

# Apples and Oranges

By Jon "maddog" Hall

**S**ince the death of Steve Jobs, a lot has been written about him. I never met the man in person, but I admired the work Apple did in creating well-designed products.

When you have complete control over both the hardware and the software, it is a lot easier to develop a product. You limit the number of hardware controllers you support and the number of features you supply. Digital's Unix systems, on Digital's own proprietary hardware, were known to run for years without rebooting. Digital controlled the software and the hardware.

In cases like Microsoft and Linux, operating systems support many times the types of processors, peripherals, and controllers that Apple supports. In the case of Linux, many of the device drivers are not written by the people who create the hardware, which might disallow a lot of the error detection and recovery planned by the makers of the hardware.

In the early days of Apple, many reasons were given for why the ill-fated Lisa failed but the Macintosh took off, including price, speed, and other considerations, but what I remember most about the Macintosh was the requirement that all applications have the "Mac look and feel."

I remember vendors grumbling about how they had to rewrite their applications to get the Apple "seal of approval" and about how long it took for any applications to show up on the platform, other than those supplied by Apple. Finally, an application with the Apple seal appeared, but it wasn't until the second application showed up that people began to understand the importance of "look and feel." The second app looked and worked exactly like the first one. The scrollbars and buttons on the screen all worked the same, and the one-button mouse worked smoothly. People liked this, and the Apple path to glory took on life.

Apple continued down the path of creating really great products – both hardware and software – and making money. The problem was that, typically, only Apple made money. Sure, you could be a reseller or a var and make money by selling Apple products, but if your disk drive was not selected by Apple, or you had a different processor than the one Apple used, you could not make any money from Apple.

Another company took a different path by putting their operating system on almost any vendor's hardware, as long as that vendor was willing to use x86 instruction sets. This allowed motherboard manufacturers, disk drive manufacturers, case manufacturers, peripheral manufacturers, and many other people to make money off their operating system. This company, of course, was Microsoft, and the Windows logo started appearing everywhere. People complained that the Microsoft environment was not as "easy to

use" as Apple's or as stable, but the competition between hardware vendors, vars, and suppliers drove down prices, while Apple continued to sell high-profit components. As such, Microsoft developed a market that commandeered 90 percent of the desktops as "good enough," while Apple's market was 9 percent.

After Steve left Apple in 1985, the company started to dally with "clone-makers," but when he came back, he clamped down on that practice and returned the company to its original course.

Along came the iPod and its "i" successors. Steve, always a fashionable guy, had decided that computers and telephones were now consumer products, and he attacked the consumer marketplace with the same eye to fashion and design that he used with the Mac and Next. Apple's stock began to rise, and the company grew. The iPhone and the iPad became the next big push for Apple.

However, another "I go anywhere" operating system raised its hand, and Android, based on the Linux kernel, started showing up on competing hardware. Although Apple arguably had "first in game" advantage, hardware vendors saw that they could put Android on their phones and tablets and create an experience almost as good (and some say better experience) as Apple had with its iPhone and iPad.

Recently, sales of Android-based phones surpassed those of iPhones, and the number of non-iPad tablets is growing. Perhaps we are seeing the entire "Microsoft vs. Apple" battle all over again, but with Google taking the place of Microsoft and Android taking the place of Windows.

Apple might end up owning a very profitable 9 percent of the market, with Android/Google representing 90 percent of the mobile market and lots of other people making money from that larger market.

But, how does Linux benefit from all this? With additional device drivers for its desktop, notebook, and server market, and greater hardware diversity for us to exploit. ■■■

