

UNIX and don't call me Teckie!

This page has been designed for PDA/Pocket Readers, and is thus limited in its layout.

It's amazing to think that UNIX has survived over the years, even after it was tipped to takeover the operating system market from DOS in the mid-1980s. So what happened? Why has it survived? Why don't more people use it? Well it's survived because it's totally robust and reliable. It's well trusted and relatively secure. It has always supported networking. And... So, what's the problem? Well its big problem has always been that it requires a skilled computer administrator to set it up and keep it running. There is no way that most home users, or small businesses could support this level of support. Another problem is that it is very difficult to recruit, and keep, good UNIX administrators. I have seen this first hand, as I used to be responsible for an Electronic Computer Aided Design (ECAD) network. It ran extremely well and was based on Apollo and HP workstations. Unfortunately we started to lose our system administrators as they were offered much higher salaries than my university could not afford. Soon we were left with no properly trained UNIX administrators. For a while the system ran reasonably well and was patched when something went wrong, but it was not properly maintained, and there were no backups. Soon the on-line CD manuals became unavailable, next printer queue kept failing, next some of the computers failed to log users in, and so on, until eventually there was a lightning strike which sent an electrical spike through the computers. Unfortunately it blew up one of the disk drives. The network never really recovered from this, as the damaged drive was the one that contained most of the ECAD software, which was so complicated to setup it was almost impossible to recover its original state. From that day forward my department vowed to move its ECAD software towards PCs, as they were so much easier to setup and administrate. The students could even install software on their computers at home (which in those days were lumbering 80386-computer's, with 1MB of memory, and a VGA monitor).

So ask anyone who has used UNIX and they will tell you that it tends to be much more reliable than a PC system using Microsoft Windows. So why is this? Well it's probably because UNIX machines tend not to be based on legacy type systems, and use peripherals which have robust interfaces, and cost is normally not a major factor.

DON'T CALL ME TECHIE!

So why do more users not adopt UNIX? Well, until recently, it was still very much text command based, where users must enter text commands at a user prompt (just as DOS did). Most technically trained users actually prefer this type of mechanism to run commands, but home users can never remember the required command, or the options to use with it. Thus UNIX has always been seen as a 'techie' operating system, as it allows users to carefully control and monitor the operation of the system. By the way, the word 'techie' is my least

favorite word, and I think it is totally disrespectful to people who have a deep understanding of technology. I've seen messages such as:

'The e-mail system is very easy to use and you can press the mouse key to read your messages if you want. For you techies, it is based on a POP-3 server.'

'We have changed the cables in the campus (for the techies, they use Cat-5 cable).'

It's as if people with a technical knowledge are some alien force who would take over the planet if they had half a chance. Maybe we should, just for the fun of it. Where would the Company Directors be if the 'techies' brought down their entire IT infrastructure, or where would Stock Market Dealers be if the 'techies' crashed the stock market computer (or even failed to back up the data at regular intervals), or where would the Government be if they did not have computer systems which kept track of taxes, and made payments. So, need it go on? I don't think so. With the Internet, electronic mail, data communications, and so on, it is really the 'techies' who have the power. So the next time you see an e-mail with the word 'techie' in it, immediately put it in your recycle bin, and then trample on it a few times. In fact, just setup your electronic mail system to automatically delete any messages with the word in it. Please don't call us 'techies'.

Okay, I'm sorry. Back to UNIX. So, in the face of the all-powerful Microsoft Windows, what has saved UNIX from an early grave? Well apart from Sun Microsystems, it must be Linux, which guides the user through the steps of setting up the operating system. With a basic PC, you can end up with a WWW server, an FTP server, a TELNET server, an electronic mail server, a domain name server, and so on. But, its big problem is that it doesn't have the same support for peripheral devices as Microsoft Windows has. I've had to field lots of questions from students who could not setup their networking card or their video adaptor to properly install (me too!). My advice was always: 'use an older version of the device, as it's more likely to be supported'. But some people love all these problems. Microsoft Windows is really like buying a video with a big button that says PLAY, TUNE STATIONS, FORWARD, REWIND and another that says RECORD. For most people this is all the functionality they require. Others would like to be able to change the way that the video recorder operates, such as having the following buttons: PAUSE, FAST PLAY, MANUAL STATION TUNING, MONITOR SIGNAL STRENGTH, and so on.

So where would we be without UNIX? Well I don't think that the Internet would have even existed without it. UNIX carefully allowed TCP and IP to grow, adding all the other services that they required. And where did WWW browsers come from? And distributed processing and distributed file systems? Oh, and electronic mail? And TELNET? And FTP? Well, Microsoft Windows depends on the support of the dollars that it generates which go to fund software developers and vendors to add support for new device drivers. Linux, though, depends on

individuals who, for the love of computing and the belief that there should be an alternative to Microsoft Windows, decide that they would like to develop a driver for a certain device. This type of system will always lag behind a commercial system, as a developer who sits in a research laboratory on a big salary and has eight hours every day to spend on it will, on average, produce better software than a developer who sets up a lab in a little room in their own home, who has coffee stains on the keyboard and modem cable that is slung around the doorway (or is it?).

Additional

My Top virtual monopolies:

Microsoft Windows. Whether it's Windows 98 or Me or NT or 2000, Microsoft have a virtual monopoly on operating systems, both at home and at work. LONG LIVE UNIX!

Cisco-equipment. Cisco have a virtual monopoly on the equipment which makes up the infrastructure of the Internet.

Microsoft Office. Office has eventually taken on every one of its main competitors, and after a short struggle, beaten them (Word v. AmiPro/ Word-Perfect/ Manuscript; Excel v. 123; etc).

Macromedia Director/Flash. Macromedia has almost single-handily broken the virtual monopoly that Microsoft have over application software with two of the most innovative products ever developed. Macromedia products are expensive to buy, but they are so good that its worth it.

Microsoft Outlook. E-mail is now one of the most used packages. Unfortunately the standards relating to e-mail have taken a long time to develop, thus e-mail have typically been incompatible. With Outlook you are guaranteed a certain level of compatibility, as it supports all the major standard for protocol transmission (POP, SMTP, IMAP, and so on), and all the different content formats (HTML, RTF, and so on).

XML. Well it doesn't have a monopoly at the minute, but it's coming soon. The days of vendor provided file formats will hopefully be at an end with the new King of the Formats: XML. All hail XML!

--- W.Buchanan