

Credit Suisse 24th Annual Technology Conference

Company Participants

- Colette Kress, Executive Vice President and Chief Financial Officer
- Stewart Stecker, Director of Investor Relations

Other Participants

- John Pitzer, Credit Suisse

Presentation

Stewart Stecker {BIO 17308457 <GO>}

Okay. Thank you everyone for joining us. I will start off with a forward-looking statement and then turn it over to John. As a reminder, this presentation contains forward looking statements and investors are advised to read our reports filed with the SEC for information related to risks and uncertainties facing our business.

With that, I'll turn it over to John.

John Pitzer {BIO 1541792 <GO>}

Thank you very much, and it's my pleasure this morning to welcome Colette Kress, the Chief Financial Officer of NVIDIA Corporation. I know Colette and I would both prefer to be in Scottsdale right now. We will definitely be back there next year knock on wood, but I really appreciate Colette you joining us virtually this year and supporting the conference and getting out in front of your owners.

Questions And Answers

A - Stewart Stecker {BIO 17308457 <GO>}

(Question And Answer)

Q - John Pitzer {BIO 1541792 <GO>}

I usually like to start the fireside chats with more of a longer-term strategic question, but we're sort of less than two weeks removed from your quarterly earnings. And I think there's still some unanswered questions that investors have on the October quarter that might be helpful to go through initially before going into some longer-term questions.

The first is really on the gaming side where you're currently in the midst of an extremely strong sort of product cycle with the RTX 30 Series, up almost 40% sequentially, up almost 40% year-over-year. Couple of things I'd like to ask. You talked about sort of there being supply constraints. And you mentioned it wasn't just your own silicon. I'd be curious if you could elaborate a little bit on the extent of those supply constraints? And importantly, when you think supply will catch up with demand?

A - Colette Kress {BIO 18297352 <GO>}

Yes. Thanks, John, for the question. So in Q3, a very busy Q3 for us, really exciting for us as we continued our overall Ampere architecture. We took that opportunity to take our Ampere architecture to GeForce and produced our GeForce 30 Series cards for the market. Well, they came out and we would characterize the launch and what we were seeing as overwhelming demand. That demand for GeForce for gamers is very strong for both laptops, for desktops, but the channel remains lean. We do have supply constraint and our supply constraints do expand past what we are seeing in terms of wafers of silicon, but yes, some constraints on substrates and components.

We continue to work during the quarter on our supply and we believe though that demand will probably exceed supply in Q4 for overall gaming. We do expect it probably to take a couple months for it to catch up to demand, but at this time, it's really difficult for us to quantify. So we stay focused on trying to get our cards to the market for this very important holiday season, and each day things continue to improve, but towards the end of the quarter, we'll be able to provide some more information.

Q - John Pitzer {BIO 1541792 <GO>}

Colette, you guided the January quarter for gaming up sequentially, now that includes an extra week. So despite some of these supply constraints, you are expecting a strong January. I know you only guide one quarter out, but as we look forward into the April quarter, I'm just kind of curious, you've got the headwind of losing that week from January to April, but you also have supply coming online. And I think more importantly, you continue to introduce the RTX 30 Series down the stat, you'll have more notebook, you'll just have more general product availability. April tends to be a seasonally down quarter to begin with for gaming. How should we be thinking about that this year?

A - Colette Kress {BIO 18297352 <GO>}

Yes. So I think you highlighted a lot of the different factors that we take into consideration each year, and the overall seasonality that is sometimes there for gaming. Our gaming business is broken down into three major components, which is that desktop, which is the notebooks and the overall consoles, each of them having different characteristics as it goes through seasonality. We've also discussed that we have often seen in our strongest overall demand focus around the holidays. But keep in mind, the holidays in terms of what we're referring to, are holidays that start as early as October and move into the new year through to the overall Chinese New Year, so it's an important piece.

But I think there's very important statement that you made there, that is correct. We are ramping RTX 30 Series and we're just starting. So we're in the brand-new era of an amazing overall architecture and a performance leap that is larger than any other performance leap that we have done. And the overall reviews and reception of our launch has been quite strong. So we're going to watch in terms of how we see between Q4 and Q1 transition. It has normally been sequentially down. That extra week in Q4 should have, could have enhanced that overall decline. But we're just going to have to see where demand is once we get the supply more intact.

Q - John Pitzer {BIO 1541792 <GO>}

Colette, I almost hate to ask the next question, but I'm getting asked with more frequency than I would have thought. With Bitcoin almost back to kind of peak levels in calendar year '18, I'm getting asked the question of whether or not we should be at all concerned that some of the strength -- excuse me, in the gaming business was Bitcoin crypto-related. And any comments you can make on that especially in lieu of some of the channel issues you had back in calendar year '18?

A - Colette Kress {BIO 18297352 <GO>}

Yes. Our focus in terms of really understanding our channel over the last couple of years post-crypto has continued to be a focus of ours and enhancements to really understanding both levels in the channel and in terms of real-time or is close to real-time information that we can get in terms of how the overall channel is doing. On your crypto question, we have for some interest from the channel, but nobody is aware of any real demand at this time for crypto.

Q - John Pitzer {BIO 1541792 <GO>}

That's helpful. The other near-term question from the October quarter was just on the data center business. I think you did an excellent job kind of explaining on the call and afterwards the influence of Mellanox in October and then going into January. And I think one of the concerns that I've heard post the conference call is, how should we think about the core growth rate of the core data center business. I mean, clearly you're going through some product ramps there as well, the A100 is ramping up, the B100 is ramping down, but you've seen growth rates on a year-over-year basis decelerate from an unsustainably high 200% plus to now a very respectable 40%. But if you kind of model conservatively sequentially from here, you're very quickly getting down to sort of maybe that 20% year-over-year growth. How do we think about kind of normalized year-over-year growth in data center and what impact might the macro be having on the data center business today?

A - Colette Kress {BIO 18297352 <GO>}

Yes. So for the rest of the group, let me try and summarize a little bit more in terms of what we experienced in Q3 and how we overall guided Q4. Our overall Q3 results in data center yet again another record level, not only a record level in terms of NVIDIA compute, but an overall record level in terms of Mellanox. We had expected our overall sequential increase to stem primarily from our NVIDIA core compute, but we also saw strong growth in terms of Mellanox between Q2 and Q3, largely due to a China OEM and purchases that we didn't feel would repeat in overall Q4.

So the record levels of Mellanox you couldn't be more pleased with our performance in the first couple of weeks, first couple of quarters here at NVIDIA. They have done tremendous. And we've been even excited in terms of all of our integration efforts in terms of working on future products together.

So our compute business, as we think about NVIDIA compute, continues to ramp with overall A100. So A100 started out several quarters ago in terms of launching to our hyper-scales around the world and many of our hyperscales that is speed-of-light quickness in terms of creating overall cloud instances with the overall A100, more and more adoption worldwide across all of those clouds as they create these cloud instances.

Q3 was the quarter for us to also create the opportunity to now expand to our server OEMs, our server OEMs that are building for the overall enterprises, building for industries and serving overall edge computing. That also came with the release of DGXs, DGX SuperPODs that also support such an important part of these industries. We are pleased with both the adoption and the overall scale that we are getting with overall A100. It's been several years since we launched overall V100.

Our breadth and depth of our customer base has expanded significantly, not only in terms of both our understanding of accelerated computing and AI, but our focus in terms of providing software capabilities for them to connect these platforms to their applications. We're able to serve so many more industries than what we had just a couple of years ago and we will continue to build on that investment to do so.

So as we move from Q3 to Q4, we still expect a sequential increase in NVIDIA compute. As we ramp the A100, Mellanox will be down, but they had such an amazing strong quarter in Q3. So as we move forward, we're still in these early days of A100, but most importantly, we're in the early days of AI and accelerated computing.

Q - John Pitzer {BIO 1541792 <GO>}

Well, Colette, to your guys' credit, you've kind of leaned forward on the product cycles that are driving your data center business, but it's got to -- if you look at the macro this year and the fact that enterprise went to work from home mode, that had to have some sort of impact on the business, especially in the second-half. Now you look at server demand in the enterprise and it's down over 40% year-over-year. Is there sort of a rebound that we should expect in core enterprise as we get into next year and the vaccine gets more widely distributed?

A - Colette Kress {BIO 18297352 <GO>}

Yes, it's a really good question that says COVID and the pandemic had pluses and minuses and there are companies that have benefitted, there're companies that had really struggled. But I think it's important to understand some of those pieces and how that influenced such as the data center and such as the enterprise.

So if you look in terms of our ProViz business, there's an example that says, the overall ProViz business was purchasing from our overall OEMs. At the initial onset of the pandemic, a real struggle to both get overall components and building through some of the challenges of the overall supply ecosystem to build that. But additionally, how do you support from the work from home?

What we saw in Q3, which is really interesting with ProViz as we started to see that sequential increase and then returning back super strong results in terms of our workstations and our mobile workstations, as the OEMs and enterprise found a way to both procure and build for this very important market as they are working from home. And so, we do believe that's coming back up.

Now when you think about in the data center and you think about the enterprises, we're not general purpose overall enterprise purchasing. We are focused on accelerated in AI, and we are in those initial years as they build out those workloads to do. But it has been an important area for many companies that have to rethink about where their investments are, they continue to invest in that overall AI.

The cloud has been a very important part of them as they have been working from home to use the overall cloud to continue their work and expanding to accelerated and AI and you see that in our results. But I do believe the overall business is continuing to work through some of the challenges with the pandemic and find ways to reach the overall enterprises and we hope that this will get better in the quarters to come.

Q - John Pitzer {BIO 1541792 <GO>}

Colette, that's a great summary of some of the near-term issues. Maybe I can step back now and ask a longer-term, more open-ended question. I mean, NVIDIA has always had an extremely rich history of parallel compute. You initially leveraged that into the gaming market. There were a lot of hard work. You brought that to HPC and then broader data center. But you've just been a silicon company. There has been a strong software element to your offering now with the acquisition of Mellanox and the proposed acquisition of Arm, you're broadening out even further. Maybe you can spend a few minutes and just step back and reset kind of what you think the value proposition NVIDIA offers to the investment community? What's the kind of the overarching strategy here?

A - Colette Kress {BIO 18297352 <GO>}

Yes. I think you've watched so much of our transformation over the last decade or even decade and longer. And that transformation has really been about moving away from just a chip company focused on gaming. We have moved to become an overall computing company, a computing company that is not focused on the history of computing, but the future of computing and the future of accelerated computing, which will be with us for many decades going forward.

In order to scale to that accelerated computing and the use of overall AI, it required a full stack approach to how we approach this overall market, meaning, we just are still thinking about the silicon, thinking about the best performance that you can get

for the overall hardware, but we are also focused on systems and software, because that full stack really differentiates us and is what is going to be necessary to achieve this transformation to accelerated computing as we go forward.

The overall work of just focusing on just our hardware performance, but not addressing the need for stitching together the software and, in many cases, easing the adoption by providing an end-to-end system that all they have to do is plug in for these overall markets. We've been able, with our full entire staff, to rapidly expand the ecosystem faster than we've ever done in the past. We have 2.3 million developers. We have more than 1,800 GPU-accelerated applications at this time and we have received more than 6 million CUDA downloads alone in 2020.

So a feat of a lot of work over a full generation, but we still have a lot of new things to address for these markets. Our platforms touch broad markets. Our platforms are not built specifically for one overall application, but build often for markets that are in their early days or things that we think will be strong and growing markets into the future. We've created a platform for RTX. Our RTX platform is like no other ray tracing platform that is out there. It is multi-year in its making and it also includes AI.

So to think about our overall real-time ray tracing but also putting AI into the hands of ray tracing going forward is something that no others have done, but we take that platform approach also to our workstations, to our data center and to automotive, which are with our HGX platforms, with our EGX edge platforms as well as our AGX platforms or autonomous platforms. Each and every single one of these platforms begins with a unified architecture and addressing the overall end market with the most important piece, which is that software.

We have written so much software specific for these industries. You've seen differences in software that help people bring AI. We can talk about Clara, we can talk about Jarvis, Mervin, the many other things that we do for the metropolis for overall drive for cars. We have at this point as equal amount of software as we hardware engineering focusing on these markets. So when you step back and look at what our future entails, now with Mellanox, it is focused on end-to-end computing, computing that doesn't start with when the overall data reaches the overall GPU, but starts when you want to compute the data. So we're thinking about everything from the interconnects to the DPU, to the overall GPU performance as well, all of those will matter long-term when we think about accelerated computing.

Q - John Pitzer {BIO 1541792 <GO>}

Well, Collette, maybe just spend a little more time talking about the application framework. You talked about Clara, DRIVE, Jarvis, Isaac, Merlin, Metropolis; I mean all these software stacks that you're building. Historically, I've always viewed NVIDIA as the chip company that's been able to capture the most value in the ecosystem that goes after. You look at your core gaming growth, it's been 30% annual growth, your compound annual growth over the last five years. What's amazing about that is half has been ASPs which is to me a value capture. Can you talk a little bit about that application framework and maybe as you discuss, it brings specifically into the conversation the announcement you made with Mercedes-Benz earlier this year?

A - Colette Kress {BIO 18297352 <GO>}

Yes, so when you think about our value and why people continue to come back to NVIDIA from a value is A, that overall development community. The developers want to work where other developers aren't working, meaning they can now leverage the work that developers have built as well as the work in terms of NVIDIA has done in terms of expanding that ecosystem. Our work comes to linking together the overall connectivity all the way down to the hardware, to the system software, to the overall frameworks right up to get to the overall application and now our customers and ecosystem knows that okay.

So building upon that has really now been to continue to stay with NVIDIA and know that NVIDIA will continue to innovate. That is why people buy our overall systems and their overall price points are really about the innovation and the software that is incorporated. We have never been a situation of a manufacturing cost plus because there is so much software in the ecosystem and so much overall software that comes with each and every single one of our platforms that we do.

So that takes us to the important part where you talk about our overall Daimler Mercedes, overall investment that we are making. Daimler has come out and has endorsed our full end-to-end platform for autonomous vehicles. In the future, their entire fleet of AV will be harmonized on the NVIDIA drive platform from the hardware that we will provide them, but also we will maintain a share of the software that they realize, a way that you can kind of think about this is when you are purchasing an AV card and if you want that overall AV package, that AV package comes in the high thousands of dollars that will be split between Daimler and overall NVIDIA. Really a transformation in the way that the OEM manufacturers think about how they are going to build a strategy of AV and partnership with NVIDIA here. We couldn't be more excited about this agreement, the investment that Daimler has made in us and it will really be the pass for the industry as a whole in terms of how they think about building out AV.

Q - John Pitzer {BIO 1541792 <GO>}

Colette, as you start to run numbers on the Mercedes deal, it's actually not difficult over a kind of 10-year useful life of a car to make an argument that your recurring software revenue could be as large as the initial system sale? Are we thinking about that the right way, one? And two, as you embark on this strategy, we think five, six, seven years out, how much of the revenue in your business do you think is going to be recurring in nature?

A - Colette Kress {BIO 18297352 <GO>}

Yes, it's a really good way to analyze that. We're not talking about the cost of the overall hardware and the chip. We are really talking about keeping the overall software capabilities up to speed and there is going to be new updates all the way through the ownership of that car. So you're correct, that's a long-term overall revenue stream that easily with overall Daimler will reach in terms of in the billions [ph].

So we're really pleased with such a great opportunity to really build out our automotive business. You'd say how much will this be as a percentage of our automotive business going forward? It may be the most material part of our automotive business along with thinking about other ways that we will also serve that market with our hardware platforms as well, but in the future, this has been our strategy. It's a long-term strategy but this is a really good case of how the strategy is coming to (inaudible).

Q - John Pitzer {BIO 1541792 <GO>}

And to be clear Colette, autos is the first tangible example of revenue sharing through software, but we can assume that your application framework will provide other opportunities in other industries and as you guys talk about I believe now \$60 billion AI TAM with the addition of Mellanox, this seems to me to be above and beyond that channel, am I thinking about it the right way?

A - Colette Kress {BIO 18297352 <GO>}

This TAM for overall automotive, we have been talking about it and an expansion. You asked in terms of does this overall software, can it extend to our other platforms? Absolutely could. Do we have anything specific now or do we have things that we may be working on, absolutely, but there is a great opportunity for those that don't want to take care about software themselves is something that NVIDIA helps them with and has a software license with them. So we're pleased of where this broadens people's thinking in the enterprise and otherwise industries on how they can leverage our software in an ease of deployment available accelerated computing.

This has expanded our overall TAM, overall as we think about the expansion of what we did with bringing in overall Mellanox into our overall business. It allowed us to not just focus on accelerated computing surrounding our GPU, but a focus of also thinking about the interconnects and the importance of those full systems. So we're pleased in terms of the expansion that are DC TAM. If we look out to 2024, it's probably close to \$100 billion now with a inclusion of overall Mellanox that can still be broken down to some of the key components where our hyper sales will still be an important part, also key customers for our Mellanox business and will probably be about \$45 billion of that overall \$100 billion TAM.

Then if we move into our enterprises, our enterprises is probably the next key component of that TAM and it has expanded to be probably about \$30 billion with the introduction of Mellanox in there. And then additionally, our Edge AI position of about \$15 billion and high performance computing is also a key component for both Mellanox as well as us and is about \$10 billion.

Q - John Pitzer {BIO 1541792 <GO>}

But I think you guys done a good job over the last several years debunking the myth that you're very strong in machine learning and training, but not that strong in inference. Can you talk a little bit about the positioning an inference? And as you think about augmenting your silicon with software, how important does that become as an incremental mode for competition?

A - Colette Kress {BIO 18297352 <GO>}

Yes, so we did. We were very open in terms of indicating that we were going to move to take a good look at overall inferencing and how we could even accelerate the work that we're doing on inferencing. Inferencing was a CPU market, inferencing at that stage was probably a simplistic overall inferencing market that focused on low end binary types of inferencing that needed to be done. But, what we have seen over the last couple of years has really endorsed why use of a GPU for inferencing is very key.

One, the overall complexity of inferencing, the overall approach of overall training to deal with natural language processing and the focus on conversational AI and recommenders has really expanded this inferencing market and that overall complexity is a multi-stage inferencing problem. So over this period of time, we have seen more and more focus to the programmability of the GPU, the performance of the GPU to solve some of these very difficult overall inferencing examples that we are talking about. What we've seen in just this last quarter of Q3, our key for specific inferencing product continues to reach record levels within the quarter.

We came out with the A100, and remember the A100 is a unique overall architecture that allows you to do -- not have to decide whether or not it was going to be used for training or used for inferencing. You could do both or you could do all of one or all of the other. This overall flexibility aided both the cloud providers as well as for internal use as they began the training and also see that continues to move to overall inferencing. We are now seeing that the amount of inferencing on GPUs in the cloud has exceeded the overall compute capacity of CPUs, and that is just over a short amount of period of time. We're pleased with the adoption. We're pleased in terms of people seeing how important this area will be for accelerated computing going forward.

Q - John Pitzer {BIO 1541792 <GO>}

Colette, I feel like I could talk to you for another hour-and-a-half and still not hit all the issues. We're coming up to the end of our time here, but I thought I'd end with just one question around the financials. You're one of the few companies that I cover that doesn't have a target gross and op margin out there. I'm wondering, if you can talk a little bit about some of the near-term and longer-term influences on gross margin and op margin. Specifically, gross margin, how do we think about product launches and the maturation of sort of costs and margins over time. How do we think about software becoming a bigger part of the mix and what that should mean for gross margin? And then on op margins, how do we think about kind of your desire to want to accelerate some of these opportunities with more R&D, with more SG&A versus being able to put up very healthy operating margins?

A - Colette Kress {BIO 18297352 <GO>}

Yes. So let's focus on gross margin first. So our gross margins really simply the number one thing we want you to think about is our gross margins are most influenced by mix and most influenced by more software. What I mean is the absence of the software cost helps our gross margins, because the software cost is

down in R&D. And so, people are purchasing our platforms for their full capabilities in aiding them with their overall applications and we benefit from a gross margin. But there are many of our platforms that are not fully software-rich that we still say. So that's why we have a mix and that mix becomes one of the largest drivers of our gross margins.

The faster growing business with higher gross margins influences an uptick of our overall gross margin in total. For this last quarter, we saw a surge moving and strong growth in gaming, that strong growth in gaming moving from Q3 to Q4. We have very strong margins, but they'll be relatively flat over that period of time. There have been times when our data center gross margins and the growth and the rapid growth in our data center has improved our overall company gross margins.

When we focus on our -- both our launches and our overall initial onset of our products per architecture, yes, our gross margins can improve over time. They start off quite healthy and we even get better, because that's the type of company that we are, that we're going to focus on making them great over there. So you'll see that usually over a couple of quarters before they get into their long-term preferred overall gross margin.

But now let's focus on operating margin, that's correct. We don't have an overall long-term goal on operating margin, but we think about both our shareholders carefully, and we think about our investments carefully. We make our investments in some of the most largest growing markets that we have in front of us and sit down carefully to figure out how to make those investments and many of the things that you see us producing today began 5 to 10 years ago, and so it's a long haul for us to make those decisions on investments and in thinking through how large those overall markets will be.

What you can count on us is giving you a framework as we begin a new year on about how much we're going to spend, because you know what, it's what we can control. What we can't control is the market of overall demand. But we can come through and tell you, we're going to spend this much and we believe this will be the right amount of investment for these large things going forward. And historically, this has proven to be working for us. So, I think we're going to continue this path on investing, investing right and producing that shareholder value and that overall leverage that we have done with the expansion of the operating margins.

Q - John Pitzer {BIO 1541792 <GO>}

That's great. We've come up to the end of the fireside chat, but Colette, I want to thank you for participating again and wish you, your immediate family and your extended family a safe and healthy rest of 2020. It's been a very trying year and there is a lot of us that are looking forward to 2021.

A - Colette Kress {BIO 18297352 <GO>}

I agree. Thank you for hosting. Have a happy holidays.

Q - John Pitzer {BIO 1541792 <GO>}

Take care.

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