or the Ontario Telemedicine Network. He tested full-screen videoconferencing on Citrix and the VMware Horizon platform, “and it was night and day,” he says. “VMware just worked better. It was more reliable, easier, and performed better. Any user in any location can stream HD-quality video to their virtual desktop session.”

Barker’s team deployed VMware Horizon virtual desktops to all of GHC’s 800 users over one weekend. They now have control of their own desktops and can install the applications they want. The desktops are recoverable and offer anywhere, anytime access. Additionally, the VMware AlwaysOn Point of Care solution provides the flexibility to move seamlessly and securely between the devices and applications to deliver the most efficient provider and patient experience.

“We have 600 workstations in the field and, whether I’m pushing a broom in facilities or I’m a physician, I can get to my desktop from any of those stations across seven buildings.” Barker says. “My desktop is with me wherever I go. I can pull it up on a mobile device. We have doctors on vacation in the Bahamas checking lab results in Epic poolside through their virtual desktop session. It’s a complete game changer.”

**Business Benefits**

VMware Horizon desktop virtualization and the VMware AlwaysOn Point of Care solution have improved efficiency across the board at GHC. In the past, doctors came in 45 minutes early to start their day—because that’s how long it took them to log in at all exam rooms. Now doctors arrive at the healthcare facility and go immediately to work. They can log in to the new Epic EMR system via their personal desktops in 4 to 5 seconds. In the field, homecare workers who visit patients used to take along a pen and paper to write notes, then go back to the healthcare facility and enter the notes in the old EMR system. Now they can access the new Epic system remotely on their virtual desktops onsite and complete their work.

GHC is one of two healthcare organizations in Ontario participating in an ePrescribe pilot program for its patients, and was able to easily deliver this thanks to the Epic EMR system on the VMware Horizon platform. This allows doctors to send prescriptions directly to local pharmacies, without the patients having to physically hand over a signed piece of paper to the pharmacist behind the counter. “The ePrescribe mechanism is possible because we have provisioned pharmacies with virtual desktops that are integrated with our Epic system,” says Barker.

The VMware solution is also extremely reliable. For years, Barker says, the operational focus of the IT department was almost entirely break/fix issues. Today that’s down to 10 percent, which means IT staff can now concentrate on strategic initiatives to move the hospital forward. Help-desk calls are way down. Previously, IT staff would get complaints from users when it took 10 minutes or more to log in to the system. Now the IT team gets complaints if it takes more than 10 seconds.

**VMware Footprint**

- VMware Horizon
- VMware AlwaysOn Point of Care

**Applications Virtualized**

- Epic electronic medical records software
- Microsoft Office Suite

**Platform**

- HP blade servers
- Tegile Systems storage arrays
- Teradici PCoIP Hardware Accelerators (APEX 2800)
- Teradici PCoIP zero clients
Business continuity is another bonus. Before, when a power outage occurred, a user desktop without UPS backup would be without power for approximately 15 seconds before the generators came on. A lot of users lost their desktops and had to restart and log in all over again. Now when the generators come on, users simply tap their devices and reconnect to their desktops, no work lost. It’s not only a timesaver but also helps to ensure the integrity of data in patient charts.

Looking Ahead

GHC is now planning to move from its legacy business telephone system to a unified communications platform, which will open up new options for users, such as soft calling via VDI. “Similarly, we don’t currently have a robust videoconferencing solution,” Barker says. “But now it’s not about, ‘How do we put in Polycom?’ It’s, ‘What can we do to give everybody videoconferencing through the VDI?’ VMware and VMware Horizon are the glue that ties everything together.”