

Please Document the Shop: On the importance of good systems documentation

We have all heard this: You need to document the computer infrastructure. You never know when you might be “hit by a bus”. We hear this and think many frightening things, reassure ourselves that it will never happen and then put the request on the back burner. In this article I will expand on the phrase “hit by a bus” and then look at the consequences.

Things do happen to prevent people from coming into work. The boss calls home. Talks to the wife and makes the sad discovery that Mike wont be coming in anymore. He passed away last night in bed. People get sudden illnesses that disable them. Car accidents happen.

More often than these tragedies occur, thank goodness, business conditions change without warning. In reorganizations whole departments disappear, computer rooms are consolidated and moved, companies are bought and whole workforces replaced. I have had the unhappy experience of living through some of this.

Some organizations have highly transient workforces because of the environment that they operate in. Companies located near universities benefit from an influx of eager young, upwardly mobile university graduates. These workers are eager to gain experience but soon find higher paying jobs in the “real world” further away from campus. These companies have real turnover problems. People are moving up so quickly, they don’t have time to write things down.

Even when you keep people in place and maintain a fairly stable environment, people discover that what they have documented in their heads can just fade away. This is getting to be more and more of an issue. Networks and servers and other such infrastructure functions have been around for 20 years in many organizations. Fred the maintainer retired five years ago. Fred the maintainer was transferred to sales. The longer systems are around, the more things can happen to Fred. Fred might be right where he was 20 years ago. He just can’t remember what he did.

What does all this mean? What are the consequences of losing organizational knowledge in a computer organization? To be blunt, it creates a hideous environment for your computer people. The system is a black box to them. They are paralyzed. They are rightfully afraid. Every small move they make can bring down the system in ways they cannot predict. Newcomers take much longer to train. Old-timers learn to survive by looking busy while doing nothing. The politics of the shop and the whole company is made bloody by the various interpretations of the folklore of the black box. He/she who waves their arms hardest rules the day. This is no way for your people to live.

This is no way for the computer infrastructure to live as well. While the games are played the infrastructure evolves more slowly and slowly. Before long the infrastructure is frozen. Nobody dares to touch it. The only way to fix it is to completely replace it at considerable expense. In elaborate infrastructures this is easier said than done. The productive lifetime of the platform is shortened. It was not allowed to grow and evolve to lengthen its lifetime. Think of the Hubble Telescope without all the repairs and enhancements over the years. It would have burned out in re-entry long ago.

Having made my case, I ask again; for your own good, please document the shop. Make these documents public and make them accurate. Record what actually is rather than what you wish it to be. It is better to be a little embarrassed for a short while than to be mislead later on. Update the documentation when changes occur. An out of date document can be as bad as no document at all. Make an effort to record facts. At the same time don't leave out general philosophies that guided the design and other qualitative information because it helps your successors interpret the facts when ambiguities occur.

Think of what you leave behind. Persuade your boss to make this a priority as well. Hopefully the people at your next workplace will do the same.

Posted by Laird Hariu in Eternally Regenerative Software Administration, Security, Systems Management, 0 comments