

## FREE SPACE OPTICS AT THE UNIVERSITY OF BERN

## Case Study

**"A laserlink is a more attractive option than fiber based networks."**

said Mr. Fritz Bütikofer, Manager Networks, University of Bern.



Entrance of the Institute of Exact Sciences

### University of Bern - complex networking with a large number of metro sites

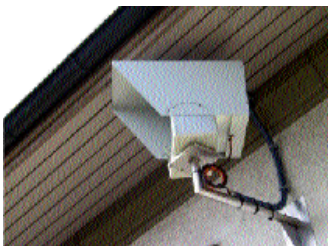
The University of Bern is one of the largest and most important colleges in Switzerland. The university communication network includes approximately 110 sites, more than 7500 users and a complex environment with an extensive number of different components.

### A laserlink – the better solution

The Botanical Institute of the university is located on the far side of the Aare river. The only way to connect this site to the university communication backbone is via the Lorraine Bridge. The ILEC was unable to offer a broadband link in a reasonable time frame between this site and the Exakte Wissenschaften (Exact Sciences) building on the main campus, which is integrated into the communication backbone of the university. The price for installing the link was uncompetitive, they could not reach the required bandwidth of minimum 100Mb and the cost of installing a fiber connection between the two sites was exorbitant.

The fact that a perfect line of sight exists between the two sites and there are no licensing requirements, suggested the Laser Link as the ideal solution for the problem.

*The Botanical Institute Building    Rooftop of the Exact Sciences Institute*



## TereScope™ – Consistent availability through worst weather conditions

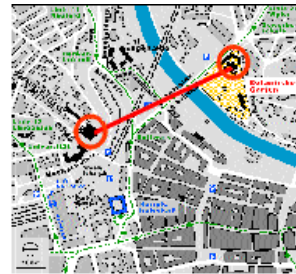
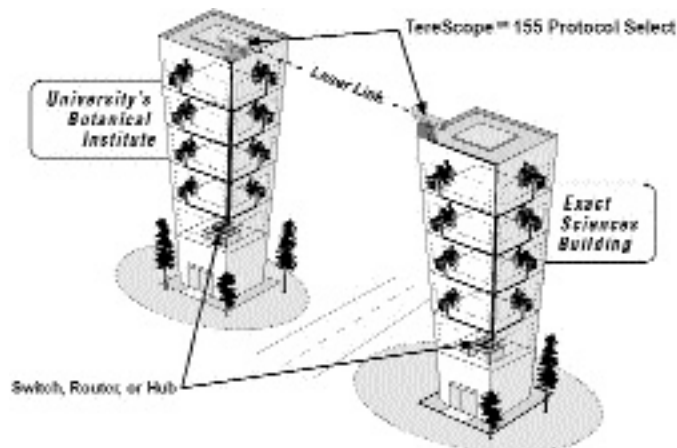
The initial experience is excellent. Since early April 2001 this year, the link is up and running, and there were no interruptions. With bad weather throughout most of the month, heavy snow, thunderstorms and thick fog, data transfer at 100MB was running perfectly, better than with the old 2MB connection to the communication backbone. Furthermore, since the laser light transmission is safe for human eyes and the terminals are out of public reach, there are no hazards involved in the process.

*The connection is up and running - with 100 MB over the Lorraine bridge*

The entire installation consists of a TereScope 155 (PS) system for 34 - 155Mb BNC Business Network Communications AG, was responsible for the project management, planning and engineering.

## Free Space Optics – the attractive option to fiber

In view of the excellent experience with this first step, discussions are under way for the planning and installation of the next FSO devices in the University network. Wherever a fast and cost effective fiber network installation is not feasible, the Optical Access laser link is the best option.



## About Optical Access

Optical Access provides solutions for Broadband Access Networks to overcome the Last Mile Bottleneck.

We develop and market Free-Space Optical transmission devices, switches, routers and WDM systems to provide Broadband Access to existing and emerging carriers and to enterprises that require service aware broadband networks.

Our products and solutions are based on IP over Carrier Class Ethernet, incorporating full Class of Service, rate limitation, Multiprotocol Label Switching and IP provisioning.

Our broadband access transmission technologies include Free-Space Optics, WDM over Fiber and VDSL, which enable our customers deploy, enhance and scale their networks, whether the existing infrastructure be fiber, FSO, copper, or hybrid.

For more information, please visit [www.opticalaccess.com](http://www.opticalaccess.com)