



Ziekenhuis Walcheren

Wireless LAN Provides Healing Touch for Dutch Hospital

Healthcare has been at the leading edge of wireless technology for a number of years. From giving doctors and nurses access to patient records from any location within a hospital to wireless voice over IP handsets for staff members, hospitals are no stranger to the many benefits of wireless.

Walcheren Hospital serves the cities of Vlissingen and Middelburg, as well as the surrounding rural regions of the province of Zeeland, which is located in the southwestern part of The Netherlands on the border with Belgium. This mid-sized general hospital, with 350 beds and 1,300 employees, wanted to increase its return on investment and lower its total cost of ownership, and a wireless LAN fit the bill.

OBJECTIVE

Walcheren Hospital's interest in wireless first surfaced through an application that involved a mobile electrocardiogram (ECG) device. "We can take heart films from the patients while they are located in their bed," says Tonnie de Loeff, senior manager of information and communication technologies (ICT) at Walcheren Hospital. This mobile option is much more patient friendly, and it provides huge logistical and organizational benefits.

To take full advantage of this capability, the doctors need immediate access to the heart film images after they have been taken. The data is directly stored onto a server that the cardiologist can access.

"Almost all of our bed locations are equipped with an RJ-45 UTP network connector that provides direct access to our network backbone," de Loeff says. "We did, however, foresee larger problems if our nursing staff would be responsible for attaching and disconnecting the computers and have responsibility to transfer the heart film files. For our situation, a permanent connection to a wireless LAN was the best solution."

SOLUTION

Although the mobile ECG application was the impetus for seriously considering a WLAN, de Loeff says Walcheren Hospital had been interested in a wireless network for some time. "It was never a question of if we would install a wireless LAN," he says. "It was more a question of when and how. The introduction of the mobile ECG scanner in our hospital was the core element of our wireless LAN infrastructure business case. Based on the communications demands for this device, we started our search for the best wireless LAN manufacturer and systems integrator."

That search began by asking systems integrator Vosko Networking to present several options. After evaluating equipment from three wireless LAN manufacturers, Walcheren selected Trapeze Networks' Wireless LAN Mobility System™.

"Trapeze and their integrator partner Vosko Networking clearly differentiated themselves in a very positive way," says Mark van Strien, ICT manager at Walcheren Hospital. "All technical questions were answered directly and completely."

The installation consisted of 15 MP-372 Mobility Point™ access points, two MX-400 Mobility Exchange™ (MX™) switches and an MXR-2™ switch for test purposes. Walcheren Hospital

COMPANY DESCRIPTION

Walcheren Hospital is a 350-bed general hospital that serves the cities of Vlissingen and Middelburg in the southwestern province of Zeeland in The Netherlands.

OBJECTIVE

- Implement a wireless network that would allow images from a mobile ECG device to quickly and directly be transferred to the hospital network and viewed by doctors in other departments
- Increase ROI and lower TCO by deploying a flexible, secure wireless system

SOLUTION

- Systems integrator Vosko Networking helped select the Trapeze Mobility System after evaluating solutions from three manufacturers
- Deployment consists of 15 MP-372 Mobility Point access points, two MX-400 switches and an MXR-2 switch
- The Trapeze RingMaster planning, configuration and management tool helped in the installation and will be put to use for any future network expansion

RESULTS

- Doctors in the hospital's cardiology unit are able to immediately read ECG images taken at bedside from the pediatric ward
- The Trapeze Mobility System has increased customer satisfaction by giving long-term pediatric patients access to the Internet, email and chat
- Future plans for the wireless network include a centralized patient record system and a wireless communications system within the hospital

is also using the Trapeze RingMaster™ management and planning tool, which will help for any future expansion of the wireless network.

“We chose Trapeze Networks because they were the only ones that could deliver what they promised,” de Loeff says.

RESULTS

The first users of the new Trapeze WLAN deployment were the cardiology and pediatric wards of Walcheren Hospital. From the cardiology ward, doctors can remotely study ECG images of their pediatric patients.

“The Trapeze solution ran from day one without any issues. We were already very confident in our choice based on their outstanding roaming capabilities, but this was topped by the excellent service and support from them and Vosko.”

— Mark van Strien
ICT Manager
Walcheren Hospital

Walcheren expects that the newly introduced mobility will increase overall productivity. Several Trapeze healthcare customers have achieved a return on their wireless LAN Mobility System investment in less than one year due to productivity gains.

Customer, or patient, satisfaction is another benefit from the Trapeze Mobility System. Thanks to a donation of laptops and Internet access subscriptions by the Middelburg Rotary Club, the hospital is able to give long-term patients Internet access.

“Through the support from Trapeze Networks and Vosko, we were able to extend the gift to these long-term young patients of the pediatric ward.”

de Loeff says. “The positive result of the capabilities to surf the net, just as they are used to at home, to chat or e-mail, was already proven in other hospitals around the world.”

For the future, Walcheren Hospital is working towards a centralized patient record system, but before that it will implement wireless communication tools for the nurses and doctors, links between the prescription request and the hospital in-house pharmacy, and location-independent ICU control systems.

“With RingMaster, we can now expand and extend our wireless LAN coverage step by step,” de Loeff says.

Van Strien adds that their choice of Trapeze has proved very positive from the beginning.

“The Trapeze solution ran from day one without any issues,” he says. “We were already very confident in our choice based on their outstanding roaming capabilities, but this was topped by the excellent service and support from them and Vosko. We were pleasantly surprised that a manufacturer could offer this high level of a solution.”



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