

/var/log/manager

Career Preventative Maintenance Inspections

ANDREW SEELY



Andy Seely is the chief engineer and division manager for an IT enterprise services contract, and an adjunct instructor in the Information and Technology

Department at the University of Tampa. His wife Heather is his PXE Boot and his sons Marek and Ivo are always challenging his thin-provisioning strategy. andy@yankeetown.com

Every good sysadmin knows his systems, understands her role, maintains competency and fluency in current and new technologies, and knows that without a real system administrator on the job the business will ultimately be less effective. Most sysadmins consider all the extra things that go into having a job with a large company to be unpleasant or painful, yet it is attention to the non-technical, the “little things,” that can clear the path for a good sysadmin to be a great contributor to a large team. Not tending to meta-tasks can create a culture of frustration and eventually lead to unemployment. While these scenarios are specific to my own experiences, every business has its own paper cuts.

The Hidden Cost of Not Doing Time Cards

One of my top sysadmins was in the middle of a major product release, working 12-hour days, hurling himself into the implementation of a whole new internal services project. There were maybe two or three people on the whole team who had the knowledge to do this work, spanning network, virtualization, and server specialties, but only one with the drive and experience to carry it through. Everyone knew that the result would be impeccable and the benefits to the business would be huge.

Ours is a contract company where we’re bound to record hours worked every day and to certify the time card every week. Failure to do so has the potential to trigger an external audit and could ultimately result in financial penalties and even loss of contracts [1]. There’s a lot on the line for the company, but the time card system is automated, and for the employee it’s just a two-minute job every day. Maybe three minutes on Friday.

I received an email from my vice president, forwarded to him from the VP of accounting. My top sysadmin had failed to submit his time card. Again. Red flags are popping all the way to the top, and he’s in trouble. Which means that I’m in trouble. I pull him off the product release and have the same conversation. Again. “You’ve got to do your time card.” He gets frustrated. He’s in the middle of an enormous and important task, he’s got his whole mind wrapped around it, and I’m stopping him to talk about his time card. “That’s just stupid,” he snaps at me. “I’m going to fire you, right now, if you don’t do your time card. Right now,” I snap back.

How did we end up in such a surreal, counterproductive, and negative situation? Through lack of common understanding of the whole picture. My sysadmin is focused on the technology and doing a fabulous job of it, but he’s never taken the time to understand his role in the company. It’s partly my fault because I’ve given so many free passes. I’m very susceptible to geniuses doing genius work, and I try to provide as much top cover as possible for the non-technical stuff. My sysadmin isn’t thinking about the danger to our contracts for non-compliance on time reporting. He’s also not realizing that the 11 minutes a week we ask of him to do time reporting turns into several hours of aggregate labor on the part of the payroll, finance, VP, and management teams as they have to prepare reports, excuses, and explanations. He says that he’s there for technology, not for the paperwork, but without the paperwork...he won’t be there at all. The message was received, and he hasn’t missed a time card since.

The Hidden Cost of Lapsed Certifications

My sysadmin responsible for testing new applications in the system integration shop does a great job. His work is excellent, he's well-liked, he's reliable, motivated, and he's got a bright future with the company. He's taking a technical lead role in the development of a new compliance and auditing capability in the enterprise, which the customer expects will result in increased security and flexibility for delivery of all services.

Our contract customer has a policy requiring specific industry certifications for any sysadmin who has elevated rights on the network. The CompTIA Security Plus certification satisfies the minimum requirement. My sysadmin had been certified, but when CompTIA revised their policies and required people certified with Security Plus to register for their continuing education credits program [2], my sysadmin did not register and his certification status lapsed. He felt that it was unfair that CompTIA changed the rules on him, and he had the same knowledge, skills, and abilities today as he did yesterday, so what did it matter?

We perform a regular internal audit of certification status to ensure compliance with customer requirements. Eventually my sysadmin's status was discovered and reported. You never want your name mentioned at the senior leader staff meeting, but at our next meeting there were two names mentioned: his for being noncompliant, and mine for allowing it. Two months of "please," and "it's important," and "just re-certify, it's not difficult" devolved to me having a "your job is on the line" conversation with him. Yes, you do great work. Yes, it's unfair that the rules changed. Yes, you have until next week or we can no longer employ you here because your non-compliance puts our whole contract, not to mention your job and mine, at risk. He took the exam, renewed his certification, and got back to work, but only after his actual job was on the line.

The Hidden Cost of Falling Behind the Technology Curve

My sysadmin was the only expert in a niche technology, a Verity Topic database. The organization was invested heavily in that technology for an enterprise-wide communications platform, and my sysadmin was a wizard; she understood the internals and could fix the most catastrophic database crash barely breaking a sweat. This degree of expertise combined with incredible personal dedication to the company made the sysadmin one of the most important and well-respected members of the team, and it had a secondary effect of allowing the company to save money by keeping the legacy technology in service long past its end of life.

But the technology did pass end of life, and eventually compatibility problems started creeping in. The Verity Topic still ran perfectly, but then a new system couldn't communicate with it and we needed to write some glueware. Then we ran into operating system incompatibilities as we kept the underlying platform updated. The industry moved on and left this niche database technology behind. And left the sysadmin behind, too.

Over the years, she had become comfortable being the one who knew the system, and she made a mistake in thinking that the system would never change. She didn't keep up with advances in other technologies, didn't maintain other relevant certifications, and didn't build any meaningful professional network outside of being well-known as the Verity Topic wizard. When all the technology around the database moved forward, both the database and the sysadmin were left stranded.

We modernized the system and she tried to adapt, but the need to learn something new combined with the pain of no longer being the go-to expert was too much and she left the company and retired from technology work. The company lost an excellent asset and ended up with a reputation with the rest of the team for not "taking care of employees," which had a subtle but real effect on morale and productivity across the organization for months afterwards.

Performing PMI on Careers

All companies and situations have meta-work that has to get done. Ensuring that work gets done and helping employees manage their careers and professional selves is something that a lot of people think is left to the individual employee. When the manager takes a degree of personal responsibility and does "Preventative Maintenance Inspections" on the team, the result can be a smooth and more efficient work force with managed attrition, guided career advancement, and minimum wasted time and effort. I'm the manager, and that's my job.

References

- [1] "Intelligence Agency Billing Fraud Proves Costly," retrieved August 20, 2014: <http://www.washingtontimes.com/news/2014/apr/23/intelligence-agency-billing-fraud-proves-costly/>.
- [2] "CompTIA Certifications Get an Expiration Date," retrieved August 20, 2014: <http://www.gocertify.com/articles/comptia-recertification.html>.



Buy the Box Set!

Whether you had to miss a conference or just didn't make it to all of the sessions, here's your chance to watch (and re-watch) the videos from your favorite USENIX events. Purchase the "Box Set," a USB drive containing the high-resolution videos from the technical sessions. This is perfect for folks on the go or those without consistent Internet access.

Box Sets are available for:

- » **OSDI '14:** 11th USENIX Symposium on Operating Systems Design and Implementation
- » **TRIOS '14:** 2014 Conference on Timely Results in Operating Systems
- » **USENIX Security '14:** 23rd USENIX Security Symposium
- » **3GSE '14:** 2014 USENIX Summit on Gaming, Games, and Gamification in Security Education
- » **FOCI '14:** 4th USENIX Workshop on Free and Open Communications on the Internet
- » **HealthTech '14:** 2014 USENIX Summit on Health Information Technologies
- » **WOOT '14:** 8th USENIX Workshop on Offensive Technologies
- » **URES '14:** 2014 USENIX Release Engineering Summit
- » **USENIX ATC '14:** 2014 USENIX Annual Technical Conference
- » **UCMS '14:** 2014 USENIX Configuration Management Summit
- » **HotStorage '14:** 6th USENIX Workshop on Hot Topics in Storage and File Systems
- » **HotCloud '14:** 6th USENIX Workshop on Hot Topics in Cloud Computing
- » **NSDI '14:** 11th USENIX Symposium on Networked Systems Design and Implementation
- » **FAST '14:** 12th USENIX Conference on File and Storage Technologies
- » **LISA '13:** 27th Large Installation System Administration Conference
- » **USENIX Security '13:** 22nd USENIX Security Symposium
- » **HealthTech '13:** 2013 USENIX Workshop on Health Information Technologies
- » **WOOT '13:** 7th USENIX Workshop on Offensive Technologies
- » **UCMS '13:** 2013 USENIX Configuration Management Summit
- » **HotStorage '13:** 5th USENIX Workshop on Hot Topics in Storage and File Systems
- » **HotCloud '13:** 5th USENIX Workshop on Hot Topics in Cloud Computing
- » **WiAC '13:** 2013 USENIX Women in Advanced Computing Summit
- » **NSDI '13:** 10th USENIX Symposium on Networked Systems Design and Implementation
- » **FAST '13:** 11th USENIX Conference on File and Storage Technologies
- » **LISA '12:** 26th Large Installation System Administration Conference

Learn more at: www.usenix.org/boxsets