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Cloudbusting

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What is "the cloud"?

Have you ever had an IT-related idea you want to implement, only to be told that your library doesn't have the resources, time or labour to help you? Chances are you have. You're also likely to have heard something about cloud computing as a way to get your ideas moving quickly without having to worry about time or infrastructure. Is cloud computing the end of systems departments as we know it? Or is it merely another tool in a librarian's arsenal?

The cloud is a lie.

Don't believe the hype. It is not some mythical internet saviour, undoable by smaller organizations. The cloud has existed ever since computers have been able to talk to other computers; early BBS systems were cloud systems just as much as Amazon's virtual server infrastructure is. To put it simply, cloud computing refers to the delivery of scalable IT resources over the internet. The most recent iteration of talk about cloud services is a marketing term.

Do you use a web-based email interface, or do you use GMail or Google Docs? Have you streamed a movie or TV show from Netflix? You've played in the cloud.

What can my library do in "the cloud?"

Short answer? A lot. Your library's ILS can be cloud based. For example, see Project Conifer the Ontario Academic Library Evergreen consortium, or McMaster University's hosted Symphony ILS. You can also take advantage of Content Management Systems such as Wordpress and Drupal in the cloud (wordpress.com and drupalgardens.com).

If you're more of the hacker type, you can deploy and scale applications on a wide variety of platforms at Heroku (heroku.com). If you want your own customizable instances of Wordpress, Drupal, Joomla, or Redmine check out BitNami (bitnami.org) which touts a simple "one-click cloud hosting" option.

Just need a server and don't want to have to worry about maintaining hardware? A local IT can't help you out? You can create som highly customizable options from a wide variety of Linux flavours. A Windows server on a service like Amazon's EC2 (aws. amazon.com/ec2) could also help you out.

Finally, need somewhere to store some files, or thinking about another option for that off-site digital preservation option? You can start small with cloud storage solutions like Dropbox (dropbox.com) and go large with Amazon S3 (aws.amazon.com/s3) or Duracloud (duracloud.org).

By Nick Ruest & John Fink

JSTING

Have a difficult IT department? Want to work on some rapid prototyping of a library application? Don't have a local storage solution or need a viable off-site storage option? In all of these cases, cloud computing may be a viable option.

Often in non-trivial library services that are hosted locally, new ideas and plans are impossible to implement because necessary equipment is lacking or the scenario is too complicated. In a cloud scenario, however, cloud providers can spin up solutions for a small fee, getting new ideas working quickly.

Your own happy local cloud.

But let's say you have a decent size systems presence already, and you're just looking for ideas on how to use your existing hardware and expertise more flexibly. Software packages like Gluster (glusterfs.org) can help you combine many disparate hard drives -- even on completely separate computers -- into one large virtual drive. If you're a database nerd, it might be worth looking into the new technology of key-value stores like Facebook's Cassandra technology.

Amazon's EC2 platform has a number of locally implementable competitors as well. If you have a beefy enough server PC and a bit of know-how, software like Eucalyptus, Openstack or KVM can help you create virtual machines on the fly with a variety of operating systems installed. These VMs can then be used without worrying that a crash will affect your entire infrastructure.

So the cloud is not just out there... it's here as well. What direction should your cloud experimentations take? It depends on your abilities and where you want to go!

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