

# Random Thoughts

from William Blinn Communications

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## The Trouble with Really Smart People

**T**he trouble with smart people is that sometimes they're so far ahead of the curve that anyone of average intelligence will consider them to be quite insane. Ray Ozzie might be in that predicament now. Ozzie, Microsoft's retiring chief software architect, says PCs are dead, the office suite is dead, and (by extrapolation) unless something changes Microsoft is dead. Wow.

Ozzie, who is by any definition a very smart guy, has been with Microsoft for 5 years. Immediately after joining Microsoft, Ozzie wrote a blog post called *The Internet Services Disruption* and that roiled the waters a bit. Now he's written *Dawn of a New Day*:

*"Our products are now more relevant than ever. Bing has blossomed and its advertising, social, metadata & real-time analytics capabilities are growing to power every one of our myriad services offerings. Over the years the Windows client expanded its relevance even with the rise of low-cost netbooks. Office expanded its relevance even with a shift toward open data formats & web-based productivity. Our server assets have had greater relevance even with a marked shift toward virtualization & cloud computing."*

That seems like a rosy picture, but Ozzie continues by pointing out the rapid shift to online services:

*"Continuous services are websites and cloud-based agents that we can rely on for more and more of what we do. On the back end, they possess attributes enabled by our newfound world of cloud computing: They're always-available and are capable of unbounded scale. They're constantly assimilating & analyzing data from both our real and online worlds. They're constantly being refined & improved based on what works, and what doesn't. By bringing us all together in new ways, they constantly reshape the social fabric underlying our society, organizations and lives. From news & entertainment, to transportation, to commerce, to customer service, we and our businesses and governments are being transformed by this new world of services that we rely on to operate flawlessly, 7x24, behind the scenes."*

Before heading west to Microsoft, Ozzie was with Lotus Development Corporation. He was the lead developer of the company's flagship Notes software. Later, he launched

Groove Networks an Internet-based suite of collaboration tools that Microsoft acquired in 2005 and promptly mismanaged by failing to support it on 64-bit platforms.

In essence, Ozzie says desktop computing is dead and the cloud is the future: *"We're moving toward a world of 1) cloud-based continuous services that connect us all and do our bidding, and 2) appliance-like connected devices enabling us to interact with those cloud-based services."*

### Forecast: Partly Cloudy

**W**e have short memories, so much of what we do tends to be cyclical. School boards start classes at 9 instead of 8 because students do better when classes start later. A decade after that, the same school board votes to start classes at 7:30 instead of 9 because students do better when classes start earlier.

The same approach is evident in other parts of our lives and this "in the cloud" stuff is ironic:

- In the 1970s, I carried a card deck to the computer and handed it over to an operator for processing.
- In the early 1980s, I had a VT100 terminal on my desk. The word processor (and everything else) resided on a DEC PDP 11/70 in a remote room.
- In the mid 1980s, we received personal computers and I was able to do some work on the PC, but the important stuff was still in the computer room.
- The disks on our standalone computers grew larger, the processors ran faster, and the operating systems became more capable. Today I have on my desk at home several million dollars worth of computing power (at 1980s prices).
- So after 25 years of being told (and agreeing) that distributed computing was faster and easier to use, along comes "cloud computing".

In-the-cloud computing will allow me to store files remotely and hope that they're available when needed, use programs with severely limited feature sets, and "enjoy" the leisurely pace that these cloud-based application run at.

Maybe speed is overrated. I don't doubt that Ozzie is right about many of the advantages of cloud-based computing, but until the infrastructure is available to support fast and reliable communications between where you are and where the cloud is, it's a non-starter.

And Maybe that's what Ray Ozzie is telling us! **β**

# Be the Master of Your Own Domain

Occasionally I receive a message from someone who claims to be in business but the sender's address is something at Yahoo or Hotmail. Perception is important. If you're in business, a domain name is part of what people use to form their impression of you.

If you're shopping for a car, you'll probably have a much different opinion of the dealership if, instead of "joe.dealer@bigdealership.com" the message comes from "bigdealer@gmail.com" (or "bigdealer@aol.com", which is even worse because of AOL's sketchy reputation as an Internet service provider.)

My Internet service provider includes an e-mail address, but I never use it. I have 3 G-mail accounts that I use for archiving messages and to provide access to current and archived messages if I need to use a public computer, but I would never consider any of these to be my primary account and I rarely send mail from any of them.

When I write to a reader, a hardware company, or a software company in my role as the TechByter guy, I use a techbyter.com address. When I write as an editor or designer, I use a blinn.com address.

"Being your own domain" has several advantages and creating the appropriate perception is just one of them.

Registering a domain name costs around \$10 per year for the common top-level domains such as com, org, biz, and info. Certain other top-level domains cost considerably more. A hosting account that includes space for a website and e-mail (usually with an unlimited number of addresses) can cost as little as \$40 per year and you can find e-mail-only accounts for \$20 per year if you don't need a website.

An address such as "you@yourdomain.com" tells me that you're really in business. An address such as "you@wowway.com" or "you@verizon.com" suggests that you're really just playing around. **B**

## Disks: Larger, Faster, & More Reliable

I was looking at the specifications for some new Seagate hard drives (the Momentus series) when I realized that no rating for MTBF (mean time between failure) was stated. Some manufacturers have stated MTBF figures that seem fanciful at best. Hard drives are a lot less likely to fail than in the past. That doesn't mean you can skip backup, but it does mean that your chance of suffering a catastrophic disk failure is lower.

The average *serial advanced technology attachment* (SATA) drive has an MTBF of 600,000 hours or so, although Western Digital rates some of its drives at 1.4 million hours. If the average year consists of 8760 hours, then these drives have an MTBF of 159.8 years!

The problem with MTBF is that it's essentially a theoretical lab analysis based on drives that are operated in laboratory environments. MTBF is typically stated for devices that aren't yet in production. Once drives are in production, a better measure of failure is the annualized failure rate (AFR). That's the number Seagate uses.

According to Seagate, the AFR for its Momentus line of hybrid hard drives is 0.5%. That's an astonishingly low rate: One half of one percent of the drives will fail per year. If one can extrapolate from there, and I'm not sure that one can, 100% of the drives could be expected to fail within 200 years. I would expect failure much sooner than 2210 for a drive bought this year.

AFR is probably not a straight-line function. As mechanical devices age, they become more likely to fail.



This IBM RAMAC 350 from the mid 1950s was capable of storing 5MB of data.

Source: IBM archive.

But what if we consider just the next 10 years or so, a period during which the line should be nearly straight?

Is there really a 95% chance that your hard drive will continue to function a decade from now?

When the hard drive was invented in 1954, it's unlikely that anyone foresaw a time when drives could be expected to run for a decade or more. But they do.

In addition to being more reliable, they're faster, less expensive, and have far greater capacities..

Even the drives in the Seagate Momentus series, which are considerably more expensive than non-hybrid drives, are reasonably priced: 500GB (\$150), 320GB (\$115), and 250GB (\$100). Standard 1000GB hard drives are selling for about \$75 and 2000GB drives for around \$100, so you're paying for something extra if you buy a Momentus drive.

The Momentus series drives are "solid-state hybrid" drives with what Seagate calls "adaptive memory" technology that monitors frequently used files and moves them to the solid-state portion of the drive for faster access.

To put size in perspective, today you can buy a 2TB drive (400 thousand times the storage of the IBM drive shown here) in a package 3.5"x5"x0.75". **B**