



SUCCESS STORY

West Coast District Health Board

Thin Clients Improve Health Care and Information Sharing at West Coast DHB's Remote Practices

West Coast DHB Overview

The West Coast District Health Board (DHB) is the organisation responsible for ensuring the provision of publicly funded health and disability support services for the 30,000+ people of the West Coast of the South Island. It provides medical, rehabilitation, mental health, nursing, surgical and corporate services.

West Coast DHB has primary health clinics, which act as independent practices, throughout the 600km West Coast region.



SUCCESS STORY

West Coast District Health Board

Challenge

In the South Westland region, five clinics serving a 305 kilometer territory operate as one practice. This "single practice" relied on a poor telecommunications infrastructure that didn't support dial-up networking for its clinics. The clinics were running paper-based systems without computers which hindered information sharing on patients. The problem was highlighted when people living between clinics often visited both at different times, and paper-based patient records were often incomplete at each clinic. The clinics that were computerised had their own LAN-based territorial networks, which allowed access to electronic patient records, online databases and training resources for email, web browsing and services associated with a corporate network. However, these clinics had limited interconnectivity.

Getting South Westland online

According to Wayne Champion, CIO and FCO for West Coast DHB, two years ago options were looked at for placing a telecommunications infrastructure into South Westland clinics in Hari Hari, Whangaroa, Franz Joseph, Fox and Haast. At that same time, the Ministries of Education and Economic Development set up the initiative "Project Probe" to introduce broadband to schools. This initiative established broadband telecommunications through most of South Westland. This, in turn, enabled West Coast DHB to bring networking to its South Westland clinics.

High support costs a concern for IT investment

Despite increased access to a broadband network, bandwidth limitation of clinic desktops remained an issue and had repercussions for IT support and control over the network. The IT team had only two members dedicated to hardware support for the 250 desktops throughout the vast region served by the DHB. Champion noted that under their old system, any IT problems would involve sending an IT staff member out for repairs. This could take an entire two days, including a half a day's drive from the West Coast DHB's central office in Greymouth to an office an average of 300 kilometers away.



SUCCESS STORY

West Coast District Health Board

Why Wyse Thin Clients Were Selected

The West Coast DHB IT strategy was to enable the South Westland clinics to work together and share information more efficiently.

West Coast DHB was using aging desktops to run a thin-client operating system in its hospital in Greymouth, so had already experienced the significant cost and time benefits associated with thin client computing.

Over time these aging desktop computers would still eventually die and would be replaced with thin-client terminals. "Wyse thin clients were selected because they are compact, easy to maintain and are cost effective, relative to other thin client options or full blown PCs," said Champion.

The things that appealed about the Wyse thin clients specifically were:

1. The capacity to integrate health information from all clinics
2. The ability to boot off a tamperproof network and provide a high level of security
3. Configuring well with its GP record management software and screen hardware
4. The ease of delivering the compact, robust Wyse equipment to remote locations
5. The low maintenance costs due to the absence of moving parts

To date, 80 Wyse thin clients 1200 LE have been purchased by West Coast DHB.

Other remote sites have had their aging PCs replaced by Wyse thin clients.

Patient information kept secure

An additional benefit of installing thin clients is the huge security benefit it has provided the DHB, in particular for its remote nursing clinics. In some locations, one person mans a clinic when patients have appointments or when a particular crisis warrants it, but is not there 24 x 7. It is possible someone could break into an unguarded clinic and try to steal the hardware. However, as the Wyse thin clients only boot off the network and not operational till they connect to the network, the hardware is of no value to anyone that might steal it. More importantly, no confidential information about medical history can be compromised. Internal security has also been boosted. Backups are now centrally carried out by the IT team and tests to restore the backups conducted. Champion points out that in a relatively large GP practice, backups might have been periodically carried out, but tests to restore those backups were often overlooked.

"Wyse thin clients were selected because they are compact, easy to maintain and are cost effective, relative to other thin client options or full blown PCs"

Wayne Champion
CIO & CFO



SUCCESS STORY

West Coast District Health Board

Slim line design saves clinic space and support expenses

Wyse equipment can be placed into a courier pack and sent to remote locations. As the clinics are relatively small and require as much space as possible for patient purposes, the less room IT gear takes up, the better. A compact design, on site, the thin clients are bolted to the back of flat screen monitors.

In addition, Wyse thin clients are designed to be set up by users. Coloured code labels for cables allow the users at each location to become their own first tier support people.

"We've taken on around 100 new thin client devices. With this technology, we have created a network that reaches across over 600 kilometers, without the need for additional new support staff," said Champion. "Travel expenses related to sorting out hardware issues have been eliminated."

Digital capabilities connect doctors and allow centralised administration

The following is one example of the information-sharing capacity-building facilitated by the thin-client operating system. Once the system was implemented, West Coast DHB was able to set up a picture archiving communication system for digital radiology to enable an x-ray to be archived as a digital file on the central server. This can then be accessed via a thin client to be shared with other DHB medical experts.

In July, a new patient administration system went live in the West Coast DHB hospital. This system realised the benefits of thin-client computing, bringing full circle the DHB's aim to integrate the hospital system with the rural primary health systems so that one complete electronic health record serves the entire region.

As the thin clients also provide a remote desktop connection to the DHB's terminal servers, centralised administration is now possible. Updates are carried out through the server, giving all users instant access to all updates and new programs.

"Travel expenses related to sorting out hardware issues have been eliminated."

Wayne Champion
CIO & CFO



SUCCESS STORY

West Coast District Health Board

Objectives met and expectations exceeded

Using Wyse thin clients, West Coast DHB has achieved its aim. South Westland clinics now work together and share information more efficiently. These clinics also now have opportunities to collaborate with doctors from the Greymouth hospital, and to access complete patient records from a central database. Administration is more efficient, and IT support is available from within each clinic. Champion said, "We knew that using the Wyse thin client would bring specific benefits to our clinics. Now that the system is place, we are overwhelmed by the difference it makes, and the possibilities it extends to our doctors and staff. Now we wonder how we managed without it."

Solution Architecture

Number of Users

300 users in total

80 Wyse terminals across 15 offices throughout West Coast

Model

Wyse® Winterm™ 1200 LE thin clients

Terminal Server OS

Microsoft® Windows® Server 2003 / Citrix Metaframe.

Network Used TCP/IP networking on Microsoft over a Telecom private office network.

Wyse is a registered trademark, and Winterm is a trademark of Wyse Technology Inc. Rapport is a registered trademark of Rapport Technologies Inc., a division of Wyse Technology. Other product names mentioned herein are for identification purposes only and may be trademarks and/or registered trademarks of their respective companies.

Wyse Technology
Level 11, 100 Miller St
North Sydney
NSW 2060 Australia
Ph. +61 (0) 2 9492 0180
www.wyse.com.au

Tom Flanagan - IT Member
West Coast DHB

