Bank of America Merrill Lynch Global Technology Conference

Company Participants

- Rob Csongor, VP IR

Other Participants

- Unidentified Participant, Analyst, Unknown
- Vivek Arya, Analyst, BofA Merrill Lynch

Presentation

Vivek Arya {BIO 6781604 <GO>}

Good afternoon, everyone. Welcome to this session, last but certainly not the least. And I'm Vivek Arya, Semiconductor Analyst at the Bank of America Merrill Lynch. I'm absolutely delighted to have Rob Csongor from NVIDIA, who heads NVIDIA's Investor Relations team. And like most sessions, let's keep this interactive also. I'll go through a series of questions. It's a 40-minute session. I'll go through questions for about 20 or 25 minutes. Then I'll open it up to the floor for other Q&A.

And with that, Rob, welcome.

Rob Csongor {BIO 3210739 <GO>}

Thank you. Thanks, Vivek.

Vivek Arya {BIO 6781604 <GO>}

So maybe let's start a very high level. If you could just give us a state of the union on what you see in terms of the spending environment. You participate in a number of different consumer enterprise markets. Where do you feel most optimistic, less optimistic, right now? If we just talk about the near term. And then we'll go over to the longer-term trends.

Rob Csongor {BIO 3210739 <GO>}

Okay. I think overall, we're mostly optimistic about one fundamental dynamic, which is that visual computing is becoming more critical to a variety of different markets. So currently, there is our existing customers, existing markets, like PC gaming. So I think one of the first questions people ask about NVIDIA is, "How is it possible that your GPU business is growing for the fourth consecutive year in a row, while the PC

market is declining?" And the answer is that we don't address the entire PC market; we address segments of the PC market.

So one of those segments is PC gaming. And the second is professional workstations. And within those markets, the demand for visual computing is voracious.

So if you look at our business, you see ASP trends going up. We are driving ASP trends up. The gross margins are going up. And you look at the overall markets, the gaming market is growing from $16 billion this year to $20 billion by 2015. So first of all, the market that we serve is fundamentally growing.

Within the workstation market, even last year, even though last year was a declining segment, it was a largely stable business. So I think that's actually, even though it sounds weird, it's actually good news for us. If our Quadro business can be stable in the midst of one of the worst years ever, I think what that says is that this market is very robust.

Then beyond that, GPUs are now going into new markets, which include segments like compute, which is a ramping business. And then GRID, which is a very new business, which is putting GPUs into the data center and then streaming graphics. So I think that's one part of our business.

Then the other part of our business is Tegra, which I would describe as just new devices, new types of computing devices. And there's a number of things going on there. But fundamentally, you see a lot of the same dynamics driving that. Gaming continues to be 76% of the revenue that Google makes. Two-thirds of what people do on a tablet is play games. So we believe NVIDIA's uniquely positioned and has unique core competencies to drive those markets.

Vivek Arya {BIO 6781604 <GO>}

So let's maybe go to each of these markets, starting with GPU. NVIDIA has been a pioneer in that market. One thing is that, as I look at the market over the last five years, the market has been flattish. But we have seen shares shift between yourselves and AMD. And in the last three years, you have done exceptionally well in that market. But your share has now gone up to almost 68%.

So two questions -- is it fair to think that the overall buy in GPUs is sort of fixed. But most of your outsized performance has come through share gain? And if that's the case, then how much more room is there to gain share in that market?

Rob Csongor {BIO 3210739 <GO>}

I would say that that's not the right way to look at our business. Our GPU business grew for four consecutive years in a row. That doesn't mean that our share grew for four consecutive years in a row. They're not correlated.

What it means is that the overall market and the demand for GPUs grew, either that or we either sold more products at a higher price to more people. So I think the share story is yes, we grew share against AMD. And the question comes up about what's going to happen with share. And I think the bottom line is that AMD is a competitor. They're still a competitor. Whatever issues they have had, they haven't gone away. And we expect them to compete. And we're going to compete against them just as hard as we ever have.

But that's not what consumes us. What consumes us. And what we think about, is, number one, how do we feed the best product to gamers? Number two, how do we meet the needs of this new compute opportunity that we have? How do we take GRID and enable visual computing experiences to not just PCs. But any kind of display? Those are things that allow us to drive our business a lot more than design wins here or there, competing with competitors.

Vivek Arya {BIO 6781604 <GO>}

But is it a trend among, whether it's a channel or whether it's OEM, where they would not prefer to give you more than whatever, 70% market share? Or do you think that since a lot of your business goes through the channel, it's mainly gamers at the end of the day that determine whether they would buy an NVIDIA GeForce or whether they would buy an AMD Radeon GPU?

Rob Csongor {BIO 3210739 <GO>}

Regardless of how it exists, that particular customer in terms of -- you're implying vendor management -- the best strategy we know of is to create demand for our products. So if we can develop a product that's of value to a gamer, or if we can develop a product that's of value to a scientist, then that's ultimately what we believe will drive our business.

Now, it so happens that within the PC gaming space, most of how gaming is done, most of PC gamers are building in the channel. You know, you have channel system builders, or you have upgrades and things like this.

But I think even, regardless of whether it's in the channel or whether it's through OEMs, NVIDIA has a direct relationship with gamers. That's something that we think is unique for a technology company. So I think that's ultimately what we're going to focus our attention on.

Vivek Arya {BIO 6781604 <GO>}

And we were talking earlier. And I think you were making some very interesting points about the trend you notice whenever there's a new game console cycle, that sometimes, contrary to what people would assume that as game consoles come into the market, they capture more of attention; perhaps PC gaming goes down. But that's not the case, if you could elaborate, because there are two new big consoles that are supposed to come over the next few quarters.

Rob Csongor {BIO 3210739 <GO>}

Yes. Well first of all, from an overall perspective, I guess there's, every time there's a cycle of game consoles, it's always a little different. Twenty years ago, when I first joined NVIDIA, the game console was 100 times more powerful than the PC. So the idea of spending $60 for a game and selling 50 titles to one person was conceivable, because the only way to get a 3D graphics experience at the time was on a game console.

Now, that world today, it doesn't exist. Today the PC is 100 times more powerful than the game console. Now, when the game console revs, it's not at the same performance level of a high-end PC. But what it does is stimulate a lot of -- there's content that's developed for what I would describe as more of a mid-range PC. Then that content becomes available to the PC market. And as a result, we see stimulation to that part of our business, which is the mid-range PC level.

So typically, in the past when you've seen game console business, I think you've seen that the GPU business -- there's not a point where people say, "Oh, that's it. I'm not playing PC games anymore. I'm just going to go with game console." I don't think that's the case at all today.

And I think increasingly now, there's, of course, a lot of issues on what is the model, or what is the game market now? Today, the game market, for example, with Android is 600 million users, where the price starts at free and then goes to $0.99, $1.99, or $7.99. And the reason that works for developers is that you have 600 million users. You know, 76% of Google revenue is on games. So it's certainly a big market.

I think the only question is what's the right way you can serve that market? And I think NVIDIA's strategy right now is very much focused on open platform -- PC, Android, open platforms.

Vivek Arya {BIO 6781604 <GO>}

So if you -- you've been in the business for a very long time. And when I think of that whole gaming market, a lot of the casual gamer is being served by the smartphone-tablet player. You mentioned Android as an enabler of that. Then the very high-end gamer is being served by PC games. And that's where you have your GPU business, that solution that you had. So is there room in the market for a game console, especially if it tries to really be more as a media hub. And there are several other alternatives to media hub?

And I'll actually tell you where I'm going with the question. If, let's say, the game console market does not take off, then do the game developers have enough incentive to even develop something for the PC gaming market? Or is all of their attention going to be in the smaller-sized form factors?

Rob Csongor {BIO 3210739 <GO>}

So right now, the system data that I presented recently. And we share this data. We have it on our website. There was a survey done out of GDC. This was the Game Developer Conference. The number-one platform of choice, according to the survey, right now is mobile ARM. So iPhone, iPads, Android, at 51%. So 51% said that this is their platform of choice.

The second platform of choice is PC gaming, a $16 billion market, going to $20 billion. And that was at 48%. Game consoles came in at 14%.

So I'm not saying anything about -- I'm not here to, if you want to ask about game consoles, ask some other people. But I'm just saying that certainly, from the position of developer attention, which is what your question was, the data would suggest that right now, developer focus is primarily on open platforms, which means mobile and PC.

Vivek Arya {BIO 6781604 <GO>}

And just lastly on the GPU business. So every year Intel launches a new product. And the claim is, "Well our graphic is much better than what we had before. And this time our graphic is really much better than what we had before." And I think with Haswell, they have branded it separately, like the highest end, they call it Iris.

So as you look at the design wins that you're having with the Haswell platform, first of all, what do you think of Haswell as a platform? Because, obviously, it does matter, right, to your GPU business, that there is adoption of these high-end platforms. And secondly, do you see any change in the graphics attach rate on those big graphics versus a move towards more integrated graphics?

Rob Csongor {BIO 3210739 <GO>}

So I just want to first comment. You said a number of things in there. The first thing you said was true. Haswell graphics is better than Ivy Bridge. And the Ivy Bridge was better than Sandy Bridge. And Sandy Bridge was better than what came before.

The question is not, is it better? I guarantee the next version of integrated graphics will be better than Haswell. The question is, does it replace a professional workstation graphics card. And the answer is no. Does it replace a PC gamer's graphics card? And the only thing I'll say is -- you don't even have to take my answer. I'll tell you the answer is no. But read a review yesterday -- there was an article that came out yesterday in Tom's Hardware -- and read what his review is. And the summary of the article is basically that integrated graphics is better. But there's no way that a gamer or a professional workstation is ever going to replace their card with integrated graphics.

And the reason is that Haswell was not -- integrated graphics was not the only thing that got better. Kepler and discrete GPUs got better also. So that's the only part of that story that's missing. Then the question is, is that integrated graphics solution good enough to do high-end gaming or to do workstation? And the answer is no.

Vivek Arya {BIO 6781604 <GO>}

Yes. That makes sense. Maybe let's shift the discussion to Tegra, more favored son, I guess, in the Company. So Tegra -- you know, this year the expectations are that sales are expected to be flattish. But if I take out the growth that you're seeing with Tegra on the automotive side, where you're not just selling a $20 processor, you're selling complete multi-hundred dollar modules, it implies that the smartphone-tablet part of Tegra is going to be down year on year in a market that is growing substantially. So how much of that is a product transition issue? How much of that is a market share issue? If you could just walk us through why Tegra is expected to be flat or down this year when the market is growing.

Rob Csongor {BIO 3210739 <GO>}

I think that the first is, I think, a fairly well-known timing issue, which we've talked about, which is we made the conscious decision to move up the schedule of Tegra 4 in order to move in the schedule of our Tegra 4i, which is our integrated part with LTE modem, as well as to move in the schedule of a next-generation apps processor which is code-named Logan. And Logan brings Kepler to Tegra. So we made a tradeoff. We made a tradeoff in short-term revenue versus what we believe is the right strategic thing to do to grow the Tegra business long term.

So in terms of our revenue and how does -- obviously, what this means is that in order to be flat for the year, we would have to have, obviously, much more revenue back-end loaded on the second half of the year, which is not dissimilar to what we did last year. So if you remembered last year, actually, Tegra 2 had ramped down. And then Tegra 3 didn't start ramping. And that's basically a tablet-centric business. In other words, tablets start to be built and they start to be released in midyear. You ramp it in the second half, in the fall. And then it peaks at Christmas and then goes down. So if you look at our revenue, it's very lumpy. It gets bigger every year. But it's very lumpy like that.

In terms of the second half of the revenue, there are several new revenue streams that exist this year for Tegra that didn't exist last year. Automotive is one of them. Automotive right now is on a run rate of roughly $100 million to $120 million a year and ramping very nicely. We've introduced a gaming device this year called SHIELD. SHIELD goes on shelves this month. So obviously, that revenue didn't exist last year. And in that case, the ASP is much higher.

I think the other thing, the other difference from last year to this year is last year, there were actually very few tablets. There were really just -- there was obviously Nexus 7, there's obviously Kindle Fire HD -- but for the most part, a lot of people were on the sidelines on tablets.

I think this year that's going to change. I think this year, you'll see a lot more tablets. Android is everywhere. So you'll see a lot more tablets, a lot more SKUs, a lot more types of tablets from different vendors.

Then finally, I think you're going to see Tegra going into new types of devices. Tegra ultimately is not just going to be about phones and tablets. In fact, I think we don't even really refer to Tegra anymore as our mobile business. It's just simply a new computing device. So I think Tegra, I think you're going to see Tegra roadmap in basically every part of NVIDIA's business. Going forward, it's basically just a delivery vehicle for our GPU into something that is not an X86 platform.

Vivek Arya {BIO 6781604 <GO>}

One very, I think a positive surprise has been the work that NVIDIA has done with 4G LTE. When you bought the Icera business with the software-defined radio, I certainly did not expect you to have it come out and actually have the 4G LTE capability tested and certified. Where are you from actually putting a 4G LTE modem in a smartphone, then tablets?

Because today Qualcomm has 100% of that market. That market is demanding a good second source. But you have a very good product, Broadcom claims to have a good product. So does Intel. Marvell makes press announcements every day. So where are you from a competitive perspective in 4G LTE? And what's going to be your differentiator versus Qualcomm, who dominates that market today?

Rob Csongor {BIO 3210739 <GO>}

So I think, as I mentioned earlier, what we believe is that visual computing is increasingly important to all these devices. So if you look at our competition, you'll see that they're increasingly talking about graphics and visual computing. And I don't think that that's an accident. I think if tablets and new types of devices are disruptive to the PC, they have to deliver the same visual experience that you used to get from a PC.

Now, for some % of that market, they're not going to care as much about visuals. And then it's a cost battle. But to a large percentage of that market, visual computing is going to be extremely important.

Now, our competition knows this. They look at the same market data that we do. I mentioned it twice already. And I'll say it again -- 76% of Google's revenue is coming from games. And it's not just Angry Birds. Now it's Madden 13 and a lot of very high-end types of graphics applications.

So I think that visual computing, whether it's going into automobiles, whether it's going into gaming devices, whether it's going into phones or tablets, are increasingly going to require visual computing.

For NVIDIA, in the phone market, we cannot address this market in the volume segment of the market until we have LTE, until we have an LTE modem. LTE modem allows us to go in the door and then to leverage our visual computing expertise. In the meantime, our competition is doing everything they can to improve their graphics and visual computing.

But fortunately for NVIDIA, doing world-class visual computing is very hard. I think, if you look at lots of people who thought it would be easy to just simply license an ARM core or an Imagination Graphics core, I think a lot of people are realizing it's not that simple. I think Qualcomm understands just how complex it really is. That's why they're doing a lot more than just licensing a core. They're actually investing heavily into graphics and visual computing.

So we think that the LTE modem is an important component. But it's not ultimately. Ultimately, our differentiation is visual computing.

Vivek Arya {BIO 6781604 <GO>}

Got it. Maybe just if I push back a little bit on the visual computing part. So on the PC GPU side, you've had very strong graphics. And I think you have been a pioneer in bringing a lot of those capabilities in smartphones and tablets. But if I look at Qualcomm, they have Adreno graphics. Broadcom has their own graphics capability. We had Simon Segars of ARM present. They're saying that their Mali graphics is going to go up. It's probably going to double this year. So there are many -- and Imagination, of course, is there. And Apple's claim, of course. Their iPhone and iPads play games better than anyone else, better than any other product out there.

So why have your graphics enabled -- if you believe that you have much better graphics, then that should propel your market share in phones, right? And that's the point you're making?

Rob Csongor {BIO 3210739 <GO>}

I'm saying that they matter to a lot of different devices. So yesterday -- or yesterday at Computex, ASUS announced several tablets. They didn't pick Mali. They didn't pick Intel. They didn't pick any of the other competitors you mentioned. They picked NVIDIA Tegra 4. So you can ask them, "Why did you need this level of visual computing?"

And again, I think the answer is that you're seeing a lot of the same dynamics happening in these new devices and, in fact, increasingly so. In other words, the only thing that used to matter in visual computing 10 years ago was just graphics, just how pretty does it look? Today, increasingly, visual computing -- I keep using the words "visual computing" instead of graphics. Graphics is graphics. It's just how it looks. But increasingly, in order to make a game, for example, very realistic, you're not just worried about graphics. You're worried about how do objects behave? Does the water behave like water? When you move your character, does the clothes flow or the hair flow?

So increasingly, I think compute capability in a GPU is increasingly important. And if you think of all of the applications of computer vision, or you think of compute, it's not just for PCs. Imagine what you could do with mobile devices. When you look at the next-generation Tegra devices going into cars, you're looking at an overhead view of the car backing in. And if you look out the window, there's no camera

floating above your car. It's just looking out the side and then creating a graphical perspective-correct view that looks like you're looking from above.

So all of these are compute as well as graphics -- together, visual computing. And again, fortunately for us, it's very, very hard to do.

Vivek Arya {BIO 6781604 <GO>}

And one other thing. If I look at the integration capability you mentioned with the application processor and the modem. And I look at competitors, whether it's a Qualcomm or a Broadcom or a MediaTek, along with the application processor and modem, they also have connectivity capabilities, power management, screen controllers. Some of them are developing their own RF capability for power amplification. How do you see that market developing? And will you need to add more capabilities internally, or is that something you may have to acquire from outside, like you did with Icera on the modem side? Or is that even necessary?

Rob Csongor {BIO 3210739 <GO>}

Yes, I guess the question is -- I guess the one question is, what are the most critical things you need in order to win a certain design? Now, for the ASUS tablets that were announced yesterday, I don't think it was connectivity. That's not what decided that win. I think it was more visual computing.

So I think a lot of the integration of various components, they may matter to some segment of the market. But that's not a segment that NVIDIA addresses. Typically, when I think of integration, I think of cost reduction. I mean, we have connectivity and we have RF. We're just using other components. So the overall impact is more of a -- think of it as a gross margin thing.

Now, it just so happens that we do other things to counter that. So in other words, we can spend our engineering resources either integrating chiclets, or else we can develop something. So for example, we developed prism capability, which allows you to reduce the backlight display by 40%. And as a result, you don't have to use expensive memory. That saves $7.00 on the BOM. We're using a software modem. The software modem is 50% of the size. The overall chip of Tegra 4 is half the size of the competition. That's a much more powerful cost contributor than whether or not we integrate something. Do you know what I mean?

So there's lots of ways to look at the overall BOM cost of a device and how to enable it. The question is, what's the most unique, leverageable -- you know, if you put a list together of all the things you could do to reduce the BOM cost, what are the most important things for us to do?

Vivek Arya {BIO 6781604 <GO>}

But if you look at growth, though, in the market, if that is indeed coming from the mid-range and lower-priced part of the market, wouldn't those parts of the market

value more than just processor and baseband integration?

Rob Csongor {BIO 3210739 <GO>}

We believe that the market opportunity we have is to enable a super-phone in a mainstream price point. And from that perspective, it's more than just cost. So I would agree with you. And I would say that it matters. It matters much, much more on the low end. So on the low end, it's all cost. But for the segments that we're addressing, it's more than cost.

Vivek Arya {BIO 6781604 <GO>}

Please let me open it up to the audience.

Questions And Answers

Q - Unidentified Participant

Thank you. Thanks for the commentary. NVIDIA's been successful at competing, I guess, with Intel, even though they've had a significant process laid over foundries. You've managed to continue to be competitive. I wonder if anything has changed as you look at this 14-nanometer discussion. And Altera has obviously gone over there. Do you think something has changed, that this process lead is significant enough for them to perhaps threaten you in graphics or integrated graphics? Thanks.

A - Rob Csongor {BIO 3210739 <GO>}

So that's a good question. I get that question quite a bit. Process technology is one component of differentiation. And fortunately for NVIDIA, the number-one differentiator is architecture. So one way I could say it is that if an apple is 20 times faster than an orange, then it doesn't matter how well you build the orange. You know what I mean? In other words, at the end of the day, the architecture of a GPU allows it to accelerate an application far beyond what integrated graphics or a CPU could do. Then it doesn't matter what process you could build the CPU on. Does that make sense?

In other words, process matters much, much more when you have, let's say, two parts that are very identical. If you have two X86's competing against each other and they're more or less the same. But one of them has a better process, in that case process is a huge strategic weapon. It's a club. But in the case of GPUs versus CPUs or integrated graphics, architecture just trumps process.

Q - Unidentified Participant

Okay. Great. Thanks. So then on the cost side of the question, since 20-nanometer looks like it's rather expensive -- there's double-patterning and a number of other costs that are high -- is that a node that you guys are still interested in? Do you think you can be competitive at 20, or would you like to just skip it and go straight to 16 thin set?

A - Rob Csongor {BIO 3210739 <GO>}

No. We've actually communicated a roadmap recently at our GPU Technology Conference. And we have a variety of different roadmaps. And they involve both 20 and thin set. And it's very much a devil's in the details discussion. It has to do with timing and performance and pricing. And it's a dizzying analysis. But we're actually looking at both of them. Right now, both of them are in our roadmap.

Q - Unidentified Participant

Okay. So do you think 20-nanometer should be competitive with the thin set for '14, is that?

A - Rob Csongor {BIO 3210739 <GO>}

So like I said, we haven't really disclosed much beyond that, because in order to really answer your question, we have to get into the details of our product and what we're doing and timing. But if you look at the presentation material that you did, you'll just simply see that they exist on our roadmap. But we haven't really disclosed any of the details.

Q - Unidentified Participant

Okay. Great. Thanks. There have been some announcements from ARM recently, some new cores. Just wondering if you had seen any of those and have any thoughts.

A - Rob Csongor {BIO 3210739 <GO>}

We're intimately familiar with ARM. And so yes, of course, we're -- yes, we're familiar with these announcements. And there's nothing new in terms of announcements that I can talk about today. But I think you know that we have a unique license with ARM. We co-developed a unique variant of the ARM 9 that went into our Tegra 4i, which was specifically targeted at perf per square millimeter. So in some cases, we can use something that's off the shelf. And in some cases, we can do something a little different. So we have a little bit more flexibility. But other than that, we're highly enthusiastic about ARM's roadmap and what they're doing.

Q - Unidentified Participant

GPUs have traditionally been one of the earliest adopters of Moore's Law, just because if you can pack more transistors in, you get better performance. And there is a market that demands performance and is willing to pay for it. So given you've had like a historical animosity versus Intel for several years now. But then now -- the last couple of years, at least -- all those things have been settled, for the most part. Would you consider using Intel as a foundry partner, or if they came to you, or would you go to them to make use of potentially what Altera says is going to be a four-year advantage?

A - Rob Csongor {BIO 3210739 <GO>}

Yes, I think we would be happy to look at it. I think you'd have to ask Intel, though. I think Intel has set up certain requirements for who they'll work with. And I think you'd have to ask them. But sure, yes. Intel's a great manufacturer. They obviously have a lot of great process technology in. Whether we use it or not, it's good for us. It's good for the industry for advanced process technologies to be out there. But anyway, it's a good question. You'd have to ask Intel.

Q - Vivek Arya {BIO 6781604 <GO>}

But if they are ready, you are ready?

A - Rob Csongor {BIO 3210739 <GO>}

Yes. What I would say is we would look at it. We always talk to everybody. I think people know that we work with TSMC. And the reason is they're very good at what they do. But having said that, I mean, we talk with everybody. So ultimately, it's another one of those devil's in the details.

But I don't believe there's any reason why we wouldn't look at it.

Q - Vivek Arya {BIO 6781604 <GO>}

Any other questions?

Q - Unidentified Participant

You commented that 51% of the gamers' preferred platform is mobile and that, obviously, there's a lot of opportunity for you there in mobile. But you also commented several times about ASP increases. And so I'm wondering, what happens to the overall balance or mix of ASP as mobile becomes a bigger piece versus, say, PC? Do you still get a blended average ASP increase? Or do you start to see a shift because maybe mobility requires a better price point? Or could you talk a little bit about that?

A - Rob Csongor {BIO 3210739 <GO>}

Yes, sure. Yes. And that's a good question. What I was referring to originally was our PC gaming business. And so when Vivek had asked the question, he was asking what's driving the PC side. So the PC gaming ASPs have gone up. I think you may be aware that we announced a product this year called Titan. And Titan, we were selling at $1,000 for a card. And we were sold out. So ASPs within the PC market continue to grow. And gross margins -- you know, we had record gross margins last quarter again. So I think that was driven in a large part by the ASP growth.

But overall, as you pointed out, if I'm looking at our overall business, Tegra right now is at a lower ASP point, slightly lower than corporate gross margin. So if Tegra ramps and grows to be a much higher percentage, then that would be a drag on the margins. But then there's other things that are pushing our margins. So the other growth opportunities we have are on the Tesla side. Tesla's far above corporate gross margin.

We just announced a new use of GPUs that go into the server, called GRID. So GRID GPUs go into either a DELL, HP, or Cisco server. And then they accelerate Citrix. So you may have seen an announcement two weeks ago that during Citrix Synergy, that Citrix's new XenDesktop 7 is accelerated by NVIDIA's GRID products. And that was announced jointly. The CEO of Citrix and the CEO of NVIDIA were onstage together.

So these are other growth businesses which are pushing, growing gross margin. Then overall, Tegra is highly strategic, a very large market opportunity slightly below corporate average for gross margin. So puts and takes.

Q - Unidentified Participant

Thank you. I'm so impressed on your new LTE integrated Tegra chip. First of all, congratulations. So may I ask which smartphone currently adopted your great new Tegra 4i, including the LTE modem, first?

A - Rob Csongor {BIO 3210739 <GO>}

So there's nothing we can talk about today. So please stay tuned.

Q - Unidentified Participant

Okay, sure.

A - Rob Csongor {BIO 3210739 <GO>}

Yes. Currently right now, Tegra 4i, I guess the latest milestone maybe I can talk about, Tegra 4i at Mobile World Congress, we surprised, I think, the world and showing LTE running at Mobile World Congress. And not just running. But running in a phone, meaning that it's within power, it's within performance limitation of a phone.

At that time, our competition showed advanced LTE. Sixty days later, at CTIA, two weeks ago, we showed Cat 4 LTE, 150 megabits per second running. But it's running on the same chip. In other words, no spin of silicon. The advantage of NVIDIA's modem is the software-defined radio. So we are able to deliver advanced LTE capability using the exact same chip within 60 days. So I think this was a very powerful demonstration of the flexibility, the design flexibility, of our modem capability.

So I think one of the milestones on Tegra 4i that you can see is that we are delivering not just LTE. But advanced LTE. Then the next milestone is we are on track for data certification of LTE in Q3. And voice and data certification by Q4. Then somewhere in there, we hope that I'll be able to answer your question, which is asking some customers.

Q - Unidentified Participant

Maybe my follow-up question is from the perspective of a handset maker, which way is better -- using your combo integrated chip, Tegra plus LTE, or maybe a 500 modem chip separately and then having the Tegra 4 conventional? Which way should be better for your customer? Thank you.

A - Rob Csongor {BIO 3210739 <GO>}

Sure. I think for super phones, for a phone that I would describe as $199 and above, you can use Tegra 4 and an i500. But I think most of the focus is really on Tegra 4i. Tegra 4i is focused on the sweet spot of the mainstream smartphone market, which is that $99 to $199 segment. So I think that's really where we are focusing all of our efforts.

Q - Unidentified Participant

The integrated chip is better for the (inaudible) phone?

A - Rob Csongor {BIO 3210739 <GO>}

The integrated chip is clearly designed for the perf per square millimeter and the perf per watt of a smartphone. We are laser-focused.

Q - Vivek Arya {BIO 6781604 <GO>}

I think with that, we are at the end of our allotted time. Thank you, everyone. Thank you, Rob.

A - Rob Csongor {BIO 3210739 <GO>}

Thank you very much, Vivek.

Q - Vivek Arya {BIO 6781604 <GO>}

We appreciate your participation.