Community Notebook Doghouse: Linux Inside

No Respect

The Jeopardy game is over, and Watson, the supercomputer built and programmed by IBM, won hands down. But, maddog tackles an item in the "Open Source Operating Systems" category. By Jon "maddog" Hall

he Jeopardy contest between IBM's supercomputer, Watson, and two human Jeopardy champions fueled all sorts of speculation in the press as to whether computers would ever become as "smart" as humans or have "artificial intelligence." Questions such as "Can it write literature?" were asked. Of course, that question was answered many years ago by the suggestion of putting an infinite number of monkeys in front of an infinite number of typewriters and waiting an infinitely long time while they wrote *Hamlet*. The answer is yes, but how long do you wait?

I don't think Watson's creators were aiming as much for these capabilities as they were trying to get the computer to "hear" a human's voice, find a match for the particular set of data, and then do text-to-speech to pronounce the answer. Many other steps were taken along the way, such as scanning the information and making the links between all of the data input to generate information. Did Watson have elements of expert systems? Without a doubt, along with elements of artificial intelligence, and I certainly do not want to diminish their efforts nor the result.

What I was looking for, however, as I read through the reams of things written about Watson was the one question a Free Software person would ask: What operating system was used? Were pieces of Free Software used? I could not find any mention of the operating system in most of the mainstream media, but finally a clue sent me to the Novell website. There, I found the answer: Watson ran SUSE Enterprise Linux Server (SLES) Version 11.

This answer did not surprise me. As of November 2010, of the top 500 supercomputers in the world, all but five ran some Unix derivative, and all but 25 of the 500 ran "straight" GNU/Linux or some very strongly derived version of GNU/Linux. What really interested me was how this particular part of the system was never mentioned in the press or even at IBM's website.

If this had been the first time GNU/Linux had not received recognition, I might let it go. But, even back when GNU/Linux was used for rendering the movie *Titanic* (unless the article was in a Linux magazine or mentioned by the GNU/Linux community), the use of GNU/Linux or Free Software in the creation of the system was seldom mentioned. The articles contained huge amounts of information about the hardware but nothing about our favorite operating system.

I was quite interested in the fact that Linux was used to render the movie *Titanic*, because it was the first real use of Alpha Linux – particularly in a configuration of 160 Alphas. It was a sort of "Beowulf" supercomputer. Digital Domain, the company that did the rendering, gave credit to GNU/Linux and the Free Software community. Daryll Strauss, a software engineer for Digital Domain, wrote articles and gave talks about the work. As a marketing person for Digital Equipment Corporation, I tried to use the notoriety of the movie to help push the Alpha systems and GNU/Linux, but I was told by the corporate marketing group that "customers do not care about the operating system."

Later, while I was attending CeBIT in Germany, *Ti-tanic* won a number of Academy Awards (including Best Picture, Best Visual Effects, and Best Cinematography). Digital Equipment Corporation had a large display at CeBIT, talking about Alpha and all its glories but nothing at all about GNU/Linux. Again, I heard, "No one cares about the operating system."

Titanic was released in 1997 and GNU/Linux was in its infancy at that time, but since then GNU/Linux has spread across most of the top supercomputers in the world. Software based on open source or the Linux kernel (whether it be on the iPhone, an Android phone, or webOS) is on the bulk of smartphones shipping today. The same software is the most used operating system on embedded system design starts, is used on a huge number of servers in the world, and is outselling Apple on desktop products.

Inside the computer industry, GNU/Linux has garnered a reputation for stability, scalability, and freedom, but outside the industry, it is still fairly invisible, given how much it affects people's lives. You would think that hardware manufacturers would make it a bit more visible – perhaps with a "Linux Inside" sticker. But, I am beginning to get the feeling that GNU/Linux, like the late Rodney Dangerfield, will never get any respect.

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