Busting the Myths of Cloud Computing

JUNE 10, 2014 ANNIK STAHL

For the past several years, the term "cloud computing" (also known as Software-as-a-Service — SaaS) has been on the minds of technologically-connected people everywhere.

For a while it was only mentioned in the tech or business section of the newspaper or perhaps given a five minute treatment on NPR or the nightly TV news. But now it's in evidence everywhere.

While you may think that the idea of running programs on connected servers has only been around the past five or seven years, Technology Review avers that in 1996 — which happened to also be first year more email than postal mail was sent — a small group of executives at Compaq computer was plotting the future of e-business and calling it "cloud computing." And although Merriam-Webster added the term to its dictionary in 2012, companies like Netflix, Apple, and Google have brought cloud

computing to our homes and revolutionized the way we think about data.

Even the word “cloud” is puffed up with imagery, much of it amorphous and opaque: fluffy, nebulous, misty. So let’s spend a few minutes to both demystify cloud computing as well as debunk a few myths about it.

Myth #1: Cloud computing is not secure

Breached. Hacked. Stolen. Identity. Four words that strike fear in the heart of company owners and consumers everywhere, and when the biggest retail hack in U.S. history happened during the busiest shopping season of 2013, people panicked. And of course they had every right to. Hackers installed malware on Target’s security and payments system, and 40 million credit card numbers — along with 70 million addresses, phone numbers, and other forms of identity — were stolen as easily as if the thieves were watching you merrily type in your PINs as you paid for your groceries, small appliance, gifts, and office supplies (which, as it turns out, they were). A scant few weeks later the arts and crafts chain, Michael’s Stores Inc. and its subsidiary Aaron Brothers were attacked by hackers using a sophisticated piece of malware that exposed 3 million customer credit cards.

And let’s not forget what Edward Snowden, former NSA subcontractor leaked — or rather unleashed — almost exactly a year ago: information about NSA surveillance activities. But that's

another topic for a different website.

The message here is quite clear: not only are thieves watching you, your government is too.

So how can business owners, retailers, and everyday citizens feel good that their information — documents, financial data, personal identity — is safe? By keeping all that information locked up tight on their networks? You might think so but both Target's and Michael's data was kept on their network. Which bring me to the main topic at hand: the security of cloud computing.

It's misconception that an on-premise infrastructure is more secure than one managed by cloud provider. In the graph below, Alert Logic (a provider of IT network security which has both traditional enterprise and cloud service providers as its customers) shows that the percentage of customers experiencing security happenings is lower across the board for cloud service providers than for on-premise customers.

In an article for PandoDaily , Rick Spickelmier says, "Of the 404 breaches and 9.1 million records lost so far in 2013, 272 or roughly two thirds involved lost, stolen or discarded devices (computers) and paper records, insiders, payment fraud and unintended disclosures. If employees stored more information in the cloud and

less on computers, laptops and vulnerable company servers, many of these leaks would not have been possible."

Another fact to consider: Many cloud providers hire third-party auditors to ensure security best practices and standards are met.

The research and the numbers prove it — cloud computing is typically more secure than on-premise. Read more about Alert Logic's security report called Removing the Cloud of Insecurity.

Myth #2: SaaS is only for new, large tech companies

Yes it's true: size (or age for that matter) doesn't matter. If you're a small business, wouldn't you like to avoid costly IT setups and software licenses? Think about Open Scan's Dynamic Receivables, a SaaS-based solution: The pricing is consumption-based and can adapt to fit both small and large companies and their budgets and costs scale linearly. Why pay for a large installation when you can get up and running more quickly with a SaaS product?

And consider this: Outages affect big and small businesses alike but for smaller companies, creating a secondary data center to plan for disasters is simply not in the budget. Cloud computing lets you pay only for the resources you use and it frees up IT staff at the same time.

"Line-of-business leaders everywhere are bypassing IT departments to get applications from the cloud and paying for them like they would a magazine subscription," says Daryl Plummer, a Garnet analyst. "And when the service is no longer required, they can cancel that subscription with no equipment left unused in the corner."

Myth #3: The cloud is not reliable

If you're weighed down by an unreliable, expensive-to-maintain legacy system, you're well aware of what unreliability can cost you. You probably struggle to keep your on-premise data backed up correctly and you're always risking data loss.

If you're considering taking the next step to SaaS, you may be worried about outages and congestion accessing hosted services on the Web.

When you migrate to a well-managed, well-designed cloud network you have many layers of redundant protection and as well, your business-critical data hosted on your cloud provider's servers is constantly backed up and again, saved to redundant locations. But be sure you turn to a custom cloud provider that specializes in running business-critical applications; like everything else, every provider is not created equal.

Myth #4: The cloud is cheaper. Or more expensive.

Obviously it can't be both. Up-front costs of migration may be sizable but savings overtime typically offset that. And even if you're overestimating both costs and savings, the cloud is typically a net positive for businesses both big and small. Of course migration costs will vary from company to company but the

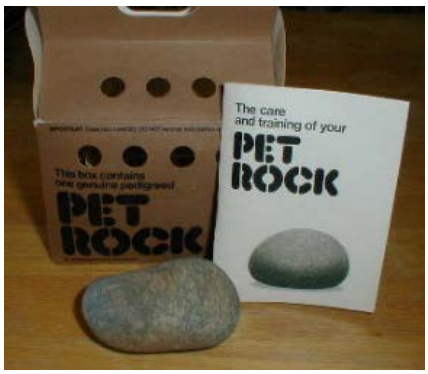
majority of companies will recoup the original expenditure through operational savings as time goes on.

Obviously, the benefit you get from using cloud-based platforms relates directly to the type of organization you are, and the business processes you support. And keep in mind that one of the real benefits of cloud computing is not necessarily the cost savings it brings but the fact that IT can react much faster and more effectively. Agility is a difficult thing to measure.

Amazon offers a neat calculator that you can use to compare the cost of running your applications on-premise or through traditional hosting to their web services, AWS. (Of course this is just one example, but it might give you a starting point for determining what cost and benefits.)

As well, Open Scan performs a Return on Investment (ROI) calculation specific to the numbers our clients provide us.

Myth #5: It's a fad



Fads come and go. The ones that are true fads—Miami Vice fashion, pet rocks, Prohibition—are only here for (oftentimes blessedly so) a short time due to the wacky nature of the fad and the fickle temperament of the public. Others, which may have started out as "faddish"— cars, television, an accurate view of our solar system and where we stand in it — stick around because they fill a need and they're part of our evolution.

You don't build your own cars or your own computers, and hey, you trust others to make your food, handle your mail, and even take

care of your kids. So why is it so hard to make the leap to trust third party IT agencies? Think about the cloud-based services used by millions of people around world, like eBay, Amazon, Gmail, etc. Garnet estimates that companies will spend $788 billion on public cloud services in the next four years. And the McKinsey consulting firm forecasts that cloud technology could have an economic impact of $1.7 trillion to $6.2 trillion a year by 2025. It's a fact that as data grows into the big data realm, cloud computing will remain the only viable option to hold the amounts of data being collected. This way of working actually democratizes data.

And so where do sideburns and 3D movies fall on this spectrum of fad versus need? You be the judge of that but let the data about cloud computing speak for itself: It’s not a fad, it’s safer than traditional ways, and it’s here to stay so you’d better climb aboard that puffy rocket before your hardware ages out and you’re left standing there with frayed cord in your hand.

“It is better to have your head in the clouds, and know where you are...than to breathe the clearer atmosphere below them, and think that you are in paradise.” — Henry David Thoreau

---