

TOM LIMONCELLI

delegating to the Web



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I WAS TOLD A BOOK ON TIME MANAGEMENT for system administrators was impossible, since a lot of time management is about delegation and “that’s impossible for a system administrator.” Oh, ye of little faith.

One of the problems with being a system administrator is that we enjoy our jobs so much that we want to do everything ourselves. (It can’t possibly be that we’re control freaks.) We want to do everything our way. Because of this, we rarely learn to delegate. It helps that there is rarely someone to delegate to.

The kind of delegation we are capable of usually consists of using pre-written software rather than writing it ourselves. We find the right open source or commercial package for the task at hand and spend our time doing “integration and deployment” rather than writing code. It’s easier to buy backup software than to write a new program from scratch. Integration is more powerful than invention.

Lately I’ve been using a lot of Web-based applications to make my life easier. There’s no software to install—it’s all at their Web farm. Usually there is a “dashboard” that I can log into to control and configure the service I’m receiving. The data is all kept on their servers, which brings up a huge number of confidentiality, privacy, and reliability problems. However, I have been happily surprised to find that many of these services, though less than my ideal, provide more security than I could provide myself. So, they win.

The real difficulty for me has been control or fear of letting go. It’s difficult to get out of the habit of trying to do everything yourself. Looking back on all the times I’ve moved to a hosted solution, I’ve never regretted it.

Here are some examples.

Email and File Sharing

This first example came out of necessity rather than planning. I run a lot of email lists (first Majordomo, now Mailman) for nonprofits that I work with. The burden on my server was getting to be very heavy. It was a victim of its own success. Soon they wanted more features, like a way to share files. I was dealing with accounts, security issues, training issues, and so on, and didn’t have the time to handle all the requests. Then I

discovered Yahoo! Groups (<http://www.yahogroups.com>). They give you a free email list, which has an associated file storage area, calendar, and all sorts of features. It was more efficient to spend my time training people how to use those services rather than run them myself. Teaching someone to use a Web form-based file upload is a lot easier than installing an FTP client, no matter what OS you use. In addition, the training was leveraged over many organizations. More and more people already know how to use Yahoo! Groups, and once a person has used Yahoo! Groups for one non-profit, they are able to use their knowledge with other organizations.

I found the following formula useful for most of the small nonprofits that I volunteer with: Each organization usually needs two groups: one named after their organization, which includes all their members, and another just for their board members and/or volunteers. If the group is called “Save the Foo,” we might have STF-announce@yahogroups.com as the inclusive group and STF-workers@yahogroups.com as the private group. The two file areas give the organization the ability to have private and public documents. “Organizational memory” is helped by the fact that documents are stored in and accessed from a central location. No more reinventing a form because the only copy is on the ex-president’s PC.

Obviously, there are privacy concerns. Two organizations that I help can’t use Yahoo! because of the terms of service. However, it’s a trade-off. At least there is a legally binding terms-of-service document that can be evaluated. The only assurances I could give people were, “It’s as private as it can be” and “If I’m around, I’ll try to fix it.”

Sales Management

The next example is sales management (“customer relationship management,” or CRM) software. After battling sales management products such as ACT! and Goldmine for nearly a year, my then CEO proposed we look at a hosted solution. I was shocked. How could we put important sales tracking data on someone else’s server? In this case, it was off to the legal department for analysis while the CEO and upper management evaluated the risks. I was surprised when they decided to take the risk of a hosted solution. Privately, however, I sighed with relief, because the IT team was overcommitted with other projects. I couldn’t even imagine having the time to set up the data backup/recovery system for a full-fledged CRM system, let alone the software itself. It was great to see this entire class of problems disappear from my plate. The sales group became self-supporting. I provided a Web browser; everything else was dependent on the ability to dial the vendor’s toll-free number. If this sounds appealing to you, investigate Salesforce.com, Siebel’s CRM OnDemand, or the up-and-coming SugarCRM. A Web search will turn up dozens more.

Email Security

In 2004 I realized that I was spending about four hours a week (half a day) dealing with the anti-spam/antivirus solution(s) we were using, and yet people didn’t have cool features like a private dashboard they could log into to manage their quarantined emails. Beyond the usual daily issues, I was constantly evaluating new software, taking the system down to do upgrades (I’m sure this annoyed my users no end), and chasing RBL lists. Being able to eliminate these tasks would save me 10% of my week. (I pondered that if I could find nine more like it, I would never have to work again.) There is a lot of competition in this area, so the hosted solutions

are very powerful and very feature-rich. There are many services that do anti-spam/antivirus on email. You simply point your DNS MX records at their servers and they do the work. Each user gets an account where they can log in to review their quarantine. Spam is no longer my problem, and the reduction in viruses has gained me a few hours each week, too. If we're ever unhappy, we can change to their competition very easily. Some products to look at include MessageLabs, Postini, and McAfee's Secure Messaging Service. The "enterprise" edition of these products usually includes outbound email queuing, which means I was able to eliminate most of the load of my outbound email queuing infrastructure. (Hosted email security might have some of the most obvious privacy issues, though if privacy is your concern, why are you using unencrypted email on the Internet?)

Email

Speaking of email, like many USENIX members I have long struggled to avoid MS Exchange. I now have an alternative answer to the new CEO who arrives and asks what it would take to bring Exchange to the company. I simply say, "\$15 per user per month; I can have it set up for you in a month." That's about the going rate for hosted MS Exchange. With the huge competition in that area, hosted Exchange offers a very feature-rich service, including calendars. Compared to the cost of sending me to Exchange training, plus buying the hardware and data recovery costs, it's a bargain. A Web search for "hosted MS Exchange" returns so many results it's almost dizzying. DNS service providers like Register.com and NetSol provide this service, but the one with the coolest name has got to be ElephantOutlook. As a disclaimer, I should point out that I've never actually used any of these services. While \$15 per user per month sounds like a bargain to anyone who knows how difficult it is to run any kind of email service, a CEO typically thinks that email is free as the wind. Hearing \$15 per user per month scares them away from any future thoughts of switching out of our legacy system. Dance, puppet! Dance!

Antivirus

While most antivirus products for Windows include some kind of dashboard application that lets you see who is out of date, this ties up a server. McAfee's Managed VirusScan provides the same service in a hosted product. Since the software and signature updates come from their hosted service, finally road warriors get updates on a timely basis.

DNS, Domains, and Web Sites

Running my own DNS servers was great when I was learning DNS. I must have homed 30 domains just for friends. For external DNS servers (on the public Internet), I now let my DNS register do it for small domains (the more expensive DNS registrars do it "for free," i.e., Register.com), or use various hosted DNS secondary services like BackupDNS, Ultra DNS, or any of the dozens that show up in a search engine. Their prices range from free to extremely costly.

Running a Web server used to be exciting and new. Now for static Web content you can get a lot better service for \$10/month just about anywhere.

Membership and Registration

Friends who run conventions asked me to set up a Web-based registration system. While getting ready to learn the PayPal APIs, I found that Mollyguard had already built a better system than I would ever have time to create. Best of all, it's so easy to use that the nonprofits I used to help with this kind of thing are now completely self-sufficient.

Nonprofits I work with also have huge membership database problems, especially when one membership chair leaves and another comes on board. Most can't process online renewals or credit cards. Lately, I've been recommending companies like 123Signup, which do all those functions for them.

Others

Using hosted applications is great but how far can this go? I've seen payroll departments eliminate the need for servers by using Paychex. TriNet gives you an entire Human Resources division, including benefits and payroll, all from a Web browser.

There are plenty of hosted solutions for SLA monitoring, from simple ping systems to systems that are commensurate with Nagios or BigBrother. Other system administration tools, such as request tracking and wiki, are products I look forward to.

Where is all this leading? Will I be out of a job? Obviously not. All of these products simply help me leverage my time for more interesting pursuits, such as directly interfacing with customers or helping my company improve business processes through better uses of IT. While hosted solutions work well for small to medium businesses, they are not yet appropriate for large companies. I couldn't imagine a giant like IBM or McDonald's trusting all their email to flow through someone else's process farm or being able to move their highly specialized sales processes to a hosted provider.

When you outsource a function to another company, your job becomes quality assurance. Moving to a hosted anti-spam solution doesn't mean you can forget about spam, it just means that you have to monitor the quality of the service you are receiving. You need to maintain a relationship with the vendor so they understand your changing needs. You need to make sure they maintain the quality of service they promised during the sales pitch.

Best of all, the more services I move to hosted solutions, the more time I have to search for new hosted services! Joy!