OSS Enabling Cloud Services

By *Tim Young*

Leave it to a buzzword to destroy a perfectly good concept.

You like minimizing the amount of trash and pollution you create. You don't want an awful lot of petroleum to be burned on your behalf. You like the idea of treading lightly on the Earth.

Then someone goes and decides that makes you "green".

Then you look around and realize that EVERYONE has decided that they can figure out some way to express that they, too, are "green", no matter what color they actually are.

Before you know it, you've gotten to the point where you're almost embarrassed to even utter the

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word because it has become attached to so much empty hype that it's almost cringe-worthy, and you're forced to consult your thesaurus for a better term to describe your chosen lifestyle.

It's unfortunate.

And it's not just being "green" that isn't easy (with apologies to Kermit the Frog). There are roughly a zillion buzzwords that have become so overused that they have started to be stripped of their intrinsic meaning, and not just in the technology space. "Viral." "Grunge." "Maverick." The list goes on and on.

And, unfortunately, "cloud" is on the verge of being added to that list.

But not because it can't describe something very real and very promising for CSPs.

And not because it's anything particularly new.

At the recent TM Forum Management World in Nice, we were barraged by the "cloud" and all of its attached possibilities.

However, it was in a group meeting with Microsoft and Convergys that MS Telco Sector Managing Director Terry McGuigan pointed out just how not new the concept of the "cloud" is.

Microsoft, and countless other companies, have been leveraging the cloud for years.

Hotmail. Xbox Live. These are all cloud services.

However, even if this is neither an entirely new concept nor an entirely new technology, the ubiquity of the term "cloud" to relate to SaaS, PaaS, etc., has gained considerable traction in the last 12-18 months.

In fact, it may have gained too much traction. Data Center Knowledge posted a video relatively recently (March) of Rackspace's Lew Moorman decrying the dangers of cloud fatigue in an address entitled "Hype or Reality: Quit @#$%ING SAYING CLOUD!"

However, within this same talk, Moorman hits on the heart of why we spend so much time on the cloud. No, "cloud" shouldn't apply to EVERYTHING, but for those applications for which the title is apt, cloud is "cheaper, better, and more reliable".

And that's certainly a compelling lead-in. "Better" is fairly subjective, but doable. "Cheaper" is a definite plus and can certainly apply to cloud solutions.

"More reliable"? That's possible. But there have been threats to the overall reliability of the cloud.

Amazon's EC2 is a great example. Just a month ago, the cloud solution experienced a chain of multiple outages, including one caused by a car

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slamming into an adjacent power transformer and a subsequent failure in transfer protocol.

A few months earlier, EC2 got hit with a one-two punch, as a power outage and a botnet attack hit the service in the same week.

The cloud is attractive, in part, because its distributed nature is supposed to make it less susceptible to common threats, and customers facing outages due to the Zeus virus and wayward automobiles raise serious concerns about the stability of the cloud.

Even more recently, an iPad related security leak caused a fair amount of grief for Apple, AT&T, and iPad users. The hackers weren't malicious, it seems, but rather looking to check the system for weaknesses so that AT&T could subsequently correct them. Furthermore, they got email addresses rather than heavily sensitive financial data. Still, it's bad for the entire technology when InformationWeek Security blogger Jim Rapoza was led to declare that the "Cloud is Real Culprit in iPad/AT&T Security Hole" as he did on InformationWeek's site a few days ago.

And there are other security concerns, as well. Especially if the cloud is being leveraged in the enterprise space, where the big revenue opportunities lie.

> ## Vendors are certainly embracing the space. But how deep does it go?

"The enterprise customer is different from the regular consumer," said Sean Kelley, Global CIO of the Asset Management Division of Deutsche Bank, to the attendees at Management World in Nice last month. These differences, he said, create barriers for enterprise cloud service adoption. Of these barriers, "number one is security," Kelley said. "We're a highly regulated industry, as are similar enterprise customers, and we have to worry about, specifically in financial services, things like SOX, HIPAA requirements and other kinds of security requirements."

And the list of worries goes on. "We have to worry about data traveling across country borders.

We have to worry about resilience and disaster recovery. We do have to have control, because we're ultimately, from a fiduciary standpoint, responsible for our environments, even if they're in the hands of a third party."

Which gets at one of the underlying aspects of cloud computing.

The distribution of computing power and storage also involves the underlying distribution of trust. This was a point underscored by other speakers at Management World, as well, including Thierry Zylberberg of France Telecom and futurist Gerd Leonhard.

Taking part in cloud computing means assuming that every link in the chain that has access to the data will be as secure and reliable as possible. To say that this involves trust may seem slightly abstract, but it gets at the heart of the issue. There is a visceral reaction by many to having sensitive data floating around through the cloud. If we can work to alleviate some of the worry that the data isn't being well-taken-care-of by every party that can touch it, we can go a long way towards improving the viability of the cloud. Psych 101.

And the cloud is not, at present, as standardized as it could be. That's one area that the TM Forum is attempting to take a lead on. I spoke to Matt Edwards, the head of the Forum's Cloud Services initiative, in Nice, and he assured me that the challenges of regulation and security are being considered and addressed, and that the Forum is working with other industry organizations like ITIL to drive standards for the cloud space.

However, all of these possible weaknesses and imperfections could be viewed as opportunities for CSPs and OSS/BSS vendors to work together to develop a cloud environment that works. A cloud environment that's as tightly sealed and reliable as any system can be.

Vendors are certainly embracing the space. But how deep does it go? Is it meaningful interest, or just more lip-service like the stuff I mentioned in the lead-in to this piece?

I'd say that it's impossible to tell at this juncture. Let the technology hang around for a while. Let's see some more mission-critical cloud rollouts in the sensitive enterprise market. Let's see some tangibility.

Because that's when we'll be able to determine how much of this is hype and how much is reality.

After all, there are certainly security concerns with the cloud, but where do we see the real security blunders? Is it from hackers into cloud servers? Or is it from employees walking around with sensitive info on unencrypted laptops?

A power outage can cripple cloud servers for a while, but the information can survive, protected by redundancy. Can the same be said for a world without a cloud? Where what you have on location is all you have, period?

The potential is there. We just need to demonstrate that increasingly rare trait—an attention span longer than that of a sugar-addled 5-year-old—to see where buzzwords stop and reality starts.