Dell Technologies

Dell Technologies Inc.

BUSINESS UPDATE

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Corporate Speakers:

- Rob Williams; Dell Technologies Inc.; SVP of IR
- Michael Dell; Dell Technologies Inc.; Chairman & CEO
- Dennis Hoffman; Dell Technologies Inc.; SVP of Corporate Strategy
- Jeff Clarke; Dell Technologies Inc.; Vice Chairman of Products & Operations
- Tom Sweet; Dell Technologies Inc.; Executive VP & CFO

Participants:

- John Roy; UBS Investment Bank; Research Division, Director and Equity Research Analyst, IT Hardware
- Amit Daryanani; Evercore ISI Institutional Equities; Research Division, Senior MD & Fundamental Research Analyst
- Kathryn Huberty; Morgan Stanley; Research Division, MD and Research Analyst
- A.M. Toni Sacconaghi; Sanford C. Bernstein & Co., LLC; Research Division, Senior Analyst
- Shannon Cross; Cross Research LLC; Co-Founder, Principal & Analyst
- Aaron Rakers; Wells Fargo Securities, LLC; Research Division, MD of IT Hardware & Networking Equipment and Senior Analyst
- Roderick Hall; Goldman Sachs Group Inc.; Research Division, MD
- Jim Suva; Citigroup Inc; Research Division, Director
- Andrew Teutli-Vadheim; Wolfe Research, LLC; Research Analyst
- Louis Miscioscia; Daiwa Capital Markets America Inc.; Research Division, Research Analyst

PRESENTATION

Rob Williams^ Let's go ahead and get started. First of all, thank you all for coming. Thanks for your interest in Dell Technologies. Thanks for everyone that's also joining us online. All these materials, of course, the entire event will be available online, and we'll archive that on our website if you need to refer to that in the future.

I'm Rob Williams. I run the Investor Relations function at Dell, and we look forward to spending the better part of about 2.5 hours with you guys today, talking through our strategy.

So there's a couple of things I want to talk about before we get started. First, just 2 notices that you're all familiar with. The first notice is Reg G reconciliation. Just a reminder that we'll be talking about non-GAAP measures, and we will reconcile those. And we do reconcile those to the most -- to the closest GAAP measure. You'll find that in the back of the handout today and, of course, that's available on our website as well.

Also forward-looking statements. Just as a reminder, we will be making forward-looking statements. And I will refer you to that notice. If you want to read that in any more detail, I encourage you to do that. Okay?

Let's talk about the agenda for just a moment. We're going to go through all 4 speakers at the beginning. So Michael will kick it off, then Dennis, then Jeff, then Tom will wrap it up.

Then we'll all come back for Q&A. And we'll spend about an hour, a little over an hour with you guys on Q&A. And then Tom will be back for closing remarks. So that's the agenda for the day. Again, thanks again for joining us. And with that, I'm going to turn it over to Michael.

Michael Dell^ All right. Thank you, Rob. Good morning, everyone. Great to see you all here. We appreciate your interest, and we appreciate you joining us. We look forward to sharing a little bit about what we've been up to.

As we discussed previously, we're focused really on 2 things: First is innovating and integrating across the Dell Technologies family to create the technology infrastructure of the future. And the second is innovating to win in the consolidation of the industry in the large areas that we participate in. And we're doing well on both fronts there. We're gaining share, we're growing revenues, we're adding new customers. Earnings are growing.

We're generating strong cash flow, and we're rapidly paying down debt. And we're innovating across software, cloud, edge and all aspects of our business. And this is critical because it's through that integrated innovation that we'll create the technology infrastructure of the future.

We believe it's really the most important work that we could be doing, and there's no question that we're at the beginning of a transformation of kind of the world that's around us. The physical objects are becoming intelligent, connected and digitized. And this is creating a stream of data and a digital universe that is far greater than most of us can really understand. It's often referred to as the edge. Think of everything and everywhere: buildings, homes, cars, clothes, anything you could possibly imagine becoming a source of data.

As an example of this, in 2007, the cellular network in the United States was estimated to have moved 86 petabytes of traffic. All right. 2007, actually it was not long ago. Here, as we sit in 2019, the cellular network will move about 86 petabytes in 18 hours. So that's a pretty massive change. But if you fast-forward a decade from now, 86 petabytes will move across the network in 10 minutes.

Now what's interesting is that all of this data really has to be put to use for human progress. It's a tsunami of data. Our customers are often coming to us surprised that in the last year or 2 or 3, they have hundreds of percents more data. And if you do the math on what I just said earlier, it's a 52,000x increase in amount of data from 2007 to roughly 10 years from now. So a huge increase.

At Dell, we've always had this culture of technology optimism. When we started the company, it was about democratizing, access to technology, amplifying human potential and advancing human progress on a global scale. Now today our technology is more accessible, more affordable, more connected, more powerful than ever before. And of course, the progress has actually been quite incredible.

If you think about basic health care, literacy, children going to school, economic growth and the reduction in poverty, there've been tremendous advancements in the last several decades. It's astonishing progress, actually, if you step back and reflect on it, but there's much more to do. And while those last 3 decades or so have been quite interesting, I actually think we're just in the beginning of a whole new wave.

So with all this data, with the fifth-generation cellular network coming around the corner, with AI and machine learning and deep learning and neural networks, we can do more than ever imagined before. And just putting this technology in the hands of people is not enough.

The greatest opportunity is really to put this data to work to help the most people. And this is why Dell Technologies exist: to unlock the power of all these data; to solve the greatest challenges that are out there; and to innovate and create an open and simple platform to secure and move cyber data to drive learning, insights, action and results when and where it's needed. And of course, that's changing because of all of these new enabling technologies.

Across Dell Technologies, we are creating the future infrastructure from the clouds to the edge to make life simpler for customers. And it's a pretty confusing world if you're out there as a customer trying to make sense of all this and figure out how to evolve your business and reinvent your business given all these new technologies.

This is what customers need, and they're going to invest in a modernization across their technology ecosystem to make that happen. IDC and Gartner and others expect IT spending to grow at a CAGR of roughly 4% over the next 5 years.

We're also invested. We've invested more than $20 billion in R&D in the last 5 years. And we have done $5.5 billion of M&A since the EMC transaction, most of it at VMware, as you're well aware. We've been hard at work at integrating all of this innovation into a single data application and operations environment so that customers can take advantage of this and do it in a way that is open and unified.

A few weeks ago at VMworld, we made some pretty big announcements, right? And our innovation engine was on display and revved up on high. One of the big announcements is that we're integrating Kubernetes right into vSphere. The next major release of vSphere, coming very soon, will have Kubernetes built right into it.

What -- we call it the Project Pacific. And VMWare also announced the proposed acquisition of Pivotal, which will further integrate our capability and give organizations a complete continuum to build, run, manage, protect and connect all their workloads across a multi-cloud environment.

We're also continuing to enhance our Dell Technologies cloud platform. This is hybrid cloud done right. It's based on the VMware Cloud Foundation, which is developer-friendly and location-agnostic. It can run anywhere. It's a full software-defined data center, from the network to storage to compute.

Its infrastructure is code, and it allows customers to run workloads wherever is best for them, from the edge to their own data centers to colos to the public cloud. And Dell, EMC and VMware together from the infrastructure to software to containers to tools for developers are creating one consistent experience at the center of this multi-cloud world that's being built out.

So simplified integrated solutions, this is what customers have told us that they want, and this is what we're building. In fact, with the capabilities we have and the assets we have, we believe we're the only ones that can really do this. And that is resonating well with customers.

Customers are drowning in complexity, right? New things come, but old things don't go away, right? So you've got the mainframe, you've got client server, you've got the cloud. Now you've got the edge, you've got tens of flavors of different software. You've got tens or hundreds of Software as a Service providers. Each of these things are on different data and control planes.

There's a mismatch of security. And every time there is a new problem, a new piece of software, a new box shows up. And boy, this is confusing for customers and problematic. And new elements enter the ecosystem all the time, but nothing seems to go away. So customers are looking for help from this. They don't want to be systems integrators and put all these things together themselves.

Now the public cloud offers a kind of simplicity but only if you put everything in a single public cloud, which nobody is really doing, and they're sort of figuring out that that's not practical. And it's a multi-cloud world, and it's workload-dependent. And some workloads belong in the edge; and some in their own data centers; and some in public clouds. And you want to move things back and forth for a variety of reasons. So the ecosystem is becoming fragmented, and this is also against customer needs.

Enter the whole topic of machine learning and AI. And so if you're a typical enterprise customer, think of the tall buildings here in New York City, and you have hundreds Software as a Service providers.

You have a couple of public clouds. You have your own databases and your own hybrid cloud. Now you've got your data spread out in at least a hundred places, and you want to do machine learning.

Well, guess what, this is not really feasible with the environment that -- as it exists today. So we believe that we can be the open simplifier to be able to move data through this fragmented landscape. And Dennis is going to be up in a little while to provide a deeper look at complexity and how we can drive simplification for customers and also how that's driving demand for us.

Now of course, we continue to innovate within the product domains inside our business. We just released our latest PowerMax array, which has 15 million IOPS per second. It's the first in the world with dual-channel NMVE (sic) [NVMe] and unbelievably powerful. It's got machine learning built into it.

It does billions of calculations per day based on the workloads that are thrown at it. It's smarter than any group of humans that we could put together to try to optimize and manage the storage, and yet it does it automatically. And so we're increasingly taking that kind of intelligence and putting it through our systems so the infrastructure works by itself.

We have introduced our new midrange Unity XT platform. We've introduced PowerProtect and just in the last few days, enhanced our data protection appliances, which are industry-leading and heavily each year.

We continue to enhance our industry-leading VxRail hyperconverged infrastructure. And of course, we're always innovating in our client business as well with enhancements to XPS and Latitude. We have the strongest and broadest set of products, services and solutions that we've ever had before. And we're able to focus on this incredible opportunity of the future and navigate the market dynamics as they develop.

We also have an incredible scale and flexible supply chain. We have a superpowerful go-to-market that combines, not only our large, growing direct sales force but channel partners and systems integrators and Dell Financial Services so customers can buy and consume the IT the way they want to.

And all of this is becoming an even greater advantage, further distancing Dell Technologies and the capabilities that we can offer to a customer from the competition to enable us to outperform, to gain share, to generate cash, pay down debt. We're financially strong, and we're getting stronger.

So across the Dell Technologies family, we have energy. We have momentum. We're winning new customers. We're growing our share of wallet. We're doing more and more cross-selling. When I go out and our teams go out and have a great privilege to meet with customers, again, they don't really want to buy from the #2 or #3 or 4 company and put 20 things together.

They'd much rather buy from the #1 in everything, all in one place. So that message continues to resonate extremely well, and so we're gaining share and doing lots of cross-selling. Jeff's going to provide some more details about our portfolio strategy and how we're operationalizing go-to-market given the broad portfolio that we have.

So we're going to cover a lot of ground today from the transformational power of data to the performance of our business. But the point is these things are actually inextricably linked and they go together.

If you look at some of the long-wave economists out there, they talk about these 30- or 40-year cycles that have changed the face of our world over the last 250 years. I believe we are at the beginning of one of those, and it is really all about all these sensors, all these intelligent connected things, the data, the analytics. And we are positioning Dell Technologies to be at the center of our customers' data-driven digital future.

And so when we looked at the technology infrastructure that's required to support all of this data and analytics and actions, where it's occurring out there in the physical world, the needs over the next 10 to 20 years are evolving rapidly.

And we're well positioned. I believe it's a general -- a generational opportunity. And I'm all in. My interest are 100% aligned with those of Dell Technologies and our investors. And driving equity value and long-term value creation, that is the way we keep score.

So central to this is our continued aggressive paydown of debt. We paid down more than $70 billion of debt since the EMC transaction gross debt. And we continue our steady march towards investment-grade.

And Tom is going to be up to take you through how we're executing against that and how our strategy is driving shareholder value. It's an important metric because long-term value creation for shareholders reflects the long-term value creation that we are able to create for our customers, for our team members and for society at large and for the world.

To be a sustainable successful company, you have to deliver on multiple fronts, and we are doing that. And our interests are completely aligned with investors but also with a broad set of stakeholders. Generating long-term value is the result of all that.

So I believe we have an incredible opportunity. It's all starting to come together. Dell Technologies is the company that can help our customers aggregate all of the world's data for analysis, for learning, for insights, for action, for results, for outcomes, from the factory floor to the AI factories in the cloud.

And when we get this right, all of us, I believe, will be in the middle of the greatest period of human achievement in history. And that's exciting work to be involved in. It's an opportunity that I believe can generate tremendous long-term value in the process. So thank you again for being here. And now I'm going to turn it over to Dennis. All right. Thank you all very much.

Dennis Hoffman^ Thanks, Michael. Good morning, everybody. As Michael said, I'm going to try to talk to you about a couple of things: First thing is value creation. And I realize from the brief conversation with Shannon Cross before I got started just how much a buzzword value creation is.

So I'm going to try to talk to you not only about the fact that it's how we keep score, but just how deeply integrated the concept of value creation, specifically equity value creation, is in the way we run the business and the way we develop strategy. After that, I want to talk just really quickly about 3 industry dynamics that might not be insightful to all of you as much as it is that we want you to know this is what we believe.

And as a result, this is how we're running the company. And we think they really shape that environment in which we create value. And then finally, I'm going to turn it over to, first, Jeff, and then Tom, to kind of walk through the various ways we are, in fact, creating value against those dynamics.

So we think of value creation as having 5 basic levers for the company: First, there's the value inherent in the stand-alone operations of the Dell Technologies family of companies. Here, it is in many ways the very simple to say and hard to do exercise of taking share, improving costs, driving margins and, in fact, scaling the way we run the business and driving mix. Most of the value of Dell Technologies today is inherent in this first lever.

Second lever is all around synergy. As Michael said, we are working hard to integrate across the family of businesses and are finding increasingly that tightly integrated software/hardware solutions is not only what differentiates Dell Technologies. It's what our customers demand.

Third, there's always, of course, new opportunities, areas in which we invest R&D to expand total addressable market or where we use M&A to get into new spaces.

And of course, there's a whole set of partnerships we are now leveraging to place Dell Technologies at the center of the IT ecosystem as we not only help our customers on their own premises but increasingly, we can help them move workloads agilely across multiple cloud environments to their data centers, whether they own them or not, and ultimately to the edge. So those are -- those 3 value-creation levers are operational in nature. And Jeff is going to touch on every one of them in a minute.

But we also have opportunity to create value through corporate structure, realigning our intellectual property between businesses; simplifying the way we operate the company; simplifying the way the company is perceived and importantly, the way it is presented to our customers.

And then lastly, there's capital structure, and Tom is going to touch on that. But we have a great opportunity to further increase our value through the way that we take care of the capital structure to pay down debt.

The point of this isn't that we have the levers or that we know what the levers are, that the levers are particularly insightful.

And so we actually drive the business this way. Each year, Michael will help establish for the company a performance ambition 5 years out. We measure that in terms of equity value. What do we want this company to be and become? And how do we measure that in terms of its equity value creation?

Today, we have a certain amount of value, and as we look going forward at our last strategic planning cycle, we found something interesting. While the majority of our value today sits in the stand-alone operations of our units, it is evenly spread across every lever going forward.

And much of it is in what we would call the seams of the business, the way we pull the company together and operate it as a single entity in some ways in order to actually dramatically increase value creation.

So that's the environment that we're creating value in. What I'd like to talk to you next about are just 3 very, I think, important, powerful but relatively simple concepts that frame our strategy, frame our activity and what's going on in the world. And Michael touched on a couple of these.

First, we're going to talk about the architectural complexity that's actually increasing in the world; second, the imperative that most companies face to try to transform digitally; and then lastly, a phenomenon that is arising because of the increasing maturity of the IT industry, which is around strategic vendor consolidation.

So you guys all probably know this, right, but the computing industry, in many ways, is just a pendulum swinging back and forth between centralized models and decentralized models. The mainframe gave way to client server, which gave way to cloud, which is now in the process of slowly giving way to edge.

And here's what's important: the areas don't actually give way to one another. They stack. By some estimates, there's still as much as 30% of workloads sitting on mainframes. It's never going away. And the result of mainframe never going away and client server never going away and cloud never going away is the diagram that Michael showed you.

The essential job of IT is really twofold: One is across this landscape, how do I intelligently place workload? Where do I do the work? Where is the best place based on performance, economics, trust and data gravity to actually do stuff? And it's getting not less complex. Particularly because of the incompatibility of public cloud to IaaS, it's getting much more complex.

The second is to actually have those places in place. If I have a well-run private cloud and a couple of public cloud IaaS partnerships, a handful of SaaS partnerships, I'm in the process of building out my edge. If I've done it well, I have not only the knowledge about where the best place is to place work and the best place to have data live, but I have the ability to do that, too.

So we see that as the basic challenge in front of IT as they face digital transformation. Now about 3 years ago, we surveyed 4,600 medium and large businesses and asked them simply to place themselves on this chart. Would you describe yourself as a digital transformation laggard or a digital transformation leader?

Do you have no clue? Or are you -- it's literally built into the DNA of your business? What's remarkable to us about this chart is the fact that despite all the vast pressure, all the hype, the clear and present need to transform digitally, the curves hardly moved. We see roughly a doubling of adopters and otherwise, it hasn't changed much.

It begs the question why, and the answer is pretty obvious and that is it's hard. Because all that or pendulum swinging I talked about earlier actually manifests itself as waves crashing on IT organizations, where they have to constantly make decisions about which applications I migrate, replatform?

Where do I stick new applications? To date -- in 2015, there was something like $2.7 trillion spent annually on infrastructure and services underneath traditional client server apps. That tech debt is what people are wrestling with as they try to figure out how do I embrace the cloud and increasingly, how do I prepare for edge?

To IT organization, to a customer of ours, this is all digital transformation. They've got to sort all this out. This isn't some simple notion of there's an on-prem and an off-prem and to transform digitally, I must move a workload from my data center to a public cloud.

It's a simple story, but it doesn't happen to be true. Reality is they're wrestling with all of this complexity. And as a result, they want 2 things from vendors: They want someone who is not only relevant but capable across this spectrum.

And I hope you can appreciate that being really capable in a distributed computing environment is very different from being very capable in a highly centralized computing environment. Lots of little things matter, like spares depots and the ability to do 4-hour service around the world.

And across this entire spectrum as it grows out, the other thing customers want or our customers tell us all the time is, "I just don't want to spend as much time on the plumbing. I don't care as much about the widgets. I need an outcome. I must transform digitally, and the vendors that are going to get the bulk of my spend are the ones that can actually help me get there."

So they're looking not only for someone with scope and breadth but also credibility and the ability to elevate from being not only a product producer but a solution provider and ultimately, a deliverer of outcomes.

And that, in turn, is creating the third dynamic, which is vendors are slowly but surely consolidating their strategic -- or excuse me customers, buyers are slowly but surely consolidating their strategic vendor list.

And it is clearly becoming a short list and one which we are in the process of working hard to move up. It's a survey we do all the time with our customers, double blind, now placing us third and across the broad spectrum of customers in terms of the strategic relevance of our offer to their business.

All of that is coinciding with the fact that we've become the largest, most diversified computer company, IT provider in the world. And not just by a little bit; in some cases, by quite a lot. And the old adage that once kind of dominated our industry years ago that you didn't get fired for buying from IBM, is increasingly being applied to Dell Technologies.

Or at least I can't do an IT project without at least talking to Dell, which is really our vision of what it means to become the essential infrastructure company. It's not to be in every infrastructure category. It's not to have 100% market share in each one we're in, but to be essential to the IT projects and programs that our customers face.

So let me summarize quickly by saying these dynamics that shape value creation really fall into 3 buckets: There is the increasing maturity of IT and the fact that it's really driving a level of industry consolidation, which you'll see in a moment, we are well positioned to capitalize on. In order to be there, in order to be a winner, vendor has to have the scale and the scope to make that strategic vendor short list. We think we're in a good position there.

Second is around digital transformation, and it's just pressuring IT operations to elevate and to seek agility. When I talk about placing workloads across that spectrum, it's not you place it there forever.

Ideally, you want to be able to move a workload. Every customer will tell you the exact same thing: "I just want to be able to put -- to run any app on any device off of any infrastructure if I need to based on business need." That agility is core to what is required to deliver an outcome. And we think, again, we're very well positioned against that driver.

And last one is where I started, these accelerating swings of architectural complexity. Remember, the mainframe industry was like 40 years long; client server, like 20; cloud maybe like 10. Edge goes after that.

And what's after edge? Well, quantum computing and its cost will likely bring us back to a centralized model and on it goes. But the cycle times are increasing, and that's forcing customers to look for people that are both capable and relevant in delivering against the full spectrum of what they need, not any one workload category or any one dimension of cloud or dimension of IT like, for example, public cloud.

Again, we think we're in great shape there. And so with that, it is my pleasure to turn you over for the proof points behind much of what I laid out to, first, Jeff Clarke, and then Tom Sweet. Jeff?

Jeff Clarke^ Thanks, Dennis. Good morning, everyone. Doing well? Good start so far? Jiminy Christmas. I have work to do here. I've got to get you guys a little energetic maybe a bit.

What a time to be in the technology sector. If you think about what Michael talked about and Dennis elaborated on as well, we absolutely entered this data era. When I think about it in terms of a few data points that really bring it home for me is, one, a tenfold increase in data from today to (inaudible).

Half of that data, 90 zettabytes, will be created on the edge of the network in various IoT devices. And nearly 1/3 of that data is going to be real-time in nature and probably increases in volume due to 5G and the new applications that will be developed around the 5G platform in time.

This data era that we're well into is going to see the vast majority of that data created in the real world out in smart factories, smart cities, autonomous cars, hospitals, many applications pushed out requiring a distributed IT.

There's no question in our mind, that Dennis just elaborated, this pendulum swings towards distributed IT out to the edge, driven by where the data is going to be created and the need to do local triage, local processing, local storage.

Helping our customers unlock the potential of all of this data coming their way is our biggest opportunity going forward, particularly as we think about it in the 3 biggest customer pain points that we know that are in front of us. One being how do they have data visibility to all of the places where that data is going to be dispersed? Two, Dennis said it, how do we make it simple?

How do we simplify these complex architectures that have been implemented and will continue to grow and make it easier for customers to get to the information they want to drive better business outcomes; and then lastly, the drive to secure that.

This is truly the biggest opportunity we have over the next 10 years as we look ahead, being able to unlock that potential, that power of data for our customers. It's going to give us a great opportunity to position ourselves, a very unique position where we can help our customers modernize their infrastructure.

We can help customers leverage their data and reinvent and automate all parts of their business while giving them the opportunity to respond more quickly to market trends, customer needs and ultimately, which we're in the business of doing, providing better business outcomes. I think that's an unbelievable backdrop as we think about the opportunity for our company and where we play today.

I'm going to spend the next 20 minutes highlighting 3 things: one, our advantaged starting position in the data era; two, how our distinct collection of assets come together and how they deliver value for our customers and for our shareholders; and then three, how we have the underlying differentiated set of capabilities in the marketplace today that actually allows us to amplify those first 2 points.

So first, our advantaged starting position. Dell Technologies stores, processes, move and protect more data than anyone in the world. Half of the world's mission-critical data is stored on our gear.

That's a heck of a starting position in the data era. It's further amplified by the fact, and Michael hit one of these earlier this morning, we spent $20 billion of R&D. We spent $20 billion of R&D over the past 5 years. Over 25,000 patents, 20,000 engineers, data scientist and PhDs. 85% of them write software.

I've been at Dell a long time. That's a very, very different company today than it was 5, 10, 20, 30 years ago. Think about that. If you look at our customer behavior today, over the last 6 quarters, 30 -- or nearly 80% of our top 30,000 customers have bought 4 or more lines of business.

We're the industry leader in storage, data protection, converged infrastructure, hyperconverged infrastructure, server, PC revenues, flat panel monitors, workstations, compute virtualization, software-defined storage, software-defined networking.

I look at Dennis' chart of that column, not only do we have that broad portfolio, we're the leader in all of the key areas across our sector. We ship more storage than anyone else in the marketplace, period. 2,000 petabytes of SSD just on our arrays and servers. So to be really clear, this is a very, very different company than you would have known us 6 years ago.

It's a very different company than we were 3 years ago. And if you think about this data era and the backdrop that I just gave, no one is investing and has the breadth of capability that we have on a go-forward basis. So we are clearly, at least our minds and I think the industry is receiving that as well, we're an industry-leading innovator with a distinct collection of assets.

And our ability to take those distinct collection of assets and to stitch them together from the edge to the core to the cloud and integrate them to address those customer pain points that I mentioned earlier is a huge opportunity, particularly in this world awash in data. So vast portfolio, increasingly more connected, which I'm going to talk about next, bringing them together in an advantaged way in a world that is going more and more towards the data side is a big, big advantage for us.

Dennis spoke to how our strategy works, kind of the basis of it and the framing of that strategy. I'm going to build on that and provide some more insight, particularly in how we've operationalized it, the investments we've made across Dell Technologies to deliver these comprehensive solutions in an end-to-end manner across our entire portfolio.

What I find really compelling about that is in our core product portfolio and the ability to drive in our core businesses a very differentiated set of options.

As I move forward and think about that -- and the slide in front of you talks about the operations that we have. Fundamental to this is to consolidate and to win in the consolidation in our core traditional market segments. These are really, really big segments that we operate in. External storage, $29 billion this year; the server segment, $80 billion; $53 billion in mainstream servers.

And that old PC industry is $197 billion in size, and we'll ship 260 million units this year. Our strategy is to consolidate and win in that consolidation simply to take share, to drive scale with profit and cash flow.

We're doing reasonably well. In the past 2 years, our external storage business has taken 375 basis points. Our server business in the last 3 years has gained 480 basis points of share. And our PC business over the last 6 years has gained over 600 basis points of share.

We continue to see that as an opportunity as we move forward, and I think there's more in the consolidation because those positions you would have seen, 30% server share, 30% storage share, roughly 20% PC share. So tremendous upside for us in the consolidation.

2 years ago, I assumed the leadership of ISG. We've a little bit of work to do. And I can tell you today, we stabilized the business, and we put in a foundation that's going to allow us to drive consolidation in the external storage marketplace. I'll give you a snapshot of some of the improvements that we've made.

First, we've broken down the traditional silos of our storage organization and become one team, which has unlocked or enabled a tremendous amount of value across the organization, which simplified the portfolio.

You've heard me talk about that before 2 years ago, over 80 products, now approximately 20. We have clear line of sight to our modern road map, and modern means we've refreshed every product towards our Power portfolio as we branded each new product with the Power brand.

So the point -- which I think this is a fairly significant accomplishment. By the time I'm on stage at Dell Technology World next May, the entire ISG portfolio will be refreshed, reengineered and branded Power towards our modern architectures, which is a tremendous accomplishment for us.

We've rebuilt the innovation engine. We've eliminated redundancy. We put in investments in technology. We built an incubation engine for new concepts and new types of technology.

We have proof-of-concept actively with our customers and technology that are at 2 and 3 years out. What -- by getting the team focused on our Power road map, taking down the individual silos, we now have 3x more engineers working on the new things than we did 2 years ago, 3x more people working on the new things than we had 2 years ago.

We've made a huge improvement across a number of operational items. Quality, best ever in the reported history of Dell EMC. The quality and reliability of our platforms have never been better. Cycle times to the factories, largely a metric that you may not be aware of, but over the past 2 years, we've improved the velocity through the facility by 50% to 70%.

Lead times. 2 years ago, we had 36% of the portfolio on standard lead times. Today, it's 96%. And that lead time is communicated at point of quote not point of order, so the degree of difficulty became higher.

And then lastly, delivery time. We've made over 90% improvement in the delivery of our products. In other words, the on-time delivery of the entire portfolio is incredibly high with a huge improvement.

We put in place a customer loyalty program. Our marketing teams have put in and have invested into a storage demand generation, which we weren't doing 2 years ago. We're now doing storage demand generation and seeing great results from that. And you've heard Tom and I talk about on many earnings calls, the investments we've made in capacity to go drive and build a larger customer base.

Pretty pleased with the results. I mean this is -- what's it's really done for us it's got the team focused, and we're delivering really, really innovative and leadership product in the industry. I'll give you a couple of examples. Michael spoke to a couple of them. I'll give you a few more details.

PowerMax, world's fastest storage array, got faster. Michael talked about its AI, 6 billion decisions it makes in a given day, 10 million IOPS, the first in the marketplace with dual-ported NVMe. Now it's the first in the marketplace with storage class memory persistent storage, which has increased its performance by 50% to 15 million IOPS.

Unity XT, platform that we introduced earlier in the summer. To me, it's well reflective of the capabilities that we now have. We delivered this platform in less than a year, which is really reflective of the one team and taking out the silos, bringing our best engineers to work on the most important problems. In less than a year, we've doubled the performance and doubled the data reduction rates.

Earlier this week, we just launched the new PowerProtect DD Series, a big data domain gear that is the backup devices for many of our largest customers in the world. Developed it in less than 1.5 years.

Traditionally, that would have taken us 4 years. We built it on industry standard servers with a modern software stack, and it's delivering wonderful results. 38% faster backups, 36% faster restores. We can do bursting of instant access with 60,000 IOPS to do that, and we've increased the (inaudible) at 65:1. All of those are leading marks in our industry.

In servers, we became the #1 server provider in mainstream revenue 8 quarters ago -- excuse me, 9 quarters ago. We're taking that position now, and you've heard us talk about this in high-value workloads, which is the next big opportunity for us in servers.

And high-value workloads for us are very interesting. On average, it's a 28% uplift in ASP per server. And the storage that goes around that is a 90% uplift opportunity to us, to have to access that data and store that data and compute.

We focus on Oracle, SAP, data analytics, and we're actually set up quite nicely for what's going to happen in the next generation of artificial intelligence and machine learning, enterprise workloads at scale. We are actually helping drive that industry.

The PC industry, huge important part of our core business. It's a large business for us. We're the industry leader in revenue primarily driven because of our commercial mix, our advantaged direct selling model, which drives higher ASPs, higher gross margins based on the fact that each and every one of those opportunities, we can sell services; S&P software and peripherals; and financing.

And we continue to invest in the PC business, particularly with the eye on focusing towards the modernization of the PC experience for each and every end user. The Latitude 7400 2-in-1 that we just introduced.

Lots of industry acclaim about its hardware design setting a new standard in commercial PC, but what I find most interesting and sort of another indication of what's changing at Dell is the advanced software that we put into that product, where we've linked together the facial recognition capability with Express Sign-In to allow for faster access and better security for each and every opportunity signing in to that PC.

That's more investing on the PC side, particularly when you couple it out what we're doing on services, where we take machine learning, we put that into product support so we can predict system issues and actually proactively talk to customers about upcoming problems.

And then the next step is to take that machine learning capability of our services tools, take the embedded AI that we put into our PC, link them together and to drive a very differentiated unmatched end-user experience on a go-forward basis.

So that is the core business and driving consolidation in the core, which is a huge component of our strategy. The next component that I'll talk about is synergies. Michael and Dennis each spoke about that. To me, this is a big, big opportunity for us and really what sets us apart and quite honestly, where I spent a lot of my most recent time, particularly with my friend, Pat Gelsinger.

We have put a lot of effort in -- across Dell Technologies to build a substrate that allows us to innovate and drive deep levels of innovation across the Dell Technologies estate. So we've essentially put together a base material that allows us to work across all of the SABs in our business and to do joint product planning, product development, drive innovation and to drive integration across the portfolio, ultimately to deliver better end-to-end solutions for our customers.

I'll give you 4 examples. VxRail, Michael talked about that as well, but VxRail is the only joint HCI system with VMware Cloud Foundation that take the full stack with automated software-defined data center, deployment and management and puts it into a product with vSphere around that and a single point of support around that.

So think about that. Today, it's very disparate. Building blocks in the industry. We have a highly integrated solution, VCF, VxRail, vSphere, single support contact, single way to order the product.

And it gets better. Add PKS on VCF on VxRail, and now you have the only cloud infrastructure in the world that enables organization to develop, test and run cloud-native applications even in containers that were project-specific, alongside legacy application on a single infrastructure with consistent operations and integrated life cycle management.

We're doing the same thing on the networking side. If you look at what we've done, most recently, we announced this at VMworld, where we've taken the work that we've done around our SmartFabric Director, which really sits between NSX from VMware and our switches and highly integrates those 2 platforms together into a single solution for our customers that drives network simplicity.

We now have a network VMware-ready fabric up to go in a matter of minutes where before it was hours, a 98% reduction of the steps to configure the network. Single point of contact around that going forward, not a network side or hardware side or software side but solution point of contact.

If I think about the next solutions around cloud, Michael highlighted this as well. The work that we've done across the organization to deliver a single, consistent operational hub for the Hybrid Cloud.

This notion of a operational hub that works across the edge, the core data center and the public cloud is essential to our strategy. We announced at VMworld several weeks ago the industry's first on-prem Data Center-as-a-Service solution for the core of the edge.

That's built on top of the building blocks or build-your-own cloud capabilities that we launched at Dell Technology World in May, where you can take that same solution as part VxRail will VCF, build-your-own on-prem private cloud and expand that into our other parts of our portfolio with the validated designs.

And then lastly, I think illustrates the level of integration that we've been doing is around Unified Workspace. If you take VMware's Workspace ONE with SecureWorks, Dell support and Dell commercial PCs, highly integrated, and we've delivered something that simplifies the life cycle management for our customers in individual deployment or a deployment of fleets of PCs.

Company spends 4x more on the deployment, management and support on the PC -- or on support than they do on the actual PCs themselves. And this solution that we've built, that's in a very highly integrated manner, is using services software and intelligence to really make that easy. In Michael's word, automagically, which is driving a different level of customer expectation in the marketplace.

So if I think about that and what those represent for me, and I think what's changed in Dell, particularly in the last 3 years, there's a different level of product planning and a different way of doing product development, what we've accomplished across the Dell Technologies estate with this substrate. And you're beginning to see us deliver solutions that are seamless in nature, which is what our customers are asking us for.

And just taking a look at the next slide in front of you, the new opportunity slide. And I think about whether it's cloud, artificial intelligence, edge, 5G, security, data management and networking, we're going to take the exact same approach of high levels of innovation and integration that we've accomplished across the SABs today to these new opportunities on a go-forward basis. And then we're going to couple M&A, investments and partnerships to build comprehensive solutions for our customers.

If I think about a couple of examples, and particularly Dell Capital -- or Dell Technologies Capital to be specific, gives us broad exposure to innovative companies across our ecosystem. If you think of, as an example tied to the high-value workloads that I mentioned earlier for servers, we've actually used Dell Technologies Capital to help us in this area.

We've made investments in new AI and ML technologies, most notably Graphcore and Noodle.ai, that have given us exposure and capability to do technologies we wouldn't have on our own. And I think about this approach across the line here, it's actually giving us exposure to those technologies and new technologies earlier, and that early access is helping us build differentiated solutions in the marketplace.

Partnerships. They have and will always play a key role at Dell Technologies. We are partnering specifically to advance innovation at the edge. I'll give you 3 specific examples about that.

We're cloud ready with the world's largest automotive manufacturers to support the enormous amount of data that's coming at us at the edge in real-time with autonomous vehicles, the largest manufacturers across the world. We're working with nearly every major service provider, including Orange and AT&T to define the next edge, the enterprise edge, and those requirements that go along with rebuilding or building out the 5G infrastructure.

And then lastly, we have proof of concept in place, many, but most notably, with a company like Telenor in health care, where we're looking to stream the right data with 5G to really advance urgent health care services. We're doing those things today. And in my mind, using Capital this notion of integration and the real power of our Dell Technologies portfolio.

So I move towards closing, I'm going to link it now to core portfolio with the integration, tie it to the quick strategy and then land on what is supported by our world-class organization. Our strategy is real simple.

You've heard it from both Michael and Dennis: win in the consolidation of the core of our core businesses; two, deliver differentiated value by innovating and integrating across the Dell Technologies estate; and we get to do that with the backdrop and support of a differentiated set of capabilities, the largest go-to-market engine in the world.

40,000 direct sellers in our company, complemented by a channel, gives us maximum customer exposure in the marketplace. We have the broadest coverage of any one in the market today with our direct sales force be complementary channel.

You've heard Tom and I on several of our earnings calls talk about the investments we've made in capacity and coverage. We're seeing great performance in small business, medium business and enterprise revert. The smaller accounts in our enterprise business, still very large accounts but are smaller accounts. Those businesses have grown 20%, 30% and 30%, respectively.

The investments that we're making in coverage and capacity are working. This is supported by an unmatched service capability, 35,000-plus service and support professionals in 180 countries and 2,200 service centers with 900 parts depots with 25 repair centers across the world to take care from our PC products all the way to infrastructure gear.

In addition, something that we're very proud about and have had at Dell for a very, very long time, is an advantaged global supply chain. Global scale, yet nimble enough to respond to the macro events and trends that maybe we're encountering today. But its scale is immense: $65 billion in purchases, 25 manufacturing sites across the globe, 50 distribution and configuration centers across the globe. And then lastly, we have the backdrop of a global finance arm, a $10 billion business that has more than doubled since the EMC acquisition.

Large sales coverage, unmatched service capability and at scale, flexible supply chain and a service -- or a financing arm that allows us to do things for our customers in the way they want to buy and digest infrastructure. No one is better positioned in the data era than Dell Technologies.

We are starting from a position of strength. We have a broad, distinct collection of assets that we have worked across Dell Technologies and the Dell Technologies estate to integrate them and to be able to deliver differentiated products. No one else has our scale and reach to serve all customers. I think we're in a great position. Thanks for your time this morning, and I'll turn it over to Tom.

Tom Sweet^ Well done. Thanks, Jeff. So let me -- so I'm the closing, if you will, right? So -- then we'll open up for Q&A after I get through my comments.

So let me recapsulize a few things. So I see you heard Michael up here talking about here are the trends that we're seeing. Here is why we put Dell Technologies together in terms of the trends we see with data, what our customers are asking of us, the complexity dynamic that they're dealing with.

You then heard Dennis come up and talk about how do we think about value creation, whether it's around -- and the themes that our customers, and the issues that our customers are struggling with, whether it's around complexity of the model, how do they think about strategic vendors and the vendor relationships they're trying to drive.

And then you had Jeff come up and talk about everything that we've done around reducing complexity for our customers, the simplification of our offerings and our capabilities, what we're driving in terms of innovation and collaboration, the connectivity that we now we have with VMware. It's been a remarkable journey over the last number of years, 3 years almost to the day, actually, when we put these companies together.

And so what I wanted to talk about over the next few minutes is how do we think about all of this relative to value creation and remind you of how we think about the financial framework. How are we running the company from a financial model perspective? And that's what I want to spend a few minutes on.

So as we think about our value-creation opportunity, one -- I think you should take away the following: One, it's -- what I'm talking about today is very consistent with what we've talked about over the last 2 to 3 years, right?

What we are driving is we want to drive growth; share gain, relative share gain; operating income expansion and EPS expansion and cash flow generation regardless of the environment, right?

I mean we're not immune to large environmental shifts, but we want to grow faster than that market. That's what we're trying to drive. That is our focus. And we want to make sure that we do that in a way that is consistent with our long-term value-creation framework.

We're also focused on driving, as Dennis highlighted, in terms of where is value creation coming from? We think about it and what I'll talk a bit about is around those operational levers that we have been working on over the last 3 years.

Our focus on how do we drive coverage models, how do we try the investment that drives innovation and how do we then take that and drive the consolidation opportunity in the market. And I think we've shown that we have through the share gain and those activities that we've been driving. And then what about those investments? What are those investments? What do they look like? How do we think about that? And then I'll spend some time on structural.

I'll talk about that in 2 phases. One is all of the work that we've done on debt reduction and rebalancing, if you will, the balance sheet. And I will tell you over the last year as I have talked to hundreds of investors and many of the analysts in this room multiple times, there has been consistent theme around, "I hear all of that. But geez, I'm -- the level of your debt, your leverage is worrisome in perhaps an environment or economic environment that is going to turn over at some point."

And that message has not been lost on us, but it's also a message that we have been working on pretty consistently for the last 3 years. So I will spend some time talking about what is our delevering plan look like. And we will work down that pathway.

Then I also want to talk a bit about structural. What are those other structural things that we've done over the last 3 years as we think about the capabilities of and the assets and

IP of Dell Technologies? And so we'll spend some time on that to make sure you understand where we're headed.

And then finally, I just want to remind you, right, as we think about how we're running the company, we're running the company for relative growth. We want to run, we want to grow faster than the market and faster than our competitors. We want our operating income and EPS accretion to be -- grow at a rate faster than the revenue growth. We want that to then drive cash flow.

So we want growth and operating income expansion, and we'll do that both through consolidation and through OpEx scale. And we want that to ultimately result in EPS accretion. You get EPS accretion through a number of ways. Operating income, obviously, growth, but if you then think about our delevering capability and what we've been doing. The EPS opportunity just through the reduction in interest expense over time is pretty interesting.

And so that's what we're focused on as we move forward. And all of that should resonate with you given that has essentially been the message we've been driving over the last couple of years.

So if you think about long-term operating model capability and growth, right? I've already touched upon the relative growth and the fact that we're focused on relative share gain. I want to spend a few minutes just talking about P&L leverage, right? As we think about P&L leverage, and we talked a lot with a lot of you in the room and on the webcast around how do we think about operating income expansion?

What are those levers that we're pulling to drive margin expansion, if you will? It comes down to a number of things, and many of which Jeff actually touched upon as he talks about the innovation and the capability that we've driven with our offerings and our product capability.

The fact of the matter is, is we are migrating, as we think about it, towards more integrated solutions, higher level of software content in that higher level of IP.That mix dynamics will be helpful from a margin and operating income expansion, right? We've been pretty clear about that as we talked about this over the last number of years.

We also think that, in addition to that, I get leverage out of my OpEx scale, right? My scale should provide me some OpEx leverage. Many of you have asked me over the last few years, how do you think about that OpEx investment that you made, particularly around go-to-market expansion that we've done?

And what we have consistently said is, "Look, we're in a productivity curve with that new capacity. Over time, over that window of that we talked about with you, we will get to scale." And then it becomes a matter of how do we adjust that scale or that model relative to the economics there?

And that provides the leverage that we can then -- that then drives cash flow. And as we think about cash flow, we had a -- I'll give you some numbers, right? And so in -- for Q2, the quarter we just released last month, we had record cash flow, right, $3.3 billion of adjusted free cash flow.

We've got -- our EBITDA was roughly $3.2 billion, 13.5% of revenue. We had -- and on a trailing 12-month, we're essentially at $7 billion, $7 billion plus on a cash flow basis. So we've had strong cash flow. That strong cash flow then allows us to delever.

That's essentially the message. We are using our capital allocation policies right now. It's principally focused on delevering the balance sheet, and we've been pretty consistent on that over time. You delever the balance sheet, the margin expansion, the operating income expansion and the reduction in interest expense is principally the way that we'll drive EPS accretion over time.

That's the frame we're running. So as you think about current operations, what we have been doing, right? So we've talked about the fact that we've been driving share gain. We've been driving the efficiency and the business model. So I'll spend some time on that.

I'll also spend some time on the new opportunities, the investments we're making. Jeff touched upon them, so I won't be redundant here around the R&D capability, the sales coverage capability that we've been driving, the investment we've made there as well as the M&A that's begun principally through VMware.

We've done a couple of small tuck-in acquisitions at the Dell [Tech level] principally around getting to some access to some IP that made sense for us, but principally M&A activity has been driven through VMware.

And then structural, again, debt reduction, and then how do we think about alignment of our asset base and our IP base as evidenced by, say, the VMware Pivotal dynamic status. You know, the proposed transaction that's going on there.

We've also done a fair amount from a capital structure in terms of aligning equity interest, right, in the sense of you think about the Class V transaction we did last year. That Class V transaction focused on how do we simplify our equity structure and how do we make sure that our equityholders are all aligned appropriately. And I think we've achieved that at this point. So I'm pleased with the way that, that has come out or that has progressed.

So if you think about operational value creation, let me just give you some numbers. And this is all anchored on when did we put these 2 companies EMC and Dell together, which was September 2016.

So you can see from a non-GAAP revenue perspective, we grew revenue $11 billion in fiscal '19 from fiscal '18, an enormous growth, 14% year-over-year growth. Very strong performance in the ISG business with roughly, I think, 19% year-over-year growth there and strong profitability.

And then you stepped through into Q2, where we just announced that, that we just announced $23.5 billion of revenue, about 1% growth, in a tougher environment, let's be fair. The environment has certainly changed over the last period of time. We're growing with record cash flow and strong profitability. So feel pretty good about the growth of revenue.

And by the way, since we did the transaction, on a compound basis over that period of time, revenue has grown roughly about a 14%, 15% range. Margin dollars have expanded by almost 19% over that period of time. And so this concept of how do you drive [op inc] expansion has clearly been there.

If you think about our operating income, you can see the fact that what we're focused on is how do we drive those higher value, higher -- the more profitable solution capabilities that we've been focused on, how do we optimize and push forward on VMware in terms of the opportunity we have with VMware? And it's been, I think, a good success.

As we look at our deferred revenue growth, right? One of the things that we talk a lot about is we got roughly about $25 billion of deferred revenue on the balance sheet and we grew that 17% from the beginning of the year.

And if you think about that, what that means is roughly on a -- take the Q2 number, $23.5 billion, on average, which was about 20% to 25% of our any quarter revenues coming off the balance sheet. And that's growing nicely over time as we drive Services, Software-as-a-Service, Flex consumption models, and we'll continue to drive that deferred revenue, stability of revenue, stability of cash flow message forward.

And obviously, I think we've done a nice job on cash flow as we -- if you look at the numbers there, $7.2 billion on a trailing 12-month basis, pretty consistent and stable cash flow. Obviously, there's a piece of that that's VMware cash.

As we think about the overall operating of cash flow expansion, I think the team's done a nice job. And while cash flow is not linear, let me remind you of that, our typical cash flow seasonality is Q2, Q4 are the large cash flow quarters; Q1, Q3 tend to be a little bit less. But overall, I think what we're talking about here is the fact that at least over the long term, cash flow is pretty stable and predictable.

So let's talk about new opportunities. And so with that, I want to focus for a few minutes on R&D. I want to focus for a few minutes on the work that we've done and the investment we've done on our go-to-market capability and why that's important relative to the financial model and the capabilities that we're driving there.

So if you look at that, you think about that investment capability. Jeff mentioned it. $20 billion of R&D over the last 5 years. The innovation that that's driving with our capabilities, with our solutions, we are committed to continuing to invest appropriately and driving that innovation engine that we're all thinking of that from what is the return, what's the opportunity and how do we think about this to position the company over the long term.

The other thing that you guys have heard me talk a lot about is I'm not here to optimize any particular quarter. What we're looking at is how do we position the company from a solution, from a capability, from a financial model over the intermediate term? And that's what we're focused on.

So the R&D, Jeff highlighted some of the capabilities that they -- the product solution capabilities that they've done, whether it's been all the SAN refresh, whether it's the Power portfolio, the Data Domain refresh, all of that work that's been done, the

Workspace ONE capability with Unified Workspace. So all of that capability is all coming out of the R&D investment.

We have talked a lot on earnings calls that Jeff and I have been on around go-to-market expansion, go-to-market coverage expansion. And this has all been about ensuring that we cover from a direct perspective our customers in the coverage ratios and the support models that made sense to us relative to the opportunity. And so we, over the last 2 to 3 years, we're on a course to have invested, on a run-rate basis, about $1 billion in sales coverage.

That's in, how do we expand our small business coverage model, our medium business coverage model, our storage coverage model? The -- within the Enterprise Preferred within the enterprise sales segment, how do we, from a commercial perspective, cover not only the top 20,000 to 25,000 accounts in a more appropriate way but also, as you think about it globally, how do we ensure places like Japan or in Western Europe that the coverage models are appropriate given the opportunity?

So those are the things we've been focused on. I think in general, we're pleased with how that investment has progressed. Obviously, we're still in some of that productivity curve with pieces of the investment. But I would tell you, from our perspective and from a customer feedback perspective, I'm pleased with that.

We've talked about M&A in the sense of the work that's principally been done by VMware. They build out their platform and capability. We'll continue to see us be judicious with M&A where it makes sense. But in general, I think we're pleased with the progress there.

And then Jeff highlighted it, but one of the things that we don't talk perhaps enough about is the Dell Technologies Capital portfolio and the access to new capability, new technology, how we then introduce that capability and technology to our engineering teams as we think about future solutions and future capabilities.

And we're investing about $100 million, $100 million plus a year in Dell Technologies Capital. So the combination of this investment framework, I think, positions the company well as we think about our future opportunity.

So let me go to corporate structure and structure in general. And the things that I want you to think about is principally the fact that we paid down about $17 billion, $17.5 billion now in gross debt since the acquisition, since the merger.

And as we look at the opportunity, we've spent some time as a result -- as we focused on this and as a part of what we're always going to do, of how do we smooth out these maturity stacks? Back to my earlier comment, a lot of feedback at the end of last year geez, if the economy turns over, how do you think about your refinancing risk per se?

What we had always been focused on, how do we smooth out these stacks? I think we've done a nice job of doing that. We just did the term loan B extension, which smooths out the 2023 tower. So I'm pleased with the progress that we've made there, and we'll spend a little bit more time on that.

And then we've also shown that we've aligned and have adjusted the total assets of the capabilities of the company, whether that's $7 billion of divestitures, services software, PCD.

And then we've done the -- as I mentioned earlier, the Class V, Class C alignment to ensure that our equity interests are aligned with how we're running the company. And then you think about the potential VMware Pivotal, proposed VMware Pivotal combination, which aligns our Kubernetes and container strategy and our cloud-native software capability under VMware, all designed to how do we add value? How do we drive value so that alignment makes sense? So that's what we've been focused on.

And then we look at our debt reduction. Let me talk a little bit about how we think about this as we go forward. And so you'll see the fact that we've been on the steady progression of paying down debt. At the end of the first half, we had $36.4 billion of core debt.

And by the end of the year, we think we're somewhere around $34 billion as we think about that $5 billion debt paydown commitment that we made this year, and we're on track to do that. And we've been using cash and delevering the cash flow from cash on the balance sheet as we think about balance sheet efficiency to drive this debt paydown.

And as we project forward, we -- our current estimate is that we'll paydown somewhere around net core debt -- or net core debt, make sure around that $4 billion mark, which puts us right around that 2x, 3x leverage ratio, which is the time to start the conversations with the rating agencies about investment-grade. That's how we think about the progression.

Now ultimately, it's the rating agencies' decision about whether we're investment-grade or not and we may make that flip, but we think within the next 12 to 18 months, we're having those conversations based upon what we know today.

So we've told you over time that delevering is the framework that we've been driving and the principal use of capital allocation. That continues to be the case over the short to intermediate term.And I think we're squarely on track to drive that positioning.

And the other thing I just wanted to highlight as the maturity stacks smooth out and -- the other part of this chart is what do they look like at September when we finished or closed the EMC Dell merger.

And the fact that the gross debt paydown of $17.5 billion, the $12.4 billion of core debt paydown over this period of time, the work we've done around refinancing of the debt structures and maturity towers to ensure that we smooth out those stacks, I think the team has done a really nice job there.

And in fact, if you think about the next 18 months, we only have $2.3 billion of scheduled maturities coming due. So our flexibility around the opportunity to prepay certain levels of debt, I think we're extraordinarily well positioned over this next period of time as we continue that march to investment-grade. And so, again, I think the team's done a really nice job there, and I'm pleased with the progress that we've been -- that we have made.

Let me flip real quick to the long-term financial framework. On the left side of this chart, you'll clearly see what we're talking about for this year and the guidance that we provided, which is revenue of $93 billion to $94.5 billion, the operating income of $9.8 billion to $10.2 billion and the EPS of $6.95 to $7.40.

If you step back and think longer term, our focus here is about how do we grow in line with the IT market ex telco plus or minus 1%? And that guidance essentially says hey, we want to grow at or above the market growth rate over time on a long-term basis. We don't necessarily think about on a quarter-to-quarter or year-to-year basis, but the long-term framework is to grow at that.

We think that's a better way to think about it versus trying to put out hard percentages because the market is going to move on us, and it's a more reflective environment and it's more of a way to reflect the environment. Now doesn't change the message. We are still focused on driving relative growth. We're still focused on taking share. We're still focused on driving cash flow, but we think this is a better way to reflect it.

We also want, as we've talked about, operating income to grow at a rate faster than revenue growth. And we want that EPS accretion through that process into the debt reduction. Let me remind you for every $5 billion of debt reduction, it's roughly $0.25 of recurring EPS growth. So think about that as we move forward here from a financial framework perspective.

So that's where we are. I'm pleased with the progress we made. I think that team has done a really nice job of executing their way through the last number of years, and I think we're well positioned to take advantage of those long-term trends that we see in the market.

So with that, I want to move to Q&A. And I'll let -- give us a few minutes just to get the chairs up on here. And I'll invite Michael, Jeff and Dennis and Rob back to the stage. So thanks, everybody.

Rob Williams^ Yes, Tom. We're going to call a quick [audible] here. We're a little bit ahead of schedule, and I know everyone could use a break. So what we're going to do is we're going to do a 10-minute break. Take a break, grab something to drink. Come back at 10:30, and we will get started with Q&A.

(Break ~10 minutes)

Rob Williams^ All right. Just as a reminder, we're ready to get started so let's get everybody to take their seats.

QUESTIONS AND ANSWERS

Rob Williams^ Okay. Since John Roy never actually left his seat, I'm going to let him have the first question. John, why don't you go ahead and kick it off here. Just as a reminder, we've got mics so everyone that's online can hear.

We'll try to get to the next person too so the next person who will go is RuPaul here and then we'll just move around the room.

John Roy^ John Roy, UBS. Just kind of maybe a broad question. You were talking about the pendulum swinging back and forth between centralized and decentralized. Obviously, that's been going on for a long time.

I wonder if maybe you could categorize where you feel like we are with the headwinds from public cloud. I guess we view them probably more than you do at this point and the tailwinds from Edge, which is eventually coming. So could you give us maybe where you think we are in the pendulum swaying and how you see your opportunities and challenges in those 2 areas?

Michael Dell^ Well, I mean, if you look at it on a workload basis, I think there are roughly 70 million VMware workloads. And I think AWS has about 10 million workloads. Azure is less, Google is less certainly when you take out things like Office 365. But I'd say the journey for customers, it goes something like this. They kind of start with, I'm going to move everything on the public cloud. Okay.

And then about a year later, they sort of figure out, well, that's not really going to work because of -- you know, you just can't move everything. Security, regulation, performance, latency, cost, reliability, et cetera, lifting and shifting. That doesn't necessarily work in all cases. And so then they say, what's actually hybrid cloud?

And then a year after that, it's actually multi-cloud and when we show them that they can -- what is a public cloud, anyway, right? We know exactly what it is. We especially know about the hardware.

So what have they done? They've taken the whole management of the data center, software-defined it, automated everything. Great idea, but not owned by the public cloud, right? So all the things we're doing, VMware, Pivotal, Kubernetes, containerization are all about creating these automated modernized data centers.

There's more and more companies standing those up even if you work for big, giant banks and your teams consistently tell us that for the predictable parts of the workloads, the properly built on-premise or colo clouds cost 2, 3, 5, 6x less than AWS, Azure, Google. So really the workload-by-workload discussion.

And then, of course, enter the new clouds, okay. I think there's a new public cloud that is not even here yet. It's called the 5G telco cloud, right. And it's going to be amazing in terms of its capabilities. And then, of course, there are these private edge clouds in factories, in hospitals, in retail sites, inside organizations.

The term data center is sort of interesting, right, because I think of cloud also as a data center, right? How much of the data is actually created in the data center? Like none, right? It all comes from somewhere and it goes to the data center and then it's processed. Well, we're moving to this world of realtime intelligent connected things.

And so I think today, you've got 80% of the world's computing infrastructure in clouds: Private, public, hybrid, multi-cloud. 20% is on the Edge. 5 to 7 years, it could flip the other way. I actually think it will be far more -- it's not to say that these clouds are going to go away. They're not, just like we talked about with the continuing waves.

But the sheer volume of connected intelligent things, you're going to have to have intelligence that processes that data, turns it into metadata, does something intelligent with it and it's going to be in a physical world. So all these things work together. And of course, we're unique with our VMware Cloud Foundation, with the way we're integrating Kubernetes to allow customers to run these workloads wherever they want.

Ruplu Bhattacharya^ It's Ruplu Bhattacharya for Wamsi Mohan at Bank of America. So Michael, just to clarify my understanding, you really haven't changed your long-term growth rate outlook. I mean in the past, you said 3% to 5% growth.

And today, you are saying 1% plus minus IT spend, which is pretty much in that range, if anything, 20 basis points above what you said in the past. So can you help us understand your thinking and how you trade up between what you've said repeatedly in terms of growing faster than the market and taking share versus the need to grow operating income and operating margins?

So I mean what is the strength? How does that strategy work? Would you use price as a lever to gain share? And then just in terms of growth, what is organic versus your thoughts on inorganic growth, especially after the Pivotal acquisition by VMware?

Tom Sweet^ Why don't I take some of that, okay? So if you unpack what I just said, which is 4 points for CAGR over these 3 to 4 years, and we said plus or minus 1. We're right at 3 to 5. This is what we've been saying. So nothing has really changed there.

We are balancing, by the way, and this year's a good dynamic or good -- sort of a good test case of this, which gives -- puts the market a little slower this year, right? I think we all would acknowledge that. And the market forecasts coming into the year are clearly not sort of panned out the way people thought.

And what you've seen us do this year is be targeted in what we wanted to do, meaning if you listen to our earnings calls, you've heard us talk about the fact that hey, there's certain business opportunities, business transaction, say, in China and some of the large enterprise space that -- particularly in the server space. But we said, hey, the economics there don't make sense.

So what I'm trying to convey is it's not growth at all costs, right? It's balanced growth that drives cash flow that allows us to expand operating margin, allows us to expand operating income and EPS over time. Now it doesn't mean we're not focused on growing faster than the market relative in taking share on a relative basis.

But it does mean that there's navigation that happens as we do that. And we are balancing profitability versus revenue velocity and trying to make sure we're balanced there in a way that makes sense relative to the long-term positioning of the company. Okay. I mean that's how I think about it. Michael, I don't know if Jeff or you would add anything?

Michael Dell^ I think you said it very well.

Jeff Clarke^ Yes, and then to your question about organic versus inorganic, if you think about what we've committed to, to grow faster than our competition, we grow faster than the industry consolidating the core spaces, but then to invest. And so Tom talked about this. We've got a $1 billion-plus investment run rate in our go-to-market. That's clearly organic. But at the same time, VMware has added over $5.5 billion of inorganic solutions into their portfolio over the last 3 years.

So there's clearly the "grow the core" message, but then there's the "invest in the future". So Dell Technologies Capital, $800 million portfolio, $300 million of investment, investing in a lot of new technologies that are going to give us access to new and exciting opportunities there.

VMware is the primary investment vehicle today, opportunity for Dell Technologies in the future once we get passed investment-grade. So you're going to see us balance both, and you're going us wait not only towards the core but also towards the fact that we have to make investments for the longterm to grow. And we recognize that, and you see that in everything that we're doing today. And I think you'll see a nice balance over time.

Tom Sweet^ I think the high-order bit here is deleveraging, right, and paying down debt and levered EPS growth. And you all can do the math on our levered EPS growth. So in the core of Dell Tech, I wouldn't hold your breath for any big acquisitions.

Certainly VMware has an incredible platform to add new capabilities in. That's continuing to go on. And look, we have a fabulous organic innovation engine that is quite strong. It doesn't mean we won't do a small thing here or there. But we're in a great spot and the innovation engine is doing what it's supposed to do.

Rob Williams^ Great. We're going to go to Amit and then we'll go back across the room to Katy and to Shannon and to Tom.

Amit Daryanani^ Amit Daryanani, Evercore ISI. I guess I just want to, Jeff, talk to you a little bit and hear from you on the storage side, now that we have a more unified, simplified product portfolio, how do you see the storage market trending as you go forward? And importantly, how do you see your share gain narrative happening over the next 12 months versus what you guys have seen?

I would love to get that perspective. And then Tom, the $4 billion net reduction fiscal '21, remember you guys said $5 billion this year on track to (inaudible) this year. Put that in context is $1 billion less. Should we start to get worried about what that means for free cash flow, for revenues, for all the wonderful metrics in fiscal '21? Just help put some context in the $4 billion in '21 versus $5 billion in '20?

Jeff Clarke^ Sure. I'll start with storage. Our view when we look at the strategy that we've discussed, this notion of the data era, and we look at the workload that will evolve over the next 5 to 10 years. It's absolutely clear to us that high-performance storage subsystems are essential to be able to handle the enterprise workloads of the future.

So we will continue to invest in the traditional 3-tier architecture of storage, arrays and that ecosystem around it and really drive performance and ability to handle those AI, ML, deep learning workloads of the future. While at the same time there's a transformation happening around 2-tier architecture HCIs, and we want to continue to be the leader there. So our strategy, real simple, is to lead in the new way of building out storage and compute HCI.

We have a leadership position there. We have a leadership position in traditional storage array, data protection that goes along within a secondary storage and being able to drive high-performance solutions there as workloads come and pressure the traditional infrastructure.

Our analysis would suggest we probably need to see a three to fourfold in compute performance increase over the next 5 to 8 years. We probably need to see a doubling of storage performance. And we need to think ubiquitously around 400-gig Ethernet to be able to handle the data flows and the data workloads that are coming.

I'm sure this won't surprised you. I don't know how you'll do that in the big public cloud. I think that's done in distributed IT closer to where that data is being generated to be able to handle those workloads. So you'll see us continuing to invest in the high-performance platforms around PowerMax.

We've seen what we've done and I think it's somewhat lost. It's been a long time since we've been able to claim first to market with something. And the fact that we're first to market with dual-ported NVMe a little over a year ago, we're now first to market with storage class memory's persistent storage. You can look at the storage technologies or memory technology that are in front of us, and that's what we're going to do in that space.

You've heard me talk many times over the past couple of years about pivoting those 4 midrange products toward the next-generation midrange products. That product is still on track for the end of the year, the transformational platform for us.

It really brings together some of the things that we talked about in the ordinary software world into our products from the container-based architecture, microservice-based architecture and a lot of software-defined expansion and capability of that platform.

The data protection products that I mentioned earlier this year, another example of modernizing that software stack. If you tie it to the conversation Michael mentioned earlier and Dennis in his conversation, you begin to now, in my mind, tear apart this cloud architecture.

And you think about public cloud, on-prem cloud, Edge cloud and there's 2 important elements of it. It's a data plane and an operational plane. The operational plane, we think we have an advantaged capability with VMware, an extension of that operational plane that brings common management, common automation, common orchestration.

The data plane, we're now building our products. If you've watched some of the announcements we've made since Dell Technologies World reinforced at VMworld, making our products more cloud-friendly, cloud-integrated, that's on purpose. We are building an extracted data layer that we can help our customers look at that data plane and be able to move the workloads across. And that's either on the 2-tier architecture or a traditional 3-tier architecture.

So that's where we're going long term and where our engineering has really moved towards in a long-term basis. I get pretty excited about the prospects of that, particularly now I don't have teams working on 6 different compression algorithms, 8 different deduplication algorithms.

You're trying to build the best one. And we have a wealth of IP and knowledge to be able to do that on a repetitive basis going forward. That's how I look at the storage marketplace in particular. You asked about our share or targeted some of the reclaimed 2/3 of the share loss we had have encountered going over to 75 basis points over the last 2 years after 4 years of decline.

We hit the bottom, we've come out of the bottom and stabilized that. We put some share square points on that board, if you will. I'm optimistic. We've said it was still kind of rocky at times or bumpy, I think, is the word Tom and I used to describe it, but the trajectory is very solid.

The -- I think you really amplify the potential of that with the investment we've made in growing the customer base. Like one of our challenges coming into this role 2 years ago was we had a declining customer base. We've stabilized that customer base and it's showing signs now of expanding as we've made investments in our coverage model, and that's so important for the future. End of the day, we need to tell more stories to more people. Does that help?

Tom Sweet^ Do you want me to take the second part of that question, the cash flow question? So look, as we think about mix, we don't guide on cash flows, let me just say that.

But as we think about mix in terms of where we'd like the debt stack to be, core debt stack by the end of the year and the $4 trillion of net core debt reduction was through design to think about. That gets us to the right around that timeline where we can begin to have that conversation with the rating agency. I don't think you should take that as -- don't take that as a projection of cash flow at this point, right?

We'll talk about guidance for next year at our Q4 earnings call. So we'll give you more clarity around next year then. But we think we've been asked time and time again how should we think about your debt reduction progression? And what we're trying to show you is that we are marching steadily towards investment-grade metrics.

Now many -- all of you know but I'm going to keep saying it because I don't want to get over my skis. It's up to the agencies to tell us -- to make that call. We want to enable having that conversation. And we think right around the end of next year, this 12 to 18 month sort of timeframe, giving everything we know today is about when we should be having those conversations. Okay?

Rob Williams^ We're going to go over to Katy.

Kathryn Huberty^ Katy Huberty, Morgan Stanley. I want to follow up first on the debt discussion. To the extent that there is outside of free cash flow or there are asset sales that bring more cash into the business, should we expect the priority to be more debt paydown than you plan?

And once you get to the 2 to 3x leverage ratio, where do you go from there? Is there a discussion around shifting to share repurchases? Or should we expect to continue to pay down debt? And then I have a follow-up on some of the synergy opportunity.

Tom Sweet^ Katy, I think you should think about it like this. If for some reason, we had something that injected more cash into the business right now, I think our primary imperative from a capital allocation is debt paydown, right?

I mean that's how you should think about it. I think once you get to investment-grade metrics, I don't aspire to be AA. You get my point, right? I want to get to investment-grade metrics and get to that rating because it opens up commercial paper for me, it opens up access to cheaper financing and capital structure.

But I think then you begin to think about how your capital allocation framework shift. And part of that shift will be both looking at are there potential M&A opportunities that we should be thinking about? But part of it is also how do we think about shareholder return, whether that's a dividend structure or share repo or some combination of that.

Those are all things that I think come into play once we're there. So I think if you think about the shifts in the progression that I think about, it is let's get to investment-grade, let's make sure that I then align my debt structure to investment-grade-like structures, if you will. And as we do that, then it opens up the opportunity to do some other things around shareholder returns. So that's where -- that's, in my mind, how we're going to march forward.

Kathryn Huberty^ That's really helpful. At last year's event, you talked about the VMware revenue synergies. I think it was $400 million 2 years ago, $700 million last year. What's the progression of -- are you seeing more synergies each year? Does that, at some point, slow down?

Jeff Clarke^ You want me to take that? Or you want to go?

Tom Sweet^ I'll go. Look, I think we've been very pleased with the progression of synergies, right? We were -- as we put these companies together, we thought there would be revenue synergy.

We didn't financially model it from a debt perspective or from a revenue opportunity. It's clearly accelerated, right? In terms of -- Michael laid out the operating framework for the company, which was, look, we're going to act as Dell Technologies.

We're going to -- our customers are asking us to come to them holistically, not piecemeal. They want solutions that are more integrated rather than less integrated. All of that has, I think, accelerated the synergy dynamic as we move forward. I think what we're careful about is I don't want to put out -- oh, in this coming year, it's going to be x billions of dollars.

I'd rather us -- because this thing is -- as we get more intertwined in some respects in terms of solution capability and go-to-market capability, I think what you'll see us focus on is let's continue to drive the opportunity, given some of the capabilities that Jeff and Pat are putting together for us. But we think we're in sort of the early to early-mid innings on synergy opportunity over time.

Jeff Clarke^ Yes. It has exceeded the objectives that we put in place. And we continue to find ways to innovate together and integrate the solutions.

Tom Sweet^ By the way, I should mention, at the same time, the VMware ecosystem remains open. And that's incredibly important, right? So if you went to the VMworld conference and you roamed around the expo floor, you would see every company in the industry, including all the companies that many of you would consider competing with Dell Technologies, right?

And so that remains quite important. But yes, I think there's lots of upside there. A lot of the growth in our go-to-market with new customers, we're sort of paving new territory for VMware and bringing VMware into new customers.

And of course, when we show up as Dell Technologies at a customer of any size and bring together the entire software-defined data center, the software-defined network, everything that VMware does with vSphere and Workspace ONE along with our complete data center, client offering, security, Dell Financial Services, no one can match that. And so that is working very well, I think we'll continue to be healthy revenue synergies there.

Jeff Clarke^ Can I add a follow-up to that?

Tom Sweet^ Yes, sure.

Jeff Clarke^ Katy, the way that Pat and I spent our time on is, certainly, we've achieved this base level of synergy that Tom talked to. We are really spending our leadership time on the strategic revenue synergies, VxRail, table stakes, VxRail plus VCF deployed in the software-defined data center environment are now Dell Technologies Cloud, both the buildup on-prem of any individual customer.

And now that we've launched the first on-prem data center as a service capability, the growth of that strategic revenue stream. The same is true, Michael just mentioned about Unified Workspace. The ability to now take that integrated capability that we have and look at the strategic growth of that area or the growth of that strategic capability. We're doing something similar in data protection.

So what we've done is deep levels of integration. And in many cases, the first to do the seamless integration, we are really driving our go-to-market engine and our leadership focus on those strategic categories to watch them grow, because I think we have the base table stakes as an organization done very, very well. It's now this notion of the Dell Technology estate coming together integrated in a seamless way where we spend our time.

Michael Dell^ Yes. So what Jeff is saying, just to emphasize the point is, if you just take all of the salespeople and say go sell more VMware, okay, that's great, okay? But it's the technical integration of these solutions and innovating together that's building a whole new class of capabilities that weren't there before that I think is actually the foundation of all the success that we're going to drive in the future. And it's highly differentiated.

Tom Sweet^ And you hear a lot about all the things that we're doing across the different estate companies, go-to-market, R&D, et cetera, all the things Michael and Jeff and Tom and Dennis talked about.

But it goes far beyond that. It's brand, it's communications, it's marketing, it's FP&A. It's investor relations, it's accounting. I mean there's a very different feel in this organization today. We talk to each other, we talk to each other regularly, and it's a collaboration that is happening throughout the organization. I just want to make that point.

Michael Dell^ And I'll also say we're very excited about the proposed pivotal VMware combination because that will simplify the entire staff, if you will, from developer to operations. And that is something that our customers, along with putting Kubernetes right into vSphere, they love that.

A.M. Toni Sacconaghi^ Toni Sacconaghi from Bernstein. I don't want to split hairs on this, this is more like directional. But last year, at your analyst day, you did say 4% to 6% revenue growth as a long-term target.

This year, it's 3% to 5%, if we take that interpretation. And also last year, you were like very deliberate about sort of share gain objectives. I think in servers, it was 5- to 7-point growth premium to the market. In storage, it was 8 to 9 points.And so -- and there was not sort of a reiteration of that.

And the broader question is, are you thinking differently -- so taken collectively, are you thinking differently about sort of share for the sake of share gain, and that may be more muted share gains and a higher focus on profitability is sort of how you've evolved your thinking over the last year?

Or is it in response to performance over the last year? I'm not sure you've actually eclipsed either of those share objectives over the last year. And again, maybe wantingly or willingly because the trade-off in profitability was simply not worth it. So perhaps, Tom or Michael, you can just comment on whether that's a fair observation and question and address it. And believe it or not...

Tom Sweet^ Let me start, Michael, and then Toni, that's a great question. Look, I think you ought to think about it like this. We put out a pretty detailed long-term framework a year ago, more detailed than I really wanted to do.

Yes, I noticed, but clearly, we're in a transaction environment where the market, particularly the equity market, didn't really know Dell Technologies. And so we felt like it was important to give you some more information rather than less. So that's number one.

And then as we thought, as we looked through the year, what we have reflected on this is the following. By the way, one, we set forward the stakes last year. I think what you're hearing us say now is -- and by the way, we modified that to 3 to 5 and with the impact of the leasing standards.

So I don't really think my message has changed there. We're going to be -- but I think it's also important to tie our growth framework to what's the market, right? And it's not an absolute 4 to 6 if the market's at minus 5. That's a pretty big row to hoe. And I'm not sure we're big, but are we going to buff those macro trends to that extent? Probably not.

And so we thought about it like this, which is let's go back and tie this thing to where is the market growing. And quite frankly, let's give ourselves a little wiggle room around that plus 1, minus 1 thing just in the sense of how do we run -- want to run the company.

We are clearly focused on driving growth, relative share again, relative growth. So that part hasn't changed, Toni. What you're hearing me not reiterate is am I going to give you absolute premium numbers on all these various lab categories? To me, that makes sense for a long-term framework perspective.

But we're clearly -- our whole objective around, and you heard Dennis talk about it and Jeff talk about it, is what part of the growth lever here is consolidation. So we're going to have to make sure that we're growing faster relative -- relatively faster in the market.

But there's a nuance here, which is if I wanted absolute share again, I could go do that, and you probably would not like the P&L at the end of the day, okay? And so this is also around balance of we want to grow, we want to grow at a premium, but I want that growth to be the right growth.

Meaning, is it strategic? Is it -- am I -- if I have to be price aggressive, is it -- does it get me into an account where I haven't been before, is it a pure acquisition, is it a pure lab acquisition? All of those things go to these types of decisions. And Toni, you know this as well as I do.

And so to say that it's growth for growth sake is not the message we're trying to drive. But the way we're running the company is really unchanged in the sense that we want to grow, I want that growth to be profitable. I want to generate cash flow. I want to delever. And so you've seen us this year perhaps be a bit -- given what the market dynamic has been, been a bit more nuanced. And okay, if I want to grow, where am I going to go grow?

And what I like about our company right now is that we're broad enough, and we have a diversified portfolio that, look, we know the server market this year has been challenging. It has, right? Last year was an extraordinary market for servers. This year, not so much. Now there's reasons why people are digesting the capacity that they put in. We've got some different macro dynamics going on.

And so -- but so servers have softened, if you will. And with that, we've seen price aggressiveness that at some point doesn't make sense to us. And so we've been selective in that area.

On the other hand, we pushed really hard on client this year because it made sense, given the opportunity and the environment to go drive commercial client growth quite strongly. And we're pushing on storage. And so I think the advantage we have is that we have a broad diversified set of capabilities that allows us to pull growth levers where necessary.

But you should not be confused. We do want to grow. We wanted growth -- we want that growth to be faster than the market and faster than the competitive set. But we're going to be balanced in how we apply that model. And yes, I'm not reiterating those growth premiums by log because I just don't think that's productive in the scheme of how we want to run the company in the long term. But the philosophy, I think, is the same.

Michael Dell^ Yes, it's profitable growth. I would say, be more selective is a good description. If you look at our ISG business and our CSG business, you'll note that they're the most profitable in their categories.

And we think we can continue to gain share in a profitable way. But there certainly are opportunities that are not profitable, that will drive units or drive up the revenue but not drive the profit dollar growth. And we are not interested in those, so...

A.M. Toni Sacconaghi^ Just switching gears. The last couple of quarters, you've seen exceptional profitability in particularly your client business, but also in ISG, which you talked about on your last earnings call, and part of that is component. How do we -- I mean, again, talking long term, how do we think about how much of that, maybe 200 basis point gain, 200 to 300 basis point in client, 200 in ISG relative to what you were doing sort of on a normalized baseline before.

How much of that do you think is component? And sort of given back over the next 12 to 24 months, obviously, you're trying to drive margin structurally over time higher. But how do we think about where margins have been over the last 1 or 2 quarters relative to what we should think normalized is before productivity and margin improvement in your business model?

Tom Sweet^ Yes. Look, Toni, I am -- look, I think we've been pretty clear on the earnings call to your point over the last couple quarters that the profitability expansion has come from both component cost dynamics that have been favorable. And I'll remind you, these things go on cycles. It was unfavorable for -- if you go back to fiscal '18 and the early '19, and then it flipped about the middle of the year.

And so you had these cycles where you've got to adjust pricing and work your way through it. Obviously, with our direct model, we've benefited somewhat from the component cost turn that we saw. And we've priced portions of that, and we've kept portions of that.

I think over -- so I also think that you've seen things like server ASPs expand, where everybody's afraid this year that server ASPs were going to decline because memory pricing was declining. We've actually seen it go up since we've seen content go up on servers and memory content go up.

And so there's this dynamic as we work our way through where we are now as we go forward that, look, it's clear that component costs are going to come back to some historical norm over time. It's a cycle.

But that's where you're going to see us in leading into other levers of the business, right? So things like how do I accelerate direct growth, which is more profit for us? How do I push growth levers like small and medium business?

How do I think about the acquisition engine we have with enterprise preferred and some of the investment we've made in storage? And so those are the dynamics that we're working our way through now as we think about next year. And we'll give you some perspective on that as we get to the end of the year and give you guidance for next year.

Michael Dell^ And a higher attach rate of services and software, hence, the 17% growth in deferred revenue in the second quarter. We continued to change the business to be a business that goes well beyond.

And as Jeff mentioned, for every dollar that is spent on the hardware, there's $4 or $5 spent on the deployment and management. Well, that's a pool of dollars that we're going after aggressively with our combined VMware services, capability with Unified Workspace.

Shannon Cross^ Shannon Cross, Cross Research. I wanted to switch gears to client. Kind of curious, Michael, you've been through a few of these cycles with upgrades and refreshes and end-of-life. How do you -- just a few. How do you think about maybe what's different this time versus XP or prior cycles?

And maybe what's similar in how you're thinking about client sort of in the near term? And then also, actually, long term. And then also to Jeff or who wants to talk about it, but in terms of just short-term Intel availability, we talked a little bit about component cost in the last question. Just how should we think about client short term and then longer term?

Michael Dell^ Why don't you start, and then I'll add in?

Jeff Clarke^ Look, we certainly have seen the industry and commercial PCs in particular get a benefit of the tailwind of the Windows 10 refresh. I think it will extend beyond the end of January of next year because not everybody's upgraded. And it's going to take a while for that to happen, which should help us a little bit as an industry next year.

The industry forecast for PC growth is down 4%, I believe, next year, if my memory serves me right, in that ballpark. Yes, our strategy is real simple. It's to take share, it's to focus on growing the customer base, the investments we've made in NB and SB, particularly in this business, are material.

They're helpful. Our direct selling model, which you've heard us talk about to drive differentiated ASPs and gross margins in this business is essential to our strategy. And if you look at from a product point of view, it's premium consumer, so thinking about the XPS space and gaming space, which are growing categories and driving our share position in each of these 2 valuable places and consumer.

And then across commercial, using incremental differentiation, in the case of Unified Workspace to drive share, which -- in a market that may slow down next year. There's no question that minus 4 is slowing from where it's been. I think we get through what we've seen this model of every cycle, there's a hit that comes down and then begins to come back in demand.

I don't think there's any reason to believe that won't happen again. Everything that we hear from our customers the PC, and I see lots of them in different forms in front of me, is still the primary productivity device.

And at the rate that we are providing new capability, I think there's refreshment or replacement cycle that will continue that bodes well for the business over the long term.

But it's probably a category that grows 1%, 2% over a long period of time, particularly in the commercial space. And that's hugely valuable to us.

But in the near term, one of our biggest challenges is the current supply-related issues as we think through the balance of the year into the first half of next year. And back to Toni's question, to link him a little bit, the pricing environment in servers and PCs is very, very different where you have a shrinking market this year in servers and an aggressive pricing environment, where in PCs, you have some constraint in supply that the pricing environment is a little more benign.

That certainly helped the industry. Certainly, we've benefited from that through the first half of this year. And as we look into the second year -- or second half of the year, that doesn't materially change. It is no different than I think you've asked a couple of different times on calls. There's really no change in the supply outlook. It's still a hand-to-mouth struggle that we've talked about in the past as we go forward.

And we think we're differentiated in the sense that our direct model, we can change demand, we can change the website tomorrow morning to what we have from what we don't have, change lead times, the shift demand where we want to -- customers to go much more quickly than our competitors.

And if you watch the weekly behavior on our website, we're doing that literally every week to be able to shift to what's coming in. That's one of the benefits we have. It helps us -- I think it's helped us move through this difficult situation. Does that help?

Michael Dell^ Yes, I think you've heard us mention the direct model a few times, and some of you might remember that from the past. And actually, if you look at our economic results, you'll find that we are differentiated in our operating margins, in CSG, for example.

And it comes from a structural competitive advantage called the direct model. And those of you who have been around long time sort of might remember that. So I think a couple of things that might be a little bit different this time.

One is that if you go back to the sort of 2012, '13, '14, '15 kind of time frame, customers were quite enamored with the smartphone and the tablet. And there were reports of the demise of the PC, right? Those were greatly exaggerated. And I think customers have increasingly become -- we aware of the importance of having -- enabling their workforce with the right tools and technology.

And so we -- inside our company, we measure customer NPS. We also measure team member NPS. And when companies do these broad refreshes of the client environment with the right tools, they find like a 25-point jump in employee team member NPS, which is unprecedented.

And the reason for this is that the thing right in front of them is actually the best representation of the company's commitment to technology. And if somebody walks in the door to try to do some productive work and they're sitting in front of a 3-, 4-, 5-, 6-year old clunker, right, they sort of say, "Well, the company doesn't really care about this." So I think that's helped us quite a bit. We have unique and differentiated capabilities.

I would say the other thing that's interesting is the attenuation of the refresh for Windows 10 appears to be more elongated. So we have customers that had deployed Windows 10 some time ago, and they're even at the point where now it's time to refresh those machines.

So while -- and you can get various estimates on this from Microsoft and others, but if only 60% of the machines in the installed base are refreshed, it's sort of a mathematical possibility that 40% would occur between now and the time frame that's been described.

So I think it is going to run longer, but we're certainly well positioned with a differentiated offering. I think being able to go to the customer and say, look, it's not just the Windows PC. It's also the Android, Samsung, iPhone, iPad, Chrome, Macintosh, et cetera.

And with AirWatch, Workspace ONE, Unified Workspace, the proposed acquisition of Carbon Black for cloud-based security, we can give you a neural IT touch experience that turns it into PC as a Service. You can make it a consumption model. Our competitors really don't have that capability at all.

Shannon Cross^ And Tom, if you can just talk a bit about -- if client is under pressure, how do we think about the puts and takes on cash flow? I know you don't want to guide the cash flow, but as you look forward...

Tom Sweet^ But I think we've had -- I think we've been through a number of these cycles, right? And so I think you've -- we've demonstrated the ability to navigate these cycles and adjust the model as appropriate. And so to the extent that client perhaps isn't as robust next year as this year, there's other levers that we'll be pulling around. How do I push forward on the ISG side of the house?

How do I think about working capital on the balance sheet and making sure we're as efficient as we can there? So how do we make sure my debt structure is as efficient as we can be? So I think we'll go -- we'll work our way through that.

So I think if you look at the last 3 cycles that we've been through here, we've demonstrated the ability to come up stronger when things -- when we have a shift like this and when we got into it. So I'm okay with where we'll be. And we'll talk about that more as we get into guidance for next year.

Rob Williams^ I think we can go to Aaron, and then Rod Hall will be next.

Aaron Rakers^ Aaron Rakers from Wells Fargo. Yes, I'm just going to ask this question because I get asked a lot. You've outlined a tremendous amount of integration and portfolio depth today, tying back to the multi-architecture and cloud approach, and a lot of it underpins to VMware. But as we progress, as we move forward and you look at core Dell where it trades us today, I'm just curious of how you think about the strategic value of your ownership of VMware.

Is it important for us to think about you maintaining your kind of $300-some-odd million share ownership? Or is it something that, hey, if the market doesn't play out the way it should from a valuation perspective, that you'd entertain other opportunities to kind of unlock value?

Tom Sweet^ Well, look, we always think about how we can create the most value for our shareholders and Dell Technologies. We don't have any plans to change the current structure. We're happy with the current structure. We think there's tons of value to be created in the combined innovations that exist, and we think there's tons of intrinsic value inside the company.

And sessions like this and others are part of our outreach to make sure that everybody understands what we're doing and how we're creating combined value I also think as we delever, I think people get more and more comfortable with the capital structure and the overall capabilities that we have.

Rob Williams^ Rod?

Roderick Hall^ Rod Hall with Goldman Sachs. I've heard you've talk a little bit about financing, mentioning a few times today. And I'm wondering if you guys could just comment broadly on your thinking on utilization of financing, maybe as we get into a little slower period here. And then more specifically, where you might apply that in terms of verticals that Dell financing varies differently.

Tom Sweet^ Look, we've been extraordinarily happy with the Dell Financial Services model in the way that it enables the customer experience, enables the financing vehicle for our customers. It's clearly a sticky model in the sense of the customer intimacy is there as a result.

But it's also been a great vehicle as we think about new types of economic models that our customers are wanting to explore. So whether it's a flexible consumption model, as a service models, straightforward leasing or financing models, the opportunity to go out and have a conversation with the customer who's thinking about, "Hey, I really like to explore this flexible consumption model."

I think what you would find, quite frankly, what we see right now is that a great customer enabler in terms of enabling us to talk about our capability. Probably 80% of the time, when a customer says, "I'm really interested in flexible consumption," they end up not in a consumption model principally because honestly, flexibility has a cost associated with it.

And what the conversation typically drives is a conversation around well, how much flexibility do you really need? If 80% of your workload is pretty predictable, how much flexibility do you want?

And so what you're seeing us do is we extend the financing model, right? We've extended the financing model into the channel side of our selling and go-to-market capability where now that's a bigger lever that we're pulling.

We're pulling the financing model in various countries around the globe. We offer Dell Financial Services, I believe, now in 21 countries, and we're continuing. I think about are there opportunities to expand that footprint where it makes sense that for the enablement of Dell Technology solution selling, right?

And so as the environment changes, you're continuing to see us adjust the financing model or change that financing model, one, to meet the demands and needs of our customers as well as where we perceive that there's opportunity to perhaps accelerate growth in certain markets and in certain verticals while being very thoughtful about credit risk, okay?

So nothing I'm saying should cause people or all of you to think that, "Hey, are we going to lose some credit standards if the business starts to slow?" That's not the game we play. So -- but we do think that it's a very strategic model for us as we think about customer and solution enablement for our customers.

Jeff Clarke^ And Tom, I think that's key because as we think about customers, what we've been able to do is we can sell storage as a service, compute as a service, data protection as a service, infrastructure as a service and now our data center as a service offering with VMware.

And that's such a great foundation of where some of this will migrate in time as we think about building usage capability into that model to meet the needs of our customers, how they want to consume IT. So the financing arm is a huge ingredient.

Tom Sweet^ Yes. And we reached an interesting milestone recently, where we passed $10 billion in assets under management, we have huge growth. Long time ago, there's a guy named Thomas Watson, he once said that the only thing better than selling software is renting it. So we believe in that, too, so...

Roderick Hall^ I wanted to real quick follow up on this little share focus question. I think at the beginning of the year, Tom, you said that if anybody was running a business at Dell and they weren't taking share, they're going to be in trouble. And I hear that servers side of business, the pricing aggression, and so on. But it sounds like incentives were lined up to that as well.

And I wonder if you could just talk a little bit, maybe Jeff or Michael, you guys weigh in on this too. But I wonder if you can talk about 2020 incentives for your managers, are they going to be in every business incentive to gain share? Or are you going to be selective about that kind of consistent with those prior comments?

Tom Sweet^ Yes. Let me start and you guys can clearly jump in. Look, I think what we want to do from an incentive structure is we want -- yes, Jeff makes fun of me all the time about this. But we want balance, right? And so I want growth, I want that growth to be the right growth.

And so we typically incentivize both on reps, some type of a growth framework as well as a profitability framework, right? And the whole trick here is to make sure you get the right balance. And we incentivize growth a year ago. We correlated it a little differently this year and said we wanted a bit more balance on operating income.

Jeff Clarke^ And we seem to be getting that.

Tom Sweet^ And we see -- that seems to be working.

Jeff Clarke^ The plan seems to be working the way we designed it.

Tom Sweet^ Sometimes it's good to be lucky. But I do think that we'll try and be thoughtful about -- look, as we think about next year, and again, we're not giving guidance on next year, I think we'll have assess the dynamics as we come through the rest of this year and see where we think growth levers are for next year and what the profitability profile looks like. But we'll try and put the right incentive framework so we get the right behavior.

Again, I want to come back to if I just, say, give everybody a revenue or share gain target, I can -- we can get that. I would -- and I think the P&L dynamics would be pretty interesting versus grow, make sure you're driving strategic growth and growth in the right areas and growth in the right labs. And so that's the thinking that we've got to continue to evolve as we go into the last half of the year to get ready for next year.

Jeff Clarke^ Yes. I would add to that given I'm probably the one in trouble if we don't share some...

Tom Sweet^ What, sorry?

Jeff Clarke^ I said I'm probably the one that gets in trouble if we don't take shares, since I'm responsible for those businesses. We have taken share in PCs in the first half of the year, we've taken share in servers in the first half of the year.

We've taken share in storage in the first half of the year. Cannot say that about Q2, but for the first half, we're ahead. The plan that we have built for next year will be a take share plan. That's how we build our plan, is to take share and win in a consolidation that Dennis and I talked about. It's an inherent part of the strategy.

Certainly, we're trying to understand how the markets themselves may perform and what our relative indices are. And Toni called out some metrics that we've communicated in the past, but we drive a premium to the market. That is essential to how the plan will be built.

The management incentives is balanced around that, on the revenue growth component and the operating income component that Tom spoke about. But the plan that I will submit to Michael will be a take share plan by category. I'm counting on high-value workloads and a rebound of the server market next year as a change in the dynamic of what we're seeing this year.

We have a relatively small exposure to high-value workloads. It's been a strategic focus of the organization. We're gaining momentum. That is an opportunity for us to grow at a greater rate than the industry does. If you look at our segment share, it's very strong in 2 socket servers. We have more work to do in 4 socket servers. So there's upside and potential for us.

If I look at the storage marketplace, by the middle of next year, we will have completed, as I mentioned, a refresh of the entire storage portfolio from core storage array to data protection to the unstructured products. We have the most competitive portfolio to date today. It only gets better by the time we finish it next May.

And Tom and I are expecting the sales force investments that we've made in market coverage with better and more competitive products to be filled to outperform the relative market. Same is true in PCs. If I look at the PC side, the markets up and down it is, whatever it's going to be. Our job is to do better than that, and we're going to count and investments we made in NB and SB, as I mentioned earlier.

We'll say it for the third or fourth time, this whole direct selling thing is kind of a good thing for us. We're going to continue to focus on that and drive a premium on our direct selling in the PC marketplace.

It drives differentiated revenue and differentiated margins for us. It's a focus on commercial PCs and those premium consumer PCs while beginning to bring these integrated solutions as a plus 1. That's how the plan will be built. I can't imagine that I'm going to get any different guidance because that's what we believe in, and that is driving that.

Michael Dell^ And I think, again, if you look at the services attach rate and how we have sort of reformatted the business over the last 5 years, it shows up in this deferred revenue growth, which is substantial.

And we think there's a lot more of that, that we can do. And the TAM there is quite significant because customers spend a whole lot of money managing all these things. All of that can be automated. And together with our scale, VMware, creating a common management and operations platform, we think there's tons of opportunity.

Jeff Clarke^ With the big opportunity and it's increasingly getting integrated, we're taking the telemetry data from our service organization with the embedded AI, we put into the products from storage array servers to PCs and building more comprehensive service offerings that drive greater value to our customers, to drive that higher attach rate that drives or brings more margin with each opportunity.

Michael Dell^ And it's a far better experience for the customer.

Rob Williams^ Go ahead, Jim.

Jim Suva^ It's Jim Suva from Citigroup. Just one very easy clarification question for Tom, and then more of a strategy operation questions for Jeff and Mike. And I'll give both questions. But Tom, I just want to make sure, on earlier presentations, you talked about gain share growing, outperforming the market.

And then on your outlook, again, you said revenues in line with the IT spending. But then you said plus or minus 1%. I assume you didn't mean a deceleration from last year where you said to outgrow the market. It's simply remove all the numbers of 3 to 5 and 4 to 6, remove all those numbers and say, the market and then grow a little bit more. That's what I think you're saying.

Tom Sweet^ That is essentially what -- our strategy and how we're running the company hasn't changed. We want to grow. We want to take share. What I was trying to get away from is putting out 75 numbers around lab. The storage lab's going to grow at this type of premium versus -- were not that good, right? So I just wanted us to...

Jim Suva^ And forecasting the market growth.

Tom Sweet^ Yes. Exactly, right? In terms of -- I don't know what the market looks like in 4 years or 3 years. And so I wanted to tie it to the market but nobody should misunderstand me. I mean our intention here is -- if you think about the growth opportunity that Dennis laid out as part of this is consolidate the market. And you're only going to consolidate the market by taking share, right?

Jim Suva^ Yes. Perfect. And then for Michael and Jeff, I'm one of the few in the room that new Dell and EMC way back when both were public then when Dell bought EMC then when Dell went private now, here we are today in a public market again. So a lot of history there. During that time period, EMC, the integration did see some share loss. And now congratulations on some share gains.

But the rule of thumb is believing this time it's different or why are the share gains now different from the past few years? Can you maybe walk us through about why those share loss slipped a little bit, and why it's different now? Because it looks like it's not just a one-off quarter to you've been gaining consistent share in the storage market.

Jeff Clarke^ Do you want me to take that one?

Michael Dell^ Yes, go ahead.

Jeff Clarke^ Look, if you -- the share loss preceded the acquisition and the share loss continued after the acquisition that we had made. And you've heard me talk in front of this group before that we had lost share of 15 out of 16 quarters for 4 consecutive years.

And much of that was we had not invested in the marketing. I mean I'm going to go back to the same message Tom and have said, I think, on every call for 2 years. We had a complex portfolio.

We had too many products in the midrange and confused our own customers as an example of that complexity in the portfolio. We had a number of operational issues that were, quite honestly, not as good as they needed to be. We had issues in innovating and building competitive products. We didn't have the sales coverage and capacity that we wanted to grow the customer base, and we've stopped marketing our storage products, fascinating thing.

And if I've done anything from last year to this year, I hope I painted a picture, we systematically gone through each one of those. I can't emphasize enough how siloed the organization had become where the competition was each of the other storage organizations within the team versus the external competitors. And what we've done is eradicated that behavior and have created one storage team. We actually have a storage portfolio.

We didn't have a storage portfolio before. We had individual businesses. We have a single portfolio manager. We've rebuilt the R&D engine from the advanced engineering, with John Rose leading the CTO organization, connecting it to the product portfolio organization and the product development organization.

That healthy triangle, what I think is required to build world-class product, was broken. It is no longer broken. We've invested in that. We made very hard decisions because we had difficulty in the past getting rid of products, saying no to things.

I said more than 80, the number was 88 platforms when I walked into the job 2 years and a week ago. It's 22 by the time we get to May. We've pivoted the engineers who worked on that. We put our best people on the most important things, which is the new road map. There's 3x more of those people doing that work than there was 2 years ago.

Tom Sweet^ Yes. This is as big point there. I mean 3x has been people working on new things as they were before. I mean it's really a staggering refactoring of the whole R&D engine.

Jeff Clarke^ And it's a large engineering team. If you look at what we've done from the basics, our average engineer 2 years ago was working on 3 things. Today, they work on one thing. My experience of doing product development for 30 years is engineers do really, really well when you say this is the thing we want done really well.

That's what we moved to. If you think about what we've built in the sales capacity, much of the billion dollars that Tom referenced has been rebuilding sales specialists and rep coverage in our storage portfolio. The ISG portfolio could grow the customer base. I believe we made reference in last quarter's earnings call that our ISG customer base has grown 21,000, if I recall correctly, in size.

I mentioned about a customer loyalty program, the investment in that, to take that program that goes along with that, the work that we've done in demand generation. I see Allison in the back of the room. Our marketing team is actually marketing our storage products. We're not going to stop doing that.

If you think about many of the questions you've had about long-term growth and prospects and growing our margins, that's hinged on the storage business. The storage -- market opportunity is significant. Even if it doesn't grow, it's significant. We have 30% share, there's a tremendous upside for us. So it's that list of things without being redundant of our conversations in the past that I think it's changed. The organization has changed.

We made an organizational change last week. Jeff Boudreau is now leading the ISG organization for the company. I'm excited about Jeff for leading the organization. He embodies the change that we've made, and the organization is following him. We have really good positions going forward. Does that help?

Tom Sweet^ Okay. We promised you guys out of here in a reasonable amount of time. So Andrew, could you just do one, and then we'll go to Lou and I will wrap up with that?

Andrew Teutli-Vadheim^ Andrew Vadheim, Wolfe Research. Jeff, actually, your answer was a good segue into one of my questions, which is -- there's wholesale change, obviously. So I'm trying to get a sense of how are employees sort of taking all the change that you've been sort of sending to them.

And then you're layering, as you said, a refresh of the entire storage portfolio. So just trying to get a sense of whether it's the employee NPS scores or any other metric. How are people taking the change? And is there sort of an efficiency that we should look forward down the road?

Jeff Clarke^ So...

Michael Dell^ Yes, go ahead.

Jeff Clarke^ I'll talk about ISG and certainly Michael will talk about the broader organization. If you think about ENPS as a metric, Employee Net Promoter Score, it probably wasn't very high after 4 years of going this way. It declines. And really a fragmented fight for who would get the investment and what products we would invest in.

And I can tell you, walking into the organization 2 years ago and saying we're going to make these series of changes, they may not have been a complete buy in on day 1. I can tell you today, the ENPS has gone up dramatically.

And the organization, which is predominantly engineers, have seen that actually have invested in technology. We've invested in engineering because we've increased the investment in the new products significantly, probably 3x as a correlation since most of our R&D expenses people.

They've seen us actually back up the story that we're going to invest in the new, invest in the future. We're going to go compete with the likes of others in this industry, and winning brief success. Well, the question was asked, well, 4 years of decline, we now have 1.5 years of increase. My goal is to finish the rest of the year for 2 years of share improvement.

And that winning amongst the team is now bringing new ideas, and it's creating the type of culture that we want in a product team and an innovation team, we should do this. What about that? How do we win this technology 3 years out, and how do we get into the organization?

How do we share it with the PowerMax team and the Unity XT team so we don't do the work twice anymore? How do we take the best data services that we have in the organization and rather than reengineering or customize at 6 different ways, how do we make that core data engine better for the storage business? Oh, by the way, let's share with our friends in data protection.

So that's what's changed. But I get a little excited about it, is the excitement in our product teams have -- well, again, I'll walk you through 2 years and a week ago to where it is today culminating with Jeff Boudreau's announcement last week is a dramatic change. We're not going back. This is how we built world-class product organizations across the portfolio, and I'm very, very encouraged.

Michael Dell^ Yes. If you look at it, I mean, we sort of go from are people excited about what they're doing? Are they engaged, and ultimately, did they become inspired? Our employee NPS scores, just correct me if I'm wrong, I think, was 66 the way to score. That is certainly in the top decile of all companies on the planet.

Last time we checked, if you're sort of 25 or 30, you're in the top quartile. So we continue to see really very, very high levels of engagement and inspiration, and the teams are excited about all the things that we're doing. And that's certainly makes it fun.

And look, what we do really matters. And we talk a lot in the company about the purpose of the company. And the role that we have in the world in enabling all these data, and we explain our story through the success of our customers.

And that gets our teams really inspired about the work that they do and connects it back so that if I'm designing this new PowerMax array, I actually understand that, wow, the world's biggest companies and governments and the most important things in the world are going to run on this thing. And so it's super important.

Rob Williams^ All right. Last question from Lou, and then Tom is going to wrap this up for us.

Louis Miscioscia^ Lou Miscioscia, Daiwa Capital Markets. So over the last couple of years, there's been tremendous talk obviously about AI machine learning, it's going to change the world, but when you look at 2018, obviously, great CapEx year; 2019, not so much.

So I guess my question is where are we with AI machine learning? Is it being a driver? Or is it really just basically being a substitution of dollars from one area to the other? And when you look at data center and storage sales, they're not really going to help that much?

Jeff Clarke^ I think we're in the early days of the development of AI/ML and deep learning to add. And you're seeing, I think, a couple of forms happening. One, in our company, I look at our company.

I think we're not any different than any other company. How do we use AI to drive better business outcomes? How do we use AI to understand our customers better? How do we use AI and machine learning to service our customers better? I talked about some of that.

But if you look at what Allison is doing on the marketing organization and how we apply that to sales and being very more targeted towards programs to specific end users, you think about the embedded learning that we have on our service organization and using this large installed base to learn how our products are used and to be able to make better service offers, I think we're in the early innings of that. We're scratching the surface as are most big companies around the world.

Then you have the other part of what we do internally is we're embedding that knowledge of what we know into the individual products themselves. The PowerMax that we spoke to earlier, Michael said it's smarter than any human.

It's really replacing storage administrators because we're taking the understanding of what the product is actually being asked to do, learn from that and then actually making the decisions for would have been a storage administrator.

The same example can be said about our Precision Workstations. The embedded AI that we put into the product to understand the applications being used, what's the optimum configuration for performance. All of this is really in the early innings.

Then you take this amount of data that Michael referenced, 175 zettabytes coming at us here in the short order. Our ability to triage that at the end edge of the network is generally very mature at this point.

The algorithms, the applications written there are in their infancy, which I think is a big opportunity with all of that data and a redistribution of IT towards the edge. We have years to come of opportunity to -- or years of mining that opportunity for the foreseeable future.

And then the big data analytics, while that has been a maturing capability, now the underlying algorithms that are being developed to support that are probably out of their infancy there. They're moving quite nicely.But again, still in the early innings of the opportunity. I think this is an area for us to grow on for a significant amount of time going forward. Michael?

Michael Dell^ Yes. I mean, I think we're entering some kind of a data age here. I mean if you have the most incredible AI and machine learning and, neural networks, deep learning but you have no data, well, you've got nothing, right? So the data is the rocket fuel for this whole thing. And I think a lot of the AI will be highly distributed because the data is going to be highly distributed.

And that's going to require all kinds of new infrastructure. But companies are just at the beginning of figuring out how to use this enormous quantity of data. And if you're a company today, you're not using software and AI and deep learning to express your competitive advantage in the areas where you're actually different. You're just doing it wrong, right? And more and more companies are figuring that out.

That's why you see the outsourcing is sort of -- that's not as big of a thing anymore. Companies are hiring software developers. They're hiring data scientists. They're adapting agile, and they want to, again, express their competitive advantage with all this software data. But yes, we're at the beginning of this, requires all kinds of new infrastructure.

We're in a great position to be able to help customers do that, and it's going to be highly distributed. It will be in all of the various forms of clouds. It will be in the edge. It will be in the telco. It will be in all these things talking to each other and exciting opportunity ahead for sure.

Tom Sweet^ Well, great, Michael, thanks. Let me just wrap this up and just say, one, thank you for hanging in there today with us and listening to our point of view in terms of where we are as Dell Technologies and what we think others are a competitive advantage.

I would like to at least point out to you, I think we have four key takeaways I'd like you to think about, right, which is, clearly, I think we're strategically positioned to capture the technology trends. I think we're -- we think we're uniquely positioned. We're investing, we're innovating.

And you heard that time and time again in terms of the R&D investment, the Dell Technologies Capital investment, what Jeff is doing that investment, whether it's in the R&D space, the investment we've made in go-to-market. And we'll continue to be judicious and thoughtful about where we invest as we look to make sure that we position the company thoughtfully for the future.

We're going to continue to drive that collaboration framework. We talked a lot about that today, right, not only collaboration between whether it's core Dell, Dell EMC with VMware and the translation of that both into R&D and to go-to-market capabilities and methods and motions.

And look, there's lots of questions about our long-term framework. It's really unchanged, which is to grow, take share, grow faster than the market and make sure we're driving operating income growth and EPS at a rate higher than the revenue growth.

And with that, we'll delever once we get to investment grade, and yet that's acknowledged by the agencies, I think it gives us opportunity from a capital allocation policy to do other things.

But we're focused principally on delevering right now and driving that cash flow. So look, we had, I think, a really good conversation, great questions. Appreciate everybody being here today. So thank you very much.