

Maximizing benefits of cloud computing by collaboration

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1. SUMMARY

SURF is the organisation for collaboration in Higher Education in the Netherlands. Its mission is to enhance the quality of education and research through innovation in IT. Cloud computing is growing fast and offers many opportunities to increase quality and flexibility of IT services, and to decrease costs. Three years ago SURF started a program to stimulate the use of cloud computing by the Dutch HE institutions. This program is driven by the central idea that the benefits of cloud computing can and must be maximized by collaboration. SURF produced a strategic document which contains the most important common ambitions to be realized in the next five to ten years. International collaboration, for instance within Europe, could deliver a positive contribution to this effort.

2. WHY COLLABORATION?

Cloud computing started with “social media”, but the number of vendors offering cloudservices that support the regular workplace is growing fast. In fact the need for local storage or computing power has disappeared. Under certain conditions, regarding security and privacy, office automation and even institutional administration could be moved completely to the cloud. Likewise in the field of education and research vendors are starting to deliver standard cloudservices, sometimes free of charge.

Individual institutions that make the transition to the cloud will have to deal with many vendors on many subjects. On the other hand, a group of institutions, or preferably the sector as a whole, has a much stronger position when negotiating contracts. This regards pricing, privacy, security and exit policies, as well as selecting the “best” services and the right functionality. As the demand for certain functions increases, chances are high that vendors will incorporate those functions in their standard services. In case the public cloud does not deliver, or is, for legal or other reasons, not allowed to deliver, collaborating institutions could still enjoy the economies of scale by creating a community cloud.

The prize that has to be paid is standardization. Small scale customization has to go.

3. ORCHESTRATING THE CLOUD

In the field of education there is much diversity between the institutions. Unfortunately this has a negative influence on the willingness of institutions to standardize and collaborate. Working from the strong conviction that diversity should be in the content, and not in the supporting means (i.e. IT), SURF has brought together Executives, CIO's, IT Directors as well as experts and workers in education and research to formulate common ambitions for the next five to ten years, and to identify opportunities for collaboration.

The project, which was called “Orchestrating the Cloud” was cofunded by the Dutch Ministry of Education. It produced a strategy document (the I-strategy for HE in the Netherlands) which received strong support from the HE institutions, and the national associations of the Research Universities and the Universities of Applied Sciences.

4. AMBITIONS

The I-strategy discusses many common ambitions for HE in the Netherlands. The most important ones are:

- The ability to deliver online education, integrated in the regular curricula.
- An infrastructure for examination and certification in the cloud.
- A digital working environment for students and staff.
- Reliable management information to improve study success and the quality of education.
- State-of-the-art e-infrastructure for storage and processing of research data.
- Maximal public disclosure of research data.
- Collaboration without boundaries between institutions and between institutions and the business community.
- Effortless exchange of information between institutions.
- Optimal support for student-mobility.
- Maximal purchasing power when acquiring clouds services.

Of course it is within the competency of the individual institutions to decide about priorities and to determine which activities to start for the realization of which ambitions. SURF is trying to form so-called “coalitions of the willing”, in which institutions work together on one subject.

5. COLLABORATION ON A EUROPEAN SCALE

To maximize the benefits of cloud computing collaboration and standardization are needed. This truth has been established and recognized by the participants and stakeholders of the SURF project “Orchestrating the Cloud”. It will take a tremendous effort to realize the ambitions formulated in this project. However, standardization on a national scale will not suffice. Supra-national collaboration and standardization will obliterate even more boundaries, will strengthen the initiatives taken on the national level and improve the position of the users opposite the vendors.

This is a challenge for supranational organisations, like EUNIS!

6. AUTHORS' BIOGRAPHIES



Bert van Zomeren has a degree in mathematical statistics. He worked for nine years as a scientific programmer at Leiden University and then for more than 25 years at Delft University of Technology as an assistant professor, information manager and enterprise architect consecutively. He is a member of the SURF Taskforce Cloud since september 2011. He is a six-times visitor of previous Eunis conferences and has presented several papers on these occasions.

Wouter de Haan is manager of the SURF program IT and Business Management, since 2003. In this position he initiates and leads innovative projects and programs regarding the business management domain of universities. He was responsible for the collaborative development of Studylink, the state-of-the-art service for admission, enrollment and administration for all students of all universities in the Netherlands.

Wouter is leading the SURF taskforce Cloud, a collaboration of all SURF business units and all universities. Together with the other members of the taskforce he is author of the Position Paper 'Into the cloud with SURF'. Wouter was a speaker at national and international conferences and seminars, addressing large audiences.

