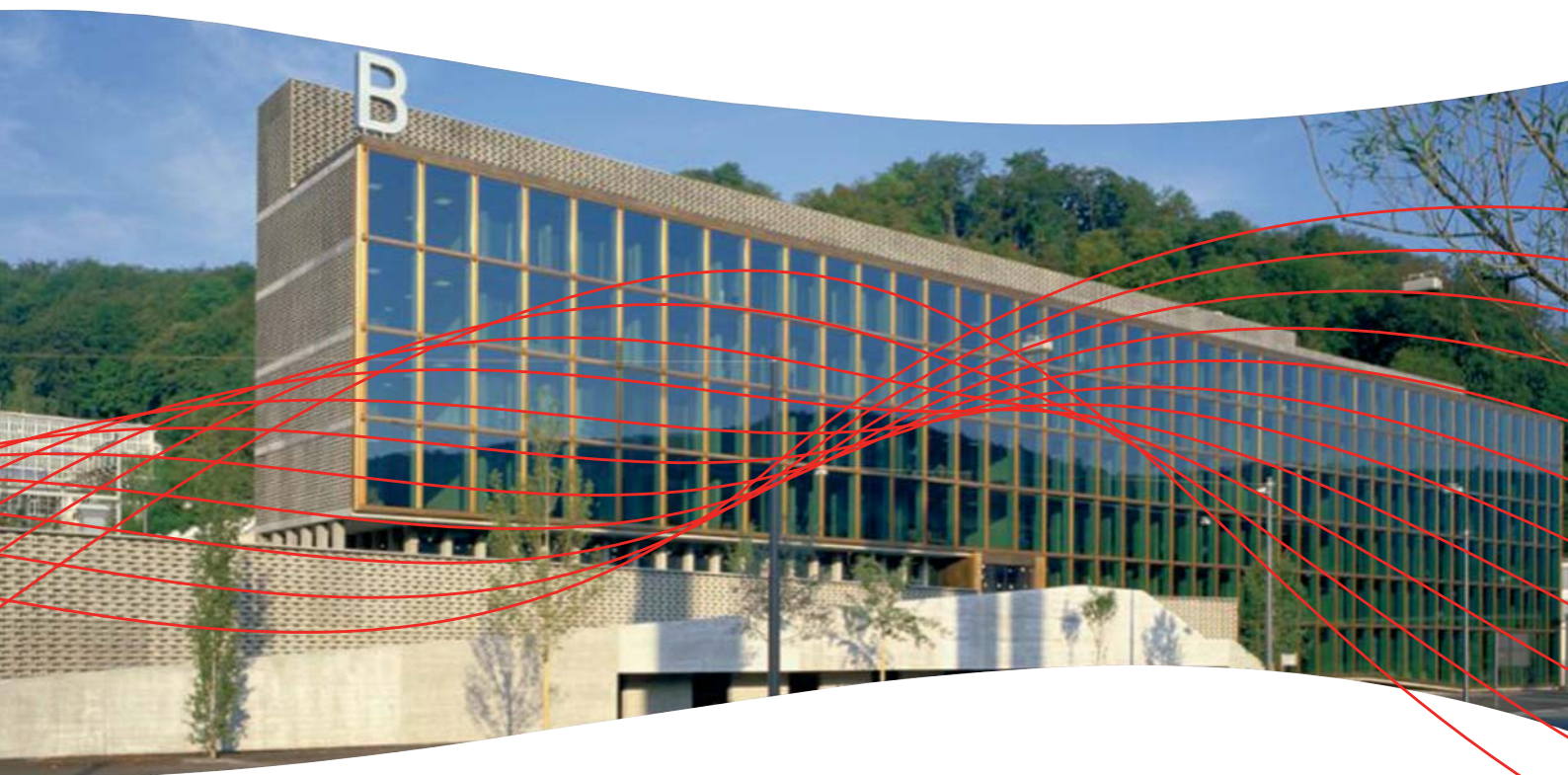


ProCurve Networking by HP

Leading Swiss technical school looks to the future with ProCurve Networking



“I am very impressed with the team work between ProCurve Networking and its Swiss partner, Niederer Electronic AG. We had no problems at all. Our new ProCurve network is considerably faster, more reliable and much easier to run and maintain than our previous network.”

Hanspeter Vogt
Head of IT teaching and IT manager
Berufsfachschule BBB
Switzerland

Switzerland is justly proud of how its public education system prepares students for the world of commerce and industry. Technical high schools such as Berufsfachschule BBB in the northern canton of Aargau have fulfilled this role for many years by providing a variety of vocational courses to people working for local businesses. Released from work for up to one and a half days per week, students study a range of subjects for up to four years. Courses include cookery, automation, electronics, hairdressing, IT, motor mechanics and robotics.

Created in 1999 by the union of the municipality's vocational and commercial schools, Berufsfachschule BBB originally occupied five buildings throughout Baden, Switzerland. Recently it relocated to a redeveloped industrial site north of the town previously occupied by ABB and Alstom, two major engineering companies.

The new futuristic-looking school, with its impressive architectural lines and glass construction, fascinates visitors by its open design and marvellous play of light which reflects the school's ethos of transparency. BBB comprises the reconditioned Martinsberg building, the new Bruggerstrasse site and a sports centre. 2,170 students and over 100 staff currently attend the school.

ProCurve Networking – the natural choice

“IT has always played an important role throughout the school,” explains Hanspeter Vogt, head of IT teaching and IT manager, BBB. “Not only is it paramount for our teaching methods, it is also essential for staff and administration functions.”

“As e-learning techniques and other IT requirements expanded, the network linking the original five buildings soon revealed its limitations. Performance certainly was a major issue, especially when traffic volumes were heavy during peak times. Security also became a concern. To make matters worse, maintaining the network was proving expensive – each year we were paying a considerable amount of money for additional bandwidth. Moving to a new site was an ideal opportunity to remedy these problems and simultaneously gain the technology we needed for the future,” explains Vogt.

Through a well established relationship with ProCurve Networking and its local partner, Niederer Electronic AG, BBB approached ProCurve Networking directly. “We wanted a reliable partnership; one that would provide excellent consultancy and support us throughout this challenging project. The combination of ProCurve and Niederer Electronic AG seemed the natural choice,” adds Vogt.

Virtual LANs

After BBB had defined its requirements, ProCurve Networking proposed Virtual Local Area Networks (VLANs) as the solution. Individual VLANs would handle classroom education, school information, administration, and assorted services. One VLAN would even control the window blinds.

Objective

- To equip the new Berufsfachschule BBB, in Baden, Switzerland, with a high-performance, reliable and secure, scalable and flexible network that was affordable and could handle the traffic volumes associated with its modern teaching techniques.

Approach

- BBB identified the limitations of its existing networking infrastructure.
- The school consulted with ProCurve Networking and its Swiss partner, Niederer Electronic AG, about an appropriate networking solution.
- BBB decided to implement a ProCurve Networking solution based on virtual LANs.

IT improvements

- High-performance, secure, scalable and reliable networking.
- A stable network that can handle high traffic volumes.
- Networking that would support the current and future needs of the school.
- New voice-over IP capability to assist students during the educational process.

Business benefits

- Higher quality services to students and staff. Users no longer have to be concerned about regular service disruption especially at peak times when previously traffic volumes were high.

Value-for-money networking solution ideally suited to lowering the cost of ownership due to reduced operational and maintenance costs.

More efficient administration services throughout the school to aid both staff and students.

The new network comprises 2,800 connection points and 300 kilometres of fibre optic or copper cable, linking the two main buildings which are 350 metres apart. It unites the school's 23 HP servers and 450 computers as well as numerous other IT devices within the classrooms and administration offices. To provide a scalable and reliable infrastructure, two multilayer, high port density ProCurve 5406zl switches are used in the core of the network – one in each building. Two 10 Gb Ethernet modules provide a high-speed link between the buildings, ensuring high performance. Ninety award-winning ProCurve 3500yl series switches have also been installed to offer advanced intelligent edge capability for future infrastructure development plans.

Both the ProCurve Switch 3500 series and ProCurve Switch 5400 series are advanced layer switches that embrace the Adaptive EDGE Architecture™ conceived by ProCurve Networking. By offering effective control from the centre, and intelligence and decision making at the edge of the network, they are ideally suited to organisations such as BBB where performance, security and scalability are important priorities. These switches also simplify deployment, operation and maintenance, and provide excellent value for money.

Competent partners and an excellent network yield the tools for the future

When the school was completed and the new network operational, dignitaries marvelled at the quality of the premises, its IT capabilities and the services offered to local students. Modern e-learning equipment was clearly visible including presentation tables that incorporate overhead projectors, DVD/video players as well as the notebooks and video beamers required to operate active whiteboards.

“These are the sort of tools we need for the future. But to use this advanced equipment, it's vital we have a very good network; one with high speed and high bandwidth,” continues Vogt. “Large projects such as this can only be realised with strong, professional and competent partners. We truly value ProCurve's specialised knowledge, flexibility and ability to keep a cool head during hectic times.”

Thanks to ProCurve Networking, BBB now offers students and staff the quality educational services they need for the twenty-first century. Not only is the new network geared to satisfy future demands, it is fast, reliable, secure, and easy to run and maintain. The school also expects to make significant savings on the cost of ownership due to lower running and support costs.

“ProCurve Networking provided total support during this project. They were there to help us throughout the consultation and proposal phases, and during the roll-out process. Without this support, we could not have realised such a cost-effective system,” concludes Vogt.

Customer at a Glance

Industry sector: Education
Name: Berufsfachschule BBB
Headquarters:
Wiesenstrasse 32, Baden,
Switzerland
Founded: New school
(1999); original school
(1930s)
Telephone: +41 56 222
0206
Number of employees: 110
staff and 2,170 students
URL: www.bbbaden.ch

Partner:

Company: Niederer Electronic
AG
Headquarters: Sankt Gallen
Telephone: +41 72 313
9160
URL: www.niederer.ch
Business: Installation,
maintenance, service of IT
systems.
Products: Servers, PCs,
storage solutions, printers,
plotters, disks, tapes, etc

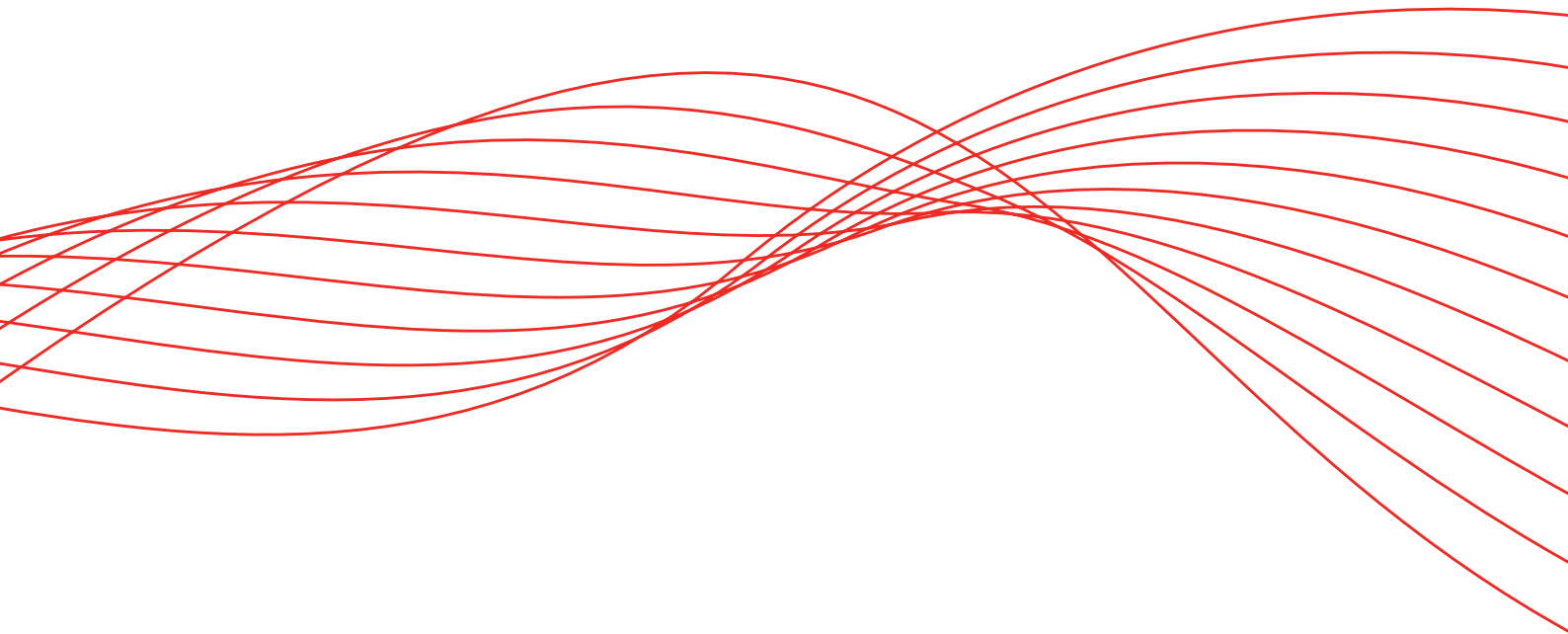
What Makes it Work?

Primary hardware

- 74 x ProCurve Switch 3500yl series 48G PWR
- 16 x ProCurve Switch 3500yl series 24G PWR
- 2 x ProCurve Switch 5406zl series
- 176 x ProCurve Gigabit-SX-LC Mini-GBIC
- 2 x ProCurve 10-GbE X2-SC SR Optic Ethernet ports (full-duplex)
- ProCurve Switch zl 24-Port 10/100/1000 PoE Module
- ProCurve Switch zl 4-Port 10-GbE X2 Module
- ProCurve Switch zl 875W Power Supply

To find out more about ProCurve Networking please visit:
www.procurve.eu

For information about the ProCurve Network Design Centre, visit:
www.hp.com/go/requestyournetworkdesign



© 2007 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.

Publication Number: 4AA1-2955EEW Written: June 2007

