

Dell Technologies World

Financial Analyst Q&A

5/5/2021

Rob Williams:

Good day and thank you for joining us the Dell technologies world I'm Rob Williams and I lead the investor relations function at Dell.

With me today are Dell founder chairman and chief executive officer Michael Dell and VMware's interim CEO Zane Rowe.

Dell's vice chairman and chief operating officer Jeff Clark, VMware's chief operating officer products and cloud services Raghu Raghuram, and Dell's President infrastructure solutions group Jeff Boudreau.

Before we dive into Q and A I'd like to remind you that all statements made during this call that relate to future results in events are forward looking statements and are based on Dell technologies and VMware's current expectations.

Actual results and events in future periods may differ materially from those expressed or implied by these forward looking statements, because of a number of risks.

Uncertainties and other factors, including those discuss in our periodic reports filed with the Securities and Exchange Commission Dell Technologies and VMware assume no obligation to update our forward looking statements.

I also want to point out that all questions for today's event should be submitted via the ask a question function and the tool.

As a reminder, please limit yourself to one question so that we can get to as many of you as possible.

Also, given that we are in quiet period, we will not be taking any financial questions about current performance. Today's session will be focused on btw announcements our products and solutions and our joint innovation and work with VMware. You can now begin submitting your questions.

All right, while we assemble the questions.

Let me go ahead and kick it off with the first question for Michael and Zane.

Michael and Zane maybe you could share your perspective from each company's a individual point of view here, obviously last.

Last month, about two weeks ago now, we announced the separation distribution agreement with VMware can you briefly touch on the strategic benefits for separating the two companies, Michael I ask you to start first.

Michael Dell:

Great Rob and thank you all for joining us, you know as part of this we've created a commercial agreement.

That maintains the benefits of the relationship.

Well, it also increases strategic flexibility for both Dell and VMware and I believe both companies are positioned for growth.

Our Dell shareholders will benefit from management's increased focus on the attractive growth opportunities we have in the core business and they'll continue to benefit from VMware ownership.

It obviously simplifies the capital structure for both companies. It increases VMware eligibility for key indices and increases the public float it unlocks the discount evaluation of the current capital structure for all shareholders and it positions Dell for investment grade ratings also aided by the recent VMware announcement.

While maintaining VMware investment grade ratings post share distribution.

Zane.

Zane Rowe:

Sure, thank you, Michael good morning and good afternoon to all of you.

You know, as Michael pointed out, we believe this adds creates tremendous value for both shareholder groups, you know, on the VMware side. In addition to what Michael said as a standalone company being, we will have more strategic and financial flexibility to pursue our any app, any cloud, anywhere vision.

Which will accelerate our customers digital transformation.

Which, of course, we also work on collectively. It simplifies our corporate ownership structure and our governance model to support those growth opportunities and the removal of the dual class structure converting the class B with 10 votes per share into the class A's one vote per share to share on a wonderful one basis will make VMware.

VMware eligible for indices, like the S&P 500 and obviously we're encouraged by that so in general it broadens our ecosystem and allows VMware to execute on our broader growth strategy and provide our customers solutions and services on multiple clouds in a multi cloud environments and, obviously, we think that benefits not only our shareholders, but our customers as well, we will maintain our investment grade profile and rating while paying a dividend to all stockholders so I'll stop it there, unless there any follow up questions.

Rob Williams:

Great thanks Zane, our first question comes from Cowan and company and from Chris.

As part of your commercial agreement with VMware can you help us understand what that collaboration work looks like, and can you give us examples of the joint innovation with VMware.

What are the milestones to watch out for, so I would ask you know, maybe Jeff to start and Zane or Raghu to weigh in maybe from the VMware point of view.

Michael Dell:

Hey Jeff you're on mute.

Jeff Clarke:

Oh darn it I'm sorry.

Didn't pass that test.

Zoom mulligan and I, it was a nugget that I, my first sentence I'm I can't replicate it now, nonetheless, we go back and regroup so what we've largely done is formalize the informal relationship we've had in place now for many years and there's no question that we remain strategically aligned.

There's no question in our mind the commercial agreement that we put in place allows us to execute at a high level.

The commercial agreement keeps our go to market engines aligned and driving the revenue synergies that we've benefited from for the past many years.

And then also it specifically allows us to continue to jointly innovate and build solutions that our customers want.

So about so walk through that as the framework, what have we really done.

You look at some of the statement of work that we've referenced in some of the public remarks in the past and we have a wide range of activities that we pointed to.

Whether that's data center of the future, to use a VMware code name project Monterey inside our nomenclature.

Again next generation data Center and what that becomes the two teams are aligned, the two teams work together.

Zane and I overlook a series of meetings that allow us to gauge progress against that strategic agenda, the specific development work and when time comes the go to market release of such activity.

That that range of statements of work is from 5G to what we're doing in Telecom to what we're doing in the edge.

To what we're doing and things like smart fabric director what we're doing in things of Vxrail across every aspect security unified workspace.

With Workspace One in each of these programs again actually gets a regular inspection spirited technical debate amongst our team that Zane and I oversee.

There's a series of go to market for those that are in the marketplace reviews and allows us to really drive the same momentum we've been doing going forward.

Again, in a very structured methodical way that was in place before it remains in place we've actually structurally written that down and allows us to deliver those consistent results in the alignment across the organization.

Most importantly, it allows us to continue to think about this for as Michael said earlier today, the next five and a half years there's no change.

Sanjay said, one of our earlier discussions and will hopefully continue past it 10 and beyond.

So our customers will see the consistency, they had in the past, our technical teams and field teams remained a line under strategically aligned with where we see the world going, I hope that answers the question specific enough.

Zane Rowe:

Hey Rob I can just I can just jump in and hand it to Raghu to talk a little bit more about the innovation, especially some of the announcements of this morning, you know, on the commercial agreement as Jeff alluded to, we spent four and a half years, delivering significant strategic value to our customers, you know through joint innovation collaboration and, of course, the scale so from the VMware side we feel like we've clearly benefited from that.

And will continue to drive that it's those learnings that will advance, we believe the growth profile with the joint he joint solutions and across our expensive go to market effort so we're excited about that we're excited about leaning in.

We believe we've better aligned disagreement over the last number of years and, as we look to the next five years.

We think we've got our interest really nicely aligned to continue to drive growth together so we're excited about it and then Raghu maybe I'll hand it over to you to talk a bit about some of the innovation we're working on together.

Raghu Raghuram:

Yes, thank you.

The important thing about this just talk to the points that Jeff and Zane made these areas of innovation that we identified are identified from the customer in it's not just saying something good for Dell so let's go do that or something good for VMware that could do that right, we all share a common view.

Of market or a customer set of problems that is big and exciting and profoundly valuable to the customer base, and those are the ones that we have identified as worthy of our giant innovation and joint go to market as well, so just to give you I think Jeff gave a very comprehensive list now, this is what led to Vxrail to begin with, and that continues to be falling away.

The leader in the category of hyperconverged infrastructure. We saw the need for customers wanting to have a more managed in into a managed offering.

Cloud delivered offering in the private cloud and that led to VMware cloud and Dell, etc, the go forward, ones that I'm personally super excited by is the work that again Jeff referred to the next generation systems, what we call this project Monterey is a fundamental building block.

And the reason, this is exciting, is that we are jointly innovating literally from the silicon up all the way to the workload on top.

Including things like management and security, and so on and so forth, and that was fundamentally of innovation that you won't see the result right away, but this is something down the road, you will see an offering in the marketplace.

That is category that's targeted at the workloads of tomorrow, not just the workloads of today.

And then telco and edge are the two other areas that don't say we are starting to do tremendous work together, there is a 5G and the area of edge.

And there's some number of announcements today, as you saw I think all of these build on the continuing requirement are interested in customers from having that IT solution delivered more and more as a service through the epics program.

So these are the areas that I would say, should expect to see a lot more news in the coming months and years.

Jeff Clarke:

Raghu I think you'd agree that this is just it's more than just software running on hardware, this is deeply integrated exactly solutions.

Building whether it's an appliance or a highly integrated solution stack that we both are taking significant roles and playing from to your point from the bottom of the hardware stack all the way through into the higher level frameworks.

The level of orchestration between our two teams, I think, is key and important and different a differentiator going forward long term.

Raghu Raghuram:

Now, and the mechanisms your client on the governance and how to get how the two teams working together is critical, you can do such deep collaboration, without this level society product innovation, without this level of collaboration.

Rob Williams:

All right, great hey thanks Jeff thanks Raghu appreciate that.

Next question comes from Aaron Rakers at Wells Fargo.

First, he says thanks for doing a call today, and with regard to your APEX announcements, can you provide a quick overview of the new capabilities that were released today.

Relative to that what has what had been announced back in 2020 and some of our prior offering through Dell financial services, so I guess Jeff or Jeff I'll let you guys take that one.

Jeff Clarke:

Sure, maybe Jeff I start, then you can fill in any places I missed and add to that.

I'll take that as a yes, the first thing I think it's important is we've gone from project APEX to its live available today a wide range of offers that allow our customers to focus on outcomes and the insights they gained from the data in their infrastructure.

And, rather than historically looking at speeds feeds and talking about gear, we have changed the conversation because customers have asked us to change the conversation to be outcome driven.

So we've really put together a series of offers that drive simplicity agility and control to our customers to work in this modern cloud operating environment that they want to be in.

So we've delivered a modern consumption and customer experience we've delivered a continuous delivery model of features and capabilities.

And we have delivered a cloud service or support model as well, specifically, if you look at the range of offers that are now live and we've gone again specifically from the word project to a series of announcements of the console is alive and up and running today.

We have launched APEX infrastructure services specifically APEX storage services giving our customers an ability to pick a wide range of options from file and block to a performance tier.

To the capacity point in the term and, for that matter, the location and they can do all of that, in a relatively few clicks specifically for so within four clicks.

You can actually spin up a service from Dell will deploy it in 14 days and have it up and running at our customer sites.

Managed by us operated by our customers, giving them again the control agility and simplicity, they need in their enterprise.

We announced APEX cloud services, which has two components APEX hybrid cloud and APEX private cloud.

APEX custom solutions which is made up of APEX FLEX on demand in APEX data Center utility and then Lastly, a new exciting area for us is APEX partnership specifically an APEX variant for the largest colocation provider in the world Equinix so for those customers that want the ability to place an asset.

Not in their direct on their premise, but through a colocation we provided the capability to do that.

We're quite excited about the range of options and each of the things that I described as the new services, all within a series of three, four or five clicks you spun out of service, and we can deliver quickly.

And drive a modern customer experience a single invoice a clear invoice a pricing methodology that is consistent in your peak times and your average times, which I think is highly differentiated in the marketplace Jeff did I miss anything.

Jeffrey Boudreau:

I think you covered it.

Rob Williams:

Okay, great thanks guys. Hey maybe a quick follow up on that one for Michael.

Michael what was the customer perspective on APEX and it's more of a consumption based topics based you know IT delivery model, what have you been hearing from customers.

Michael Dell:

Well, I think certainly among the big trends of multi cloud and an edge.

You know this increasing demand for outcome based offerings you know, has been there for some time, and if you if you think about a continuum where you know we start with products, and you know we end up with a complete as a service.

We've actually been on this journey for some time right we started with a product business we added services that have managed services who added they don't FLEX on demand utility now we have APEX.

You know, look on our balance sheet you'll see remaining performance obligation was \$41 billion at the end of last quarter that's a substantial sum so.

There's been quite a few dots of progress along that journey, and you know we've sort of had what I would call bespoke solutions for lots of customers and we had.

As a service initiatives all over the company, and this was one of the challenges for us so with APEX we brought all those together into a unified company wide initiative and you're going to see us, you know

with kind of rolling thunder here as we roll this across the entire business but customer demand for this, we think is substantial.

But again, you know shown by the balance sheet and the growth in our PO it's not a completely new phenomenon.

Jeff Clarke:

And Michael we've talked about how we take the learnings of APEX and adapting to these new ways customers want to buy and applying it to our traditional core businesses to make them more efficient.

More sticky adding value beyond the box so there's an opportunity here not only to adapt to the new ways customers want to consume infrastructure services, but to take those learnings and to make even our traditional businesses more competitive long term.

Michael Dell:

And, and you know if you if you, you know, one of the questions was on Colocation and you know.

Equinix, and if you if you think about that we're we're offering one bill that includes Telecom, and you know all the the Colocation services.

Again this continuum from products, all the way to APEX is a massive expansion in our TAM and the available opportunity for us so we're quite excited about this also is a growth vector for our business.

Rob Williams:

Alright, great thanks everyone on the follow up questions were from Shannon cross research and Sydney H at DB so appreciate those questions, let me go to the next question here let's uh let's how about this one from Katy Huberty at Morgan Stanley.

Could you talk a little bit about where you see your market share and edge infrastructure long term compared to the current market share say and hybrid infrastructure being defined as cloud plus on prem.

So you know a little bit of a longer term perspective on where do you see the edge headed and how to Dell play there, what are our competitive advantage is what what's the real what that TAM opportunity that's out there for us.

Jeff Clarke:

Or maybe I started in Jeff Boudreau can help me along the way here look in our mind the edge's the third premise and it's not been won by anybody.

There's been a lot of initial deployments that are highly fragmented, the way that we look at the edge today is a very vertical eyes fragmented siloed premise today and customers are really looking for turnkey solution, so the very thing that Raghu and I were talking about just moments ago about highly integrated solutions from the bottom of the hardware stack through into the higher level frameworks that's the opportunity to bring value to the edge and then, if you look at all the data points that say 75% of the data growth is going to be outside of traditional data Center \$700 billion of capital is going to be spent over the next decade building out the edge.

Most of the edge is going to be new applications, I think the application growth on edge is 800% over the next three or four years, there are applications that we can't even comprehend, yet that are going to be developed a new usage models, it is clearly the growth opportunity for our company and what it really has his attributes that are, I think, play to our strengths it's a highly distributed compute model.

Our proximity matters or, if you will, location, matters which is code for latency matters because data is being created real time it needs to be consumed and adjusted real time computation needs to be done on it real time to drive the insights customers want to ultimately drive better outcomes.

We believe it's going to require massive scale to be able to reach all of the points at the edge well that's what we do every day.

And then, if you think about it Jeff uses the word cost I use the word data gravity it's expensive to move data so being able to synthesize data appropriately at each stage in the stack.

We think is very important, and when you look at those attributes oh my gosh it's just a huge opportunity for our company.

It's right for solutionization of that such a word but turn key by vertical orientation.

And a company like Dell working with VMware we think provides a tremendous opportunity for us to grow in the edge and I tell you we're in a really, really, really early innings.

And it for us it's the next strategic battleground, it is the third premise and we are investing significantly to make sure that we win and I won't give you our market share targets Katy, but you can imagine our current market share positions and enterprise there's no reason to believe it shouldn't be that are greater as this evolves in the future Jeff did I miss anything.

Jeffrey Boudreau:

I think you nailed it I just did the one thing I would add to is going back to your point of data is going to be everywhere, and you know via just going to be in all these different vertical locations, if you will it's going to require different architecture right and going back to your point of latency scale or cost of data gravity.

Making sure we have a it's going to be more of a decentralized distributed architecture that can support that we're bringing compute storage data protection data mobilization closer to the way the data is being created so going away from the centralized model for more of a distributed model, I think, is important for people to understand, which I think comes swings to our advantage as well.

Rob Williams:

Alright, great thanks Jeff and Jeff hopefully everyone can hear me here.

Maybe some Audio problems but I'll keep going.

This is from Steve Fox and fox advisors, a question specifically Powerstore so Jeff will pitch this one over to you, but Steve's question is:

Can you discuss the power source software upgrades in more detail, these are the announcements that were made about a week and a half ago.

And how better position, the company to solve next generation mid range needs. Also, how does the power store 500 that are positioned Dell at the lower end of the mid range storage market and how may customers choose to mix and match Dell storage offerings across different applications.

Jeffrey Boudreau:

Sure so thanks for the question, first I want to take a step back and just highlight the momentum weeks, you know power store it has been a game changer for us it's the fastest ramping new architecture that we have in Dell history and We grew 4x in Q4 fiscal 21.

We shipped over 400 petabytes of effective capacity to customers and all industries and Geos.

Which is something pretty impressive and we're winning against the competition we tripled our number of wins against some of our key competitors in Q4.

So really impressive output already so far.

This allowed us to return to mid mid range storage share business we actually got back to growth in Q4, which was the first time I think in a 8 quarters that we've done that, and I think Jeff mentioned that in the last call.

So a lot of great innovation they're now going specifically to your question in regards to the software release so yes, last month, we announced power store version 2.0.

I would say, is a significant upgrade in regards to our software and I also want to mention that it's non disruptive going back to the modern containerized microservice architecture it's free.

But it increases the levels of performance intelligent resiliency and scale it's a across the whole environment just a major upgrade for our for our customers.

And going back to the architecture that we designed it's a microservices container based.

So you're going to see the notion of the ci CD that Jeff talked about APEX and cloud you're going to see that innovation just keep coming on this platform, so it really sets us up well for the future.

Shifting to power store 500 it opens a ton of new doors for us right it's a new entry point platform it starts at about \$28,000 it really helps us get into the low space and bring like enterprise level, you know.

Options and features and functions to mid sized businesses, small businesses and edge solutions so really getting all the great technology you've seen in all the other power store offers that we have today, we are able to do this in a two year form factor and perhaps about 1.2 petabytes of capacity so really powerful box entry enterprise level capabilities and less than \$25,000 so.

You know, really huge win for us opens a lot of new doors, I think, is most you know for us in regards to the portfolio, you know we're doing.

we've been on a journey simplifying the portfolio over the last few years and that's been a clear mission.

We want to make sure we have industry leading products in each of the different segments this past summer we launched the power portfolio so examples of that would be power Max in the high end.

Power store in the mid range powerball the entry and power scale and the unstructured space, we are clearly the market leader and all the segments.

I will say the one year that we've been challenged which Jeff and Michael talk about the past was the Mid range space we are the leader.

We are the leader in that space today but we're not doing as well as we should, and we need to grow, and this is why we built Powerstore with go right at the heart of that growth large part of the market fastest growing part of the market and that's why we brought power store in regards to going back to that opportunity for us and we're feeling really good about where we are and where it's going.

Jeff Clarke:

Hey Jeff I feel it's worth noting, and even overstating this new, modern architecture talk about is the first new architecture, introducing the midrange in over a decade.

And you made reference of micro service based architecture, and the reason that's important and what's different from what we've historically done and the work that you've led over the past handful of years here.

In the past, that we launched the new product, we launched it, and then we would take years before you would see a new set of features what we've done here is really brought this notion of continuous delivery of capability.

And Jeff reference it, but I think it's so important to say we are going to be able to deliver consistent new features and capabilities on a regular basis.

That we've never been able to do before to continue to disrupt and to bring new capabilities to our customers across this broad based platform which is significant for us, and I think highly differentiated in the marketplace.

Rob Williams:

All right, I think, thank you Jeff and Jeff.

We've had several questions APEX related question that are kind of along similar vein from Matt Cabriel from Wamsi Mohan at BofA and at ISI.

Most of those kind of started to get into the implications for revenue and the financials over time and I just want to remind folks that we're going to avoid those questions today, and given the timing of the quarter, we really want to focus on, you know product solutions joint innovation so happy to continue to kind of get into more detail on some of the product of the product and solution side of the business, but let me see if I can kind of wrap all of those into like a single question.

And you know, I guess, one of the questions that came through.

Again, related to APEX was we you know we've seen others in the industry moved towards these capacity based pricing models and you know there's generally a pretty decent understanding, a good understanding of why customers are interested in some.

Maybe we could touch on maybe one of you could touch a little bit on what you think the biggest differentiators will be for Dell on both now and in the future, relative to the competitive offerings and why it's important for us to make it more kind of a vocal push into this category, even though we've been providing these solutions in various forms, for some time, so I'll leave that to yeah for Jeff or Jeff if you want to start on that or might be you want to jump in.

Jeff Clarke:

Jeff Boudreau would you like to start, then I'll come in and add to that.

Jeff Boudreau well he's figuring out mute that I struggled with.

But one of the things as we talked about, and even the first question, I would highlight what we're focused on and driving is this notion of customer outcomes which really talks about customer success, so our initial focus is really about driving customer success getting customers on the platform showing them the ability to deliver the simplicity and agility and control that we believe that we've brought to the marketplace with APEX.

We believe that is a gamechanger for our customer in the way that we have done it.

We have done it we think it's highly differentiated from many of the other offers that are in the marketplace today whether that's the fact that our offer includes services it's not a get it from somebody else.

Whether that is the ability to get a single invoice whether that's the ability to get the spun up service in a short number of clicks whether that's the ability to get the actual product from clicks or they should say this service from clicks to 14 days on your floor ready to go, whether that's being able to deliver additional capacity and five days beyond that all that, all of which we will improve on in time.

Whether that gives customers, the flexibility in that transaction, to be able to deliver that to a different location, we think those are only scratching the surface of what's differentiated about our offer, and what we will build going forward if you think about this.

I think we mentioned in the keynote this morning that we go file block object on this storage side we think about playing that beyond to.

Storage the data protection to compute infrastructure as a service, I think a broad based solution from us is highly differentiated over our competitive set today.

And again, this is really about driving customer success and really trying to give them the control they want, the flexibility they want to be able to work in this hybrid mini cloud environment that the world has become.

Jeff how's that for a setup.

Jeffrey Boudreau:

First, I apologize for the technical difficulty, but yeah it's good setup, so I think you nailed it with this simplicity agility and control.

That allows in regards to how or where or who our customers want to consume acquire deploy consume and manage and even retired their IT, so I think that's really important and to your point around the simplicity and the partnerships that we're driving I think are really key so.

Michael Dell:

Yeah just there just to add to that me, you know customers increasingly want to focus on their applications and their data and AI and you know they don't want to manage infrastructure and, in many cases they don't want to manage their own data centers so working with the colo providers, making everything as a service managing it for customers, you know we're definitely providing those capabilities and doing it in a very flexible way, that is, you know responsive to all the input and demand we've heard from our customers.

Rob Williams:

Great thanks Michael.

The next question from Wamsi Mohan at Bank of America, I guess I'll direct this one towards Jeff Boudreau.

Anyone wants to weigh in Jeff do you see AWS outposts and Azure stack with on prem options as a credible competitor and the hybrid cloud world versus say HPE's Greenlake offerings or IBM in their red hat and the Multi cloud world so maybe you could expand on that that competitive set I guess the best way to describe it sure so I'd say in the competitive set.

Jeffrey Boudreau:

I take everybody seriously in regards to competitive threat and regardless of what's going on and we talked before about the edge and where data is being created in this notion of it is a hybrid world it is a multi-cloud world and you know, all these folks are players, they have different offers and different skills and different strengths, which is what Jeff was mentioning before.

A lot of this stuff is you go on Prem and you get reaching this distributed world and distributed architecture, we have a lot of unique benefits that a position as well versus other competition, leaving any specific name alone.

So leaning into the things that we talked about with APEX around simplicity.

The agility that control, so the digital the digital first the cloud experience, if you will, that Jeff reference with our other skills around our reach with our go to market in our services and our partner ecosystem.

Our supply chain just there's a lot of attributes their regards to why you feel good about our position in that space, but.

As we said, going from a centralized whirlpool more of a decentralized world I think really comes to our strengths, taking all the work we're doing around Jeff just reference around APEX merging that with our partner ecosystem and all our core capabilities of today we're in a good spot.

Rob Williams:

Okay, great I just as a reminder for go to the next question, if you have specific questions please submit them on you know products and solutions focus questions.

Next question is from Simon Leopold at Raymond James.

Simon says hey we've heard we've heard less about hyperconverged solutions from Dell recently.

Perhaps that reflects the maturity or the effort to get us focused on newer products but.

You know, can we hear an update on how they'll see this market opportunities position and I'd love to have Raghu weigh in on that one as well, given the unique relationship we have on that solution.

Jeffrey Boudreau:

So for me it's I guess I'll start then we'll go to Raghu if you don't mind, but so obviously it's critical in regards to what we're doing so, if you think of the large external storage market and size, the market and the growth of the market, HCI one of the key growth drivers in that space, we have a clear market leadership position, and especially with our Vxrail assets.

That doesn't change, as you can see prior quarters I can't talk about this quarter we've had great success and we expect that momentum to continue.

And we were just talking about the midrange growth and, specifically, of being a large market it's 50% of the external storage market.

A lot of that growth it's not just the power store it's going to be also what we do with HCI so having a I guess the winning hand of.

What we have with our Vxrail assets, in addition to what we have with Powerstore just a one two punch I think is pretty much unstoppable in that space I'll let Raghu jump in.

Now he's having technical difficulties.

Raghu Raghuram:

Sorry about that.

Yeah, but I just talked about the other industry and category leader in in hyper converged infrastructure, it has grown to serve the widest variety of use cases from traditional workloads to data intensive workloads to modern even big data workloads in cases and the performance on databases and, if you look at it from any category of any benchmark.

We perform really well against you against the competition so that's the part number one. Part number two is all the systems integration that we talked about earlier in the conversation, those are on the go forward innovation of around Vxrail and so, not only do I market leadership position today we are innovating furiously to continue to bring new use cases and advanced are joining the leadership in this category.

Jeff you're gonna say something.

Jeff Clarke:

I was going to add, and I think Raghu you'll wholeheartedly agree here, we talked about hyper converged as a category, but if we step back.

The collaboration between Dell and VMware on Vxrail has led to the VMC on Dell EMC APEX hybrid cloud APEX private cloud it's the basis of the work that we're doing in our collective telecom efforts it's the basis of our work that we're doing in 5G deployment it's the basis of our work in edge and in the emerging edge, even the announcement we made today what is fundamentally on a Vxrail so that architecture that we've collectively built.

And the highly integrated appliance and software that the two organizations have built is the basis for all of almost all of our modern interactions and modern architecture thoughts that we're driving forward with, and if we haven't talked about it and specifics.

Shame on us, but it is absolutely core this two tier architecture that plays a significant role and most everything that we do in the marketplace and certainly most everything that we do with our colleagues at VMware I think you would agree with that Raghu.

Raghu Raghuram:

Absolutely.

Michael Dell:

Yeah and I think I think it, you know at the core of the core right is is the VMware cloud foundation and that's the substrate for this multi cloud architecture that allows consistent operations and consistent infrastructure, wherever the customer wants to deploy those workloads Vxrail is sort of the easy button for customers to get on that platform and that's why it's worked so well and continues to grow quite fast.

Rob Williams:

Okay, thanks, gentlemen, all right I'm gonna make this the last question and I'll wrap it up.

This is, these are questions from Toni Sacconaghi from Bernstein as well as David Boyd at UBS they both asked similar questions I'll try to blend them together in an appropriate way here, but both asked about the decision to sell Boomi and you know kind of what led to our decision to sell that and then the follow on to that would be, how do you feel that the portfolio, the core Dell Technologies portfolio is position for growth because we kind of move through the bounce of this year and into the future small number of long term growth question which I think would be appropriate way to wrap up today so Michael a pitch that went over to you and Jeff maybe you'll weigh in on that one as well.

Michael Dell:

Sure, so look, I mean Boomi has flourished as part of Dell over the last decade and we're confident that this is a great transaction.

Both for Boomi and for Dell and our shared customers it's another example of how we're simplifying our business and focusing on our core strengths.

And you know you've heard today at Dell technologies world about how we're modernizing and growing our core infrastructure business.

Certainly the PC businesses well positioned APEX is a big TAM expansion opportunity for us opportunities in hybrid and private cloud at the edge and telco.

And you know it's a great transaction, and you know it's a great transaction and confident in the in the growth opportunities we have in the core business.

Jeff Clarke:

Maybe to add to that Rob if you look at where we're focused as an organization it's growing modernize our core businesses it's the build the ecosystem of the future.

It's when the edge and lead with APEX and, if you think about our internal R&D organization which may be it's not as well understood as we'd like it to be now what's an organization of 20,000 engineers 80% of them right software.

And we over the years have been pivoting our internal organization to software and into the new areas that we've talked about throughout the day So when I step back and look at do I feel comfortable where we are.

We are absolutely shifting to an organization that builds highly integrated solutions, whether it's an appliance like VX rail or the new APEX offers that you've heard about today of really driving more value added software throughout our stack.

Even our PC business today half of our engineers are software engineers which may be different than most people think about it, and particularly if you look about the new opportunities and where the PC is going to go.

We're going to have much many more software opportunities on top of that.

I think about the work that we do in storage, the work that we've been doing in services do predictive analytics doing telemetry doing supportive system, helping our customers do forms of self healing it's all software I think about cloud IQ which fundamentally is the backbone to be able to manage APEX data storage services it's a cloud control plane it's software I think about where we're going many of the examples that Raghu and Zane we've talked about throughout the discussion, whether it's in 5G or the opportunities around edge are all software solutions orientation and what we're finding.

And where we think the value is is the tight integration of hardware, software and services through software stacks is allowing us to differentiate and that's where our investment dollars are going in R&D.

That's the pivot that both Jeff Boudreau and Sam Byrd are making in their organizations and really moving forward across those four fundamental tenants that I talked about the beginning.

Of pivoting our organization to drive more software value more stickiness throughout our stack and I'm quite excited about that, I think the prospects and opportunities for us are immense.

Rob Williams:

All right, great hey thanks Jeff thanks first of all thanks Zane and Raghu for joining us today we really appreciate it, and thanks everyone for joining us, of course, and please enjoy the rest of Dell world and we'll be speaking with you soon, thank you very much.