

A Keene eye on cloud infrastructure, security, transport and content delivery

Date: Mon, 11/14/2011 - 19:10

Last Summer, Gartner released their annual "Hype Cycle" report, calling the hype around Cloud computing "deafening"! They say that nearly every vendor has a Cloud computing strategy, but few make it Cloud-centric. Indeed, "cloudwashing" risks accelerating the entire industry into the trough of disillusionment - with the Amazon Web Services outages earlier this year as a case in turning point



Ian Keene, Vice President, Gartner, at NetEvents EMEA Press and Analyst Summit Rome 2011

Image credited to telecomkh.com

By Ian Keene, Vice President, Gartner

NetEvents EMEA Press Summit Rome 2011 gave Ian the first word, to turn his Keene eye on the industry and to challenge us to prove Gartner wrong. Then it's the turn of NetEvents panel - selected for their in depth experience of Cloud infrastructure, security, transport and content delivery - to fight back, or at least agree how best to keep the Cloud ball rolling

Panellists: Matthias Nass, Vice President, Field Marketing, EMEA, ECI Telecom; Steve Garrison, VP of Marketing, Infoblox; Jeff Monroe, President, Verne Global

“So good morning. So I've been asked to kick off a panel discussion on cloud computing and look at some of the necessary components to enable this. And in particular, we're going to look at infrastructure, transport and content delivery. But the panel needn't restrict themselves just to those components.

So in the write-up for this panel debate, it talked about the Gartner Hype Cycle. In every July

sort of time, Gartner issues a Hype Cycle Special Report, which groups together quite a number of hype cycles and puts them together in this report. And we do one hype cycle called 'Hype Cycle for Emerging Technologies' which pulls together the most talked about technologies of the moment. And guess what? Yes, cloud is on that. But there are 1,900 other technologies on 89 other hype cycles.

So in the write-up it mentioned we're not talking about green. Well, we do in fact have a hype cycle about green and sustainability. We've contained it into one dot on the Emerging Technologies Hype Cycle. And we have three hype cycles looking at specific aspects of cloud. So what I'm going to show you today is really a very simplistic sort of top-level view rather than going down in all the nitty-gritty components.

So cloud computing -- IT capability is delivered as a service using Internet technologies. And it promises many of the attributes in my view of virtualization. It promises them improved speed of deployment for applications, improved granularity of service, decreased energy consumption for example, potentially and potentially, decreased costs both in the operating costs for a company and in capital expenditure too, and in finding space to put the private datacentre.

And it's a new way of using and paying for IT applications. Apologies to [Naresh] for also using a reference to Mick Jagger. Sorry, I didn't realise you'd used that but I've used the same one.

But anyway at the moment, it's good stuff, cloud okay. And we think it's got staying power as a major force in IT. But is it good enough for all applications and for all types of users? Or is it only going to be any good for a select bunch of applications and maybe a select bunch of users, possibly only consumers and very small businesses?

So at the moment we've got cloud near the top of the hype cycle, near the top of the hype or the peak of inflated expectations and in fact it's just gone in our view past that peak. Now this is in our experience where we start to see negative press coming out.

So at the moment it's been built up, cloud this, cloud that. Every vendor's got a cloud strategy. They've got to. They're not really there if they don't have it.

But we're starting to see a few things go wrong, a few network outage here and some questions, well hang on. There are some questions perhaps that need to be asked and answered before cloud computing can really reach that plateau of productivity and become mainstream.

And in our experience, technologies that have received so much attention and you might argue so much hype as cloud computing really do spend some time in that trough of disillusionment, while people sort out actually what can we use this thing for. And it takes time to resolve perhaps some of the issues and the first speech this morning hit on maybe some potential issues. Things maybe need sorting out and it isn't perhaps all plain sailing. At least that's our view.

But we believe it will eventually get there for a number of applications and suit the needs for a number of users. Technology evolution generally rarely sails along from the beginning, from the conception through to being a mainstream product without there being disappointments and problems and issues that are met on the way. But they can be resolved.

Now as I said every IT vendor has a strategy and we're going to hear about three of those strategies today and hear about what needs doing next before cloud computing can reach that plateau of productivity.

But first of all, we're doing a voting thing again. And the way you vote is to just type in that URL and it will take you to where you can cast your vote. And I'm going to ask you this question now and I'm going to ask you the question again actually after the panel have had a chance to have their say. So is cloud computing over-hyped or do you believe it will meet all the current expectations and there's no hype involved at all? So that's the question that I'm asking you. If you

could go to that URL, I'll keep it on there for the moment. Okay, is it over-hyped, is the first part of the question.

Okay, so we've got three panellists actually. Joe Baguley couldn't make it, but we have Matthias Nass from ECI, who obviously can cast an eye on transportation in particular but any other issues that he wants to bring up, of course he can as with the others.

We've got Steve Garrison from Infoblox who's going to talk about how you actually get that stuff working in practice and Jeff Monroe from Verne Global who'll tell us about the infrastructure and datacentre point of view.

So gentlemen -- perhaps I could start with you, Jeff and really if you could just introduce yourself and your company briefly and tell me what does cloud computing mean to your company and what are you doing about it.

Jeff Monroe

Thank you, Ian. I'm Jeff Monroe; I'm with Verne Global. We are bringing the dual sourced 100% renewable power of Iceland to the datacentre market.

As mentioned in the keynote, datacentre power cost is a major issue for datacentres. And cost not just today, but cost in one year, five years, ten years or twenty years.

We believe that it's a key element to the datacentre infrastructure and something that has not been adequately addressed until now.

We have an amazing intersection of attributes at our campus. We have this 100% renewable dual sourced energy. It's affordable; it is reliable. We have a multi-terabit, multi-redundant cable system that has been installed in parallel with our efforts to the underlying infrastructure. We have an educated work force in Iceland. We also have optimal climate and we can do a 100% free cooling. And that's not a 100% free cooling 362 days a year; that's 365 days a year. So there's no compressors, no chillers.

What we have been able to do is bring this intersection of attributes to the market and it's a very unique set of attributes that our first announced customer Datapipe is going to be leveraging with their managed service offering, their managed network offering and their cloud offering.

Ian Keene

Okay. And is there anything in your view that needs fixing before cloud can become mainstream?

Jeff Monroe

Well, I think from our perspective, from an infrastructure perspective we see historically a lot of users will put servers in sub-optimal locations. You're trying to drive efficiency through cloud computing, yet you're putting these servers in a Tier 1 city in a very expensive region and where there's a high impact to the environment.

So we think that to really optimise cloud computing the underlying basic infrastructure needs to be optimised as well and we think that's been a mistake thus far.

Maybe I shouldn't say mistake but I think in this rush to bring a cloud product to market there really has not been an opportunity such as Verne Global's campus where you can really have all these attributes in the one location to optimise efficiency.

Ian Keene

Alright, thank you. And Matthias, again if you could introduce yourself and explain what cloud computing means to ECI and your customers of course.

Matthias Nass

Okay. So my name is Matthias Nass. I'm working with ECI Telecom since five years. I'm in telecommunications since 20 years. ECI is a manufacturer of network infrastructure and I think the discussion this morning already it was a lot about the network and the improvements which need to be made to the network.

And I can tell you that I see in my experience a lot of improvement already on the network infrastructure side. And especially we in ECI focus on developments to optimise the networks and to make the interoperability easier.

Also I think that a big problem of enabling the cloud and cloud services is in the access networks to the individual users who deal with really bandwidth issues. Also here if you log in, in the hotel -- I have a double floor room on the top floor where it's convenient to work [inaudible], I cannot do anything because there's no access anymore to me. So in the need I think there needs to be still a big improvement on the access network and a lot of optimisation on the core network elements.

What I see also is that a lot of carriers, telecom service providers are starting or are in the middle of doing this move to what they call a next generation network. And this step, it's very important they do the right thing at the right time and that you start to spend your OpEx at the right place of the network to make this happen.

And I think that service providers also are sometimes reluctant to build out their networks in this way, because still it's not clear in the whole cloud service, who's going to pay for those investments they're going to make especially for cloud services.

So who's going to pay them off for these investments they have to do? These are the challenges I think.

Ian Keene

Yeah. And so can you really see it happening now or do you think this is something that's going to take quite some time?

Matthias Nass

It's depending. There are a lot of issues. One part is the OpEx which each telecom service provider has to do and he has to get the money for this. So also to raise money to do this is not so easy any more.

The other thing is a lot of regulatory stuff on the access networks that we are seeing coming and I believe one of the big drivers for -- which cloud is driving is really the rollout of massive fibre networks to the end users. So to put the fibre as close as possible to the end user will enable and will help cloud services to become.

It's the way to go. I don't say it's a way which will take hundreds of years, but it's still a challenge that we have to overcome. I see a lot of change in the past four years in this area, especially on the regulation side.

Ian Keene

Yeah and certainly looking from the Western European viewpoint, regulations really are holding

back a lot of service providers investing in that infrastructure and the access infrastructure. So maybe we will see the rollout of cloud services in terms of where the users are. We'll see Western Europe lag behind maybe North America and Asia in this respect, simply because the infrastructure isn't there right now, which is something worth thinking about.

Matthias Nass

I think that I'm not so sure about this statement because if I look all over the world, I see still a lot of white places, not only in Western Europe, to say so. So I think it's also in all the other parts of the world there has to do or needs to be done massive investment to enable those fibres. And I think it needs to be done through governments and public funding. I think the operators will not themselves be able to raise this kind of money.

Ian Keene

Okay. That is definitely going to take some time. Okay, Steve, again if you could introduce yourself and your company and look at in your opinion what does cloud mean to your company, what opportunities does it bring?

Steve Garrison

Thanks Ian. Thanks again, it's great to be here. Steve Garrison, Infoblox. Infoblox prevents network natural disasters every day after customers deploy our gear. And what that means is what we do used to be done in spreadsheets. We help issue IP addresses in real time in a closed loop automation format. We also assign domain name services to those IP addresses in real time; that's called binding. And so we bind the network to the applications. And again if you don't do that in an automated fashion, you can have a fat finger event, you can have a spreadsheet be out of date and you can have a network outage. A lot of customers see that immediate value.

What does that matter for cloud? It's a shame VMware is not here, because we just announced a plug-in for their vCentre Orchestration or vCloud Director product which was a need from their point of view. We surveyed several hundred of VMware users and asked them how long does it take the network team to issue an IP address to the cloud team and 40% of the respondents said hours to days. That's not real time; that's not cloud.

And so how we want to help in cloud is make the process that takes time, take no time.

We want to automate all the slow processes so you can turn on a light switch and you have cloud services on. You turn off the light switch, the cloud services are off. You get a bill for the amount of time you use it, a true utility-like service. And I think we're a long way from that but we're going to help by working with companies like VM ware and other application providers to make sure that we can have the part that really matters, IP address and naming space from our point of view automated.

The second thing is what we talk about with customers is time to value. A lot of CIOs and directors are challenged by the organisation to do more with less. That's what we all see on the vendor side. But what the customers are telling us what that means to them is I have to turn on a service; I have to show value to my organisation; help me do that faster. So again it's about more and more automation. It's about having a fast network with low latency. It's about having great infrastructure in the datacentre. It is an ecosystem. It's almost a new OSI stack; let's call it the cloud stack.

My last point on my soapbox here, Ian is I think the word cloud it needs to change.

Let's be honest, cloud doesn't mean anything anymore. When a customer says what's my cloud

story, Steve, I have to ask them five questions. What do you mean; where are you doing it; how are you applying it. And at the end of the day most of our customers are looking at a cloud environment within their data centre first to establish success criteria and to establish what kind of skill sets they need to run that cloud.

Ian Keene

So what do you call it instead?

Steve Garrison

Well, I tell you dynamic workloads within my own customer prem makes a lot of sense. What we're really building is a virtual mainframe. Just a lot of different components but it's a mainframe. You wait in line; you put your process in the job stack; the job stack gets run by administrator, out comes your answer. That's kind of what a mainframe used to do.

So I think the Global 2000 are looking at that as an application, how to build a mainframe like environment that's centralised, that cuts costs, that forces people to share. That's one.

Hosting, turning into a way to outsource on demand. So Amazon storage solutions are great because overnight you can double your storage, that's been outsourced. So to me infrastructure as a service is close to being cloud, but even that's not an application. That's just offloading what I would call Tier 3 data to a cheaper facility.

So I think maybe we'll have a work session over wine tonight, what does cloud really mean. But I think there's going to be about five or six answers Ian, depending on what you're really trying to do right now.

Ian Keene

Yeah. And I agree and it is an issue for Gartner actually to actually say look, we've got to have a definition here that we all understand and maybe it's slightly different from someone else's definition. But at least we know what we're talking about.

One thing and any of you answer as you see fit, can you foresee now points of failure for cloud going forward and big issues that we are yet to face that need facing. We talked about access networks. But for example, even on the network side which is my area, are we going to run into problems where the whole network that's got all the components in it, it's just -- the latency is just not going to be too bad. Can you for example to deliver traffic to a datacentre in Iceland that has acceptable latency, acceptable uptime and reliability, are these going to be realised in a way that will allow enterprises to move away from their internal applications and take cloud services? Or do you think that's going to be an issue that's going to restrict the use of cloud to small businesses and consumers?

Jeff Monroe

I guess I'll take that one. What we see happening in real time is again our first customer Datapipe who is deploying a green cloud with us in Iceland, so this is a reality today. Now adoption rates, the challenges that ultimately will be there, will probably always be present any time there's something that's driving efficiency or is causing people to do things in a different way.

But we think that maybe five years ago, ten years ago, this would not have been an opportunity just because the networks weren't in or maybe the technology wasn't there.

But we think today there's a convergence of technologies that is making this possible and I think you're going to see greater adoption over time. Again the efficiencies are incredible. You're

talking about an ability for -- just for example, in our campus in Iceland, the cost savings are just enormous that can be driven by optimising cloud in the right location.

Steve Garrison

If I can just feed off of that actually and I just wrote down a little quip here, the 4 Ps.

The first one is people. Infoblox tries to address that by making sure the processes can be automated and we can go fast.

The second one is pipes. You guys can talk about why you have fast pipes and fast infrastructure.

The third one is politics which someone already brought up. I think some of our banking and healthcare customers are telling us they can't get past their legal teams and the regulatory issues they have to show compliance and to show exactly where that data is. And until that issue gets solved I think there's going to be certain verticals that just aren't going to outsource certain critical functions or apps to the cloud. And the last one is process and I think in your set-up Ian you mentioned it.

Companies don't know how to judge success of a cloud. The SLAs that were used of packet loss and latency are probably good to start with. But it's also fault resolution; it's also what kind of guarantees. Like you guys mentioned, what kind of guarantees should I put in or the Alcatel [inaudible] mentioned. Contracts are now going to have to have in there, claims about SLA penalties and what if my data gets lost or what if a delay in the service occurs. So I think there's a lot of business issues, not just infrastructure issues.

Matthias Nass

Maybe on the view of the pipes, yes, you can build those pipes or they are already there. A lot of things have been done in the past years on optical networks. And what we are facing today is the complexity in these optical networks. So I think we discussed it already in the previous presentation also, the matter of MPLS. And you don't know any more how your packets are going through a route and there's a lot of complexity added to those networks with more capacity.

And yes there are ways to prevent this complexity and to make the life of the packets and also service provider much easier. And there are certain technologies which are implemented and right now as we speak and which are part of the move to a next generation optical network, where you put the optical layer and the packet layer together. So I think I can then signal here, I see there are benefits for cloud for sure.

The other thing which I want to mention is if you're looking into the success stories, I see, I really think the main driver for an end user to move into a cloud system is money. Simply then that it's what do I save. And of course he's also taking all the risks into consideration. But the money needs to be shown and can convince companies.

Of course nothing will be perfect from the beginning, but as long as saving can be shown I give it a quite high chance to be realised. And a good example for me is in my private surrounding I have multiple people who says through the Amazon cloud today they have their own little mini shops. One is selling part of old motorcycles; another one is selling cameras. So there is -- and they are giving it to Amazon. They just get the orders and the cheques, so that's simply [that is]. So they were never able to build these businesses if there would be no this kind of service. So I believe in the service. I think the network infrastructure is on its way. It's just a matter also how to position it. And who's going to be in the end paying for all those network upgrades that's

still a question which is open for me. So how can the service provider participate in this, because they are not going to invest without participating, I think.

Ian Keene

Indeed. And where can they see a return on investment from cloud services is the question. And that asks the question again, can cloud services flourish as an over the top service, or does the carrier, the telco have to be deeper involved to provide sufficient SLAs -- for want of a better phrase -- to enable businesses to, with confidence take up cloud as an option.

Matthias Nass

Let me use an example. It's a very nice example because I'm very often on flights, on planes. To go from here to New York, you have three ways. You either go first class; you pay €12,000. You go business; between €6,000 to €8,000. Or if you're lucky you get a cheap ticket, which you pay €500. It's all the same. It's the transportation from Rome to New York. It's a different class [inaudible] and people are ready to pay for this.

And I think that's something we need to consider also in terms of the SLAs. You can compare it very easily.

Ian Keene

Okay. Now we're moving on in time, so I'd invite the audience to ask the panel any questions that they might have. And while we're doing that, I'll move on to the URL again, so if you'd like to have another vote then please do.

Peter Judge

Peter Judge from eWeek Europe. I don't know if it's a problem having it. I think we've got the answer for how to get cloud off the hype cycle, if it's a problem that it's there. The idea of renaming it to a virtual mainframe that will take it out of the hype environment at a stroke. I can see that. That'll hype up nicely that one.

Ian Keene

Thank you, Peter. But what would rather do, write some negative articles about the cloud or positive ones about the virtual mainframe?

Peter Judge

It's hard to be positive or negative about a phrase like virtual mainframe. Cloud fits nicely into both the hype and anti-hype.

But what about the level of hype though? Because even if it is like \$50, 80 billion, that's still not that much compared with what people spend overall in IT products and services.

Ian Keene

Even just the telecommunications side, it's small. But yeah, the IT industry really is multiple trillions of dollars per year. So to put this into perspective, cloud is a X billion dollar market by this year next year, five years time whatever. In comparison with the whole IT market it's not huge. It's not like it's going to be overtake everything in terms of what people spend on it.

Peter Judge

It's about 5% at the moment according to [Canalis]. I don't know how reliable they are. And by 2015, if cloud grows at a compound growth rate of 24% a year, and by then it's 8%, which leaves 92% of the IT industry having nothing at all to do with cloud.

Ian Keene

That's right, absolutely yes. And the biggest portion of IT spend is in telecommunication services. So I think it is an opportunity for telecom providers, telecom service providers whether it's an ISP or an incumbent telco or whoever or a wireless cellular operator, it's something they need I think to study carefully and how does that fit in with their plans. And you know, as you say, then you look at the total revenues.

But it's an revenue increase. I think what we're seeing is in many cases, this is a service increase. In terms of hardware, I suppose if cloud works out fine then less services will be sold.

Peter Judge

It's a sideline alongside their other things and it shifts some of the business from one set of companies to another set of companies.

Ian Keene

Yeah. Would the panel like to comment on that?

Steve Garrison

I think that makes a lot of sense. What we're all trying to do, we're all trying to figure out how to do more with less. From the company side, they want a faster way to roll out a service with lower embedded cost or without having to hire specialists. From the vendor side and I'll put myself on the vendor -- I don't know if you guys want to be called vendors -- but in essence you are an infrastructure provider. We don't want to show more value for our kit, whatever our kit is because we're all dealing with price pressure too. So if we mask hardware with a really cool service that makes somebody more money, that means an uptick in our revenue and our margins. I think it's just natural business. Everything revolves around those two levers.

Customers want to pay less; vendors want to make more. How do we meet in the middle? We offer a value added service they really need.

Ian Keene

Any more questions?

From the floor

I like the term virtual mainframe. So is there a specific market for SMB in that field? Or from my point of view I think it's bigger company are trained to use real mainframe. So maybe we are open to a virtual zone. Is there a specific market for SMB or --

Steve Garrison

Well, you're largely dealing with Garrison opinion at this point, so for those of you who know me well I'm full of a lot of opinion. The reason I got that idea is that we sell a lot to Fortune 500s. And one of the dirty little secrets out there is you look at CA's revenue, NEC's revenue, IBM's revenue, the mainframe market, believe it or not folks, is alive and well. And all major

banks don't have your data on a server; it's still served in a mainframe.

So mainframes are really still a very real part of a big business. Retail, finance, healthcare in particular all use mainframes still for a lot of their calculations. Server farms and compute virtualisation of those server farms are meant as a way to process ERP, CRM, DevCast, email and they're constantly trying to shift away from the mainframe because it's a fixed cost environment. You're locked in. You can't pull apart a CA mainframe and replace the Dell server with a HP server. So I think the industry is trying to move away from that.

So what's the answer to SMB? I think the answer to SMB is some of these cloud providers if you look at one of the things -- well, I see it in the States. I do see regional cloud providers trying to differentiate themselves from Amazon or even Verizon not by saying they're bigger, better, faster or cheaper than those organisations but they have a regional focus. I know one in Atlanta called RailsMachine. They basically have a Ruby on Rails development platform simply for developers who want a low cost regional alternative provider for that kind of development work.

So I think you'll see one of the answers to cloud is tiering and specialisation. And so I think there will be people who want to specialise for the SMB. And Google did.

Google Mail and Google Mail as a hosted app has really targeted SMBs. So I think it's already happening.

Ian Keene

I talk to a lot of local governments of one sort or another that are very hopeful that cloud services will help small businesses become more efficient and improve their prospects for the future. So there's a lot of hope in the small business side of the market here. But wait and see if it happens, mind you.

Any other questions? One more I think, we're running out of time.

Rob Bamforth

Hi, Rob here again. I like words like efficiency and saving money -- phrases like saving money. That means spending less on something. So if we assume that this cloud industry is going to grow to be this huge significant 8% of total IT spending, what are people going to be spending less on? Where are the reductions going to come? Is it other telecom services or are we just going to stop buying servers, do you think?

Matthias Nass

So from my point of view clearly a big cost saving is that you don't need to specialise anymore. And especially to small businesses they usually don't have this kind of knowledge in their organisations to make the next step to grow further. So in order to grow further, they need to hire much more people, much more staff who has the knowledge. I believe there is a big cost saving. I see cost savings of course in the bundling of servers. You can be much more efficient if you move closer to network connections with your server' you can save money. And also in the network -- of course in the telecoms network you can save money in your spending. Also you need to be in -- and I just come back to my example with the flight. If you want to go first class, you obviously need to pay a little bit more, but then you have better service. That's my point of view on the savings.

Jeff Monroe

And I would just add that whether it's a server or a mainframe the good thing for us is they all

use power. And I think for us putting your cloud in the right location is a key element in that efficiency.

Steve Garrison

I just want to say I'm not sure -- I haven't seen different data or similar data but the data I've seen, put it this way is that our customers are telling us their budgets are flat.

And what they mean by that is headcount and CapEx. So the only thing they can attack is OpEx. If they can cut out -- I've got so many customers. One major bank said to me last year, I've \$100 million Steve in change management. The paperwork and the people to make a change on the network why is it so big? Because they have so many pieces of paper to force the process to be arduous so that the wrong mistake, right change gets made, not the wrong change.

It's \$100 million. If we cut that budget by 10%, meaning make that department 10% more efficient, he would be happy to have that \$10 million go to us to buy new infrastructure that solves that problem.

So one of my big rants and you'll hear it throughout the two days from me is automation.

Automation is one solution in taking the same workforce, but making them smarter and more efficient. I haven't cut workforce; I haven't stopped spending.

I'm just cutting OpEx and using that OpEx as CapEx.

Matthias Nass

OpEx is the new CapEx.

Steve Garrison

That was a tweet from me from two years ago. You're following my tweets.

Ian Keene

Okay. Well, I'd like to thank Matthias, Steve and Jeff for their contribution and I hope you will too. Thank you."