



'The ever-increasing demand for research across discipline and international boundaries requires tools and techniques that bring researchers together to collaborate in a seamless, secure and in as simple fashion as possible.'

The tools of middleware being developed within SURFconext are an important step towards achieving this digital infrastructure environment which means researchers can share information securely and access resources and materials from their host organisation with a single-on.

We at Jisc are following the developments in the Netherlands with interest and sharing some of the UK's best practice in this area. We are anticipating working closely with SURF to enhance and realise the potential for international research.'

Norman Wiseman is a member of the senior management team at Jisc, the organisation that promotes innovation in education and research in the United Kingdom.

SURFconext goes international

SECURE ACCESS AND EASE OF COLLABORATION IS BECOMING MORE AND MORE IMPORTANT. SURFCONEXT, THE PRODUCT DEVELOPED BY SURF FOR THIS PURPOSE, HAS ENJOYED GREAT SUCCESS IN THE NETHERLANDS. BECAUSE THERE IS ALSO MAJOR INTERNATIONAL INTEREST IN THE PRODUCT, IT WILL BE OFFERED TO THE INTERNATIONAL COMMUNITY AS OPEN SOURCE SOFTWARE UNDER THE NAME 'OPENCONEXT'.

It seems that international interest in our collaboration infrastructure is growing more and more', says Alexander Blanc, OpenConext product manager. 'The possibilities offered by OpenConext are being clearly recognised as solutions capable of simplifying and promoting collaboration among institutions worldwide. Releasing the open-source code and allowing an international community to form around it will enable us to continue to enhance the functionality of the collaboration infrastructure together', he explains. 'Although we have only just started, we have high expectations. Functionalities that are currently being conceived of and developed in other countries will eventually be included in SURFconext in the Netherlands, offering benefits to all Dutch institutions. It is a true example of "innovating together". Our ultimate goal is to remove all the barriers

that can hinder international cooperation.' At a workshop at SURFnet on 7 June, talks were held with international organisations concerning a road map for the further development of OpenConext and the associated open-source community. Around 25 people attended the workshop.

International projects

Because SURFconext is based on open-source software, we can release the code for others to use and develop', says Alexander Blanc. There are currently two pilot projects running abroad using OpenConext: one in the United Kingdom and one in Australia. Following a successful test in 2012, Jisc - the organisation that promotes innovation in education and research in the United Kingdom and connects over one million users - plans to use OpenConext to launch a collaboration platform around its own email

service. Australia's Academic and Research Network (AARNet), which connects 38 research universities, is also conducting a pilot with OpenConext. There is still a great deal more international interest in addition to these two concrete pilot projects, among national network providers such as SURFnet and major collaboration organisations alike.

Rise in usage in the Netherlands

Via SURFconext, users can gain secure access to multiple cloud (and other) services using a personal settings account and based on single sign-on. These services integrate seamlessly with each individual institution's existing online environment. The majority of higher education institutions in the Netherlands are now connected, as are over 35 commercial cloud service providers and around one hundred institutional services.



More information on OpenConext is available [here](#). An explanatory animation on OpenConext can be found [here](#). For an overview of services that use SURFconext, click [here](#).

Cloud computing throughout Europe

ALL EUROPEAN NATIONAL RESEARCH AND EDUCATION NETWORKS (NRENS) RECENTLY JOINED FORCES IN THE FIELD OF CLOUD COMPUTING. ANDRES STEIJAERT FROM SURFNET IS LEADING THE PROJECT, WHOSE AIM IS TO BRING 'THE CLOUD' TO USERS VIA THE NRENS ON THE RIGHT TERMS.

Every country in Europe has its own SURFnet. In total, 38 NRENS are part of European umbrella organisation GÉANT. 'At all NRENS, there is a palpable awareness that the cloud is a matter of urgent and large-scale importance', Andres Steijaert explains. 'We want to benefit from each other's expertise and coordinate a joint approach to the service providers, precisely the way we do now with higher-education and research institutions in the Netherlands. By sharing information, we can prevent the wheel having to be reinvented 38 times.'

Economies of scale

Altogether, the European NRENS represent no

fewer than 10,000 organisations and 50 million users, all interconnected via a single European data network. 'We plan to take advantage of these economies of scale and of people's willingness to collaborate, both amongst ourselves and towards providers', says Andres Steijaert, head of the GÉANT Cloud Services Team. The team is working on cloud strategy, standards and operability, cloud brokerage and vendor management, as well as the integration of cloud services with each other and with the NREN middleware and network infrastructure. 'There are around 35 people from 14 NRENS in the team, with others also providing input from the side-lines.' Although the Netherlands is one

of the European leaders in cloud computing, our institutions will still benefit from the project through aspects such as better contractual agreements with cloud suppliers and improved cross-border cooperation. 'It will also grant Dutch institutions wanting to provide their own cloud services access to a far larger target audience.'

Matching supply with demand

In addition to the Europe-wide GÉANT project, there is another international cloud project in which SURF is an active participant. In conjunction with Internet2 (USA), AARNet (Australia) and Janet (UK), SURF is working on making cloud services available to higher education and research institutions on a global scale. 'We intend to use this "global service delivery" to match supply with demand, and offer it on the right terms.'