

Pacific Crest Future of Enterprise IT Conference

Praveen Asthana, Dell Vice President, Enterprise Strategy and Marketing

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BRENT BRACELIN, Pacific Crest: Good morning. My name is Brent Bracelin. I'm the analyst here covering the IT systems and networking space. We had some interesting discussions this morning around the future of IT with the SAAS panel earlier, and then obviously Salesforce.com, so a view of kind of the platform space.

I'm really pleased here to have, and change the discussion a little bit towards kind of infrastructure, and what does the future of IT infrastructure look like, certainly have a view of SAAS and cloud. I'm very pleased to have Praveen Asthana, the VP of Enterprise Strategy and Marketing as well as Mike McMullen and Rob Williams from IR as well.

Before we kind of go right into kind of Q&A here, I thought it might be helpful for Praveen to go over just your background, how long you've been with the company, and kind of your role at Dell today.

PRAVEEN ASTHANA, Dell: Okay. Thanks, Brent. And welcome.

So, I've been at Dell for eight years now. Prior to Dell, I actually worked at a startup company in the Bay Area called Zynga, and we were a Kleiner Perkins company. What we did was what you'd today call cloud storage, back then we called it something else. And before that I was at IBM for ten years.

So, at Dell today what I do is I head strategy for our enterprise group, and my role is basically defining what we should be doing next, what we have been doing, which companies we should be going after, as well as now more recently is what I've called developing better together solutions. So, you know, we have servers, storage, networking, now how do you make that combination work better together. So, that's sort of the next phase for us.

BRENT BRACELIN: Great. As we kind of bridge this whole kind of cloud discussion to more infrastructure, maybe we'll start out with kind of a cloud question around kind of what are you seeing from customers around kind of interesting cloud? You obviously talk to a lot of customers, what's Dell's kind of view and approach to cloud and SAAS?

PRAVEEN ASTHANA: We certainly believe pretty strongly that cloud is a major trend. In fact, we have invested a lot in cloud. We've put a billion dollars into data centers around the world for cloud services. However, I think that what we are learning from customers is that that trend to cloud, that move is going to be a lot slower than we think. In fact, I learned a new phrase recently in talking to customers, the phrase is "cloud slapped," which is when a vendor comes in and tells you all about the cloud and pretty much slaps you in the face with that; or your CEO comes in and tells you about why aren't you doing more cloud?

Most companies today are realizing that cloud really should be an extension of their data center not a replacement of their data center. And so they are looking for ways to integrate cloud-like services for burst capacity, or something like that, rather than wholesale replacement. And I think the analogy I've used is, if you look at retail or commerce, you know, back in the days of the dot-com world many people, many analysts, and press predicted that

most retail would move online because it was just simpler, easier, cheaper. You got Pets.com, you had all kinds of stuff. The reality is that even today 85 percent of retail is on prem, 15 percent is online. And I predict that cloud will have similar kinds of numbers where perhaps 20 percent of it will be cloud, but still a significant, maybe 80 percent, will be on prem.

I think that cloud is a big important trend. It will happen. But it is not the exclusive thing that's going to happen.

BRENT BRACELIN: I wanted to just kind of frame the discussion here around kind of the Dell transformation. Certainly you weren't at Dell back in 2002, but if you look at over the last kind of decade, Dell has certainly done a pretty impressive job here transforming. I think if you look at 2002, over 70 percent of the revenue was tied to the client side. If you look at the business today, your server, storage, networking business has more than tripled. It's now a \$10 billion revenue segment for the company.

As you think about that enterprise portfolio, what is in that portfolio today? How does that compare with some of the competitive offerings, and really how do you think that Dell stack is kind of positioned relative to what clients need over the next kind of three years?

PRAVEEN ASTHANA: Okay. So, within enterprise, the three main horses, if you will, are servers, storage and networking, and in all three areas I think we're doing some pretty interesting things. A lot of our focus from a design perspective on a customer basis is the mid-market, where we have really quite a good footprint and a quite a good right to play. We understand that market very well, and I think that our products are extremely well-suited, in fact, are probably the most relevant and leading edge in that space, because they offer that optimal mix of performance or value, price, and ease of use. And ease of use for the mid-market is extremely important because most of these customers don't have large IT staffs. They do not have necessarily separate IT departments for server, storage, networking. The same guy who is managing the storage is managing the network, so it has to be easy to use.

BRENT BRACELIN: M&A obviously has been a big focus for the company. As you think about kind of the strategy at Dell, and as you think about the storage portfolio, EqualLogic, Ocarina, Exanet, Compellent; as you think about kind of what you're adding there, obviously the most recent AppAssure; help us to kind of understand the philosophy behind the approach to kind of M&A within the storage portfolio, and how does AppAssure fit with some of these other technologies that you acquired?

PRAVEEN ASTHANA: Sure. We've been building out our storage portfolio. We started out with EqualLogic. We've added file capabilities with the Exanet acquisition. We recently came out with a file-based product that uses the same management as EqualLogic, so it's very easy to manage. We know that managing data growth requires what we call storage optimization. And so we bought a company called Ocarina.

And Ocarina helps us do a couple of things. One is, it provides us with an appliance like backup solution similar to what DataDomain had. But it also does something that's pretty unique, which is it allows us to have block level de-duplication. So, you can actually start de-duping in primary storage. So, we can have the same de-dup architecture from primary storage all the way to archiving. So, when you move data round, you never have to rehydrate, you just have one easy architecture all the way through. That's actually a pretty powerful point for Ocarina, and very leading edge in terms of de-dupe.

What AppAssure brings to us is, in addition to storing your data you want to protect it, so backup recovery is critical. And AppAssure has a couple of unique factors in terms of backup

recovery. One is that it is designed for virtualized server backup. Virtualized server backup is not the same thing as backing up physical servers. And most of the companies today that do backup software were optimized around physical servers, and they're trying to Band-Aid around virtualized servers. AppAssure is specifically designed for virtualized servers.

The second thing is, AppAssure can backup the entire system so that the server, the storage, the application, not just one component of it. And so I think both of those things provide a strong solution for us.

BRENT BRACELIN: How disruptive do you think kind of those apps potentially could be within the existing backup market, or do you really think this is an adjacent kind of opportunity for you to go out there, just that virtualized environment, or does it have some disruptive potential?

PRAVEEN ASTHANA: It has some disruptive potential, clearly because I think that as we move towards virtualization we're going to need the right kind of software to make the backup and recovery for that market.

BRENT BRACELIN: We shift gears to networking. Obviously it made some interesting moves there, Force 10, I think a year ago, and now SonicWALL on the network security side most recently. Can you help us understand kind of the logic here on the networking side? What's been the response to some of the networking moves that you've made so far and why the move into network security now?

PRAVEEN ASTHANA: Okay. So, networking was a very logical move for us, because we are strengthened service, strengthened storage, networking was sort of the missing leg, if you will, for what we needed to do. A lot of the infrastructure today is becoming converged where the networking decisions are even being made by the server administrator and blades were really the first vehicle for that to happen.

So, in order for us to provide seamless management of service, storage, and networking, we needed to own a network operating system. So, the key driver for this, frankly, is server virtualization, again, because with VM ability, if you don't control the network, or the operating system, it's harder for you to have a seamless offering. So, that's why we acquired a networking company. But, it's a great opportunity for us. It's a big business. It's also what I would say the last bastion of mainframe economics. So, there's definitely a potential for disruption in networking and that's one of the things that Dell is good at.

BRENT BRACELIN: And then kind of the decision on security moving in, more than security, is this the first step, or how should we think about that kind of move into security?

PRAVEEN ASTHANA: So, security obviously is something that is important for our customers and I think a year, a year and a half ago we bought a company called SecureWorks, which has been the leading managed services provider in security. And that's been a very good asset for us. By buying SonicWALL we now have the UTM security end-to-end from firewalls all the way to managed services. So, it actually is a very complementary acquisition for us, for what we already had with secure works.

BRENT BRACELIN: Shifting gears to kind of as we think forward a little bit, kind of the future of kind of enterprise IT, from your perspective, also being in this space for a long time, being at IBM, and now your strategy kind of role at Dell, what would you say as you look at that enterprise stack are the two or three areas that have the risk to have the most disruption and

then maybe what are the two or three areas that you're most excited about, kind of Dell specific opportunities?

PRAVEEN ASTHANA: I think that clearly virtualization, converged infrastructure, and cloud services are the most disruptive trends that are going to affect the data center. And in all three of those Dell is playing a major role. I think that we're still seeing with virtualization that we are sort of in an early inning. Most companies have about 30 -- who have virtualized have pretty much gone to about 30 percent virtualization and then sort of stopped. And so there's an opportunity there to continue to do that.

Virtualization, some of the sticking points, like licensing and things like that, are the things that slow it down. But, I think that the disruption to most -- a lot of the legacy businesses is going to come to virtualized X86.

BRENT BRACELIN: Is that penetration 30 percent, is that kind of a mid-market kind of stat, or does it vary across the customer base, and if now what's the large enterprise versus kind of mid-market?

PRAVEEN ASTHANA: I think that's probably a fairly representative stat across the customer base. There are some companies that are 70 percent-80 percent virtualized, even more. But, for some reason a lot of them stop around 30.

BRENT BRACELIN: I'm going to put you on the spot here a little bit. As you think about some of these areas of disruption in Dell's portfolio, what's the kind of one or two product lines, or product categories that you're most excited about having kind of the most upside potential kind of going forward?

PRAVEEN ASTHANA: I think clearly on the storage side, we're extremely excited about what we have. We have leading edge storage that's basically designed for virtualization, for virtualized services. So, that's something that's really been exciting for us and we acquired a company recently that will allow us to, here, flash storage in the server with our storage portfolio. So, that I think will be a quite interesting solution from us.

BRENT BRACELIN: Great. As you think about kind of the -- kind of remaining holes within Dell's kind of portfolio, as you look at kind of build-buy decisions, where is Dell at relative to where it needs to be? Are you 50 percent there, relative to kind of the portfolio that you have to address the future needs of that enterprise? Are you 80 percent there? Frame kind of where Dell is at today relative to where you need to be.

PRAVEEN ASTHANA: I think that in terms of being able to address the needs of the customer, we have most of the stuff, but a couple of things. We still have the opportunity to improve our software portfolio. And so recently we announced the creation of actually a software group. Most of the acquisitions we have been making and are probably going to continue to make will be in the software area. I think the other thing that, even if we were 100 percent complete today, what you find is that with changing technology, and changing needs there will always be an opportunity to acquire a leading edge company.

BRENT BRACELIN: Shifting gears to kind of the storage market I want you to talk a little bit about. We are excited, but obviously there's been a lot of talk about kind of the slow move to flash. I'll probably get the most questions around kind of that whole flash movement. If you look at kind of the industry I think less than 3 percent of the 22,000 petabytes of storage that shipped last year was flash versus kind of mechanical storage. What's your view on that transition? How long of a transition potentially could that take to be 10-20 percent of the

market and what's your kind of overall view, relative to our customers out there, around the interest and world that flash has in storage.

PRAVEEN ASTHANA: There's a lot of interest in flash. I think that, first of all, flash is not going to take over all of storage, because the economics are just not there. What is going to happen is that as much active data as possible will be put on flash. And this is an important theme, because customers typically have about somewhere between 15 and 20 percent of the data, maybe less depending on the customer. So, that's the target market for flash. That's as big as flash can get in my opinion is being able to handle the active data. Anything beyond that is not economical. You want the cheapest possible storage.

So, you'll get two-tiers where you have some amount of flash and the rest will just be bulk, mechanical storage. And so what you see is that you'll see more and more arrays that have flash and that is in them, as you handle the active data. Now, and it doesn't take a lot of flash. So, there's an expression, a little flash goes a long way here.

So, it's like someone told me that since like there's a spice called saffron you may have seen, you sprinkle a little of it. It makes a big difference, the same thing with flash. You don't need a lot. What you do need is good algorithms and good software. I think that just sticking an HDD an SSD drive, or a flash drive in a bay that used to be occupied by an HDD, is not going to get you much. It's a very superficial way of doing things.

So, some of the solutions out there were to take a flash based box and put it in front of your storage array, as a cache, or behind the server. Those aren't really going to get you the benefits you want. The tiering, the active movement of data, active data into flash from disk into the server, that software is what's going to make a big difference.

BRENT BRACELIN: Interesting. I have several questions here, but I wanted to at least open it up to the audience if there are any kind of burning questions that we'd like to ask Dell here? Perfect, I'll focus on the kind of next biggest market that I get questions on with investors was really around kind of big data. Obviously this is a market. I think IDC just came out with their first sizing of the market, \$3 billion going close to \$17 billion over the next five years. As you think about kind of the big data opportunity, what's Dell's role in kind of this whole big data movement, both on the server and storage side?

PRAVEEN ASTHANA: So, I think we were pretty early on in capitalizing on the big data trend. We were one of the first hardware OEMs to align with Hadoop and create a Hadoop-based sort of bundled solution with our what we call Hyper Scale Computing Devices, Hyper Scale Servers. And that market the customer response has been very good on that.

But the thing that we look at big data is, I would like to turn that around a little bit in saying that it's not big data that's interesting, it's big insights that's interesting. And I even wrote a blog about this in some forums, I think, it's called Big Data and Little Data. It's not a fairytale. But basically the point here is that what customers want is insights to make decisions. They don't really care what the size of the datasets are.

And so, you can make good insights from even small amounts of data. If you watch the movie Moneyball you know what that's like. Ninety-five percent of the data warehouses are under five terabytes. That's not a Hadoop application. But that is a significant BI opportunity, and this is what Dell is really focusing a lot on is what we've called mid-market big data. Big data is the wrong word, mid-market big insights.

So, I think that we're very well positioned, and the way I like to talk about big insights, or even big data is what I call the A, B, C, D of big data or big insights. A is analytics, and this is what everybody seems to focus on. But if you think about a pyramid with A at the top, that's the tip of the pyramid. It's important, but it's not the biggest expense factor.

B is bandwidth. The whole point about analytics and big data and big insight is the velocity of your data analysis is important, moving your data is very, very important. How fast is it? Zynga has to, for example, make decisions about how they -- they do about 15 terabytes of analysis a day. And they have to do that really fast in order to be able to increase their revenues. They use Force10 switches. And so this is one of the reasons why we bought Force10 is because the B in A, B, C, D of big data is bandwidth. Low latency high bandwidth is critical.

The C is compute. So, our latest generation 12G servers with memory density, and onboard cache, are very important for the compute aspect.

And D, of course, where you spend most of your money with big data is going to be in the actual storage. So, how do you optimize your data footprint, how do you store it, protect it, and make sure you have access to all of your data, because bringing it all together is important. You want pervasiveness. The whole point about this analysis is to take something like unstructured Twitter feeds, mix them with your SQL database, and come up and find an answer. To do that, you need something else, which is what's call and ETL layer, which is extract, transform, and I always forget what the L is but it's obviously an important word. We bought a company called Boomi that does this ETL very well. And so this ability to aggregate the data into one source, and then you can work on it is critical.

The point I'm making here is that there's more to it than just talking about Hadoop. People think, okay, big insights, big data, it's all Hadoop. No, it's not. That's the tip of the pyramid. You've got the whole rest of it to worry about. And that's where we're looking at it holistically.

BRENT BRACELIN: Do you see Hadoop being potentially disruptive to the storage market, or is that five-ten years from now?

PRAVEEN ASTHANA: I think it's a bit of the ways away. It is disruptive today in the sense that most of Hadoop installations are running on servers, not running on SANs. So, you're replacing where you might have used a SAN from EMC or something like that, you're now just using a regular bunch of Dell Servers.

BRENT BRACELIN: Right. I wanted to talk a little bit about kind of surprises in the business. As you kind of think about what you thought would happen maybe six months ago versus kind of what you're seeing today, what is the one biggest surprise as you kind of think about today versus kind of what you thought six months ago?

PRAVEEN ASTHANA: Okay. Well, part of my job is not to get surprised. So, I'm not that surprised about what I'm seeing as a trend. But what continuously surprises me is how slow customers are to adopt some of this exciting this new technology that we come up with. We have talked about converged infrastructure and convergence, and we talk about cloud, and big data, but I can tell you that customers are not as enthusiastic about jumping onto the bandwagons as the vendors, the press and the analysts are. And so there is a whole concept that I have that I call absorption rate, which is how fast can a customer absorb the technology. And I've talked to customers who are still on Windows XP. They really don't want to. They'll be kicking and screaming before they move to something else, just because it's just hard to manage change.

So, I think that one of the things that as predictors of where technology trends are, we need to think about how quickly will customers adopt it, not just how quickly can we dream up of an offering.

BRENT BRACELIN: Interesting. Last question I have for you really is around kind of predictions. I would like to put you on the spot here as we kind of close out. What do you think could happen in the next three to five years that would be most surprising that kind of people wouldn't expect to happen, but you expect to happen, or could happen?

PRAVEEN ASTHANA: Could happen, well, Dell is going to be number one in enterprise solutions. I think that there are a couple of interesting trends. First of all, this whole flash in the server and integration with the storage is a trend I think that could really be disruptive to some of the really high performance storage vendors. So, a lot of tier one storage that you have to take and get disrupted by that.

I also think that what this means is that for the mid-market they don't need to start buying really fast storage, really slow storage. You kind of have one box that has it all. So storage, I think, is something that's going to start changing.

I don't think cloud is going to happen as fast as people are saying it is in the sense that I do think that people will want to use it for burst capacity, and they'll want to use it for some software applications, but many software apps are not being rewritten for the cloud. And so I think there will be a slower transition.

I think that one of the trends I would like to see, but I don't know if it will happen is, more UNIX moving to X86 rather than being on UNIX proprietary.

BRENT BRACELIN: You would like to see that happen, but you're just not quite as fast as you would hope?

PRAVEEN ASTHANA: Yes, I don't think it's going to happen as fast just because, again, it comes down to app rewriting. I mean, the apps are the ones that control this. All the economics, everything would say move it, but until the apps get rewritten, people aren't going to move.

I think that there's a great opportunity, frankly, for companies like Intel, Dell, VMware to collaborate on is to help this migration from UNIX to X86.

BRENT BRACELIN: Interesting. Unfortunately, we are out of time, but I certainly do appreciate your insights that you shared, and thank you again.

PRAVEEN ASTHANA: All right. Thank you all.

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