

# REAL-TIME WIRELESS LOCATION SYSTEM SAVES TIME LOCATING PATIENTS AND MEDICAL EQUIPMENT

## Summary

**Customer:** OLV Hospital

**Industry:** Healthcare

### Objectives:

- Allow patient records to be consulted at the bedside
- Locate specific patients and medical equipment
- Offer free Internet access to patients and their visitors
- Increase network availability and flexibility

### Solutions:

- Centrally managed Juniper WLANs on three healthcare campuses
- Four WLC Series Wireless LAN Controllers
- Around 440 WLA Series Wireless LAN Access Points
- RingMaster Software and SmartPass
- WLM1200 Management Appliance

### Results:

- Doctors are able to consult electronic patient records at the bedside
- Patients and family members can keep on working in the hospital if required
- Technical services will soon be able to locate beds and medical equipment more quickly
- “Unplanned downtime” of the hospital network has been virtually eliminated

Nonstop wireless availability, seamless roaming and real-time location system from Juniper Networks enables medical records at the point-of-care and saves time locating patients and medical equipment.

## Optimal Support for the Healthcare Provided

The OLV Hospital in Aalst was founded in 1904 by the ‘Black Sisters’ of the St. Augustine convent. After merging with the Heilig Hart hospital in Asse and Ninove at the beginning of this century, the hospital now has a capacity of 844 beds and 95 day-care beds. It currently employs around 280 doctors and more than 2400 support staff. The need for a WLAN arose in the Cardiology and Nephrology departments.

“The doctors and nursing staff of these departments wanted to be able to consult and record all the necessary medical details on a laptop at their patients’ bedside”, says Bob Engels, IT Infrastructure and Support manager at OLV Hospital. “To meet this need, in 2006 we installed around thirty wireless access points from Juniper Networks. This choice, which was based on the advice of our IT supplier, suited everybody so well that we wanted to expand the use of the system. For this reason, we came up with a business case to provide each campus with a hospital-wide WLAN, with the emphasis on the nursing departments, consultation and meeting rooms. In view of the many possible uses of the system, the management approved our proposal and it was put out to tender via a Request For Proposal. This tender was awarded to SecureLink, using wireless equipment from Juniper Networks and an additional switch vendor.”

## Centrally Managed WLANs with a Real-Time Location System

Once the large new hospital wing has been completed, thus doubling the campus area in Aalst, the OLV Hospital will have a centrally managed WLAN on all its sites. As well as for data communication, this network will also be used to locate specific patients and expensive medical equipment. “Preventing confused patients unintentionally leaving the hospital is a valuable ICT application, although one which is hard to quantify,” continues Engels. “On the other hand, not having to spend hours locating temporarily stored electric beds, a large number of portable drips and other equipment will save our technical services department a great deal of time every day.

If patients carrying these tags get too close to an exit, or leave a certain area, an alarm will be issued to the nursing staff automatically. Another WLAN application which is valued highly by our patients is the free Internet access. As a result, for example, the fathers of (newborn) children will be able to stay with their family yet still keep working. The same applies to the immediate family of seriously or chronically ill patients.

Using Juniper Networks SmartPass solution, we can easily generate large numbers of user IDs upon registration without tying-up nursing or IT staff.”

“Because our doctors can consult all the information they need on their own laptop at the patient’s bedside, they have more time to provide medical care.”

— Bob Engels, IT Infrastructure & Support manager,  
OLV Hospital

## About Juniper Networks

Juniper Networks is in the business of network innovation. From devices to data centers, from consumers to cloud providers, Juniper Networks delivers the software, silicon and systems that transform the experience and economics of networking. The company serves customers and partners worldwide. Additional information can be found at [www.juniper.net](http://www.juniper.net).

## More Stable, More Secure Network

The added value provided to the OLV Hospital by the wireless networks is highest in the healthcare applications. “Because our doctors can consult all the information they need on their own laptop at the patient’s bedside, they have more time to provide medical care.” says Engels. “The same applies to the nursing staff. The WLANs have become an important, scalable infrastructure for the further introduction of electronic medical records in our hospital. As the networks form a single unit, the connections simply remain intact in the case of transfers within the hospital. One user group which I have not yet mentioned is the management and middle management, who are now able to work and convene in a simple and flexible manner on their own laptops because of the WLANs.

Finally, in the IT department we are also very pleased with the WLANs, as we have been able to virtually eliminate the ‘unplanned downtime’ of the hospital network as a result! In the old days, incorrectly connected cables regularly caused network loops and thus annoying network failures, but this has not happened once since the wireless networks were installed. All in all, the Juniper WLANs have considerably increased both the security and stability and the flexibility of our network usage,” concludes Engels.

### Corporate and Sales Headquarters

Juniper Networks, Inc.  
1194 North Mathilda Avenue  
Sunnyvale, CA 94089 USA  
Phone: 888.JUNIPER (888.586.4737)  
or 408.745.2000  
Fax: 408.745.2100  
[www.juniper.net](http://www.juniper.net)

### APAC Headquarters

Juniper Networks (Hong Kong)  
26/F, Cityplaza One  
1111 King’s Road  
Taikoo Shing, Hong Kong  
Phone: 852.2332.3636  
Fax: 852.2574.7803

### EMEA Headquarters

Juniper Networks Ireland  
Airside Business Park  
Swords, County Dublin, Ireland  
Phone: 35.31.8903.600  
EMEA Sales: 00800.4586.4737  
Fax: 35.31.8903.601

To purchase Juniper Networks solutions, please contact your Juniper Networks representative at 1-866-298-6428 or authorized reseller.

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