Re: dilemmas galore

Source: http://unix.derkeiler.com/Newsgroups/comp.unix.solaris/2008−02/msg00970.html

- *From*: "Richard B. Gilbert" <rgilbert88@xxxxxxxxxxx>
- *Date*: Sun, 24 Feb 2008 23:03:53 −0500

Michael Vilain wrote:

> In article <47C1A6C7.3020907@xxxxxxxxxxx>,
> "Richard B. Gilbert" <rgilbert88@xxxxxxxxxxx> wrote:
>
> > Michael Vilain wrote:
> >
> > > In article
> > > <656574ce−2733−491f−b8d6−2210e3b45150@xxxxxxxxxxxxxxxxxxxxxxxxxxxx>,
> > > Vaib <vaibhavpanghal@xxxxxxxxx> wrote:
> > >
> > > > hi all.
> > > > i'm a beginner at UNIX/LINUX.presently i
> > > > have opensuse 10.3 installed
> > > > on my computer.i am basically a c/cpp/java
> > > > programmer and soon would
> > > > be joining the IT industry.i am very
> > > > enthusiastic about the shell and
> > > > would like to study unix\linux through the
> > > > command line.along with
> > > > that i would also like to study operating
> > > > systems in depth with hands−
> > > > on and practical approach on linux\unix
> > > > OSs.for this reason i have
> > > > picked up an operating systems book by gary
> > > > nutt which teaches through
> > > > examples of unix\windows and for reference
> > > > i have 'the unix
> > > > programming environment' by Brian
> > > > Kernighan but i'm not finding the my
> > > > OS book to be providing me with solid
> > > > concrete concepts (although it
> > > > has good examples and very good lab

exercises).
Henceforth i'm an a little dilemma and as always i've turned to
usenet.it would be very appreciative of people(and nerds) out there to
help me out with the following questions :

1)how much is unix different from linux? i know linux is a simulation
of unix and i can see its source code but is it advisable to learn

from a unix book and practise on linux ? i want to learn both .

2)kindly suggest 2−3 simple,good(not at all boring),usefull and
standard books or/and sites for unix and linux.
3)kindly suggest 2−3 simple,good and conceptual books or/and sites for
operating systems that teach the subject through unix\linux approach.
thanking in anticipation. vaib.

Not to start any sort of flamewar, but UNIX came first. If you read the Wikipedia article on Linux, I'm sure that will fill in the gaps. But that's like studying the history of science (it was a great, easy history elective) rather than actually _doing science in a lab_.

I came from a mini−computer environment (VMS) in the mid 90's to Solaris. Different vendors do things differently, but most UNIX systems are pretty much the same. The basic sysadmin tasks don't change, just how they're done.

If you don't have any background in running large collections of machines (mostly, that's the job in IT), you should start there. THE PRACTICE OF SYSTEM AND NETWORK ADMINISTRATION by Limoncelli and Hogan is a good, non−specific discussion of the issues. Task specific books depend on the vendor. I like O'Reilly's books (YMMV):

http://www.oreilly.com/catalog/esa3/index.html

> Unfortunately, the 2nd edition of Nemeth's UNIX SYSTEM ADMINISTRATION HANDBOOK isn't out until April, but the Linux version is available:
>
> http://www.amazon.com/Unix−System−Administration−Handbook−Nemeth/dp/0131480057
> http://www.amazon.com/Linux−Administration−Handbook−2nd−Nemeth/dp/0131480049
>
> As to practicing on Linux and trying to get a job in a vendor−specific shop, that will be a _lot_ harder. I'd think most shops look for an candidate with training on the equipment they have. Some really cheap−ass shops using Linux and advertising on Craigslist might talk to you, but not a big shop running a mix of Solaris, HP/UX, or IBM's virtualized Linux on mainframes.
>
> You can start by installing Solaris on a system (cheap SPARCs can be had on eBay), familiarizing yourself with the hardware, configuring the disks, installing software (vendor, freeware, and GNU).
>
> Good luck.

You can also install Solaris on a cheap PC!

"Operating Systems: Design and Implementation" by Andrew S. Tannenbaum is a good text on the subject of operating systems in general.

I'd disagree on the subject of knowing the specific hardware! What most IT people need to know about hardware is easily learned "on the job" as long as you will not be designing or repairing hardware. You will be exected to do basic troubleshooting such as determining whether a problem is due to hardware or software. You will need to be able to identify the power switch and possibly you may need to know how to open the case and install or remove PCI cards or memory. Most larger shops pay for a service contract which means that somebody from Sun or another vendor comes on site to troubleshoot and repair the hardware. Tasks like installing a modem or a printer are things you would be expected to be able to do.

You will also need to know enough about networks and networking hardware to be able to connect a machine to the network and to troubleshoot simple network problems. Most shops have a network specialist to do the difficult stuff.

Has the job market changed? It's been a while since I was out there, but back in 2000 or so,

> the people I was talking to wanted to know if I had specific experience on the stuff they had in house. I didn't mention my prior experience with stuff they didn't have except on my resume. Most of the time, they didn't ask. Then again, I wasn't interviewing for an entry level position, just a journeyman meat−and−potatoes sysadmin.

<snip>

I'm sure the job market has changed and is still changing!

At my last job I had, when I started, a VAX 8250, two VAX 6000 series boxes,an Alphaserver 2000 and an Alphaserver 2100 and a pair of Alphaserver 4100s all of which I had seen before, elsewhere. Subsequently we purchased ES40s to replace the 4100s which then became test/developement/training systems. RA and RZ series disks, all of which I was familiar with. HSZ50 controllers which I was not familiar with but they were similar to HSZ40s which I was familiar with. HSC controllers that I was familiar with.

Before that, at McGraw−Hill in Hightstown, I had VAX 7000s which were new to me, MicroVAX 4000s again new to me, Alpha Server 4100 new to me, MicroVAX 3100 (semi familiar as they were similar to VAXStation 3100)
VAX 6000 series with which I was familiar. The hardware made very little difference to my job as a System Manager. They all ran VMS, some ran RDB. I was expected to shut them down or start them up on request. I had a checklist for each one which I followed when shutting down or starting up. The applications had to be shut down cleanly if possible and in the proper order. Same on startup. Boot and then make sure that everything started up properly.

I had RA series disks (familiar) HSC70/90 new to me but similar to HSC50 which I had used before. RZ series disks (familar) HSZ40 controllers (new to me) etc, etc. I learned as I went.

I was seldom required, or allowed, to do much more than shut things down or start them up again. Our DEC service contract was worth something like $700,000/year. It included the Hightstown data center and about 100 field offices!

Over the years I developed a DCL procedure called GET_CONFIG.COM which would report the hardware and software configuration of a system or cluster. DEC Field Service later on showed up with something similar but written in Macro. Mine would report the model, the number of CPUs, the amount of memory installed, listed all the disk drives showing the model and amount of free space on each. If the disk was a pseudo device it detected and reported that and listed the devicenames of the shadow members. It listed the tape drives. It reported the software licenses available, eetc, etc.

The original was something I developed when a client I was providing telephone support for could not tell me what his hardware configuration was. I wrote the first version, tested it on one of my machines, sent it to the client with instructions to run it and send me the output.

Bottom line is that SOME hardware knowledge is required but generally not to the level required to troubleshoot and repair. You do have to know enough to be reasonably certain that a problem is due to hardware rather than software, or vice versa. And you generally do need to know exactly what you have and what it's being used for.

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