

# A private University opts for SWITCH

Text: Felix Kugler

*There were many question marks when Les Roches Gruyère first called SWITCH and asked for a presentation on its services. Would we be able to convince a private university - with the newly acquired status of a Federal University of Applied Sciences - of the added value of going along with SWITCH instead of continuing to use commercial Internet providers?*

Two years later, the four Les Roches Gruyère (LRG) sites at Bulle, Clarens, Glion and Bluche have been integrated into the SWITCHlan backbone. The technical implementation is a novelty for SWITCH: the four sites are mutually connected by an OPN, an optical multi-point VPN with 1 Gbit/s link speed. Redundant access to the Internet is established at two of the locations where LRG has placed their firewalls. This flexible setup brings enormous administrative advantages for the customer when, as in this particular case, more centralized services are being ramped up. Being a completely new design, the router hardware for the four sites was set up in a lab and intensively tested with the customer's gear attached on the client's side and next-to-real-live configurations. The physical realization of the new links was

a minor adventure. Les Roches Gruyère, a private university, despite its federal accreditation, is located at quite unusual places, rather off the main track. Amazingly, it wasn't that difficult to find a fiber route from Fribourg to Bulle and Clarens, or even up the hill to Glion. The «*pièce de résistance*», however, was Bluche and their site near Crans-Montana. Unfortunately, the conditions we were offered for leasing dark fibers were ruinous. Despite the short time left before the non-negotiable ready-for-service date, we decided to install our own cable over the last few kilometers. There were a couple of shaky moments during the installation work, with nagging doubts about our decision but, in the end, we managed to have the cable in place before the winter snow. All this was possible because we had well-proven external coordination support

plus construction companies willing to work long hours, and even weekends, when the situation demanded this. ■

## Felix Kugler



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LRG's Glion site towers impressively above Lake Geneva.

# Why SWITCH?

Text: Roman Banz

*Roman Banz was SWITCH's contact for the integration of the Bulle, Clarens, Glion and Bluche sites. He explains why Les Roches Gruyère opted to work together with SWITCH and how this cooperation functioned.*

LRG University of Applied Sciences is a brand new, private Swiss University that received official federal authorisation from the Swiss government on 2 July 2008. This new institution has launched a Bachelor of Science in Hospitality Management using the resources and facilities of the highly-reputed Swiss institutions of Les Roches International School of Hotel Management and Glion Institute of Higher Education. Both of these institutions are ranked among the top three hospitality management schools in the world for those wishing to pursue an international career (TNS, U.K, Global Survey, September 2007). LRG belongs to Laureate Education Inc., Baltimore, USA.

Today, we have students from some 45 countries living on three campuses and spending

80 percent of their time on campus. The long distances from their homes and high telephone charges make free communication over the Internet by Skype, msn and other social platforms a must. When we obtained our federal authorisation in 2008, we started looking with SWITCH into an agreement to work together.

## Our choice

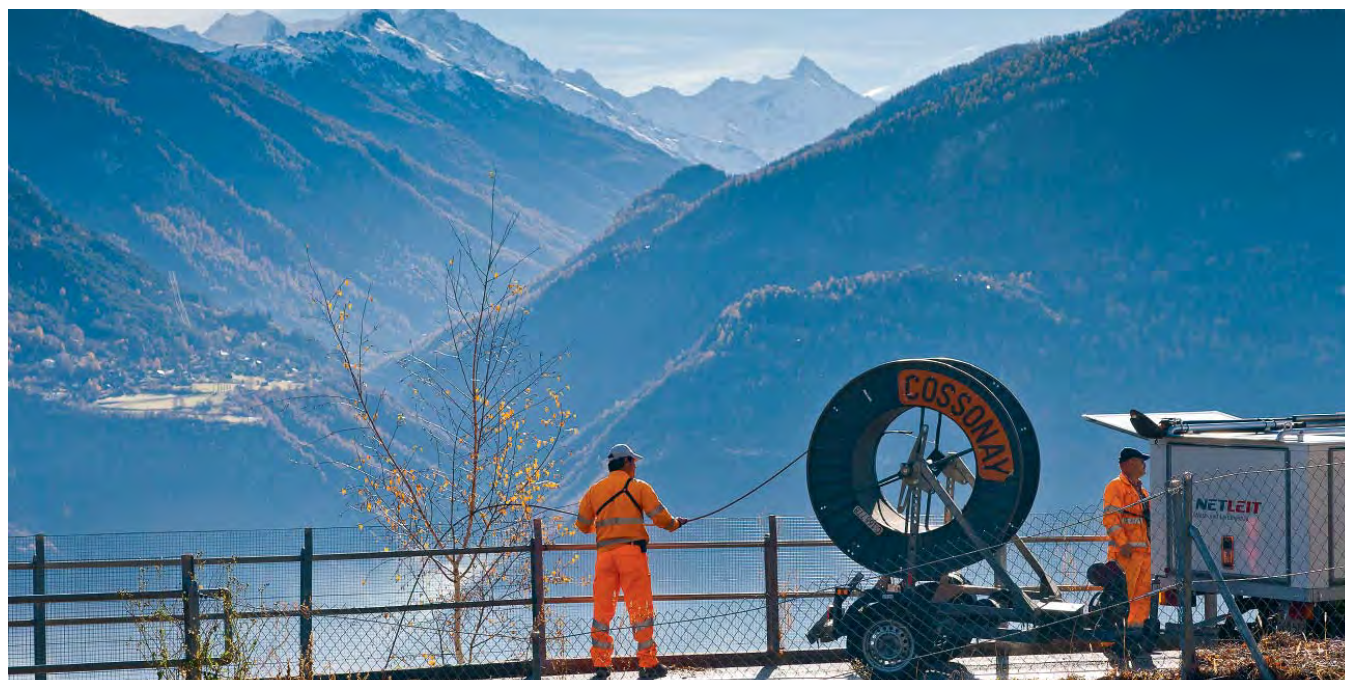
We chose SWITCH because we knew from visits to other Swiss universities that the SWITCH network is very stable and performs well. SWITCH's additional services like AAI and video recording and management, which we will certainly be using, convinced us that SWITCH is the right partner for us. SWITCH has a strong educational approach and can deliver valuable services to us as it has a lot of experience in this area.

## The new network

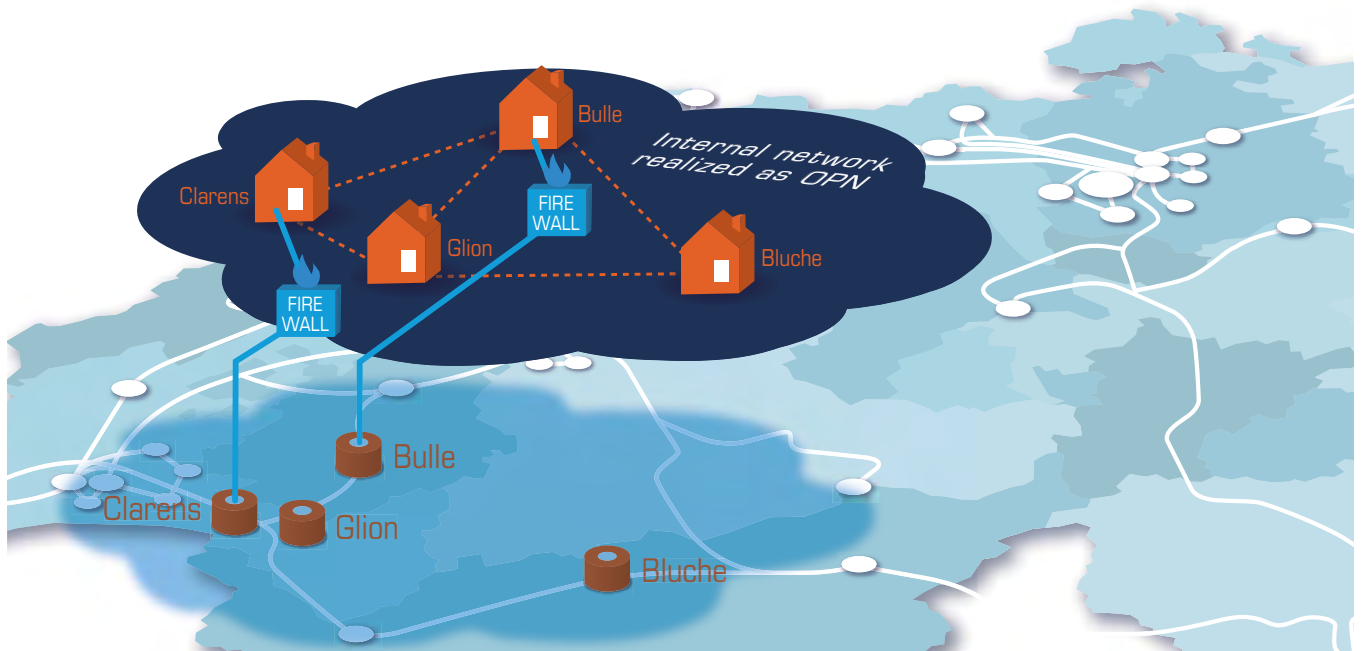
We planned the implementation in two phases. The first phase focused on network connectivity. The four LRG sites were connected to SWITCH's fiber backbone. SWITCH implemented an «Inter campus network» running at 1 Gbps. For LRG, it looks like a transparent Ethernet. The link to SWITCH and the Internet is currently running at 300 Mbps. This is now a solid base on which to proceed to all the other educational services, which we will be putting into place in the second phase.

## Positive performance

The new network runs reliably and is quite powerful. Today, now that the first phase is up and running, we are receiving very positive feedback from our users. The internal university services supplied →



Cable construction work amidst Valais' mountain scenery.



Physical integration of the four LRG sites into SWITCHlan. For the customer, however, the OPN pretends to be a fully meshed internal network cloud.

➔ between campuses have become much faster. Most processes are completed in considerably less time than before – the response time of the check-in system has halved, for instance, and the performance of the mail system has improved.

### One for all

SWITCH's Ethernet service allows us to implement global VLANs across all the campuses. All our communication equipment is in a single management VLAN for all the campuses, while another VLAN takes in the PolyRight system (student card access system), the Selecta, the Door access, and the card-based payments system, etc. Having these global VLANs is a big advantage, since it makes the deployment of global services straightforward. No other provider could deliver a similar service across all our campuses.

During the implementation phase, we benefited from efficient collaboration between SWITCH, Edificom, our local network supplier, and ourselves. The communication between us was technical, direct and highly professional. We used to rent a lot of services from our former Internet provider. With SWITCH we have to do more ourselves, e.g.

run the primary DNS server, which was a new experience for us. But we were given very good support and never felt alone. So we were able to await D-Day, when our old provider switched off its services (1 January 2011), in a relaxed manner and confident that everything would go well.

### The right decision

Today, the network is fully migrated to SWITCH and operational. After just this short period of operation, we are convinced that our decision to go with SWITCH was the right one. We have all the proof that we made a wise decision. We had strong support from the different departments at SWITCH, and this helped us to keep the project under control at all times.

### Outlook

Now that the first phase has been successfully completed, we will start looking closely at the other services offered by SWITCH. What is especially interesting for us at the moment is SWITCHcast, which considerably simplifies the use of video in our learning environment. First of all, however, we will implement the AAI authentication and authorization system, which provides the basis for the use of SWITCH's other services. ■

## Roman Banz



Roman Banz graduated from the HTA Faculty of Information Technology Science in Horw (LU) in 2001. He started in 2001 as a Systems Engineer at Glion Hotel School then, in 2004, switched inside the organization to Glion Institute of Higher Education. In 2006, he moved once again within the organization to the newly created Glion Management Services, which belongs to Laureate Education Inc. in Baltimore. He is currently managing all the network, security and system projects for the four sub-organizations in Switzerland: Les Roches Gruyère, Glion Institute of Higher Education, Gesthotel (Les Roches Hotel School), and Glion Management Services. [roman.banz@laureate.ch](mailto:roman.banz@laureate.ch)

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