Morgan Stanley Technology, Media & Telecom Conference

Company Participants

- Rob Csongor, VP IR

Other Participants

- Joe Moore, Analyst, Morgan Stanley
- Unidentified Participant, Analyst, Unknown

Presentation

Joe Moore {BIO 17644779 <GO>}

All right. Thank you very much. So I'd like to Rob Csongor, Investor Relations VP of NVIDIA, to talk about all things graphics and Tegra.

I do apologize. But I need to give a quick safe harbor to start. Please note that all important disclosures, including personal holdings disclosures and Morgan Stanley disclosures, appear on the Morgan Stanley public website at www.morganstanley.com/researchdisclosures, or at the registration desk.

So what, maybe you could just start us out, just give kind of a few minute overview of NVIDIA's position in the market. And then I have a bunch of questions to ask you?

Rob Csongor {BIO 3210739 <GO>}

Okay, sure. I guess I would just start that, in arguably one of the toughest years, I think, for the PC market, one of the things I always like to mention to people right before we get into whatever the newest headwind is on NVIDIA, that we were able to achieve a record year. We had record revenues, record gross margins, record cash. We announced a dividend. We repurchased shares.

We had a record year for Tegra. We said we would grow the Tegra business by 50% and we did. And I don't know any business in tech last year that grew by 50%.

And this was despite one of the lousiest years, I think, in memory for the PC market. And one of the toughest environments for mobile. I think at this point last year -- last year versus now, I mean, we started last year with a flood in Thailand. We had supply issues with our 28-nanometer with TSMC. The Android market was in a -- had a very rough start, I would say. So at that time, there really wasn't a low-price point, $199, for a quad-core tablet. And all those things, basically, developed over the year.

So I think we're very proud. We're very proud that we were able to execute through that. I think one of the things that we don't often do and we'd like to do is to just highlight and showcase the fact that we've been executing pretty well through some pretty tough headwinds over the last four years.

I think one of the number one questions we get, as a company, is how is it possible for your GPU business to grow when the PC market is flat or declining? And we've been trying to show the Street a little more transparency into our business and show that, really, 5% of the PC market, which represents PC gaming, work stations. And high-performance computing, really drives the majority of our business in terms of gross margins. And those segments of the market are very robust.

So if you look at the last four years, our GPUs have grown consistently. We grew our GPU business 8% last year, excluding the chipset business, which we're exiting. I already talked about the Tegra business.

And I think going into this year, our position this year versus last year is just night and day. Last year we had Fermi, our Fermi generation of GPUs. This year we have Kepler. Last year we didn't have any real designs and Android was in disarray. This year we had a good year and established our position in tablets. Last year we had no LTE modem. And now we do.

So I would say that this is probably one of the most significant developments in terms of why our position is better now than it was last year. This week we announced the Tegra 4i, which is our first integrated LTE processor, mobile processor. This opens up a fair amount of the mobile market for us. This is the focus of our acquisition with Icera. And at this point we're extremely pleased that roughly 20 months after acquiring Icera we now have a world-class integrated LTE processor and we're engaging the market with it.

We announced Tegra and i500 at CES. So right now, our family of products at the application processor side starts with a best-of-class app processor, as well as an LTE modem. But now we have the additional integrated part that allows us to address a larger segment of the phone market.

So I think, going forward for the year, I would say there's lots of questions. We also announced a few surprises this year. We have a new GPU business, a new growth business for GPUs, which is called GRID. This is selling GPUs into the cloud. And server-based products, basically GRID Enterprise, GRID Professional. And GRID Gaming. We're going to talk a lot more about these new segments and this new business at our upcoming GPU technology conference, as well as our investor day on April 11th.

And of course, in terms of our core business, I would say for this year the status of our business going forward to this year, I think we have Kepler this year, PC gaming continues to be strong and robust, I think notebook, the notebook market we see as declining. But we're looking forward to another year of good share on notebook.

The Quadro business, which had declined last year some amount, is finally transitioning to Kepler. So you may noted in Q4 that our Quadro business was up 10% after several quarters of relative weakness.

So -- and then Tesla is a growth business for us right now, one of our growth opportunities, which is to sell GPUs into high-performance computers.

So I think just relatively, year to year, I would say that's kind of my quick summary of the state of the business and why I think we're looking forward to the next year and beyond, versus last year.

Questions And Answers

Q - Joe Moore {BIO 17644779 <GO>}

All right, that's great. NVIDIA, to me, is one of the more intriguing stocks that we cover, in the sense that there's a lot of opportunities that are difficult to model, difficult to know exactly what they're worth. And yet all seem pretty exciting. So I'd like to walk through some of those. And I'll go through the product portfolio and leave some time for questions at the end. So I may not get through everything.

But I think the most mundane thing that could really work out for you guys is graphics. And I think the -- I'm pretty bullish on the attach rate commentary that you had, that the gamer market continues to be robust. But also, what about competition? Your competitor, AMD is in a lot of different things on a stretched R&D budget, is spending money on varying consoles. And I just -- it seems like they're stretched a little bit thin.

Is this a time when you guys should be putting more money into PC graphics to sort of accelerate away from them?

A - Rob Csongor {BIO 3210739 <GO>}

Well I'm just smiling because you're the right person who's asked me why we're not spending more money on PC graphics. Frankly, at this point, we're in the position right now of leveraging the investment we made in Kepler. So we're going to enjoy it for just a few seconds.

I think we gained a lot of share this year, thanks to Kepler. I think we'll enjoy good share again this coming year. We're going to enjoy the benefits of Kepler throughout this year.

Now, having said that. And people always ask about AMD, we've been telling people that AMD doesn't -- AMD is there. And we expect them to fight just as hard as they ever have. So as far as we're concerned, we said it last year and we said it -- we're saying it this year, we expect nothing different, nothing different.

They are our competition for GPUs. And we're going to fight them just as hard this year as we did last year. And just as hard as we fought them the year before. So there's no change.

Q - Joe Moore {BIO 17644779 <GO>}

Great.

A - Rob Csongor {BIO 3210739 <GO>}

But for now. And, by the way, you know that it took us years to develop Kepler right? So instead of doing game consoles or instead of doing Xbox 360 or Wii, we were developing Tegra. We were developing GRID. We were developing virtual GPU capabilities into the GPUs. We were developing CUDA and high-performance computing. So the -- we have to pick and choose where we invest.

Q - Joe Moore {BIO 17644779 <GO>}

That makes sense. Then, with GRID, again, I don't have a lot of numbers around GRID for my model. I mean, can you talk about how GRID could play out and what the revenue opportunity is for you guys? Who, ultimately, is paying you. And how much they're going to pay you. And how big it could be?

A - Rob Csongor {BIO 3210739 <GO>}

Well the short answer is no, I can't tell you today. No. We're going to talk a lot more about GRID this year. And coming up very soon, in fact. So at our upcoming GPU technology conference, which we're actually -- we're opening up to the financial community. Jen-Hsun is actually going to give a presentation immediately following his keynote which is specifically targeted at the investment community.

Q - Joe Moore {BIO 17644779 <GO>}

Okay.

A - Rob Csongor {BIO 3210739 <GO>}

So -- and we're going to talk a lot more about the new businesses that NVIDIA is in. In a lot of ways, NVIDIA's business is changing quite a bit.

Q - Joe Moore {BIO 17644779 <GO>}

Yes.

A - Rob Csongor {BIO 3210739 <GO>}

And so, we know that there's lots of questions about these new businesses. Sometimes it's better for us to get -- make a little headway into the market, establish some customers and stuff, before we roll it out to you guys and say, hey, guess what we think.

Q - Joe Moore {BIO 17644779 <GO>}

So you're not going to tell me today how to model it.

A - Rob Csongor {BIO 3210739 <GO>}

I'm not going to tell you how to model it today. But we, obviously, believe on each one of the -- I can -- let me talk a little bit, maybe qualitatively about it.

Our GRID is divided in three. We have a GRID Enterprise product. I think the value proposition of GRID enterprise is that we'll accelerate an existing VDI implementation. So we'll accelerate an existing Citrix or VMware type of setup. So the good news there is that there's obviously a market for VDI. For those of you who have used it, it's very convenient and very good. And could use a little performance boost. And acceleration, particularly for graphics-intensive applications.

So that's what we've done. We've worked very closely with Citrix and VMware and Cisco and all of these guys to accelerate an existing implementation. And we think that's going to -- we think there's a market for that.

The second market is a little bit of a tougher one to try and size. It's -- we're -- it's called GRID Professional and we're deploying, basically, a -- we're working with partners to accelerate and deliver certain specific applications as a SaaS, software as a service. So applications like SolidWorks and Autodesk.

The third one is GRID Gaming. And that one's a potentially very large business. And we demonstrated it and we've demonstrated it on stage as somebody's simply interacting with a television. There's no game console connected to it. There's no PC. There's no set-top box. It's just a television with an Ethernet wire.

So if you look at it from that perspective that what's the available market that NVIDIA can deliver the goodness of a GPU to, it's gone from a PC with a large power supply and a GPU to any display that's connected to the Internet.

Q - Joe Moore {BIO 17644779 <GO>}

And this is, arguably, bigger than the console market in terms of the way people are looking at --

A - Rob Csongor {BIO 3210739 <GO>}

It's potentially -- let's -- I mean, we haven't gone out and positioned this as a console competitive.

Q - Joe Moore {BIO 17644779 <GO>}

But you have announced partners. And they're interesting partners, because they're actually working with carriers on actual implementations, right?

A - Rob Csongor {BIO 3210739 <GO>}

Yes. We announced a number of middleware partners. To people who are in that industry, they know exactly who those middleware guys are. To most people, I think they don't know them.

Q - Joe Moore {BIO 17644779 <GO>}

Right.

A - Rob Csongor {BIO 3210739 <GO>}

But if you look closely, you realize these are the guys who are building a lot of the infrastructure for some very large service providers and carriers.

Q - Joe Moore {BIO 17644779 <GO>}

Okay. Great. That's helpful.

Then on Tegra 4, there's been a lot of back and forth about who has the best products in apps processors. I was probably a little too cynical on Tegra 4 before it was announced. But you've put out some pretty impressive stats, I mean, much lower power consumption, the same use case, a higher number of design wins at this point than Tegra 3 had over its life.

The -- what is it, you think, that's making that a compelling sale. And how do you broaden it out beyond what you had in Tegra 3?

A - Rob Csongor {BIO 3210739 <GO>}

Well Tegra 4's position is to be the fastest -- the world's fastest mobile processor. And that's our anchor position. It was our anchor position last year with Tegra 3. The only difference last year was that we were the world's fastest mobile processor without a modem.

So when you have the world's fastest mobile processor without a modem, you can't sell into a lot of phones. We could sell -- so, what we did is, we sold into tablets. And that's what you saw. So when our business grew 50%, we jumped on the tablet market and we were able to grow it, really, with just a couple designs.

This year, you're going to see a lot more tablets and a lot more SKUs from vendors, a lot more flavors. Everything, I think, in the Android world is going to be better -- more functionality at lower price, more offerings, more options. I think you're going to see a lot more connected tablets this year, because the telcos and the carriers are offering modem support, basically, as a family plan thing. You basically throw it in, as opposed to you get a new bill every month now.

So let's see, what else? Well we were talking about the idea of --?

Q - Joe Moore {BIO 17644779 <GO>}

Yes, I mean, it's worth noting just how high your market share was and how last year.

A - Rob Csongor {BIO 3210739 <GO>}
Oh, right, right.

Q - Joe Moore {BIO 17644779 <GO>}
Of the merchant market, which was limited, because Samsung and Apple have so much share. But, I mean, you guys had -- you swept almost everything else, most of the Windows RT stuff --

A - Rob Csongor {BIO 3210739 <GO>}
That's right.

Q - Joe Moore {BIO 17644779 <GO>}
-- as well as a lot of the other tablets.

A - Rob Csongor {BIO 3210739 <GO>}
That's right. So the Tegra 4 position relative to Tegra 3, then, is that, yes, we -- I think with the benchmark results that you were talking about, we reestablished our position as the fastest mobile processor. But the difference now is that we have LTE.

Q - Joe Moore {BIO 17644779 <GO>}
Right.

A - Rob Csongor {BIO 3210739 <GO>}
And we have a modem. So the i500 is out there and selling and sampling. I think this week the first phone guy announced. So I think ZTE announced this week that they're building a Tegra 4 phone. And they're building an upcoming phone that will also have Tegra 4, as well. It's an i500.

Q - Joe Moore {BIO 17644779 <GO>}
Okay.

A - Rob Csongor {BIO 3210739 <GO>}
So I think you'll see more announcements, particularly on the phone side, later in the year as you get closer to production.

Then, the big news, obviously, for us this week is the Tegra 4i.

Q - Joe Moore {BIO 17644779 <GO>}
Right.

A - Rob Csongor {BIO 3210739 <GO>}

So I think the -- the quick answer to your question is, NVIDIA's entering the connected device market this year, which we think is very significant in things far beyond just phones.

Q - Joe Moore {BIO 17644779 <GO>}

And I think -- so this comes down the LTE modem. And I think this is tricky for investors, because we're so used to thinking of an existing field of baseband competitors. You guys are relatively news to this. When we go and ask your competitors what they think of this kind of software-defined approach that you're taking with Icera, they're all cynical, because they're your competitors, maybe. But can you talk -- can you give us any comfort that this is going to be something that you can have a large presence.

I mean, it sounds like you're sort of the second guy to market in the LTE space. Is that right? And are you going to -- would you expect that to turn into that type of baseband market share position that is number two that would have.

A - Rob Csongor {BIO 3210739 <GO>}

Well I think we have a secret sauce. I mean, we have an architectural strategic position. Our position is a software-defined radio, as opposed to a fixed-function device. The implications of that are pretty significant.

What it means is that Tegra 4i is half the size of the competing product from Qualcomm. That's pretty significant.

So now you have to prove yourself. And you have to get qualified. So you have to prove yourself by going through all the same battery of tests that we're very familiar with. So we did a couple designs last year, with some phones and tablets to kind of cut our teeth and get ourselves in.

To many people, they may think of this as the first product from NVIDIA. But, I mean, Icera's been making modems since 2006.

Q - Joe Moore {BIO 17644779 <GO>}

Yes.

A - Rob Csongor {BIO 3210739 <GO>}

They have 95 different carrier qualifications in a large number of countries. So they're very, very familiar with the process and this is not their first modem.

Q - Joe Moore {BIO 17644779 <GO>}

Okay.

A - Rob Csongor {BIO 3210739 <GO>}

So I think at the end of the day, it's devil's in the details.

Q - Joe Moore {BIO 17644779 <GO>}
Yes.

A - Rob Csongor {BIO 3210739 <GO>}
If we can deliver advanced features. If we can deliver performance. If we can deliver it at low power, then I think it'll make -- I think we'll be fine.

So if you're in Mobile World Congress this week, that's exactly what we're showing.

Q - Joe Moore {BIO 17644779 <GO>}
Okay. And the fact that you've been qualified already on data, I mean, that, in itself, is fairly relevant, because you still have tablet opportunities and things where (inaudible).

A - Rob Csongor {BIO 3210739 <GO>}
Sure. No, our competition will say, yes. But it's not voice.

Q - Joe Moore {BIO 17644779 <GO>}
Right.

A - Rob Csongor {BIO 3210739 <GO>}
But anyway, of course. I mean, we've done voice qualifications.

Q - Joe Moore {BIO 17644779 <GO>}
Yes.

A - Rob Csongor {BIO 3210739 <GO>}
We -- the tablet I use right now is an Asus Vivo RT with an LTE modem. It's an Icera LTE modem. So I mean, that's obviously -- we announced that last year.

Q - Joe Moore {BIO 17644779 <GO>}
Yes.

A - Rob Csongor {BIO 3210739 <GO>}
Which was the data modem qual.

Q - Joe Moore {BIO 17644779 <GO>}
And is the voice qualification, does that take longer, or is it harder to get carriers comfortable with that?

A - Rob Csongor {BIO 3210739 <GO>}
Yes. It takes longer.

Q - Joe Moore {BIO 17644779 <GO>}
Okay.

A - Rob Csongor {BIO 3210739 <GO>}
Yes. The voice qual typically takes longer. And that's why for people who've asked, I would describe this year, I mean, from NVIDIA's perspective, this is an extremely exciting time that we're engaging the connected device market and the market -- the market is welcoming an alternative solution.

So I think for us, going into this, it's very exciting. But in terms of devices, visibility, in terms of revenue, I think this year is primarily a build and validate year, build and certify.

Q - Joe Moore {BIO 17644779 <GO>}
Okay.

A - Rob Csongor {BIO 3210739 <GO>}
And when you look at the revenues, I think it's mostly -- at least from phones, is really going to be 2014.

Q - Joe Moore {BIO 17644779 <GO>}
Okay. Great. Then you formally announced Grey last week, the Tegra 4i.

A - Rob Csongor {BIO 3210739 <GO>}
Right.

Q - Joe Moore {BIO 17644779 <GO>}
I emailed you that. So this is an LTE integrated with a quad-core A9. And I could feel smoke coming from the email like, no, it's much more than that. So maybe you could just tell us your view of what this is?

A - Rob Csongor {BIO 3210739 <GO>}
Yes. That's because your email just that we just kind of super-glued the two of them together and that's it. It's just -- I was never going to show --

Q - Joe Moore {BIO 17644779 <GO>}
No harm --

A - Rob Csongor {BIO 3210739 <GO>}

I was never going to show our engineering department your email, because it would just be such an insult.

Yes, I mean, the Tegra 4i has been a focus. I talked about it earlier. And I'm not kidding. It is the focus of everything -- it's the number one focus product since we acquired Icera. That product is designed for one purpose and one purpose only, to just nail perf per square millimeter and perf per watt.

So when we looked at that chip, we looked at it from a complete top-down re-architecture of taking everything, the best of everything we've learned so far. The modem side was relatively easy. It's pretty much an i500. The rest of it was pretty difficult, though. I mean, that's all basically custom architecture.

So we had a number of potential engines that we could use. We had our Tegra 4 graphics engine. We had this new second generation four-plus-one, which is basically our battery saver, the ability to have a single core running at very low power. So we had the second generation implementation of that.

So we basically, if you look at what Tegra 4i is, it is the Tegra 4 graphics engine, 60-core instead of 72. It is -- it uses the same Chimera computational photography engine that we have in Tegra 4. It has a very different CPU architecture, though. So what we did is we basically created a custom, souped-up version. And again, you're looking at perf per square millimeter, perf per watt. You could go quad A15 or you could go quad A9, 1.0 gigahertz, the original engine.

So the variant that we built, internally we refer to as R4. So it's a custom co-developed with ARM that is basically a souped-up Cortex A9 four-plus-one, clocked at 2.3 gigahertz.

So it's -- it is the sweet spot, we believe, of perf per square millimeter.

Q - Joe Moore {BIO 17644779 <GO>}

And what does that translate to in terms of the price of the phone that you're enabling.

A - Rob Csongor {BIO 3210739 <GO>}

Well the target, everything that we've been -- we kind of look at the market or, at least, similar to -- if you look at how Strategy Analytics or some other market research firms look at it, they -- anything above, like, $200, $299, is a super phone. We can address that with our discrete GPU. But the large segment of the market that we believe is opening up for us now is that $99 to $199 range of the market, which is not quite at the low end, the low end that's kind of currently addressed by companies like MediaTek. But the $99 to $199. And at that segment, it's us and Qualcomm.

Q - Joe Moore {BIO 17644779 <GO>}

That fully capable LTE smart phone at that price point.

A - Rob Csongor {BIO 3210739 <GO>}

Right, a fully -- I mean, basically what you're looking at is, the sweet spot of the market next year as being a 1080p LTE smart phone.

Q - Joe Moore {BIO 17644779 <GO>}

Okay. Great. Any questions from the audience? I have more, if not.

Q - Unidentified Participant

(inaudible). Sorry, can you talk about the R&D investment profile? There's clearly been a lot of investments in things like Kepler and Tegra.

A - Rob Csongor {BIO 3210739 <GO>}

Right.

Q - Unidentified Participant

(inaudible), et cetera. I mean, should we know be -- have we now got past the peak of the R&D investment profile?

A - Rob Csongor {BIO 3210739 <GO>}

Yes. So it's a good question. I mean, we get the question on our OpEx. Last year we grew our OpEx, we targeted $1.4 billion non-GAAP. And we came in just underneath it. So we basically spent exactly what we said we'd spend.

In Q1, our OpEx went up, again pretty much exactly as we expected it to, because -- and in the earnings call that we recently had, we articulated the reason why. We're bringing LTE to market. It is absolutely the right thing to do.

Now, in terms of R&D expense, all of the projects that we currently have on our plate are funded R&D project. We're -- you, obviously, know that if we built Shield last year, for example, we had -- we were paying engineers to build it last year. So in terms of Kepler, Shield, GRID, LTE -- all of those products are basically products that were funded out of last year's OpEx.

The increase in Q1 is largely based on taking LTE to market, which is -- I mean, this is our time to do this.

So I think, in general, if you look at our profile, OpEx as a percentage of revenue, I think over the last four years you'd see that we're pretty consistently right around 31%. But during that time, we've grown our operating income considerably. So operating income four years ago was at -- OpEx was 31% as a percentage of revenue.

But operating income was at 8%. That grew to 20%. So we -- yes, we've spent more every year, in terms of a percentage of revenue, it stayed pretty flat. And we've grown income quite a bit during that time.

Yes? I'm going to let Joe pick them.

Q - Unidentified Participant

You guys are typically pretty reluctant to talk about Project Denver. But I'm wondering what is your view, maybe big picture wise, of the ARM server market and what segment do you think you guys have the best capability to play in? What sort of broad brushes will you give us?

A - Rob Csongor {BIO 3210739 <GO>}

So your first assumption was correct. Yes. We're not talking a lot about Project Denver right now. But I think we will, relatively shortly. I mean, it -- the things that we've disclosed and we've talked about are things that you probably already know.

I don't think it's any secret that power is important to more things than your cell phone battery. I think that most people know that the exaflop initiative, which is the initiative to build an exaflop supercomputer by the year 2018, the number one technical obstacle to building that supercomputer is power.

So anyone who's familiar with supercomputers in the server and data center market knows that power is a major obstacle and a hurdle to achieving a breakthrough. So we've, obviously, invested in a lot of high-performance computing, parallel computing, CUDA. We have a lot of experience in deploying the next-generation supercomputers. You guys know that in Q3 we launched Titan, which is now the world's fastest supercomputer, which is now driven by 18,000 GPUs. So it's, obviously, a segment of the market that we care a lot about.

Now, today, all of those implementations are x86. And we've disclosed that we're working on something called Project Denver that is a ARM-based product. And the only thing we've said other than that is that it's not a general purpose 64-bit CPU, because somebody was -- somebody had started propagating some information that, oh, we're just going to go into the general purpose CPU business. I mean, NVIDIA never does that. We never do -- we never just do a general purpose CPU.

Typically, we're going to go find a difficult problem and build something very custom to solve that problem. And it's typically very difficult to do.

So other than that, I don't -- there's just not a whole lot that we're talking about yet. But hopefully we will soon.

Q - Unidentified Participant

In April, with this other stuff, would that come up or is it post-April?

A - Rob Csongor {BIO 3210739 <GO>}

I don't know is the honest answer. I think this -- for the upcoming GPU technology conference, you're going to hear a lot more about GRID and I think right now, in terms of the milestones of new opportunities for NVIDIA, we, obviously, have enough of them right now. But the GRID is the one that I think a lot of people are interested in. We're already generating revenue with it and we're already kind of well along with our alpha customers. So the time for us to talk more about that business is probably coming up.

Q - Joe Moore {BIO 17644779 <GO>}

We have time for one more.

A - Rob Csongor {BIO 3210739 <GO>}

Okay.

Q - Unidentified Participant

How do you look at your high-margin Quadro workstation business. And in relationship with the big boy coming in to the competition, what do you think of that, because that's a pretty high margin business and you can surprise to the upside, I think?

A - Rob Csongor {BIO 3210739 <GO>}

Okay, which big boy are you talking about?

Q - Unidentified Participant

I mean the biggest boy in the world.

A - Rob Csongor {BIO 3210739 <GO>}

The biggest boy in the world?

Q - Unidentified Participant

I don't know. Intel showed some interest --

A - Rob Csongor {BIO 3210739 <GO>}

Oh, in the Tesla business.

Q - Unidentified Participant

Yes.

A - Rob Csongor {BIO 3210739 <GO>}

Oh, the -- yes. Okay, sorry, I thought you said Quadro.

So your question is about Tesla, right? Okay. We continue to believe that the Tesla business represents a great growth opportunity for NVIDIA. It's been relatively slow developing because it's a new paradigm and a new way of doing compute. The early adopters for the Tesla business have predominantly been a lot of -- the universities and supercomputers. In each of these cases, there is custom work that people are doing, basically. And the revenue is very lumpy. We'll do an installation and then it kind of -- the installation's done and then the revenue drops down.

You may have noticed that in the last quarter, after we were done with the Titan installation, revenue went down. But not quite as -- it didn't go down all the way. And the difference now is that we're starting to develop a run-rate business.

And the definition of a run-rate business is, a designer designing a landing gear can open up his newest version of ANSYS, which is one of the standards for doing physical simulation. And he has an off-the-shelf product he bought from Dell, a PowerEdge server or something like that. And it is simply accelerated by Tesla without him knowing it, off-the-shelf software, off-the-shelf hardware.

You know what I mean? They don't have to write code and develop a code. So I think you're seeing a pickup in the run rate business of it.

Intel coming into the market, first of all, of course, validates the market, for us. I don't think Intel does anything unless they think its a big potential market. And I think they simply can't ignore the benefits of high-performance computing.

So I think that helps us. That helps us validate the market.

But in the meantime, we have six or seven years of code writing that we've been doing that we think competition has to catch up on.

Q - Joe Moore {BIO 17644779 <GO>}
And unfortunately, with that, we have to wrap up. We're out of time.

A - Rob Csongor {BIO 3210739 <GO>}
Okay.

Q - Joe Moore {BIO 17644779 <GO>}
Thanks very much, Rob. I appreciate.

A - Rob Csongor {BIO 3210739 <GO>}
All right. Thanks a lot. Thanks, Joe.