



Robert G. Ferrell is a fourth-generation Texan, literary techno-geek, and finalist for the 2011 Robert Benchley Society Humor Writing Award. rgferrell@gmail.com

At first I thought Ganeti clusters were some form of yummy confection, like peanut brittle, only gooier. Then it occurred to me that they might instead be an exotic stellar architecture discovered since I had my college astronomy courses in 1977. Or perhaps they were a neuroanatomical feature that wasn't covered during my abortive attempt at medical school in the late '80s, like the lateral geniculate nucleus, only gooier. I was discombobulated to discover that I was, as too often happens, mistaken. I didn't really mind, though, as I had been combobulated since the last cold front came through and I was running out of muscle rub.

Clustering as a task list item first buzzed around in my personal lateral geniculate nucleus back in 1997, when I was given the job of constructing a load balancing high-availability cluster for the USGS using four Sun Enterprise 450 servers running that fancy new Solaris 2.6. Back then clustering software was a bit less sophisticated than it is today. The flow control algorithm resembled the digital version of four old men sitting around in rocking chairs on a porch when the phone rings inside. Those of you under 30 may need to consult Wikipedia for some of this. Believe it or not, there was a time when phones were anchored to the wall and we got our news from large sheets of flimsy paper folded and rolled into a tube for delivery by boys on bicycles. We had to be alert and snag those tubes off the front lawn before the dinosaurs got to them.

Server #1 (Clem): The phone's ringin'.

Server #2 (Wally): Yep.

Server #3 (Rufus): 'Peers so.

Server #4 (Cooter): Uh huh.

Clem: Think we oughta answer it?

Rufus: I answered it last time.

Cooter: Probably not important, anyways.

Wally: My hip's not right. Somebody else get it.

Clem: Fine. I'll get it.

Wally: Here comes the paper boy. Anybody got five bucks?

Rufus: I thought the paper was four-fifty.

Wally: Gotta tip the little skeeter or he drops it out in the sticker patch.

Cooter: I think I got some cash left over from Bingo last night.

Wally: What happened to Rufus?

Cooter: Had to go to the john.

Wally: Dang. My wife's hollerin' for me. Gotta git.

Cooter: Hope the phone doesn't ring.

Apparently, somewhere in the middle of this imaginary exchange, I forgot exactly what point I was trying to make, but what the heck: you get the gist (or if you don't, send a self-addressed stamped tweet to @whatwasItalkingaboutagain and whoever owns that tag will tell you to shove off). Load balancing and high availability were largely left to chance in those far off days of six-shooters and Conestoga tape drives. I am pleased to report that not only has clustering software made quantum leaps since then, some of it is even open source. What's not to like? So cluster away, my fine fellows, and th' devil tak' th' hindmost!

Moving on to a topic about which I know a little bit more (prepositions at the end of sentences is something up with which I, along with Churchill, will not put), I recently developed a rather elementary training guide for people who are Windows literate but who have had little to no exposure to *nix. The guide covers a few specific areas integral to the job these folks are expected to perform, nothing more. You would think that might not be much a challenge, but brothers and sisters I'm here to testify that this seemingly simple task is deceptively difficult. I'd rather train a wombat to do my taxes.

My presentation starts out laudably enough: a few useful systems administration commands, such as `ls`, `su`, `sudo`, `cd`, `ifconfig`, `ps`, `chmod`, and so on; nothing too complex there. But the intellectual pudding begins to congeal quickly as I try to figure out some straightforward way to explain file permissions. Remember, these are dyed-in-the-wool Windows people, and all I have is an hour or so and PowerPoint to work with.

I try several approaches. The first results in something that reads like instructions for assembling a double helix using the little-known `r`, `w`, and `x` nucleotides. (What time does the nucleo-

tide come in today, please?) My second attempt is a reasonably decent representation illustrating the effects of the dread affliction *alphabetiasis dementiae*. Following these abject failures are a spastic Scrabble irruption, four or five paragraphs of what can only be described as toxic literary sludge, and finally, a frankly puzzling series of statements that when read aloud make a noise that calls to mind a mechanical dog barking whilst immersed in a bath of peanut butter, potato chips, and ball bearings. I decide to go with this one.

Because I am already firmly in the tempestuous throes of incoherency by this point, I go for broke and tackle (not to be confused with block and tackle, which is the process of using football players to carry heavy stuff for you) the thorny subject of auditing. Where file permissions were an abecedarian's febrile nightmare, the subject of audit flags and settings comes out sounding like the lyrics to a Tom Lehrer song, minus the rhyme scheme and comprehensibility. I suggest reading them to an accompanying soundtrack; Nine Inch Nails' "Head Like a Hole" might work well. Or not.

Access control is a little easier to understand, but my cumulative brain damage from formulating the preceding lessons results in a rather uninformative series of short, choppy statements that give the impression of having been lopped off the main narrative by some automatic trimming machine that goes "whoosh whoosh" with nasty long pointy blades slicing smoothly through the conjunctions and prepositions as though they were nothing more than insubstantial denizens of a labored metaphor embedded in a run-on sentence. And baby makes three.

Come to think of it, the entire project is a total washout. I think I'll just scrap it and write a cookbook, instead.

22nd USENIX SECURITY SYMPOSIUM

WASHINGTON, D.C. • AUGUST 14-16, 2013

The USENIX Security Symposium brings together researchers, practitioners, system administrators, system programmers, and others interested in the latest advances in the security of computer systems and networks.

USENIX Security '13 will feature: Keynote Address

"Dr. Felten Goes To Washington:

Lessons from 18 Months in Government"

Edward W. Felten, *Director, Center for Information Technology Policy, and Professor of Computer Science and Public Affairs, Princeton University; former Chief Technologist, U.S. Federal Trade Commission*

A 3-day Technical Program including:

- Paper presentations on large-scale systems security, attacks, mobile security, and applied crypto
- Invited talks by industry leaders
- Poster session
- Rump session
- Birds-of-a-Feather sessions (BoFs)

Register by July 22 and Save!
www.usenix.org/sec13

Co-Located Workshops Include:

EVT/WOTE '13: 2013 Electronic Voting Technology Workshop/Workshop on Trustworthy Elections
August 12-13, 2013

CSET '13: 6th Workshop on Cyber Security Experimentation and Test
August 12, 2013

HealthTech '13: 2013 USENIX Workshop on Health Information Technologies Safety, Security, Privacy, and Interoperability of Health Information Technologies
August 12, 2013

LEET '13: 6th USENIX Workshop on Large-Scale Exploits and Emergent Threats
August 12, 2013

FOCI '13: 3rd USENIX Workshop on Free and Open Communications on the Internet
August 13, 2013

HotSec '13: 2013 USENIX Summit on Hot Topics in Security
August 13, 2013

WOOT '13: 7th USENIX Workshop on Offensive Technologies
August 13, 2013



Stay Connected...

 twitter.com/usenixsecurity

 www.usenix.org/youtube

 www.usenix.org/gplus

 www.usenix.org/facebook

 www.usenix.org/linkedin

 www.usenix.org/blog