

Finding the Never-Crash Operating System

'n nearly 30 years of working with computers, I've dealt with a variety of operating systems, mostly on what used to be called *minicomputers* and today's desktop computers, but I've also had a brief passing acquaintance or two with mainframe operating systems. These include every version of Microsoft DOS, Digital Research DOS, and other DOS variants, every version of Windows, Unix, IBM OS/360, one pre-OS X version of Apple's operating systems and every version of OS X, Free BSD, IBM OS/2, DEC RSTS/E, and several Linux distributions. They all have one feature in common: They crash.

That's why I consider operating system evangelists who proclaim that the operating system they prefer will run for years without a problem while all other operating systems will crash at the drop of a red hat to be little more than chauvinistic chatterboxes. An operating system consists of line after line of code written by people to run on hardware developed by people. In an imperfect world, it is unreasonable to assume that any such system will run indefinitely without a problem.

I've been looking at Ubuntu Linux after being away from single-user desktop implementations of the operating system for a few years and I have been impressed by how much easier Linux is to install than it was just a few years ago. With modest hardware, a free operating system, and a bunch of open-source applications, it's possible to put together a home computer for about \$400. It won't run Windows and it won't come with Windows applications, but it will have a word processor, a spreadsheet program, graphics



applications, a presentation program, a Web browser, and an e-mail program.

But a book I've been reading about Ubuntu says that unlike Windows, Linux will never crash. Never? When I encounter statements such as that written by a supposed expert, I question the expert's credentials. It is true that Linux crashes infrequently. But these days, so does Windows. My XP system at the office usually runs for months between reboots and I don't recall ever seeing a system crash there. At home, on a Vista machine, I have seen a lot of crashes but those were all directly attributable to failing hardware. Once the hardware was made reliable, Vista became reliable.

Pull the plug

Thave observed machines with Apple's highly regarded OS X and machines running "never-crash" Linux become so befuddled that the only way to resolve the problem was to pull the plug. Maybe that doesn't qualify as a crash in this author's mind because there was no "mysterious error message", just a lack of response. To my mind, anytime a computer fails to respond to any external signal, that computer has crashed.

If you're looking for an operating system that won't ever crash, you'll have to wait. Today's three safest operating systems, at least in regard to crashing, are Linux, Unix (including Apple's OS X), and Windows XP. I specified only XP because it's been around longer and Microsoft engineers have been able to find most of the problems. Vista seems overall to be reliable, but it's still too new to be listed as "safe".

No matter what application you're running, it or the operating system will sometimes crash (so save your work often) and hardware can fail (so keep a current backup).

Speaking of applications ...

ith minor exceptions, any task that can be performed under one of the 3 primary operating systems can also be performed under the other 2. If you're a video producer or a graphic artist, you probably use a Mac. Most Internet hosting is performed on Linux machines. Windows systems are still the choice in most offices. But if you examine the offerings for office applications, website editing applications, browsers, antivirus programs, photo editing, and such, what begins to emerge is a picture with more points in common than differences across the platforms.

This is not intended to be a complete and exhaustive list of all types of applications or of applications within the various types. It is primarily intended to show that nearly any task you need to complete can be accomplished on any of the 3 major computing platforms.

Office suites

Microsoft's office suite is available for Windows and Mac computers, but not for Linux. Open Office is available for all 3 platforms. While OO covers the basic features, you may find that you need specific features of Microsoft's applications. The Mac version of Microsoft Office has no database application. Open Office places a GUI front end on MySQL. This is a new feature and is still somewhat buggy. If you choose Linux and you need a database application, learn MySQL, Perl, and a language such as Python.

Web browsers

Firefox, Opera, and Netscape are available for all 3 platforms. Internet Explorer's Mac version is an antique and is not being updated. Windows machines and Macs each have alternate browsers. Linux users have sufficient choices. Apple's browser, Safari, has recently been released for Windows, but is still too buggy to be considered.

E-mail applications

The Bat is the only e-mail program that really meets my needs and it runs only under Windows. Users of all 3 platforms have many choices, but Thunderbird is one of the few applications available on all 3. Eudora runs on Windows and Mac systems. Evolution (which is like Outlook) runs under Linux. Outlook is for Windows users and Microsoft Entourage runs under OS X on the Mac. Apple also has its own proprietary mail program.

Audio playback

If you own an Ipod, you'll probably use Itunes to keep it up to date and that application is available only on Macs and Windows computers. As your Itunes library grows, Itunes will become increasingly unstable. Your music files will still be present, but Itunes will be unable to find them. This is a problem that affects both Windows and Mac systems. Windows users can simply install Winamp in

place of Itunes, but Mac users have no other choice. Linux users can choose from among several open-source audio applications.

Publishing applications

Scribus is an open-source application that is available for all 3 platforms, but most professional publishing is performed today with InDesign or FrameMaker. The professional programs are available only for Windows machines and Macs. Ventura Publisher continues to be available for Windows systems, but is no longer being maintained.

Photo editing

The king of this particular mountain is Photoshop from Adobe, available for Windows and Macs. Other applications exist on both platforms. Linux users will depend on GIMP. Although functional, GIMP has an obscure, convoluted, and hard-to-use interface. If you need to edit photos, Linux isn't ready for you.

Antivirus applications

The types of threats and severity of threats vary from one platform to another. After several years of false security, Mac users are finding that Apple's operating system can be the target of viruses and malware. Sufficient protective applications exist for all 3 platforms.

Selecting an operating system

onventional wisdom has always suggested that you should determine what you want to use a computer for, identify the applications that will do the job, and then match the operating system and the hardware to the software. This short list shows that approach is no longer as important as it once was.

If money is no object, buy the fastest Intel-based Apple you can find, load it up with lots of memory and disk space, and install Vista and Linux along with Leopard. If money is a large object, a sub-\$500 computer (including monitor, keyboard and mouse) with one of the Linux distributions will be more than adequate.

I wrote and edited this report on a notebook computer running Open Office Writer on Ubuntu Linux, then did additional preparation on a Windows XP system. Some of the component originated on a Mac running OS X 10.4. The final document was assembled in InDesign CS3 on a Windows Vista system.

For the first time in a long time computer users have several valid alternatives. ${\bf B}$

on the market by A.J. Stinnett

"A team is people who know, respect, trust, and depend on each other; who share information, hardship, and success; who make sacrifices for each other; and who believe they are the best at what they do."