

When the Cloud Fails



By Russ McGuire - russ.mcguire@gmail.com

This issue I'm taking my monthly column in a new direction. I'm calling it, "The Power and the Danger" and I plan on discussing how technology give us access to new capabilities (power) in serving our Lord and advancing His Kingdom, but also how technology introduces new challenges (danger) that hinder our path and may even lead us astray.

As I sit down to write this first column in the new series, a key danger is very evident. In the past few days, there have been major outages in networks and services on which many have become reliant in doing their daily work. These outages are causing some to question whether "the cloud" will ever be reliable enough for large enterprises to trust with mission critical applications. For those of us in ministry or running small businesses, we may not have a choice. But that doesn't mean we shouldn't stop and consider the implications of these failures on how we operate.

What is the "Cloud"?

Cloud computing is a new term that encompasses a number of not-so-new concepts. But it also is recognition that new types of services are providing flexibility, agility, and theoretically reliability that has previously been hard for organizations and individuals to achieve. Cloud computing gets its name from the concept of moving computing activities (processing, storage, database management, content streaming, etc.) off of dedicated resources in an environment controlled by the owner of those activities and into "the cloud" – the amorphous

and ever-changing collection of resources connected to the Internet.

Cloud computing is not-such-a-new concept because, in many ways, it's a return to the timeshare model common in the 1960s and 1970s. Wikipedia describes this business model: "In the 1960s, several companies started providing time-sharing services as service bureaus. Early systems used Teletype K/ASR-33s or K/ASR-35s in ASCII environments, and IBM Selectric typewriter-based terminals in EBCDIC environments. They would connect to the central computer by dial-up Bell 103A modem or acoustically coupled modems operating at 10–15 characters per second. Later terminals and modems supported 30–120 characters per second. The time-sharing system would provide a complete operating environment, including a variety of programming language processors, various software packages, file storage, bulk printing, and off-line storage. Users were charged rent for the terminal, a charge for hours of connect time, a charge for seconds of CPU time, and a charge for kilobyte-months of disk storage."

The best known cloud computing provider is Amazon. Wikipedia describes their offering: "Amazon Web Services

(AWS) is a collection of remote computing services (also called web services) that together make up a cloud computing platform, offered over the Internet by Amazon.com.” Wikipedia identifies 23 different cloud services provided by Amazon, but the most significant of these include: Amazon Elastic Compute Cloud (EC2), Amazon Simple Storage Service (S3), Amazon Relational Database Service (RDS), and Amazon Flexible Payments Service (FPS). These services have sophisticated pricing structures that take into account processor usage time, data storage, and data transfer. Although the web has shifted the focus from single user business applications to mass market web applications, and the connection speeds have increased from bits per second to millions of bits per second, the general approach closely parallels the original timeshare model.

What is new is how these services have become pervasive in how we interact with the world. In a sense, mass market services including social networks (where we store our photos and share them with friends) and webmail services (such as Gmail and Hotmail) have brought cloud computing into our personal lives – shifting computing activities off of our home computers and into the cloud.

Cloud computing is attractive to us as individuals and organizations because they make it easy for us, especially with our increasingly mobile lifestyles. I can access my accounts, information, and content wherever I go from whatever device is handy. I can very easily and efficiently share the things I want to share with those I trust. And the cloud environment automatically (and invisibly) adapts to my changing needs – I don’t need to worry about adding storage or compute power or bandwidth, it all gets automatically provisioned for me based on my usage. Perhaps most promising of all is the apparent reliability of the cloud architecture. I assume that whatever I put into the cloud is safe because if one computer in the cloud, or one disk drive fails, the cloud architecture automatically fails over to a backup, usually without even my awareness that it happened.

Finally, Integration



NEW Integrated Church Software Suite

Start with one or enjoy seamless integration, saving time, and unified support right away by having the whole nine yards!..

the whole enchilada!..

the whole suite!..

(ok so we get a little excited, but you get the point)

Get Amp'd

eleXio.com

or give us a call at 888-997-9947

Reliable, or not?

That's the theory that some are questioning this week. Amazon has provided a [very detailed analysis](#) of the major failure that their AWS suffered this past week. In short, starting early in the morning on April 21, a complex system that had numerous sophisticated failsafe mechanisms, managed to fail in a way that spread the damage across a broad set of resources. Many customers were impacted for 12 hours, and some were down for four days.

On April 28, [Yahoo's e-mail service was unavailable](#) for most of the day for over a million users. Although less significant than [earlier outages](#) impacting Gmail users, it did serve as a reminder of how reliant we have all become on our e-mail accounts.

On April 27, Verizon's new 4G network suffered a [nation-wide outage](#). Although not technically a cloud service, a network outage is actually worse, since it keeps you from reaching any of the cloud services on which you depend.

Do these three failures mean that we should give up on cloud services? For most of us, the answer is a resounding no. These providers invest \$billions to implement reliability well beyond what our small budgets could match. Yes, there will be outages, but in all of these cases, customers didn't lose data, and the systems were back up relatively quickly. If you've ever suffered a major system outage, I'm guessing there's a good chance you can't make the same claim.

These failures should, however, get each of us to think about how well we're prepared for a system outage, whether we keep our systems and files locally, or whether we trust in the cloud.

It is my hope and prayer that these articles on the power and danger of technology will encourage you in your daily walk with Christ. Whether it is the printing press, radio, television, personal computers, the Internet, mobility, or cloud computing, new technologies continue to advance our ability to know God and to serve Him, wherever we go.

Russ McGuire is an executive for a Fortune 100 company and the founder/co-founder of three technology start-ups. His latest entrepreneurial venture is Hschooler.net (<http://hschooler.net>), a social network for Christian families (especially homeschoolers) which is being built and run by three homeschooled students under Russ' direction.

Email Marketing

...like you've never seen before.

Try it
FREE for
2 Weeks!



Video In the Inbox

BombBomb.com



↳ This is Jim.

Studies show that if he gets connected, he is 5x more likely to become a member and stay.

Create Connections and Close the Back Door with IgniteCRM, a web-based Church Relationship Management system that allows you to:

- Setup Individual Personalized Ministry Dashboards
- Customize Forms and Reports
- Maintain a Private Integrated Social Network
- Track Contributions, Attendance & Connection Points
- Plus Much More!

Call 877.703.2484 for a free 30 Day Trial Demo.

ignitecrm
powered by **faithHighway**

www.ignitecrm.org/ThisIsJim