

## **Secure computing for most ordinary users.**

I've recently tried Googling for recommendations of inherently secure operating systems and found that certainly the top results aren't too informative. They tend to be a bit wishy washy and intent on preserving the status quo. So based on my experience and observations both at work and at home, here's my considered recommendations for anyone wanting a secure system.

At work, I'd say that the most secure systems are those that were designed from inception as multi user systems. Mainframes, by this definition, would therefore offer the best security followed by UNIX & UNIX type servers. I don't think anyone can seriously argue against the fact that Windows machines are the least secure by design. The simple fact that administrators need to use third party products (Anti virus & firewall software.) to protect these machines speaks volumes.

Obviously, a Small Office/Home Office or purely home use environment isn't suitable for a mainframe or anything other than perhaps a small server. Most likely, the hardware in question would be a pretty standard PC. Getting to the point of this piece then, my recommendations are:

- 1.** OpenSolaris – The closest you can get to an enterprise ready system on PC hardware!
- 2.** One of the BSD descendants. – UNIX derivatives that have a superb reputation for security. Also the basis for OS X.
- 3.** Linux – In third place purely due to the wide variety of people who contribute and the volume of code contributions compared to my top two. To me, this would increase the chance of an inadvertent vulnerability creeping in, although any such problem should also be soon spotted and rectified. As an example, Debian suffered an SSH vulnerability that came to light in 2008.

Wikipedia has an entry on [security focused systems](#). A Linux distribution hardened with SELinux would probably beat any of my choices above, but my recommendations are for easily obtainable and reasonably easy to use systems where security is a priority, but not an absolute necessity. My systems would be more than fine for fairly normal use but you'd probably want to go further to really secure vital data...

Personally, I use the system I've placed at number 3. The reason for this is that I feel it offers the best compromise between outright security and stability and wide availability of up to date applications. OpenSolaris and the BSD systems may offer superior security and stability but at a cost of a more limited choice of up to the minute apps. That's not to say they're not perfectly usable for most home and small office applications but for someone who likes lots of up to the minute apps, they might be a bit limiting.

To my mind although a lot is said about computer security, if people were truly serious about it then the above mentioned systems would be used a lot more. If people are really honest with themselves, they willingly accept a lot of security vulnerabilities for the sake of sticking with the system they know even though there are costs (Both monetary and in time/effort.) incurred in attempting to protect their systems from attack. Even then I don't believe the resulting protection is anywhere near that offered by the properly designed systems I've commented on here. The costs involved in implementing any of the above systems is initially £0. Obviously there will be time and effort costs involved while users learn the system and tailor it to their needs but while this is happening, security is already in place and will remain so as long as the person responsible for administration keeps everything up to date.