## Dell Technologies at Goldman Sachs Leveraged Finance Conference

Moderator: Frank Jarman, Goldman Sachs – Analyst Corporate Participant: Rob Williams, Dell – Senior Vice President, Investor Relations

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Frank Jarman:

I'm the high-yield tech analyst here at Goldman Sachs. I'm very pleased to have Dell Technologies with us here today. I've got Rob Williams here, Senior Vice President and head of Investor Relations for Dell Technologies, and so looking to have to, sort of, offer up any questions to the folks out there, but I'll kick it off with a number of questions and then move to, sort of, a broader Q&A if that sounds good.

So thanks, Rob, for joining us today. In the dialog that I have with investors, I think one of the biggest questions and focus items for investors is just the story around how to think about the path to investment grade. You guys mentioned, on the most recent earnings call that investment grade is a strategic focus for you. Given the fact that you have ongoing dialog with the rating agencies, how do you think about the path to investment grade, especially given some of the surprises we've seen around the margin story most recently. Maybe you can kick it off with that.

Rob Williams:

Sure. Thanks for having me and thanks, everyone, for joining us. Very committed to the path to investment grade. That's been a major piece of our capital allocation strategy as we've closed the transaction. You guys are all aware we've paid down, roughly, \$7.1 billion worth of debt since the close of the transaction in September of last year; continue to be very focused on a rapid delevering over the course of the next year or so. That's not going to be linear.

We saw that last quarter, for example, where we had a relatively modest paydown of amortization in the most recent quarter. But you will see us, over the course of this year and, particularly, into the first couple of quarters of next year continue with a fairly rapid delevering, and no change in that focus. We meet with the rating agencies regularly. We were up in New York in April. Some of you were at our Analyst Meeting. We used that opportunity to also meet with the rating agencies on or around that same time, a little bit after that.

And the message there is the same. They're very interested in the fact that we are not in any way changing our views on that, and, of course, we're not. That's our primary focus. Relative to the adjusted EBITDA, the way that I like to have people think about this is that with the things that are happening with component costs, you'll see us cycling through. Last year we benefited from a very favorable component cost environment, and were able to recognize some nice profitability as a result of that.

We're now kind of running up against some headwinds, and that's put a little pressure on adjusted EBITDA, but that will work itself out over the course of the year as we continue to make pricing adjustments. There's a lot of seasonality in our business today. We can get into that later. That is a factor, as well, so, you know, again, we all recognize that the adjusted EBITDA is a bit lower in Q1. But we expect that to build throughout the balance of the year. The cash flow builds throughout the balance of the year. The debt paydowns will build throughout the balance of the year, and we've got a couple of big scheduled repayments next year in Q1 and Q2.

So you'll see that pace continue. You'll see us continue on the targets that we laid out in conjunction with the transaction, when we close the transaction, and when we issued the debt and did the roadshow. So no change in the trajectory of paydown. EBITDA a bit lower, but that's a

function of what's happening in the industry. We're adjusting some of the industry dynamics but we feel okay about where we are.

Frank Jarman:

Got it. And so \$7 billion of debt paydown post EMC. The agencies obviously have their own targets. As you think about striving for that investment grade rating, is there a sense for -- from your end -- where you have to take that debt stack down to? Is it \$40 billion? Sub \$40 billion? And then, conversely, as you think about the EBITDA side and ultimately we're going to get to sort of a leverage metric, but how do we think about debt versus EBITDA over the next couple of years and how do you think about that in the construct of an investment grade story?

**Rob Williams:** 

Right. Well, for sure, total below 40. That's part of the trajectory that we're headed after and then south from there. Then the other factor there, you've got the classic numerator/denominator, right? So with lower EBITDA, the path to investment grade metrics is a bit longer, there's no question about that with the lower EBITDA relative to where we would ideally liked it to be, say, nine months ago.

Frank Jarman:

Yes.

**Rob Williams:** 

So we'll continue to move down on the numerator by paying down the debt, again, with no change in that trajectory. We're right on target, we're right where we need to be with that paydown. And then huge focus on getting the EBITDA, the denominator, growing back up to some levels that we think are appropriate for the business.

And so, of course, we don't -- as you guys know, we don't give guidance on EBITDA, but we do believe that that's going to build throughout the course of this year and build into next year.

Frank Jarman:

And one of the questions I'd just get from investors that's somewhat tied to the long-term business strategy is how you're treating VMware. And given the focus on buying back some tracker stock recently, how does the VMware strategy play into the broader Dell investment grade thesis? Ultimately, is the long-term plan to keep this tracker stock versus VMware equity in place? Or would you like to collapse that? How do you think about that relative to the investment grade story?

Rob Williams:

Sure. Well, I mean, let me take a step back. I mean, we're on the record as saying that we think VMware is, in many ways, the crown jewel of the transaction with EMC. The solutions that VMware is bringing to market -- has brought to market and continues to bring to market -- in the hybrid cloud space. Their ability to play in our conversion infrastructure and hyperconverged infrastructure solutions, their ability to bridge the gap between private cloud and public cloud, the things that they're doing with Azure or with Google, with some of the other major public cloud providers is incredible. Their NSX solution is a fantastic solution that we're really bullish on.

So our long-term view on VMware is incredibly positive. I mean, we'd probably like to own more as opposed to less is probably the easiest way to think about that. And so when we see a discount persist, for example, using, for example, the stock purchase agreements that we've created with VMware, where they effectively buy Class A common from us at a slight discount to market. And then we use those proceeds to then buy DVMT has been very good because at the parent family level, at a Dell Technologies parent level, that's neutral.

So we'll continue to look for opportunities. That's really going to be a VMware decision as opposed to a Dell Technologies decision that's based on their liquidity needs and some of the other things that they need to do from a capital allocations standpoint. But we'll continue to look for ways to be owners of VMware, and I think, long term, that's kind of the view that I would take right now.

Frank Jarman: So, in effect, you're increasing your ownership relationship with VMware while still effectively

protecting the Dell Technologies balance sheet?

Rob Williams: Correct, that's correct. So no impact to the Dell Technologies balance sheet and, obviously, that's

been a pretty favorable way to do it. And we've been very transparent with the rating agencies on what our plans are and how we think about that. And the fact that that, in no way, is impacting

our path to investment grade.

Frank Jarman: Great. You mentioned the margin story, and you kind of talked a little bit about the F1Q numbers

and, you know, just an investor dialog. Obviously, the margin has been a focus for investors recently, and you provided some good color on the earnings call about the 700 basis points of margin impact in the quarter. One of the questions I got from folks was trying to better understand the backlog comment that you guys have made on the call, and I think it's maybe somewhat tied to the seasonality of the business, the EMC transaction as well. Maybe if you could just kind of go

in and help us better understand exactly how to think about that?

Rob Williams: Sure, sure. I'll try to do this as succinctly as possible, but let me take a step back, at least, to the close of the transaction. One of the things that we decided to do as part of the integration efforts

was to not upset the salesforce at EMC. And so we left their compensation plans and structures as well as the overall organizational structure of the salesforce in place. We didn't change anything

there because we wanted to just kind of keep that momentum going.

A couple of things happened. We converted EMC from a calendar quarter to a fiscal quarter, right, and so that was a pretty big impact. And then as we moved into the first quarter, we went ahead and introduced the new organizational structures for the salesforce. Primarily, three structures -- an enterprise structure that is targeted at what I would call, kind of, your global Fortune 500 type accounts, top three -- well, it's more than that, actually. It's more than Fortune 500, but it's kind of the top 2,000 to 3,000 accounts globally. And then everything else kind of falls into a commercial space and then there's the small and medium-sized business.

So that, in and of itself, that's kind of how the organization was structured. And then with the salesforce moving from a calendar compensation structure to a fiscal compensation structure, that's happening as well. And so that's creating some unusual dynamics with the backlog, because EMC -- the traditional EMC business tended to be fairly back-end loaded, and the same with VMware.

And so now you shift that out, and what's happening is we're going out and telling the salesforce, look, we're less likely to push orders through manufacturing at the end of the quarter. We're very clear that we want them to start thinking of things in a more linear fashion and less of the hockey stick fashion. And so as a result of that, it takes them a while to adjust, but you've got this backlog that shifts into the next month as a result of salesforce continuing to kind of bring deals to a closure right at the end of the quarter.

And when that happens, think of it this way -- for every \$100 million of backlog billed, if it's storage at 55% gross margins, the incremental, or flow-through operating income margin is really high on that, because you've got a lot of fixed OpEx, and you've got a lot of fixed COGS as a result of that.

So for every \$100 million, at 55% gross margin, you're talking about \$55 million gross margin and the incremental flow-through is very, very high. So you're getting that -- it's kind of shifting into the next quarter. We think it's going to still take a couple more quarters for that to work through. We're going to shift the salesforce, we're going to continue to shift the compensation structures for

the salesforce to more align with the way that, you know, less on an orders basis, more on a shipped basis. And so we'll work through that over the next couple of quarters. But we'll get to an equilibrium point later this year. But it can be -- you're talking about, in some cases, hundreds of millions of gross margin dollars that have shifted around over the past couple of quarters.

Frank Jarman: Okay, so if I were just to take it down to a salesperson level, I'm an EMC salesperson, and my

calendar year-end was December and now that -- and my fiscal year-end was December, so now that's been pushed to January. Historically, I would have pushed hard to get some deals to close at the end of the fiscal year, but because that's been shifted now and because there's typically, sort of, large backlog that heads into the end of the year, is it safe to say that you saw some of those deals

slip beyond January? Is that, effectively, how to think about it?

Rob Williams: Well, the legacy EMC salesforce was compensated through December, right? And then -- so there

was a big push to close deals in December that got caught -- and we caught that, obviously, in the

fourth quarter.

Frank Jarman: And so then January was sort of a low month?

Rob Williams: Yes, January was a low period and then the next big trigger period was April. And so as the teams

pushed to close the deals in April, some of those deals slipped into Q2. And then their

compensation structures are semiannual. So then the July quarter will be a big quarter. And so the big question that we have right now, quite honestly, is how will the salesforce react at the end of July as we continue to kind of make those transitions. But by the third and fourth quarter it

should start to work itself out.

Frank Jarman: Right. I mean, theoretically, this seems more like a transitional issue than --

Rob Williams: I tend to agree, and that's where we tried. We tried to share demand numbers, and so for the ISG

business, which is our infrastructure solutions group, we said that that business grew very low single digits on a demand basis in the first quarter and that [storage was] down, roughly, mid single digits on a demand basis in the first quarter, which was relatively consistent with what we

saw in the fourth quarter.

So, again, we're trying to give people a sense of, while, there are some big fluctuations on a demand basis, it's pretty straightforward. And so -- then the other big impact is just seasonality. If you look at the seasonality of the business, both for VMware and for EMC's legacy, what they call their II business, there was a big seasonal impact from Q4 to Q1, and then there's another big positive seasonal impact from O3 to O4 every year.

And so that creates pressure on margins because you tend to recognize all of those -- that OpEx more ratably over the course of the quarter, course of the year.

Frank Jarman: And just to go back to one comment you made, you mentioned that the storage slip was if you take

\$100 million that could potentially fall to, sort of, \$55 million or so to the gross margin, and

there's pretty high fall-through then to the EBITDA line as well.

Rob Williams: Correct.

Frank Jarman: Is that \$100 million number representative for the most recent quarter or was it a little bit smaller?

Rob Williams: No, I just picked that as a way to --

Frank Jarman: Is there a number you would care to share?

Rob Williams:

No. What we have said is that of the roughly 500 basis points, there are three primary factors -- seasonality, the backlog build -- those are the two biggest ones -- far and away the two biggest factors -- seasonality and the backlog build. And then, to a lesser extent, you had component pricing and some other factors -- pricing actions, component pricing.

Frank Jarman:

That's maybe a good segue into just some questions around what you guys are seeing in terms of components pricing. I think on the call you mentioned it was, roughly, about a 200 basis-point impact, and the expectation is that over the next several quarters, you'll work to (inaudible) some of that back and sort of, at least, push through some higher prices with regards to thinking about the customer base.

So can you give us a sense across the business segments where you think you have the best opportunity maybe to pass through some of those higher costs? And then, secondly, can you help us think about the timing associated with that, since there's enterprise contracts that maybe extend the timing on at least calling some of that down?

**Rob Williams:** 

Yes, sure. Well, let's start with client solutions group, which is our desktop notebook workstation business and related software and peripherals. First of all, component -- the biggest component price increases have come with SSDs, NAND, and DRAM. In the case of DRAM, it's a smaller percentage of the bill of materials for a desktop or a notebook. You're talking about a desktop or a notebook that might have 12, 16, maybe a little bit more gigabyte of memory. And so even though you've got memory doubling over, say, a four-quarter period, the relative impact of the total bill of materials is less because of the lower percentage of the BOM.

And so you are able to kind of work that through a little bit quicker. And there are other offsetting factors, whether it's microprocessors or displays or structural components, PCBAs, et cetera -- connectors. So, in general, I think we've got a little bit better of ability to work that through.

In enterprise, you've got, particularly in servers, DRAM makes up a much higher percentage of the bill of materials. So it can approach the 25% range. And we're also seeing DRAM as a percentage -- I mean, the amount of DRAM going into a server has been increasing as well. So we've seen a 50%, 60% increase in the amount of DRAM going into a server at the same time that DRAM has more than doubled year-over-year. And so it's kind of a double whammy, if you will.

The good news is that you know that when you see that memory content going up on a server, it's going into a highly virtualized environment, it's being used for big data. It's a good signal and good trend, but it did kind of hit us not only with the memory increase but also the capacity increase in the server. And that's harder -- those are harder to pass through when you're dealing with a server or, in the case of storage, you're typically dealing with a larger purchase, you're dealing with a more sophisticated buyer, it's less transactional, it's more relationship-based. You have to work those component cost increases through kind of a bit more gradually.

A rule of thumb to use is that in any given quarter when you make a price increase, you're only going to catch about 50% of that price increase in the quarter that you make the change. So you can see that there's a lag effect. And the way to think about this -- a good way to look at this, if you went back and looked at our client solutions business last year, our client solutions business, on an operating income basis, started the first quarter at 4.5%. It peaked at 6.9% in the third quarter and then dropped back down to 3.5% in the fourth quarter.

So you're catching the benefit of component costs are coming down. In other words, that same lag effect, we benefit from when component costs come down -- that same effect we have to eat when component costs start rising. And so we'll catch up with it, but it's going to take a couple of

quarters, and we now believe that there will be a headwind in the back half of the year. Not as much as it was in the first half, but we still see NAND, SSDs and DRAM to a bit of a headwind in the back half of the year.

Frank Jarman: Do you make most of your purchases on contract essentially and hedge some of that out in terms

of just buying your memory up front?

Rob Williams: We do buy under contract and when we see a situation where we believe the component costs are

going to move against us, we will make some strategic purchases to soften that effect. And we had a little of that happening in the fourth quarter of last year where we had bought forward, and we were able to soften some of increases but they, again, in the first quarter we had depleted that inventory. And in addition to that, we were seeing these higher capacities going into servers. And

so that kind of worked against us.

When you have to go to the distributor markets, that's when it gets really expensive, and so if you've got a commitment with the customer, and it's an important customer, and you need memory, you're going to go procure that memory. And if you have to go into the distributor market it gets expensive because you're, effectively, at the mercy of that particular part of the market, and we saw some of that in the first quarter.

Frank Jarman: I know you're not a memory analyst, but we'd be curious, I mean, do you think that you're seeing,

across the board, other folks pre-buying memory, and that may be driving some of the increase in

terms of demand and the tighter market that we're seeing, just across the board?

Rob Williams: That's a good question. I don't know if that's -- how big of effect that is, because most of the

increases have already happened. So at this point, if you're pre-buying memory, you're pre-buying in anticipation of a relatively modest increase relative to what we saw over the last four quarters.

The benefits of pre-buy were in Q2 and Q3 of last year.

Frank Jarman: And, I guess, you have a view on the second half of this year with regards to your break-off. Are

there any thoughts around 2018 and how we should think about memory costs longer term?

Rob Williams: We have not had those discussions with our procurement team, to date. We've just been really

kind of focused on the back half of the year. But our expectation is that the increases begin to

flatten out in O3 and O4.

Frank Jarman: And then, maybe just the last question I had on margins -- obviously, we're still pretty early with

regards to the EMC integration story. Can you just update us with regards to what the synergy story looks like at this point? How you're thinking about the potential tailwind with regards to some of the actions that you had identified? And where you are with regards to executing on some

of the merger synergies?

Rob Williams: Sure, sure. Well, there's two primary pieces of the synergy. One is cost, and then the other is

revenue. I'll come back to revenue in a second. In terms of the synergies on the cost side, we'd committed to cost out related to standalone opportunities for EMC and Dell. Most of that we recognized last year and in the first quarter of this year. We'll continue to kind of recognize the detail of that. That was \$1.35 billion. We'll recognize that over the course of this year, and that's

kind of gotten rolled into our overall programs at this point.

We also identified cost out synergies in conjunction with the combined company. All of those synergies are on track. We have made the decision to invest. We're investing in a number of different areas -- hyperconverged infrastructure, server transformation, converged infrastructure, also some areas in the client solutions group. We're investing in Dell Financial Services. Those

are all investments that we believe are going to be right decisions for us to kind of generate cash flow over the next several quarters a couple of years. So there's a little bit of an offset there, but it's a trade that we believe makes a lot of sense.

So all those cost out synergies are on track, and we expect to be at run rate on those synergies by the end of Q1 of fiscal 2019. Now, I will tell you that it gets hard to kind of track all of that as time goes on, because you've got synergies that flow through the procurement organization through supply chain and distribution and logistics. As hard as we're running to go after that, we know that our competition runs to go after some of that as well.

HP has recently -- the HPE has recently announced some additional cost out initiatives. And so we'll continue to work on that, but there's going to be natural offsets in the business that makes that sometimes a little bit harder to follow through the P&L. It's very difficult to say, okay, here's \$1 billion or here's \$2 billion of synergies and how much of that will exactly fall through to the bottom line because of component cost dynamics, cost out dynamics, competitive dynamics.

But I will tell you, this is important, I think -- having been at Dell for more than two decades, cost out is in our DNA, right, that's what we do. And we have a, probably, you might even say it's a small army of people. That might be a slight exaggeration, but we have a pretty solid team that works on cost-out consistently throughout, and that's a never-ending process. So even against the initial cost-out targets that we articulated during the transaction, we've added to that pipeline since then, and we'll continue to do that.

Frank Jarman:

So, I guess, as I think about it, you've obviously got some of these synergy targets. Right now, you're also investing in a number of initiatives to drive better growth and more profitable growth. At what point do you think you're done with the investments in the business, and you're done with the execution on the synergies, too? And is there a way to think about, maybe, what the steady state margin profile of the business looks like at that point?

Rob Williams:

Let's see if I can answer that without going too far on the second part of your question. We committed -- in terms of the commitments that we made, we committed to a run rate synergy target on the cost side for -- and we said that we'd be at that run rate by the second half of 2019 -- fiscal 2019 -- or the end of the first quarter, beginning of second quarter fiscal 2019. So there's no change to that.

In terms of where we see the margins, I think the best thing to do here, and we've tried to model this a little bit -- the best thing to do here is just to think about legacy Dell margins to the extent that you have information on that, legacy EMC and legacy VMware margins, and kind of roll that through the seasonality models that we've talked about. I don't want to commit to a specific target on that, but we do believe that the margins -- the operating income margins and the EBITDA margins will improve throughout this year, and you're going to see that consistently, over time, where Q1 is going to be a low point, Q4 is going to be a high point, and I'll give you an example.

For EMC's II business, their margins ranged from the low-to-mid teens in Q1 to the low-to-mid 20s in Q4. So this is operating income margins. So you had that kind of variability. VMware's wasn't as dramatic -- or isn't as dramatic. You can see that, obviously, in their public reporting. And then Dell's was not as dramatic. But you had that kind of variability. But if you think about -- you know, if you work that through and think about the seasonality, I think that's the best way to model it, going forward.

Frank Jarman:

Great. We have five or six minutes left, and I have some questions about the segments, but I did want to give folks just an opportunity to ask questions. If anyone has a question, feel free to raise your hand, otherwise, I want to maybe ask you a little bit about the PC business.

Rob Williams: Okay. It was actually really good this quarter. I'd like to talk about it.

Frank Jarman: That's good, good.

**Rob Williams:** Anyway, go ahead.

Unidentified Audience Member: Hi. You mentioned HPE before. It seems like they're in a little bit of disarray.

Maybe you can talk a little bit about where you're winning versus them?

Rob Williams: Against HP Enterprise?

Unidentified Audience Member: Yes.

**Rob Williams:** You know, we're a big believer that having a complete set of solutions across the infrastructure

portfolio is going to be key to winning in this digital transformation, and I'll keep this rather brief.

But if you think about where we are, moving from kind of traditional infrastructure -- data center infrastructure environment to kind of a future cloud native environment, where the applications are written rapidly, they're deployed rapidly, they're deployed directly into the business. You've got more on prem and off prem use of cloud technologies. You've got this, kind of, hybrid cloud environment. We think we're incredibly well positioned against all of our competitors as we move forward.

As you guys know, we're number one in hyperconverged, we're number one in converged infrastructure, we're number one in servers, we're number one in storage. And the ability to bring all that together, along with the capabilities that VMware has, as we see the data center become more and more virtualized -- we virtualize compute, we virtualize storage, we virtualize networking. We can do that all within the Dell Technologies portfolio. And we consider that to be extremely beneficial, and I think we'd stack up pretty well against all of our major competitors

in the space including some of the newer players that are getting a lot of interest right now.

Frank Jarman: Great. Maybe just going back to the PC story, market share has been a pretty nice bright spot for you guys, and I think most recently you've talked about the potential for the Big Three to represent

70% to 75% of the market over time. Can you just help us think about what's been happening there? Why you're comfortable with the 75% number? And just how to think about the trajectory

of the share story?

Yes. If you think about it's been well over 10 years since the death of the PC was proclaimed, and since that time, I think we've shipped something like 4 billion or 5 billion PCs globally. And so the PC market continues to be incredibly healthy. It has stabilized now at around 250 million, 260 million units a year, and we think that's kind of where it stabilizes going forward. We'll see periods where we'll have slight growth. We'll probably see some other periods where we have

some slight declines.

But Dell has done a very good job of being a part of that consolidation along with HP and Lenovo. And as that market declined, I think it put a lot of pressure on the marginal players. And so the share has been mostly going from everyone outside the top three -- to the top three. And so that share change has been -- we're pushing close to 60% share now, I believe, from about 40% share a few years ago.

And so, you know, again, we think that will continue to kind of march forward from there. I think Dell wins for a number of reasons. First of all, we're more concentrated in commercial, and that

**Rob Williams:** 

allows us to sell more software and peripherals and services. We've introduced PC as a Service solutions. We can finance it through Dell Financial Services. There's just a number of things that we can do. We can do that on a global basis. We can do it with distribution, we can do it direct. And that just gives us a tremendous advantage, and that's a big part of it.

We are pushing more into the consumer space, but we're doing that kind of in a very controlled fashion. We started out about three and a half years ago by basically taking the top five -- for us, the top five consumer and small business markets in the world, or countries in the world, and separating those from the individual country and running it from a consolidated point of view, because consumer and commercial are very different.

We've made some investments this year to expand that to another seven countries, so we'll now have 12 countries that will run that way. That allows us to kind of be much more aggressive in how we go after that market. It's a different structure, a different dynamic.

And then, obviously, we'll focus on some of the other areas, whether it's gaming or bringing some of the form-fit function that you see in a lot of the high-end consumer desktops in the commercial. We've done that. And just a focus on quality but doing that in a business model that we think gives us some advantages.

Frank Jarman: Great. Do you have time for one more?

Rob Williams: Sure.

Unidentified Audience Member: So you guys have been very consistent in your messaging about the focus on hyperconverged solutions and around the data center. Can you just talk within that context what are enterprises still looking for providers outside of Dell? And when you're thinking about that, are there areas within that hyperconverged solution where you would like to add some more capabilities?

Rob Williams:

Okay. So real quickly, if you think about the total IT market, \$4 [trillion] plus -- about two-thirds of that is going into traditional infrastructure. About one-third of that is going into cloud native infrastructure. If you think about the hardware component of that, it's over \$[100] billion. That breakdown is roughly the same.

So converged and hyperconverged represent a \$25 billion opportunity in total over the next few years. And so it's a pretty big market opportunity.

What we like about the hyperconverged market is that, effectively, what we're doing is, again, you're bringing -- you're virtualizing compute, storage and networking all into a single box. It's designed to scale both at a rack level and a blade level and scale pretty rapidly. It gives our customers a lot of flexibility, and it's well-suited for native cloud app development and deployment, which is where the market is going.

And so that is kind of our belief. It's an opportunity, but you've got to remember the traditional part of the market is going to be very large for a very long time. It's going to have a very long tail. So we've got to win in both spaces. We've got to win in traditional, we've got to win in cloud native application.

And in terms of other things that we could use there -- I mean, we've got a pretty nice set of solutions between Dell EMC, and VMware and being able to combine all of that together into one. So I don't know that there's a hole that we have there.

I think our portfolio is pretty solid. I think it's just continuing to develop that and let the market kind of come to those solutions, over time.

Frank Jarman: Great. Unfortunately, we are out of time, so I want to thank you very much, Rob, for joining us,

and we'll move on to the next presentation.

Rob Williams: Thanks.