Case Study

Canterbury District Health Board Accelerates Application Performance in Clinics and Improves Ease of Use

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BRENT PIZZATO
SENIOR SYSTEMS ADMINISTRATOR
CANTERBURY DISTRICT HEALTH BOARD

The Canterbury District Health Board (DHB) is the second largest DHB in New Zealand, serving 510,000 people and covering an area of 26,881 square kilometers. Canterbury DHB is the primary planner and funder of health services in its area and a tertiary provider of hospital and specialist services.

AT A GLANCE

Situation
- Healthcare
- Christchurch, New Zealand with 14 hospitals across the district
- 10,000 employees

Challenges
- Needed to improve application and video performance for clinicians
- The existing desktop infrastructure was inefficient and demanded extensive management
- Needed to make it easier for clinicians to access information without constant log-ins
- **Solution**
- 24 Teradici® PCoIP® Hardware Accelerators (for HP Gen8/Gen9 Blade Servers
- HP c7000 with ProLiant BL460c Gen8 Blades
- Dell Wyse P25 Tera2321 Zero Clients
- VMware® Horizon (with View™)

Results
- **Improved performance:** Dramatically improved high-definition video performance and Microsoft Office application responsiveness.
- **Outstanding user experience:** Client desktops deliver blazing fast response with a consistent user experience.
- **High management efficiency:** Remote configuration and management of PCoIP Zero Clients saves time and accelerates deployment for new users.
- **Energy efficiency:** No fans or hard drives in zero clients make clinic areas cooler and quieter, reducing HVAC requirements.

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Healthcare applications have evolved rapidly, taxing the performance of Canterbury DHB's physical desktop computing systems. Poor performance also extended to staff log-ins. Nurses, physicians, and specialists who used the systems throughout the district's hospitals had to log in to their desktops every time they moved to a different area of the hospital. And, managing thousands of systems across a large geographic area was increasingly challenging. Canterbury DHB wanted to upgrade its systems to address the following challenges:

- Improve application performance, especially for full-screen high-definition video, which slowed performance to a crawl.
- Streamline the user experience by implementing a single sign-on authentication approach and ensure a consistent experience across every desktop. Users had generic accounts and relied on a single terminal. If a caregiver was working on something and stepped away from the terminal, another person needing to use the terminal might close the work in process.
- Maintain a high level of security by eliminating as many vulnerabilities as possible, such as failures to log off systems.
- Dramatically simplify system management. Prior to using Zero Clients, when systems needed patching or upgrades, they were shipped to a central location for service and then sent back. This kept the systems out of service, slowing productivity for users.

The Canterbury IT team turned to a virtual desktop environment, and determined that the Teradici PCoIP technology was the best medicine. The team chose to work with Computer Concepts Limited (CCL), an innovative ICT solutions provider based in Christchurch. CCL provided Canterbury with a Virtual Desktop Infrastructure (VDI), HP servers with ProLiant BL460c Gen8 Blades, Teradici PCoIP Hardware Accelerators for HP Gen8/Gen9 Blade Servers, and Dell Wyse P25 Tera2321 zero clients for its hospitals.

"Desktop management simplicity was a primary requirement for us," said Brent Pizzato, Senior Systems Administrator at Canterbury District Health Board. "The zero client devices are simple to configure and update. We deployed them for clinical staff, including nurses, physicians, specialists and other caregivers in high-use areas." Canterbury and CCL also deployed an Imprivata OneSign authentication solution to simplify log-ins. This end-to-end solution incorporates single sign-on, authentication management, and virtual desktop roaming features—eliminating hassles with user names and passwords and streamlining clinical workflows.

To improve application performance, Canterbury tested Teradici PCoIP Hardware Accelerators in its HP BladeSystem c7000 with ProLiant BL460c Gen8 Blades. "We immediately saw massive improvement in application performance and responsiveness with the Teradici PCoIP Hardware Accelerators," said Pizzato. "Also, offloading the desktops allowed us to use fewer server computing resources. Those reasons convinced us that the PCoIP Hardware Accelerators were a must-have."

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PCoIP

Products used

Teradici PCoIP Hardware Accelerator for HP Gen8/Gen9 Blade Servers

HP c7000 with ProLiant BL460c Gen8 Blades

Dell Wyse P25 Tera2321 Zero Clients

Imprivata OneSign

Virtualization platform

VMware Horizon (with View)

Up to 3,000 virtual desktops

Significant speed and performance increases. With the PCoIP Hardware Accelerators, users saw a tremendous difference in video performance. Today, full-screen, high-definition video is beautiful and fast. Thanks to the Teradici Hardware Accelerators, client desktops deliver blazing fast response with a consistent user experience.

Users love the simplicity. "After installing the new VDI solution with Imprivata OneSign authentication, we followed doctors to observe how the new log-in process went," said Pizzato. "They just tap in to their personalized desktop, see patient details and whatever information they need, tap off, and move to the next patient. They love it and it's a huge time-saver." Caregivers can quickly access the systems and patient data they need at anytime. The new solution streamlines clinical workflows by eliminating the requirement to repeatedly enter usernames and passwords.

Personalization that moves with you. "The overall deployment also let us move away from generic accounts in clinical areas to enabling users to have their own desktops that follow them," said Pizzato. "They don't have to use the same terminal each time or worry about their work being closed by someone else."

They just work. Pizzato and the IT team love the reliability and availability of Teradici technology. The zero clients are unobtrusive, quiet, and simple. "It exceeded our expectations for power savings," said Pizzato. "The zero clients consume far less power than traditional desktop PCs, and the power savings alone helped us win approval for the project."

They save lots of time. Today, IT can manage and interact with the complete solution remotely. The team can resolve issues quicker, and it's rare that a team member must travel to a site to deal with hardware issues. "Instead of shipping computers offsite for patching or upgrade, we can do configuration changes in minutes," said Pizzato. "We also can have a new zero client unboxed and ready to go in five minutes. You can't beat the ease of deployment."

Enhanced data security. Now all data resides in the data center, instead of on individual desktops, improving security and control. Users cannot install apps, no data leaves the organization, and the desktop image is always restored to a proven state.

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