OPN simplifies network management at Open University

Best Practice

SURFnet6 is a perfect solution for the Open University in the Netherlands: an Optical Private Network greatly simplifies network administration. And finally there is sufficient bandwidth for new applications.

The Open Universiteit Nederland (OUN), founded in 1984, provides high-grade remote education for adults at the academic level. The educational department consists of six Schools and one School of Education. Together they offer multiple Bachelor and Master programmes. Approximately 22,000 students and alumni make use of the electronic learning environment from their homes. For support in person and meetings there are eighteen study centres – six of which are in Flanders - and three provincial support centres. 'Before the advent of SURFnet6 each location had its own network with a router, firewall and server,' says senior system engineer Wim Vrancken. 'Each time a new application became available access for user groups had to be configured separately at all locations and for each firewall. In order to test a new application we needed to go to a test workstation at that location. Now in terms of the connection to the network a study centre appears as just another building on campus, with sufficient bandwidth and a single central firewall. This situation makes a network administrator's life much simpler.'

Exams

The OPN has interconnected the fifteen Dutch locations since the summer of 2006. 'We decided on redundant lines between the study centres, to exclude any risks,' explains system architect Ed Grouwels. 'It is extremely disruptive when a connection is lost when students are taking their exams. In some cases the student needed to start taking the exam again. This has happened in the past, and of course it is unacceptable.' The access to the internet is also redundantly implemented, with a line to both SARA and TeleCity2. A second firewall has been set up to take over immediately in case of failure.

'An OPN means guaranteed performance, because the lightpath is not shared with any other parties,' says Ed Grouwels, summing up the benefits. 'Moreover it is totally secure. But not only the electronic security is guaranteed with an OPN, we are also going to support the physical security of the locations via the OPN. There are surveillance cameras at various places in the study centres. Their images are currently stored locally, but we will now centralise storage in Heerlen.'

Such centralisation plans also exist for the servers. 'With such fast connections it is no longer necessary for each location to have its own server.'

Communication

Wim Vrancken supervised the migration of the OUN to SURFnet6. 'That was quite a job,' he remembers. 'Technologically it wasn't even all that complicated. The most effort went into communicating everything to everyone. SURFnet, SARA and Telindus were parties, of course, but also the many locations and their building supervisors, and we had to take into account exam times and all kinds of surprises. Already in 2005 we had started our preparatory talks, and all locations were migrated to the OPN in the summer of 2006. My colleague Hans van der Worp travelled across the whole country. After all, we needed to install and configure equipment at every location! SARA staff member Yasar Ertur really was a terrific help. It has all been worth it. It has become so much simpler, and the availability, speed and functionality have increased enormously.'

New ideas

What is the staff's and students' experience with the new network? Ed Grouwels: 'Most students at the Open University study at home. They are primarily dependent on the quality of their own ADSL or cable connection. But for our staff in the study centres the network is now many times faster than the 2 Megabit connection we used to have. This is immediately apparent when retrieving e-mail, for instance. We really used to go and get a cup of coffee in the time it took to retrieve e-mail. Moreover we used to have to take into account the low bandwidth when undertaking network administration and in developing applications. And we had to store copies of the database at each location; if we didn't, the response times would become far too low. And these data also needed to be centrally available. It was a hassle.'

That is now a thing of the past. Moreover applications such as videoconferencing in the study centres are no problem whatsoever with the OPN. 'We always had to advise: take it easy. We no longer have to. Finally there is enough bandwidth, so we really have something to offer the study centres. The time is ripe for new ideas and applications.'

Further information:
www.ou.nl

SURFnet bv
Radboudkwartier 273
Hoog Catharijne
PO Box 19035
NL – 3501 DA Utrecht

T +31 302 305 305
F +31 302 305 329

admin@surfnet.nl