Cloud Deployments @Institutions

Arcus College	SURFcumulus/ Holland	May 2017

Why the cloud?

Arcus College was no stranger to outsourced ICT services. Through a 2012 joint procurement arrangement for server, storage, component and firewall solutions with Zuyd University of Applied Sciences, Arcus benefitted from a quasi-IaaS environment: Zuyd managed the network and VMware environment, servers were available on request and Arcus created and configured their own applications. This arrangement worked well, though it lacked 24/7 support.

When the hardware was end-of-life in 2017, Arcus turned to SURFcumulus, a service of the Dutch NREN SURF for a true cloud-based solution. SURF offers a broad range of cloud services in partnership with the GÉANT IaaS framework. Arcus chose the GÉANT framework to ensure not just the best price, but also that services be scrutinised for quality, security and legitimacy. This peace of mind allowed Arcus to focus on its main business: ensuring high quality education and providing innovatice IT to their researchers and students.

Arcus chose to further rely on outsourced IT via the cloud because it was finding it harder and harder for internal IT to update technical knowledge and there was little time for adequate training. In addition, dynamic capacity requirements could be accommodated with ease, and be scaled up, or down, as necessary. The assured continuity of service and ease of management by working with a professional IaaS supplier via a single, reliable portal made it easier for Arcus to choose which services they wanted from which suppliers. SURFcumulus offers services of several public cloud providers and institutions can choose the provider(s) that fits their needs best.

Approach

Arcus chose the Multi Cloud variant of SURFcumulus which means that SURF helps with contractual support and migration, and acts as a single point of contact to manage and monitor the supply chain between Arcus and IaaS suppliers. Arcus only had monitors and manages use.

Because Arcus already outsourced some VMs, the migration went smoothly and quickly. The plan called for an initial migration of eighty servers to Vancis, one of the GÉANT framework vendors. The "lift and shift" strategy allowed Arcus to first migrate everything "as-is" and then disable their own datacenter. The migration process was a collaborative effort between Arcus, SURF Cloud and Vancis.

Offering
Vancis storage and servers

Next Steps
After the initial migration to Vancis servers, Arcus is considering other IaaS suppliers available within the GÉANT IaaS framework. Plans are underway to set up a separate network for ICT student training. This project is in the initial phase.

Lessons Learned

From the technical perspective, Arcus realised that the quality of its high-speed, high bandwidth networking was vital. Arcus handled this by creating a redundant line via SURF. It was also important to involve a cyber security expert in all phases of the migration. Internal agreements about how many servers to create and adequate monitoring in place were necessary to avoid unwanted surprises. This included attention to architecture. While the operational part may be outsourced, the tactical and strategic aspects remained within their own organisation. In terms of training and management, it is important to realise that administrators are moving from one role to another which requires proper preparation and training. Detailed financial analysis is a key factor in the decision as well. A proper mapping of the current financial situation, in terms of depreciation and investment of course, but also backups and staff. And perhaps most important, the process must be kept transparent, including clear communications about the internal changes that are taking place to stakeholders and users.

NREN Support

SURF played an important role helping Arcus maximise the GÉANT framework. SURF guides institutions securely through the process. SURF ensures that selected providers are subject to all the necessary tender procedures and that services meet the stringent privacy and security requirements of the Dutch education and research community. SURF institutions enjoy the economies of scale benefits of the European tender process with prices up to 25% lower than standard commercial rates.

For more information, please visit https://clouds.geant.org/