

DIKTUON: Providing Library Services in the Cloud: New Benefits Realized, New Skills Required

by Robin Hartman

In December 2010, Hope International University in Fullerton, California, signed up as an early adopter with OCLC's WorldShare Management Services (WMS.) Not yet a buzz word in library circles, "the cloud" was just making its way to my attention as I was thinking about whether to try to repair or purchase a new ILS server. The concept of having a server hosted off-site was not new — I had considered that option with Voyager many years before. But now OCLC was offering to take away the burden of ownership, and by mid-June 2011 we were live and "in the cloud" with WMS.

The "cloud" is a term commonly applied to the Internet, and cloud computing refers to software, platforms, or services provided over a network connection that may have been previously installed on a local computer. Think, for example, of e-mail you access through a web browser (e.g., Gmail) versus e-mail you access via client software loaded onto your PC (e.g., Microsoft Outlook).

Benefits of Moving to "the Cloud"

We were attracted to WorldShare because it held out the promise of solving some real problems, streamlining some of our workflows, and saving us money. With this new approach, we would be sharing the costs of technical expertise and hardware with other libraries around the world. We did not have to dip into our tight capital expenditures budget for a new server. (That certainly made our Information Systems Department happy!) Further, with the exception of a one-time implementation fee the first year, the annual cost of WMS was nearly equal to what we had been previously paying for annual maintenance on our old ILS and other individualized OCLC services (e.g., cataloging, and resource sharing) that were now included with WMS. From a cost perspective it was not a hard sell to administration.

The only software needed locally is a web browser. This does away with the need to install, maintain, upgrade, and troubleshoot incompatibility issues with third-party client software on staff computers. We can easily move computer workstations around the library without the complication of making sure settings preferences move with each specific user. And we do not have to base our decisions about staff computer purchases on the timing or requirements of ILS upgrades. Technically speaking, circulation is no longer limited to the Circulation Desk, or even to the library. We could start thinking outside of the box. For example, non-library staff at our remote campus could be empowered to check out books to students when they received them from us rather than before we sent them out, solving the problem of remote students claiming they never received the books checked out to them.

We have been more productive and proactive than we could have been with the traditional ILS model. Streamlined technical services workflows have freed us up to concentrate on other projects, such as updating our website or implementing a number of innovative student-centered services. The benefits of moving to the cloud seem clear.

A Leap of Faith

In spite of the benefits, outsourcing mission-critical operations such as circulation and acquisitions can feel like a leap of faith. It is odd to think about all the connections that need to be maintained between our circulation desks and those server farms far far away. But like the first couple of steps in a twelve-step program, we had to admit that our system had become unmanageable. We came to believe that only a power greater than ourselves could restore us to sanity. We

Robin Hartman is Director of Library Services, Hope International University, Fullerton, California.

made the decision to turn our needs over to an organization with greater expertise, and to join a larger cooperative environment where our priorities were shared by others.

We realized that offering library services “by faith” is not entirely new. For example, when we pay for subscription databases, or receive remotely hosted resources that we “own” but don’t house within our local networks, we trust that these services will provide us with ongoing and reliable access. We are becoming more accustomed (and perhaps more comfortable) putting trust in these kinds of contractual arrangements and uptime guarantees. Vendors have an obligation to us as paying customers, and their reputations are on the line. It also helps to know we are not doing this alone. A growing community of libraries has put their services in the cloud. As of this writing, nearly 200 libraries are “live” with WorldShare, with another 90 currently working on their migrations.

Needed: New Staff Skills and Aptitudes

Recently, we had the opportunity to initiate a search to fill a Systems and Technical Services Librarian position which had been open off and on for five years. (I had occupied this position before leaving it to become the library director.) With our ILS in the cloud there was no need to find a librarian who could wrangle a UNIX system on local hardware. Instead of spending time on the care and feeding of a server (which was dedicated to a shrinking percentage of our resources), we could concentrate on more relevant student-centered services.

A lot had changed in five years. As I reviewed the job description I reflected on the set of skills and aptitudes that would be absolutely necessary to continue moving us forward in the cloud. The person should possess the theoretical and professional underpinnings of modern librarianship, but also have up-to-date familiarity with information technology, web development, or computer science — competencies outside of “traditional” librarianship. Successfully making the cloud work in a library setting requires excellent communication skills, the ability to troubleshoot problems logically, and possession of character traits such as intuition, initiative, and tenacity.

Being able to take advantage of the many benefits of cloud-based technologies requires the integration of resources. The person must have a basic understanding of how cloud services work and are interconnected. This means not only maintaining links but also assuring the integrity of relationships between systems that are not within our local control. Once a problem is understood, the person needs to determine the right questions to ask of the appropriate support services — whether that is a vendor help desk or a local network administrator. Initiative and tenacity is often required to pursue the myriad avenues of assistance required to get unrelated entities to see how their products interact in our environment.

Because this person is also the bridge between the underlying technological infrastructure and our user interfaces, he or she must have the ability to understand the problem, as it were, from a reference and instruction perspective. A complaint such as “Hey, this doesn’t work like it used to!” has to be broken down into manageable and intelligible pieces. Although instruction is not a part of the job description *per se*, being able to convey technical concepts in an easily understood manner to a variety of constituents — from new freshmen students to long-time faculty — is vital.

I am pleased to report that we successfully filled our Systems and Technical Services Librarian position. As of this writing the new person has been on the job for about two months. She indeed brings the skills and aptitudes needed to help us effectively use and develop cloud-based services like WorldShare in our library.

Conclusion

When signing up as an early adopter, we knew there would be some bugs to work through. Three years later, I had hoped for a more mature product. For instance, I would like to see a simpler way to get routine reports. OCLC has been quite transparent with their road maps to enhancements. When something is announced for a particular release date, it typically happens as planned. And they seem to make a concerted effort to gather input from WMS subscribers regarding our priorities for implementing anticipated new features. Further, in three years we have had all of fifteen minutes downtime due to forces outside of our control. The same could not be said about our previous three years with Voyager.

Providing and maintaining library services in the cloud may just require a fresh look at S.R. Ranganthan's laws of library science. Just as the transition from print to electronic resources causes us to rethink research strategies, and new discovery tools compel us to reconsider metadata requirements, transferring ownership of connection processes to the cloud challenges some of our assumptions. Libraries are for people. We will use any technology that serves the purpose of connecting our users with the information they need. Libraries ensure that metadata has integrity, networks are reliable, and users are empowered to discover and access information resources when they need them. Libraries are also concerned with saving the time of the user. Resource sharing with the cloud is an efficient means for libraries with limited resources to effectively meet this goal in today's information economy. As people continue to change their methods of learning and communicating, the library must continue to be a growing organism. For now, the library as an organism looks something like a cloud.