Hosted library services
Clouds with silver linings

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Introduction

Software as a Service (SaaS) is becoming increasingly common as a delivery method for many software products. The Glucksman Library at the University of Limerick (UL) was the first university library in Ireland to move its library management system (LMS) from locally held servers to the vendor-hosted cloud. During the previous decade UL had increasingly relied on the LMS as a source of both efficiencies and integrations with other enterprise university systems. The move to the cloud allowed us to focus more resolutely on service improvements rather than systems administration.

Driven by the cost-saving mandate of the higher education authorities in Ireland and by our commitment to service improvement in our library, we engaged with a trusted vendor and a proven technology to move our services forward and explore new uses of staff time at the University of Limerick.

Background

The Glucksman Library's LMS has been with Talis / Capita since 1998. For much of this time, library staff managed the servers and technical processes for the LMS. In 2011 key senior staff members retired, leaving a vacuum in terms of the library's ability to maintain legacy hardware and deploy the technical processes necessary to run the LMS service. Secondly, in 2012, the library contracted Capita to conduct a business process analysis. The resulting report concluded that the library could gain definite efficiencies through a hosted or managed service. To provide a seamless, personalised service via the information desks, via the internet and self-service technologies, the library needed to have real-time access to staff and student records. Heretofore the synchronisation of student records on the LMS was a challenge and the entry of staff records was a manual process.

Information desk

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Self-service issue desk

Swipe access

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Technological and cultural shift

UL Library prides itself on implementing new services early. It was one of the first Irish libraries to make wide use of Electronic Data Interchange (EDI) and to fully exploit shelf-ready book purchasing technologies. Developing further new services brings associated challenges, culturally and in the way we work, placing the emphasis on innovative and unfamiliar activities with an already reduced headcount. We engaged Capita in late 2012 as our partner in the move to hosted and managed LMS services and set ourselves an ambitious project schedule.

On both an infrastructure and technical level, the hosted systems meant a sea change for our processes. The cloud architecture proposed by Capita meant a much more complex set of relationships between the various nodes in the system. On a soft level, the move meant a much less granular level of control. A hosted system would not provide direct access to the application, database or server levels. To best navigate these profound changes for the library, a team of stakeholders was convened to vet thoroughly the proposed system and architecture.

At an infrastructural level, one major change necessary to support the hosted system was the creation of an AES 256 bit encrypted VPN (virtual private network); while the client side of the architecture remained with UL, the virtual servers sat in London and Birmingham. The university's Information Technology Division (ITD) was a tremendously supportive partner in the deployment of the LMS service, from the legacy system to the shift to the cloud. While the core components of Capita's hosted and managed services were located at Capita's network centres, the infrastructure itself is very much a collaborative effort between Capita, ITD and the library.

Historically, front-of-house staff assumed responsibility, in conjunction with systems staff, for a variety of tasks related to circulation. The move to the managed system meant that Capita would now complete this work. While these tasks were transitioned to Capita, Reader Services staff had the opportunity to focus their energies on new areas of the service or on reconfiguring existing services. For example, staff could move their focus away from the 'what' of configuring notification systems to the 'how' of providing an integrated circulation communication process for staff and students.

The move to the cloud

The transition to the hosted system took place over one month and effectively drew in the various collaborative strands defined earlier in the project. For instance, the library team rigorously tested the VPN and firewall setups created by ITD.

On the morning of the go-live, there was little to indicate that such a radical change was afoot. We transtioned over to the hosted system with only minutes of downtime on the changeover day.

Benefits of moving LMS to the cloud

The shift to cloud-based LMS allowed us to focus our energies on previously impossible service offerings and to move forward on our strategic imperatives of providing a range of new digital services. The most immediate effect of the migration was in allowing systems staff to focus on innovative services such as the deployment of a web service that would integrate staff and student records real-time in the LMS. The initial deployment of the service went through a minor, but totally unavoidable technical hiccup in the early days. Servers at the data centre had to be replaced and this issue was resolved by the vendor in a speedy fashion due to the critical nature of the planned roll-out of our hosted service.

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While the hosted and managed service does come at a cost, it provides a definite financial advantage. When these savings are combined with the release of staff time, the hosted service is financially advantageous over the traditional local model. However, in our experience, cloud should not be synonymised with cheap; it offers flexibility, and that is more difficult to quantify.

Initially the move to the cloud was a challenge to some long-standing habits of systems staff. However, the release of time did translate into the creation of the digital library infrastructure during the summer and autumn of 2013. Technical Services staff were able to implement many of the suggestions of the 2012 business process improvement report. The shift to the cloud facilitated a major organisational restructuring of the Technical & Digital Services Department during the summer of 2013.

Following this development, a number of new library services were introduced, including real-time integration of the student record system and the staff HR system with the library management system. This move to the hosted service enabled the introduction of a building access control system, the roll-out of Summon, the Discovery interface that searches our print and electronic resources, and the library's unique collections. The hosted service will further allow us to continue to integrate our LMS with the university's financial systems in 2015.

Conclusion

The main benefit of moving to a cloud-based system is to reduce costs and staff time by outsourcing hardware and software maintenance and support. The myriad ways in which money is saved by moving to the cloud are big headline news, but efficiency, stability and reliability of service are the less counted benefits.

Our experience in moving our LMS to the cloud was an overall positive one. This was a step we couldn't afford not to take. The many service enhancements described would not have been possible had we remained on a locally supported system. Our commitment to continuously moving our services forward has been given a tremendous boost by the hosted service. Our energies are now concentrated in the area of digital services; applying ourselves to newer and more challenging service delivery options for library users at the University of Limerick.