

Compensorio Sanitario di Bolzano improves services and reduces operating costs with HP ProCurve



“HP ProCurve Networking has enabled us to optimise the quality of care we provide to our patients and to guarantee continuity of service. In addition to forecast savings of 20 per cent on telephone calls, we will also save on the hospital’s insurance premiums because our new drug prescription system eliminates human error.” Giuseppe Montini, ICT manager, Compensorio Sanitario di Bolzano, Italy

Objective:

Compensorio Sanitario di Bolzano needed a secure, reliable and highly available network infrastructure. In addition, wireless and mobility services were needed to improve patient care and allow medical staff to work more efficiently.

Approach:

- High availability HP ProCurve switches and wireless services have been installed in some departments of the main hospital, with plans to extend them across the other hospital facilities.
- Quality of Service (QoS) and Power over Ethernet (PoE) allow the deployment of Voice over Internet Protocol (VoIP) and Voice over Wireless Local Area Network (VoWLAN) telephony.
- HP ProCurve open-standards technology allows the easy integration of Siemens IP telephony equipment.

IT improvements:

- A highly available, secure and reliable networking structure allows the provision of essential services, 24x7.
- Previously, medical staff were contacted using a pager system. Now however, the VoWLAN allows them to receive calls either on their extension or anywhere on the campus via their mobiles.

Business benefits:

- Compared to traditional voice call technology, VoIP provides improved call clarity and is expected to reduce costs by 20 per cent.
- Instant wired access to patient records, X-rays, medical histories, test results and other vital information, improves patient care.
- A new patient identification and treatment system provided over the network reduces the risk of treatments being wrongly administered, allowing the health authority to negotiate its insurance premiums.



Bolzano is a province in the far north of Italy, close to the Swiss and Austrian borders. From the main hospital site in Bolzano, healthcare is provided to an immediate catchment area of more than 200,000 local inhabitants. The health authority covers the whole Province of Bolzano, with a total of 450,000 inhabitants and seven hospital facilities (the central hospital in Bolzano and six other smaller hospitals in the Districts of Brunico, Bressanone, and Merano). In addition, the main hospital in Bolzano offers over 35 specialised services and is a reference point for the whole province. Because of the many visitors to this tourist area, the authority’s patient database currently includes the health records of nearly two million patients.

With services being offered to patients 24x7, high availability and security is paramount for providing business-critical operations. The authority also wished to consolidate, update and improve patient services and the networking infrastructure was identified as a key enabler. In addition, it planned to introduce a number of innovative services



HP customer case study: VoIP supports refreshed hospital patient services

Industry: Healthcare

which it had been prevented from doing so by its legacy infrastructure, a mixture of 3Com and Cisco equipment.

“We had problems in terms of downtime, particularly with the ageing 3Com equipment which we had used for a number of years. Furthermore, 3Com could not give us any guarantee with regard to the development of future products or new improvements to our existing products,” says Giuseppe Montini, ICT manager for Comprensorio Sanitario di Bolzano.

After issuing a tender, the authority considered proposals from HP ProCurve and Cisco:

“We carried out market research and identified HP ProCurve Networking as the most suitable solution for us, mainly because of its advanced technology and efficient performance. We were also impressed by its ease of management and its very competitive pricing, particularly since HP ProCurve equipment comes with a free lifetime warranty*,” adds Montini.

HP ProCurve Adaptive Network

Comprensorio Sanitario di Bolzano’s HP ProCurve network now supports around 5,000 staff members and includes both wired and wireless services. The Bolzano Hospital network is based on HP ProCurve’s reliable Adaptive Network architecture. The authority’s network core comprises several high-performance HP ProCurve 8212zl switches situated at the main hospital in Bolzano. These switches incorporate HP ProCurve ProVision ASIC™ technology, providing Power over Ethernet (PoE) and Quality of Service (QoS). Based on open-standards, this technology ensures interoperability with other vendor equipment, enabling the provision of convergence technologies such as Voice over Internet Protocol (VoIP) and Voice over Wireless Local Area Networks (VoWLAN).

Across the province, numerous HP ProCurve 4200vl switches, and some 2800, 2600 and 5400 switches, distribute intelligence to the edge of the network. The 4200vl switches were chosen due to their scalability as well as ease of deployment, performance, robustness and redundancy. In addition, all seven hospitals are interconnected by fibre optic 1Gb links.



All the peripheral network equipment was supplied by HP ProCurve Gold Partner, Lantech Solutions, with standard configurations. The authority then made the necessary modifications to the different departments for installation. The central HP ProCurve 8212zl core switches and their modules were installed and configured directly by Lantech who provide constant, centralised and remote support.

Currently, HP ProCurve wireless services are provided in a number of departments within the Bolzano hospital and there are plans to extend this to the other departments and hospitals across the province in the near future. The wireless network is based on two HP ProCurve Wireless Edge Services Modules (WESM), providing efficient, centralised configuration and management to support highly secure mobile multi-service networking from more than 150 HP ProCurve Radio Ports 210.

Innovative services for medical staff

The new HP ProCurve solution supports the deployment of innovative technology, bringing advantages to staff and patients. Replacing the old pager system for tracking medical staff, the authority now has an extremely efficient VoWLAN telephony system that enables considerable cost savings and provides significantly improved call clarity. This system, tested in the laboratory and

now being implemented, is one of the first to use this technology in Italy, enabling staff to be reached by their extension number over the VoIP system when they are on the hospital campus. However, if they are off-site and do not answer their extension, the same call is switched seamlessly from WiFi to Global System for Mobile (GSM) and connected to their mobiles. HP ProCurve open-standards technology allows this easy integration with Siemens IP telephony equipment and Telecom Italia mobile services.

“We have tested the new VoWLAN system and it not only enables us to reach all healthcare practitioners 24x7 without using pagers but we forecast a saving of 20 per cent on telephone calls,” confirms Montini.

Improved patient care

Now that the campus is connected within a high-speed network, all medical staff can access the central patient administration and image archiving systems regardless of location. With 1Gb connectivity between the hospital sites, large files such as X-rays, Magnetic Resonance Imaging (MRI) scans, test results and other data can be made available at the bedside, clinic or operating theatre. Having this facility allows business critical information to be accessed where it is needed, instantly. Patient care is now fully optimised and provided at the patient’s convenience e.g. scans can be taken at the patient’s nearest hospital and then sent to a specialist at Bolzano.

Improved processes enable savings

The Comprensorio Sanitario di Bolzano also ensures patient safety by using its HP ProCurve wireless network to cross check patient identification and drug dosages. Each patient wears a bracelet with a unique smart code. Whenever a bracelet is scanned using a portable device, medical staff are given instant access to the patient’s records, ensuring that treatment and medication are always administered correctly. Records are updated in real-time allowing dosage data to be accessed and recorded using a laptop or tablet PCs.

“In addition to the forecast of 20 per cent savings on telephone call costs, we believe that we will also save on the insurance premiums Comprensorio

Customer solution at a glance:

Primary solutions:

- Adaptive Network
- Branch Office
- Communications and Collaboration
- Network systems and management
- Mobility

Primary hardware

- HP ProCurve Switch 8212zl
- HP ProCurve Switch 5400zl
- HP ProCurve Switch 4200vl
- HP ProCurve Switch 2600
- HP ProCurve Switch 2800
- HP ProCurve Wireless Edge Services Module (WESM) zl
- HP ProCurve Radio Ports 210

Partner:

Company: Lantech Solutions

Headquarters: Milan, Italy

Telephone: +39 362 915 267

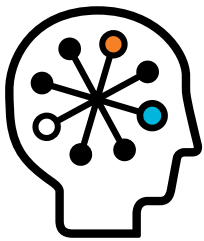
URL: www.lantech.it

Business: System integration and management. HP Gold partner

Sanitario di Bolzano pay because this system improves patient safety and protects our staff by drastically reducing human error," adds Montini.

"We are a public body that does not make a profit, so when we evaluated the investment we were

making in HP ProCurve, this was measured more in terms of improved service levels. Quality of service, availability and improved services levels are the real value that HP ProCurve has brought to our hospitals and the thousands of people that they serve," concludes Montini.



◆ For as long as you own the product, with next-business-day advance replacement (available in most countries). The following hardware products and their related series modules have a one-year hardware warranty with extensions available: HP ProCurve Routing Switch 9300m series, HP ProCurve Switch 8100fi series, HP ProCurve Network Access Controller 800, and HP ProCurve DCM Controller. The following hardware mobility products have a one-year hardware warranty with extensions available: HP ProCurve M111 Client Bridge, HP ProCurve MSM3xx-R Access Points, HP ProCurve MSM7xx Mobility and Access Controllers, HP ProCurve RF Manager IDS/IPS Systems, HP ProCurve MSM Power Supplies, HP ProCurve 1 Port Power Injector, and HP ProCurve CNMS Appliances. Disk drives in the HP ProCurve ONE Services zl modules have a five year hardware warranty. Standalone software, upgrades, or licenses may have a different warranty duration. For details, refer to the ProCurve Software License, Warranty, and Support booklet at www.procurve.eu/warranty.



Technology for better business outcomes

To learn more, visit www.hp.com/go/procurve

© Copyright 2009 Hewlett-Packard Development Company, L.P. The information contained herein is subject to change without notice. The only warranties for HP products and services are set forth in the express warranty statements accompanying such products and services. Nothing herein should be construed as constituting an additional warranty. HP shall not be liable for technical or editorial errors or omissions contained herein.

