Thinks the Cloud Has Just Begun. By Sean Hackett

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I'm just not sure if I see the $100 billion. I guess if we expand the definition of the cloud wide enough we can probably get to a number that looks like that. And then in terms of the adoption of cloud services, I guess it would be the same thing. I mean if we expand the definition wide enough, if we could get to 80 percent or 90 percent of enterprises that are consuming cloud — I don't really see it.

But I think, obviously from the vendors that have talked up here, from a technology perspective, there is surely a lot of innovation that's happening. And I think when some of the — I think there will be a tipping point and I think when that adoption of true cloud services happens, there are a lot of firms that are going to be disrupted and left behind.

So I always pretty much start the presentation with this African proverb and it essentially says you've got to wake up and run. So it means that service providers have to continually innovate and folks have to continually innovate. Since 2000, 52 percent of companies in the Fortune 500 have either gone bankrupt or were acquired or ceased to exist. All right? So we've seen this happen in other industries and it's not unique to cloud. And I think when that disruption happens it's going to be fast, so firms have to be ready. When I look at the cloud market, and again from the perspective of consulting work that I do with enterprise etcetera, I think we are definitely in the midst of a transition.

I think the cloud is definitely sort of growing up. When we started spending and adoption was largely driven by the SMB, capitally constrained organisations that didn't have access to infrastructure. They wanted a level playing field and they went to Amazon where definitely good enough services were cheap enough and fit the bill.

A lot of shadow IT, a lot of Net new applications, even those Net new applications were still being built, but I think those were the characteristics that largely defined the cloud 2012 and maybe prior to that.

If we look now we see this phased transition happening; if we talk to a lot of the VCs and the investment communities, a lot of capital being pushed into this, the hybrid cloud or the platform that sits in the middle which is really enabling enterprise demand, mission-critical applications, etcetera to be ported into what people call the cloud, right? So now you look at spending and adoption largely being driven by the enterprise. I think IT is exerting a little bit more control because the nature of the application and workload has changed a bit. Definitely the competitive landscape has changed with incumbent SIs and systems integrators and managed services providers looking to co-op the definition of cloud and move into the market.

So I definitely think that there is a change underway. If you follow the money and you look where enterprises are spending, they're definitely moving more revenue from on-prem to offprem. And some of that — and most of that money is really, from a cloud context, being navigated toward hosted private cloud which is a fairly rough definition of what I would think of as a traditional cloud environment.

In terms of the applications and workloads, I know this is sort of an eye candy chart; it's tough to read here, but what it says is, hosted private cloud is kind of business ready in terms of the way enterprises think about their workloads. When you think of public cloud, the workloads of non-I/O intensive, you know, high compute intensity, variable usage, really workloads that make the best use of cloud

economics who are really candidates for the public cloud, and I don't think that's changed much. But this private cloud definition has spurred a lot of enterprises to say that they're starting to deploy more of these mission-critical apps in the cloud. And mission-critical is tough to define, really because — email is pretty mission-critical and most of us can't live without email.

So when I started out it was cloud is in the very early stages; I think it's just begun really. If we look — I drew an analogy here of the automobile industry, moving from the horse and carriage to the automobile. Innovation took a detour, right, and we created this thing in the middle called the horseless carriage, because most people that drove in horse and buggies wanted something to look and feel like what they were accustomed to, right? So they put this wooden horse on top of the buggy and they had a sort of engine in it. It was the detour on innovation toward what is now the automobile, right? And what I do, I equate that here to private cloud.

So I'm talking a lot about infrastructure here, because I had to pick something. So if you think about this horseless carriage, this detour in innovation, I see the same thing happening with private cloud. If you look at hosted private cloud offerings today from incumbents, it's hard to tell the difference between what a hosted private cloud offering is and what a traditional, managed dedicated service is. They've just co-opted the definition and called it cloud. If you look at some of the characteristics, complex pricing models at the bottom, that's Microsoft's algorithm to compute pricing for hybrid — I mean for private cloud; not simple, not posted on the website, not on demand.

Most of these offerings are more predictable pricing models, things like minimum monthly commitments, higher cost over public cloud models. This isn't — we're really navigating away from the original innovation and it's a natural reaction as a lot of these incumbent providers look to push offerings towards their most profitable customers and they co-op the definition of cloud.

And we talk a lot about the inhibitors of cloud and why I think we're really at the beginning. A lot of talk about security. And I think security definitely is an issue. I think some of it's overblown; I think a lot of enterprises think about security as more transparency and compliance than actual security the way we may think of it. But that kind of misses the point; people rob banks because that's where all the money is, right? So service providers, although they have more capital to invest and they hire the best security people, that's where a lot of the data is. So they are natural points of — targets.

But I think the real — I think a lot of people don't talk about the real inhibitor of cloud and that's some of the softer things that go on within an organisation, things like [politics] and budget, time and staff, they way they're organised. Let's face it; a lot of enterprises just aren't organised to procure cloud in an on-demand fashion. They're asking service providers to actually give them a year's full of capacity up front. They're asking them for ten year contracts to match refresh cycles on their equipment. And a lot of that again has to do with those organisations and processes are constructed; it's going to take a long time to work through that.

Another thing is there's a lot of complexity going on. CIOs are tasked with going from standardisation to orchestration, this is super messy. And they're doing this as a precursor to public cloud, right, or hosted cloud offerings. This involves a lot of reworking of the organisation, but it's a lot of technology work too. Things like virtualisation is hard. And then — so getting from A to B here is pretty tough and a lot of CIOs spend a lot of their budget, a lot of their time and effort trying to condense this cycle before they really make a concerted move to the public cloud. So what have we done? We've given the OpenStack. We said, hey, go and deploy this.

OpenStack is pretty tough and it's pretty complex, so we've only increased the complexity. It's got to be simpler. I'm sure some of you have heard the story about the NASA Pen? NASA spent $12 billion building a pen that would write in zero gravity and the Russians just used a pencil. So, I mean it's — this is easier; there's an easier way and we're slowing down the process by adding to complexity and we're not fixing the real problems of organisation and the structure of the organisation and how they allocate time and budget etcetera. And those are significant inhibitors of cloud adoption.

So when I think about the cloud I think of it a couple of ways on how this can play out for service providers. One, they can win the race to the bottom and there are certainly a lot of firms, innovative

firms that are moving in that direction. I don't necessarily think it's bad either. I think there's a lot of telcos that won the race to the bottom and they throw off a lot of cash. That race is on and there's a lot being done to commoditise and there's a lot of service providers that are taking advantage of that.

And I think more will happen. We've talked a lot about open standards and APIs, further commoditising things lower in the stack, things like cloud exchanges and more transparency about pricing and the ability to compare pricing etcetera. But there's also going to be a number of firms that are going to have to differentiate and that's going to be tough, right?

So, again, sort of the first thing that could happen is this could play out like the dairy farm market. I'm sure not a lot of you watch the dairy farm market but it's really an interesting market and there's a lot of analogies that can be transposed on to the cloud industry. The number of milk producers over time has actually dropped by 95 percent but the output of milk has increased by almost a corresponding rate. Why?

Because the biggest scale providers that had the most capital were able to invest in building the milk machine. They did — they could do things like advanced [analytics] and provide big data insights to provide and identify the genes that would essentially create a milk machine. So what you had is you had a small number of dairy farmers rapidly increase the production of milk; a lot of dairy farmers went out of business. So the race to the bottom is going to be a perilous one. There will be some that win, there will be a lot that lose. But at the same time there's a ton of innovation that's happening.

I would argue that a lot of that innovation is happening in the consumer market, but I don't see — the Coke's of the world and etcetera, I see them leveraging innovation to interact with their consumers, but on a B2B perspective, the enterprise, not a whole lot happening. I mean, I think in terms of the way they're adopting it, I think it will happen over time, but there's a lot of opportunity for service providers to partake and to build infrastructure that's purpose built to really handle the innovations that happen on top.

And there's some really cool stuff that's happening. You can get food on demand, again a consumer thing. The picture here is a picture of Disney World's parking lot.

My brother runs a hedge fund and they do a lot of work looking at the parking lots of Wal-Mart and Disney World etcetera and they compare against history and they try to predict the quarter. There's a lot of interesting things happening. And, at the same time, there are some innovations that are happening on the data centre side, not as sexy, but that's really being positioned to help build purpose built infrastructure to support some of these innovations, but again it's just slow to work its way through.