

RIK FARROW

## musings



[rik@usenix.org](mailto:rik@usenix.org)

*One of the advantages of being disorderly is that one is constantly making exciting discoveries.—A.A. Milne*

### I AM NOT ONE OF THOSE PEOPLE

whose desk is neat, or whose office belongs in a house prepped in a manner that makes real estate agents smile. Hardly. I subscribe to the notion that such signs of orderliness speak of rigidity of mind. This extends to my writing and speaking, with various degrees of success.

For writing papers, disorderliness makes the process painful and slow. You want order when you are writing papers. On the other hand, with public speaking I have found that a certain lack of order leads to more interesting presentations. I was once tasked with presenting the same talk, twice a day, in twelve cities over the space of several weeks. I quickly found myself becoming bored, and challenged myself to tailor each presentation to the audience in front of me. And I succeeded, and was recognized by the sponsor of the road trip for my creativity while still covering the points outlined in the slides.

To be honest here, I decided that I could be a public speaker and lecturer after watching Timothy Leary perform in a bar in Berkeley. Professor Leary used a slide projector as both a visual aid and a crutch that kept him more or less on track. I like to think I am better organized than Leary, but not rigid, like a speaker reading from a prompter.

### Management

But there are situations where disorderliness is anything but a creative solution. Anyone who has ever attempted to manage a large number of systems which share few characteristics other than the name of the operating system knows this for a fact. A measure of orderliness and a means for maintaining it become a life and sanity saver.

I became aware of configuration management in three phases. In phase one, I had researched patching solutions, reading through Proceedings of past USENIX conferences, looking for common threads in the many papers. I quickly spotted a common thread, and it went something like this: “We [the paper’s authors] spent some time [6–18] months working to get all systems up to the same patch level before we could start using X [their solution].” Wow, that sounds like real pain, enough to convince most people that it was not even worth attempting the project.

What if you could avoid the pain of that half-year to eighteen months of work? In the next phase, sysadmins created solutions for building systems in standard ways. Instead of having a multitude of installs, you could have several basic installs, depending on how the target system would be used: desktop, Web server, mail server, file server, laptop, etc. Whether you use NFS-mounted installation packages or a set of CDs, you have at least solved one problem. And you can instigate a patching program that takes advantage of the homogeneity of your classes of systems.

My awareness of the final phase jelled during a conversation with Adam Moskowitz during LISA '04. Adam tried to convince me of the importance of configuration management, and that Paul Anderson should write a Short Topics Booklet about this. I countered by saying that it seemed that Mark Burgess's cfengine was a fine solution to configuration management, but Adam carefully explained that cfengine is one solution to configuration management, but not *the* solution.

In this edition of *;login:*, you can read three articles about configuration management. The first is an Opinion piece by Paul Anderson, who has written a Short Topics Booklet which will be published this spring. Paul makes a strong case for better configuration management tools judged on three criteria: reliability, security, and correctness. My personal favorite is the second, security. I have long asserted that a well-maintained system is also likely to be a secure system. If you wonder about that, just imagine the security of a poorly maintained system for a moment. There is a very real correlation.

Two articles which describe different configuration management solutions are presented, not with the intent of promoting either solution, but in the hope of making sysadmins aware that the configuration management tool space continues to grow. The problem is nontrivial, and much research and practice will be involved before we can come close to the solution that Paul advocates. Narayan Desai and his co-authors discuss Bcfg2 and their motivation for taking the time to set up a configuration management system, while Luke Kanies describes Puppet, the configuration management software he has been developing.

## Onward

Marc Wallman provides a case study of implementing a campus-wide spam handling system using open source software. Tom Limoncelli talks about using external services as a method for delegating work, while Dustin Puryear provides useful advice about becoming a sysadmin consultant, based on his many years of experience. On a slightly different note, Thomas Sluyter lectures us on managing our time better (more organization).

Regular columns now have their own section, Columns, to make them easy to find. David Blank-Edelman introduces his new column on Perl by discussing (what a nice coincidence) handling of configuration files. Robert Haskins takes a look at a different type of spam than you may be used to dealing with.

In Technology, Dave Brown has boldly gone where others have also stumbled. Dave takes us through his adventures in using MythTV to build a DVR (Digital Video Recorder). Dave's journey reveals the travails of someone new to Linux (but not to programming and operating systems) as he

accomplishes this complicated task, while managing to educate and entertain us at the same time.

In the Security section, we have a return engagement by Mike Rash. Mike wrote about port-knocking in the 2004 Security issue, and has returned to write about a new technique that provides authorization with only a single packet before starting a service like SSH. And the trio of Bill Cheswick, Steve Bellovin, and Angelos Keromytis take a deep look at how the vastly larger IPv6 address space will affect future Internet worms. Their article provides what is likely a prophetic view of a future Internet that will still be plagued with cleverly spreading malware.

The Book Reviews section of this issue is larger than usual, partially because there were no reviews in the December issue (note that some of these book reviews do appear in the online version of the December 2005 *;login:*). The missing reviews represented an embarrassing oversight, in that the many eyes that read page proofs all failed to notice something that wasn't there. It has taught all of us a lesson about noticing what is *not* there.

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## Organized

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There! I managed to describe the entire issue. Well, almost. I left out something near the beginning, where Alain Hénon, former managing editor of *;login:*, provides advice about improving the image of computer science practitioners. While image isn't everything (I am a great fan of substance), we really cannot ignore the image we present to the world, as it has a tremendous (and sometimes inadvertent) effect upon those we come into contact with. Now, if I could just remember where I left my tie . . .