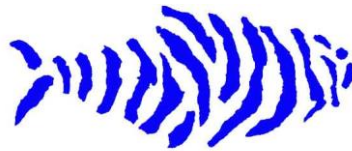


IDF 9.11.13 9am to 11am



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[Beginning of recorded material]

[Music plays]

Male Voice: Ladies and gentlemen, today's presentations contain forward looking statements. All statements made that are not historical facts are subject to a number of risks and uncertainties, and actual results may differ materially. Please refer to our most recent earnings release and our most recent form 10Q or 10K filing, available on our Web site, for more information on the risk factors that could cause actual results to differ. Thank you.

[Music plays]

Male Voice: Ladies and gentlemen, in remembrance of 9/11, please stand for a moment of silence.

Thank you.

This morning's keynotes will begin momentarily.

[Music plays]

[Video plays]

Male Voice: Maybe if we caught it earlier. That's what the doctor said about my uncle's pancreatic cancer. Like that was even possible with the

testing they had. But what did I know? I was too young to understand things like cancer, or how to test for it. Too young to be taken seriously. One hundred and ninety-nine experts told me I was too young. That they didn't have time for my little science fair project. But the way I saw it, if the key was early detection, maybe someone just needed to start looking earlier.

Like during fifth period freshman biology.

[Video ends]

[Applause]

[Music plays]

Male Voice: Ladies and gentlemen, please welcome Ulmont Smith.

Ulmont Smith: Good morning. Welcome to day two of IDF. Hey. Pretty inspirational video, and it's very reflective of what we want to promote at IDF, which is to almost do the impossible. To create new technologies, capabilities, to enhance the lives of everyone.

What I wanted to do is just take a moment and reflect back on what we heard yesterday, and specifically I wanted to highlight the announcement of Quark. If you're an old-time Intel guy like me, you remember that for a long time most of the microprocessors that we used in notebook PCs were typically on the order of about 35 to

50 watts. And that really held us for quite a while. And about five years ago, we introduced the Atom family of processors. Atom consumes about one-fourth of the traditional family of processors. And yesterday we introduced Quark. The Quark core is roughly one-fifth the size of the Atom core, and a further reduction to only 10 percent of the power of the Atom core. So when you contrast where we were at 35 to 50 watts all the way down to Quark, you can see that this is truly a game changer for the industry. And it's really a commitment on Intel's part for one of the key pillars to support the Internet of things. And we really believe that when we talk about what are the future trends, what is going on in the industry, the Internet of Things is definitely going to be one of the next big things, and we think Quark is going to play a very key role in that space. And lastly, I'm very excited that hopefully in future IDFs I'm going to be able to come up here and talk about a lot of really cool demos and capabilities in the showcase around the Quark technology. So we have some work to do, but I think it's pretty cool, pretty fun, and I welcome you all to participate in the Internet of Things.

Let's get on with today's agenda. First off, we have Anand of AnandTech will be here at 3:30 with Brian Klug, and they will talk about mobility. And they will be on the second floor in the mobility zone, again at 3:30. And we welcome you to come and talk about mobility. And again, Anand is a bit of a celebrity in our business so if you haven't met him it would be kind of fun to do that. I welcome you to make that -- again, 3:30 today.

Down on the second floor, Engineering Central, we have [Shanna]. And I talked to her about how you were doing in terms of booking Intel engineers for private sessions. And she said actually the turnout's been pretty low. So let me just make this offer one more time. Of the 170 technical sessions that we are offering, the presenters and their staff are basically available to you for private sessions at Engineering Central to go into some deep dive discussions. So we absolutely welcome you to take advantage of this. Hopefully tomorrow I'll be able to come back and say Shanna is booked with your requests.

All right. Now you should have on your chair a wristband or bracelet. What I'm going to ask you to do is you'll notice there is a tab on the watch, and it's basically a battery saver. So what I need you to do is pull this out, and I'm going to ask you to put this on -- either arm; doesn't matter. This will be as part of one of today's keynotes. Now I'm sworn to secrecy; I can't say any more. But I need you to get ready for today's keynotes with the bracelet.

All right. Reminder. We've got a fun party tonight. Again, featuring Counting Crows. They will be presenting from 8:00 until 11:00 tonight, and they'll be at the north Moscone Hall. Again, dinner and drinks. Hope to see you there tonight.

We talked about yesterday the importance of using the survey app on your Smartphone to give us feedback on IDF. And one of the

rewards was an Asus Vivo tab, and I'm very pleased to say that Fredrik Carpio is the winner. And so he will get an Asus Tab, and once again I'm going to make the same request. Please continue to do the surveys at the end of today's keynotes, and once again tomorrow morning I'll announce a winner.

What is today's agenda? We are basically going to focus on how to innovate at the speed of mobility. So we have three keynote speakers today; Kirk Skaugen from Intel's PC client group, Doug Fisher from Software and Services group, and Hermann Eul from Mobile and Communications Group. And then tomorrow we have Genevieve Bell, and she will be speaking about seven billion futures, and you are one of them. So with that, I'm going to turn it over to today's keynote presenters. And again, I hope to see you guys tonight at the party. Take care.

[Applause]

[video starts]

Male Voice: Hey, let's talk mobile. Let's talk smarter smartphones, more powerful, longer lasting tablets. Let's talk crazy cool two in ones with moves like Jagger. You know, mobile, as in that precious little bundle of innovation in your hand, or your packet, or your bag. Devices and apps so personalized that they adapt to how you live, how you interact with your family and friends, and even help make you who you are. And then, let's keep talking.

Let's power sipping servers, and the amazing software and services that tie it all together. Thanks to a microscopic miracle of technology at the intersection of silicon and science, the beating heart of the mobile revolution that keeps it all from going. But most of all, let's talk about the developer heroes and how they use the magic of imagination to improve the lives of billions of people worldwide, connecting them to a constantly expanding universe of digital awesomeness and a brighter future, all while bringing the mobile revolution to where it is today. Yeah, that's what I'm talking about.

[video ends]

Male Voice: Ladies and gentlemen, please welcome Doug Fisher.

Doug Fisher: Hi, good morning everyone. Welcome to day two of IDF. Did everybody find a good party to go to last night? Yeah.

All right, well, let's get the grey matter moving. I want to start with an exercise. I want everybody in the audience to think about the first computer experience you had, the first computer you participated with. Think about that. It's like your first love, you never forget it. I'll show you my first love. That's right, it was a Teletype, a paper tape punch. Yeah, it's pretty cool, huh? I know a lot of you guys are in your 20s out there, developers going, "Wow,

that must be ancient. I mean, he's like his middle 30s on the [unintelligible]. Yeah, you got me.

All right, so let's look at today, and think about the last two or three days you've been running around IDF and how many devices you interacted with. Think about it, count the number of computing devices. Count on your hands, think about the number of those you've interacted with. What's amazing to me is the volume of computing devices that are hitting the market. What's also amazing is how mobile they become. Think about that, how mobile everything is becoming. So, what is mobility? Is mobility that device you participated with? Or is it the applications and services that help augment and bring the capabilities you want as an end user? Or is it more about the infrastructure and the less visible capabilities that bring that to reality?

It's actually all those things. Mobility is a combination of those devices, of the ecosystems that bring value to those devices, and the back end, less visible infrastructure, that makes it all possible. So over the next 90 minutes, Hermann, Kirk, and I are going to be talking about a slice of what we're bringing to mobility to make that experience better. Hermann's going to talk about handsets and tablets. Kirk will be talking about the revolution in PCs, going to two-in-ones. Then I'll talk about how we're optimizing our solutions for these ecosystems, and then bring it all together and show you opportunities, and how you can span those ecosystems to increase that footprint, and the value you bring to that as developers, really

giving you an opportunity to participate in a broad set of those ecosystems. So with that, I'd like to bring up Hermann Eul. Thank you.

[Applause]

[video plays]

Male Voice: We're working with Intel on a very interesting, very rich program called "The Music Experiment", created by Intel and MTV Iggy. It's unique in that it allows music fans to connect with artists very directly and in a very creative environment, and the entire connection is enabled by Intel and MTV. So mobile I think is fundamentally disrupting the distribution model for content. I don't think that our audience really thinks about whether they're consuming content on mobile, or desktop, or any other device. They are using their mobile device as an instant way, providing feedback not just to us, but to the entire world.

We decided to use that in a creative manner. We think Bay Trail is a game changer. What's happened is that tablets sat somewhere in the middle ground between mobile and desktop, and we think that Bay Trail combines the best of these. So that relies on portability, as far as mobile devices are concerned, and obviously power and other advantages that we have with desktop.

[Video plays]

Male Voice: Ladies and gentlemen, please welcome Hermann Eul.

Hermann Eul: Good morning. Everyone welcome from my side. I'm absolutely excited to be here to talk to industry leaders, developers, and business leaders of this ecosystem. I would like to talk to you about mobility, the way mobility is changing the world and how Intel is shaping mobility. There has been an explosion of personal computing that enabled the highest of mobile devices, and that technology is actually becoming an extension of us, literally. It knows us. It connects us. It connects us to our partners, to our friends, to the Cloud, even to our own bodies. These technologies and developers improve the lives of all of us in immeasurable ways.

It sounds easy, but it's not. It is actually complex. Amazingly sophisticated steps it takes to get even a simple photo of the most popular animal on the internet, and that is the cat. Let me tell you about how that works. First of all, it takes a simple push of a button to bring this picture up on our device. Then, of course, we want to have a time stamp and you want to have a location stamp. The camera and the ISP brings it into the device, and then we put the touch screen, and then we take the picture. We have tons of algorithms running the picture to make it really nice -- they can make up for all the inefficiencies -- and then it is transferred into the Net and we can show it to everybody who we entitled it for, our friends, and so on and so forth.

That looks really ultra-complex, and guess what? It is. We all know that. It is our job -- and that is so amazing about this. We take technology and make this complexity completely masked to the end user, so it looks so easy. We all want to just have fun with those devices. It is about all of us to be smart, to make those platforms even smarter. When I say this, it's about the mobile platform. The platform from soups to nuts. What does that mean? First, we start with a fantastic CPU, then we add the gorgeous imaging processing, and we have a stunning graphics coming to this. And around this, of course we will always be connected. We want to have fast, robust, reliable connectivity, cellular connectivity, short range connectivity. We put this on this platform as well, and then we add much more stuff: [I/Os], audio, display, and so on and so forth.

Last but not least, we detail a very sophisticated CPU into this and a highly specialized, optimized power management. That is the crown jewel of the platform. On this, we put software, a protocol stack, [hardened] in more than 100 countries and operators around the globe, a very proven stack around all the connectivity connections, and of course a highly optimized software operating system load that runs best on our architecture. And this we call the platform, from A to Z. All these elements are important. They form this platform. For the user-facing part, the application system, it all starts with a great CPU. A leadership CPU is necessary to do this. And we all know, all cores are not created equal. That compares very much to our brains. So to speak, the analogy is that the core is the brain of that system. And so, our brains are all not equal.

And for our platform, it just starts with an extraordinary brain. The Silvermont core. It's a flexible, multi-core architecture, has 64 bits, it is leading in performance per watt efficiency. And the good thing is, it spans an ultra-wide dynamic range from very low power to extremely high performance that we need. And we are supporting with this the broadest range of devices and market segments. And needless to say, it comes with the advanced 22-nanometer tri-gate transistor technology.

And having said this, we have the capabilities, and we know the secret sauce on matchmaking this stunning architecture and this very advanced process technology manufacturing. That is what I call in that slide here magic. This is our secret sauce. And this is what, exactly what we have done.

And all that leads me to today's announcement, the introduction of the Bay Trail platform.

Bay Trail is architected for the best mobile computing experience. In more detail, it has leading performance and outstanding battery life. It comes with the next generation of Intel multi-core technology. It provides immersive experiences with Intel HD graphics, and it has ample performance on demand, with the Intel Burst technology 2.0. And of course, it comes with advanced imaging capabilities, and with our next-gen programmable ISP.

Sounds good, but rather than bothering you with slides, let me go over to [Cameron] and have him giving us a real, live demo. Good morning, Cameron.

Cameron: Hi. So, what I wanted to show everybody, I've had my Bay Trail system for about a week, and I wanted to give everybody an idea of just how powerful it is. Now, I really love taking video, but I have a problem. Nobody at home seems to understand what, what I do. So I figured it'd be a good idea to go ahead and take a video blog over the course of the week, a bunch of different video clips and put them together. But I'm missing one shot, so if you'll indulge me, I'll go ahead and open up my cyber link UCam app.

So, the first thing you'll notice on the big screen, everybody, is that it's actually using both cameras simultaneously. So, I'm actually able to capture video on both cameras. But, that's a little too much of me, so I'll go ahead and I'll switch it, and then I can change camera views. Pretty incredible.

Hermann Eul: Can you do something about my gray hair?

Cameron: I don't think we can do anything about that. I'll be there pretty soon. Then, but that's not it. So, I actually want to take my videos, go in, and put them together in a compilation of my, of my videos. So, I'll go ahead and I'll pick them. I open it up, and seamlessly, it transfers all my videos that I want into the application. I can go ahead, and from there I can add graphics, I can add transitions, we'll add

transitions here. We're able to do this basically because of the enhancements we've made to our imaging subsystems. So, here we go. I will -- and then, I can preview. Once I know it's good, I can open it up and I can export it.

So, at this point, I'll save it. If you notice right here, it's taking all of my videos, it's -- with Quick Sync video, we're actually able to do that very quickly, very powerfully, and as you know, it's a core technology, its Quick Sync, and we've actually added that to the Bay Trail platform to make it even more powerful.

Hermann Eul: This is wonderful. So, what you are showing me here is actually what was on multiple devices and heavy processing power for PCs in the past, and it is now all on this one. You can take the pictures, you can take the videos, process them, and right away have them go.

Cameron: Exactly.

Hermann Eul: Wonderful. Ah, great.

I have another goodie for you, and I would like to invite a special guest of mine. Jerry Shen, the CEO of ASUS, and he will show us his stunning new Bay Trail system.

Thank you, good morning, for coming.

Jerry Shen: It's good to be here.

Hermann Eul: Nice to see you. So, tell us more about your wonderful system.

Jerry Shen: The machine in my hand, T100, which features the incredible Bay Trail quad-core processor, and incredible 11 hours of battery life. Touch the IPS display, and stereo [unintelligible]. And the detachable keyboard dock features precisely [unintelligible]. It's perfect for productivity. We are very proud of this machine, and very excited about the Bay Trail quad-core promise. It's perfect, it's a perfect two-in-one device in the market. Thank you.

Hermann Eul: Thank you, and it's a perfect partnership between Asus and Intel.

Jerry Shen: Thank you for having me, thank you.

Hermann Eul: So, let's talk more about Bay Trail. It is wonderful for mobile gaming, with the processing power, the stunning graphics it brings. It is a wonderful gaming platform. And it's a very protective platform. It protects your integrity, it protects your device, and it protects your data. It comes with Intel hardened security. It is optimized to Windows and Android. So, that means you can play all your apps you want, whether you're an Android fan and you play out of the Play Store there, or whether you want to do it on Windows, or even if you want to have your heavy, big, legacy software from the Windows ecosystem. Everything plays on this platform. It just plays.

And it's of course perfect for business, as it has 64-bit capabilities. And with this, it lends itself to all the management that IT services do with those devices, and extends that toward the tablet form factor.

I have another [candy] for you. I would like to have you to take a look at a great new app on Android that transforms online shopping into an experience using an Android Bay Trail tablet. So, please welcome Victoria Molina, the fashion industry expert.

Victoria Molina: Hi. Hermann.

Hermann Eul: Thank you for coming.

Victoria Molina: My God, this is really exciting, a fashion person invited to a tech conference. That must be a first. So again, my name's Victoria Molina, and just a really quick little tidbit about who I am and what am I doing at this conference. I previously have worked for Ralph Lauren in New York, Levi's and GAP, and for some of the luxury brands -- Michael Kors and BCBG, which I'm sure you guys are all familiar with.

So, I came into this -- does that mean you're laughing because you don't know who they are? Should I say Tommy Bahama? Got it. Okay. But that tells you a little bit about me and who I am and why

I'm standing up here. I am not a tech person. I love my IT team, love them to death. But what I'm really excited and passionate about is what I'm going to show you today. What drives people like me in our industry is two things. It's the product and the fit.

And the other thing that every company right now has, the growth is online. But we all know that there's a high return rate. I'm sure all of you have done the magical shopping, and you're like, no, I opened the box, doesn't fit quite exactly like I wanted it to, right? Am I right? So today, what you're going to see, which is exceptional between PhiSix, which is the team I'm with, MasterCard, and Intel, who has invited us here, the magic of how we're going to make everything synchronized and become one. It's going to be a phenomenal online experience.

The other thing is, too, I want to make sure you guys understand. Regardless of gender, male or female or whatever, that you will -- this is San Francisco, and I'm born and raised, so I know. So the reality is this is going to work for anybody, but today, we're going to show it specifically to the female gender. Sorry, guys. So here we go. We're going to get started. And I'm going to introduce Adeline, and she's going to be our resident fashionista, and she's going to shop with us today.

So what I'm going to do is walk you through the presentation here as the virtual shopping experience, okay? Something that we all have in common, you guys and I, is that we have all been into a

fitting room, correct, right? Do I see nods? In fashion, we nod or we say -- we talk a lot. We're very animated. So that's something we both share. So as I go through the presentation, think about yourselves in the fitting room, okay? Are we there yet? All right, we're there, got it.

Okay. So now we're going to start, and again, like I said, between PhiSix, Intel, and MasterCard, we're going to bring this all and come to life. So let's get started. Okay. So Adeline has already created a 3D avatar and her three attributes -- her personal measurements, her face, and her hair. Now, please note that the beauty of the tablet also is we all want to make sure security is number one for all of us, and that's on a serious note. We know how important that is. So throughout the presentation, you'll hear me say that it's incredibly secure, okay?

Hermann Eul: And I can assure you, it is, because we have hardware-based security.

Victoria Molina: See, there you go. What he said. No one wants their measurements online, right? Nobody does. Okay. Well, maybe some of you do, but no, let's keep it private. All right, so here we go. Let's have some fun, and we're going to play now, all right? So, Adeline, let's get started. You ready to roll? All right. Is it rolling? Oh, yeah, you're rolling. Okay. So we're going shopping. This is what we're going to do. We're going to go shopping, we're going to pick two of our favorite stores, so that's what she's going to do right now.

Now, you guys know these are all faux, right? Okay. Couldn't put the real stuff up there yet, but you're going to go shopping. And the beauty of this is you can pick any combo that you want in tops or bottom. So as you can see, her avatar makes it come to life. She gets to play around here. That's the beauty of it. You get to sit there in anywhere in the world, airplane or wherever you're at, before you make your final purchase, okay? So everything here, again, remember, is based on her measurements, her hairstyle, and her face, all right?

So she's playing around here, she gets to see what combo she likes to wear. Now, again, she's very stylish, and so she might do some things that are a little daring. All right. The next thing is the fit map. The fit map -- this is one of my favorite things. As I mentioned, in my industry, fit is the number one thing. It's critical that a garment fits perfectly. Otherwise, I will get crucified. So there's three color codes that we have on the avatar. Blue is for loose, yellow is for tight, and red is for very tight. Now, some of you may like to wear tight clothes. That's up to you. That's not -- we don't judge. Don't judge at all.

So here, this is one of the things that really came to light for me because this is what you do -- you want to see how clothes are going to fit you, but again, remember, go back to the fitting room, you're trying on clothes, you dare go outside the dreaded fitting room, right, and you look at that beautiful mirror that makes you

look a size two and for the guys a size 32/32, which, by the way, is standard samples model size.

You go outside, and you go back and forth and look at yourselves and go, wow, this fits great, or it doesn't fit great, and then you make a purchase. That's your fitting room experience. Here, what I'm going to show you now is the ability to see yourself and see the actual avatar flow, walking on, and you do a mini catwalk. This is where you go ah. Right, ah. Applause, ah. Okay? Come on.

Hermann Eul: So for all the tech people here, this modeling and rendering is highly demanding on performance and the graphics of -- so we are very good in this, and Bay Trail . . . good.

Victoria Molina: That was good. By the way, he looks great. I thought for a minute he was on my side of the world.

Hermann Eul: I want to get a little bit back.

Victoria Molina: It's really good. Okay. He's actually considered cool. Just -- so that's the other thing with this. In my industry, I'm sorry guys, we have the cool factor to think about. Regardless of what industry, what part of the industry, whether you're doing petites or plus or men's or women, which I've done them all, you want to be cool. So the tablet makes it feel really, really cool. Again, the avatar, that's bringing it all to life. That's the beauty of it all. Okay? I wish I could say any

questions because that's our favorite thing, and I know there are some of you that are dying to ask me questions. No, you can't.

Hermann Eul: That's right.

Victoria Molina: Right? There you go. All right. So, again, I leave you with this beautiful catwalk, you guys get the feel of it, right? You're like back in the fitting room and going forget the fitting room, I am now going to do one of these things, right? So very, very exciting. So now Adeline, it's going to come out -- oh, there's actually one thing I'm missing yet before Adeline does come out. You know, it's first time, you know, what can I say? So one of the biggest features here is the one click.

So in fashion, you have a grand finale. Yeah, that wasn't it, the catwalk. We always end with a grand finale. The beauty of this here is you, after you shopped and you put everything in your cart from your multiple vendors, you can just click it, and it'll all get taken care of all at once. So it's just one click with all the different combos that you bought. That's really nice. So everything that went into your car -- remember, she went shopping at two places, she maybe goes three or four, we don't know, but for right now, she went to two places, and she went shopping, and as you can see, her cart should be fuller -- Adeline -- so -- if that was my cart, it's a different story.

So, anyways, so now she gets to click it, and it -- magically, she's bought every single combo that she wanted. And remember -- now,

this is the fun part. It's all about real time. You guys are saying, okay, yeah, it looks pretty good on the tablet, but how is it going to look when she opens that package? I'm taking you back to that package that you open, that you hope to be aha with it. So now Adeline, as you can see her -- she's much more beautiful than the avatar, but hey, what can you expect? There she is. And it looks just like the screen.

That's the beauty. All right, so again, I'm just a fashion girl here with a lot of history, and I have to tell you, I mean, we don't get very passionate unless it's about green which is the color of the season or what the mood and the inspiration is. But I've got to tell you, I have a lot of passion and excitement about this. This is definitely going to revolutionize how we shop online. Thank you, Hermann.

Hermann Eul: Absolutely.

Victoria Molina: Thank you, everyone, for having me here.

Hermann Eul: Absolutely cool. And so that is absolutely a great app, and it's really complex. And I heard that you ported all this complex app within a week using the Intel Android SDK?

Victoria Molina: Oh, yes. Right away. All at once, between -- with the partnership between PhiSix and Intel, it was all done, and we would just say badda-bing, done, all done, very easy.

Hermann Eul: Thank you for having you here.

Victoria Molina: All right. Thank you.

Hermann Eul: Thank you.

Victoria Molina: It looks good.

Hermann Eul: Yeah. So this brings me back to the more benign technical stuff. Let me sum up the Bay Trail platform. It comes with a leading performance and with outstanding battery life. It is gorgeous for mobile gaming, and it's perfect for business. It comes in sleek form factors for Windows and Android. So there is lots of excitement in the ecosystem about this, and many OEMs are coming to the market with innovative tablets based on Bay Trail. And I have another goody for you. I would like to invite Neil Hand from Dell to show off his new Bay Trail system.

Neil Hand: Thanks Hermann.

Hermann Eul: Thanks for coming.

Neil Hand: You didn't warn me I had to follow fashion, so I'm not sure this is going to work as well. But --

Hermann Eul: But I will cut you off if you go too long.

Neil Hand:

I am really excited to be here at the Bay Trail launch to talk about some of the new platforms that Dell can actually innovate from some of the Bay Trail technologies that Intel is bringing out.

And what I want to show you today is, firstly, one of our new Windows 8 eight-inch tablets we'll be introducing very soon. This system is part of a new family that we're introducing that are going to really innovate and drive new capabilities into very small new form factors.

The whole family will offer several key benefits. Firstly, quality, quality Dell is renowned for, products that last a long time but have great performance on the screen and usability. Secondly, battery life. Anybody worry about range anxiety?

Am I going to be able to turn it on and be able to use it? This really fixes that. Security, making sure you're connecting to a business, or you're connecting to your home. That data is secure in transit and on the device.

And lastly, to make sure that there is connectivity, a range of 4G and LTE connectivity, so wherever you happen to be, you'll be able to connect to the [wells]. So great features in the products. But more importantly, we think, is actually being able to have fun and easy-to-use products.

So with this introduction, I'm actually pleased to announce here at IDF that we'll be branding our new family of tablets, Venue, the Dell Venue family. Venue means the place where things happen. And to us, this really is the place that things happen and becomes the center of the universe.

So you can actually carry your entire life with you, connect back, use Dell pocket clouds to be able to access content, be able to use your files and applications wherever you happen to be, really excited about them.

And October 2 in New York City, we'll be announcing the entire range of products. So I look forward to seeing many of you there. Hermann?

Hermann Eul: Thank you, Neil, for coming by. [applause]

Neil Hand: Thank you.

Hermann Eul: It's a wonderful system. And I look forward to get my hands around it.

Neil Hand: Thank you.

Hermann Eul: Thank you. Of course, we know you want more. Wasn't that enough? We know that consumers always want more. And we drive

for more. We are not stopping at Bay Trail. I know that you are keen on looking around the corner and seeing what is next.

So what comes next? Very briefly looking ahead of what comes next. The Merrifield platform. Merrifield is intended for phones and tablets. It is based on Silvermont as well, and it comes with 50 percent more performance than the previous Clover Trail+ platform.

It comes with longer battery life time. It comes with improvements in graphics and imaging. And it has contextual awareness. And of course, it comes with built-in security as well. One part.

The other part is, as we are shipping LTE, the next platform in 2014 will bring advanced LTE capabilities. Buzz words like carrier aggregation, CAT6, that is coming to the market from us in 2014 so just around the corner.

And looking a little bit more ahead, 14-nanometer technology. We go through the steps of Moore's Law one after the other and bring this to this market. And the [Airmont] architecture is the next to come around the corner next year bringing us the [wealth] and the beauty of 14-nanometer technology already in one year from now as we speak.

So that is our platform. And on this platform, we can do amazing things. Thank you. We can do really amazing things. And I have

one example here. A great developer, [Axi] has created an app that transforms all of you into a display.

And if you have not your bracelets on yet, please do so. And I will be using here my Samsung tablet, of course Intel based. And with that tablet, I can control a very complex system of transmitters and create a life art.

It has not been known that I'm kind of a hobby DJ. So I try my DJ audiovisual exercise on you. [laughter] So -- [applause] let me see what happens. [music plays] This was already run. That is still work in process. You know, Oktoberfest in coming up. [laughter]

[music plays]

So you see, I can make you shine. So are you excited about Bay Trail? [applause] So I have to save some time.

So was that fun? It's just an example of the experience -- [applause] of all those great experiences we all together can create for this ecosystem and beyond in this all together. Our platform, your magic. And that brings me to the end of my part today.

And I would like to leave you with just one last question. What will you do with Moore? [applause] And with this, I would like to turn

the stage over to my colleague, Kirk Skaugen. Thank you very much.

[Applause]

[music plays]

[video starts]

Male Voice: So what are enterprise customers looking for? At the end of the day, they're looking for a system that's thin and light, gives them great performance and all-day battery life. The new Thinkpad Yoga, with the fourth-generation core processor addresses all of those capabilities and gives you four different modes including the [traditional laptop] mode.

It gives you a great tablet mode for content consumption. It gives you a great stand mode to be able to share content. We also offer the tent mode.

Male Voice: It is the idea, if there a device, the truth is [PC capability] and tablet user interface and [morbidity. Do you want to do that? And now, a new hybrid startup PC by a user team] in the PC mode, the [in-stand phone] and always [connect feature] can be realized as a result of the Haswell improvements.

We expect Intel's investment in perceptual computing, natural user interface, speech recognition, 3D camera to help us lead the way to consumers.

[video ends]

Male Voice: Ladies and gentlemen, please welcome Kirk Skaugen. [music plays]

Kirk Skaugen: Good morning. Good morning.

Group: Good morning.

Kirk Skaugen: All right. Hey, today, I'd like to talk to you about three things. One is the category that, together as an industry, we're creating around the 2 in 1 devices. We talk a lot about consumer business clients are a huge part of what we do together as an industry.

I want to talk about the work we're doing around built for business. And then, I want to give you a sneak peak or a look inside in terms of the exciting new technologies that Broadwell is going to bring and the new user experiences that it'll deliver.

So it was Computex in June of [2011] that we announced the Ultrabook. And it was really to bring new innovation to the PC. With the 2nd generation Intel Core, we brought really a wave of thinner devices.

And we really stopped counting and kind of take it for granted now that the entire world has gotten thin. In fact, I think we stopped counting when we got about 20 times more systems below an inch. And that really completed the first phase of the introduction of Ultrabook.

When we got into 2012, touch was really just a vision with a lot of skepticism on whether touch could come to a clamshell and even to a desktop computer. Today, more than 50 percent of our fourth-generation core designs are touch based.

With demand from retailers, we've made it a requirement in the Ultrabook specification, and in U.S. retail now, we're at about a third of all notebooks with touch. And Ultrabooks now are at more than 70 percent touch on the way to 100 percent touch.

So Ultrabooks are really creating this bow wave, if you will, of designs underneath it that are trying to kind of work on delivering the same kind of aspiration that the [Halo] Ultrabook does. And the next innovation that we're driving is really this amazing all-day battery life, combined with 2-in-1 computing. So the question I get - - and a lot of you that were interacting with me yesterday -- is, well what is this new 2in1 category of computing?

What I want to simply say is we've had a consumption world of phones and tablets. We've had great productivity out of our notebooks and laptops. And so think about a world where there are

really three categories of mobile computing. There is the standard tablet, seven-, eight- and ten-inch slates. We have our traditional notebook family. So what we're really doing now is saying we can create together and are creating a new category that combines the best of a laptop and the best of a tablet in a single device.

The general characteristics that you'll see in this section of the store are screen sizes that don't compromise the productivity of a laptop - - so 10-inch and larger screen sizes. A full PC OS -- that means Windows 8, not Windows RT. It could come from a variety of CPU suppliers but a Windows 8 operating system to give you the full x86 compatibility that the PC industry is known to love. An integrated keyboard design, designed by the same vendor to work together.

And I'll show you some examples of both wired and wireless keyboards, but our view is that it really needs to be integrated together; otherwise, you get a compromise in weight and kind of the general functionality. And of course we want to have all the sensors, all the responsiveness, the touch, and all-day battery life of a tablet.

And as Brian said yesterday, these aren't just going to be premium devices. With the announcements that we are making today from both Hermann and I, you'll see by holiday these 2-in-1 devices from \$999 all the way down to \$349 [applause].

So the momentum we've seen from you as our partners and the developers is pretty outstanding. In the first quarter we had five devices that met the category of 2in1. By Q2 we had 15, and what you heard yesterday is by the end of the year we'll have 60 devices. Into the holiday season going into next year, more than 75 devices.

And as the traditional PC guy, what's exciting to me is we have now interviewed about 1000 people in the U.S. and China and we've said -- as they are leaving the store and they've bought one of these 2in1 devices -- what would you have bought had you not been introduced to this new 2in1 category? Forty-eight percent of those people said they would have bought a 10-inch tablet. Okay?

So we are extremely excited about being able to combine the best of PC, the best of a tablet, in a single device. And for the last two and a half years as we've done survey after survey, more than 80 percent of tablet users say they still want to refresh their notebook. And I think we've had more innovation in the last year in 2in1 computing mechanically that is really driving the excitement back into the marketplace.

Ultrabooks, as you see on the top -- whether they flip, or swivel, or twist, or detach -- will be the best 2in1s, but everything on that lower level are things that may not be quite as secure or quite as responsive but they are going to deliver that with Bay Trail architecture all the way down to these \$349 price points.

So what I thought I would do is bring a coffee shop to you here, and show you what it's like to interact with 2in1 devices in your favorite neighborhood coffee shop. Diana is using the Sony Duo 13-inch slider, and this is one of the best form factors that we've seen for ultrabooks in Japan. It's kind of the slider technology.

And what I wanted to show you there -- you can take a shot -- is not only are we doing software that is kind of optimizing between Atom and the performance of Core, but the combination of Intel and Microsoft -- we're now making 2in1 aware applications. So when you're in productivity mode you know you can have fine-grain buttons.

You've got a keyboard, a track pad, and she's using that today. But when you convert into tablet mode it's more likely you're going to use fingers and touch. And when you see that, the user interface completely changes. It becomes aware based on the sensors and completely changes the interface of the application. So that is the Sony Duo 13-inch slider [applause].

Craig is using an amazing new fold over design from Dell; it's called the Dell XPS 11. We call it a flip design. This is going to be available all the way up to Core i7 technology. So you can see he's playing a high performance PC game on here. But again, when he's done with that in the cafe and he wants to go use email he can just flip it on over. And just like that he can interface over to email and

be very productive with a full-size keyboard. So good stuff from Dell. Congratulations on the XPS 11 [applause].

What Mark is showing here is a [Kirin]. This is a detachable, and he's actually showing a version here where it's an outstanding tablet experience. The product that was announced at IFA a week ago from Sony is actually only 9.9 millimeters thick and 780 grams. So he's getting a great digital storytelling experience.

We are working to make digital media creation 100 times easier than it was just a year ago. We've got an application that will be available on 4th generation Core-based systems from Cyberlink by the end of the year. It's the first step in that journey to make digital storytelling significantly easier for us.

But again, when he wants to get back into productivity mode he can simply kick out the kickstand, set that there, and he has the flexibility of putting that keyboard onto his lap and being productive again with a full-sized keyboard. And then maybe, Mark, you can just show them. What's nice about this integrated keyboard to work together; when he puts that back up, there are magnets that literally just snaps it together.

Maybe you can give them a perspective of just how thin that system is. Wired and wireless; a great product from Sony with the Tap 11 [applause].

Then lastly, the Dell XPS 12. So [Umesh] is showing this Ferris wheel concept. This has been one of the best-tested 2in1 conversion mechanisms. You can see he was watching a video there. The nice thing about that viewing mode is when you're in economy class in row 55H and someone leans that screen back, you don't have to be trying to type or looking at the video there. But again, when he wants to get into productivity mode he can very simply flip it over and he's got a full-sized keyboard experience.

So we truly believe this is the best of a PC and no compromise tablets regardless of which mechanical. Again, there will be a lot about end user choice and which country you're in and which form factor you pick.

So guys, why don't we quickly show them how easy it is to convert back to tablet. We'll have you lead. Diana with the slider. Craig with the fold over. Mark with the detachable, and Umesh with the flip. All right. Thanks, guys [applause].

One of our key partners in making touch a reality and also driving a category together with the industry with 2in1 is Microsoft. What I'd like to do now is invite executive vice president of Microsoft, Tami Reller, onstage to talk about what we're doing together to drive touch in 2in1 computing. Tami?

Tami Reller:

Hi everyone. How are you?

Kirk Skaugen: Good. Welcome.

Tami Reller: Thank you. Thanks for having us. Thanks for having me.

Kirk Skaugen: I talked a lot about this 2-in-1 category.

Tami Reller: Yes. I was listening.

Kirk Skaugen: The importance of Windows 8 there. What does Microsoft think about 2-in-1s and what are your thoughts there?

Tami Reller: Simply said, we are big fans of the category. And the reason is I think they bring incredible value to consumers. I mean whether you need to work, or whether you want to do a little play, it has both. As you said, it's a tablet when you want it and a laptop when you need it. That's really incredible.

The thing that I think is stunning -- and you highlighted this -- is just the amount of innovation that is coming from OEMs in such a short period of time. And it really -- it brings touch, it brings the best of all categories together. So it's exciting innovation.

Kirk Skaugen: Absolutely. What is next? Obviously Windows 8.1 is coming right around the corner. Maybe you can give them a sneak peek of what you're seeing there?

Tami Reller: Yeah. It actually is a big week this week for 8.1. We released the 8.1 RTM bits to developers just yesterday. We've seen incredible uptick already. One of my favorite tweets on the topic was thank you Microsoft for doing this and listening, and really releasing these bits on MSDN and [Tech Deck]. It's a big win -- a win-win for both of us. So that's terrific to see.

So far on 8.1 we've seen more than 2 million downloads, so it's definitely getting a bit of chatter and excitement out there in the marketplace. And it's really -- it's an exciting release for us because it brings a lot of -- it brings an ability for us to respond and listen, and it's a good example of us doing both of those things. And it's a lot of little things that end up adding up to something big.

I think about 8.1 and I think for the audience it gives a chance for Windows 8 to be familiar again, whether it's the Start button, whether it's the ability to boot to desktop, whether it's the all apps view, or just the ability to actually turn off charms if you're in a mouse and keyboard type of environment. We made the first party apps even easier to use with mouse and keyboard. So there's a lot of innovation coming in 8.1.

Kirk Skaugen: And momentum around Windows 8 itself?

Tami Reller: Yeah. So momentum around Windows 8. Certainly in August there was a [net apps] statistic out which talked a lot about some

momentum coming. And we saw that. We saw demand, and we are seeing demand for Windows 8 devices for back to school.

And August was our highest amount of activations, which is new PCs coming online, essentially, in the history of Windows 8. So, that's encouraging.

Kirk Skaugen: And yesterday there was a question about applications. So, what about the apps.

Tami Reller: Yeah, so you know, 8.1 is an important dynamic for developers and apps. And in fact, Monday, yesterday, when we released our bits, we also put out the latest in visual studio release candidate, as well as Windows server RTM. And so, that really starts to get out more bits for developers to be able to build apps. And so, we see Windows 8.1 as a big deal for apps. There's some exciting apps coming, like Facebook. We're also seeing Foursquare recently. So, a lot of momentum continues to come into the store.

The thing that I think is so important as well in our partnership is that sort of all of those, you know, apps over time are available on Windows Intel devices, including two-in-ones. And so, it's the apps you know as well as the new apps coming into the store. And again, we see Windows 8.1 as a real milestone to help take that forward.

Kirk Skaugen: Okay, I have XP end of life. I'm about ready to talk about some business stuff. Maybe you can just give people a perspective on the XP end of life.

Tami Reller: Yeah, I mean, XP end of support, which happens in April 2014 -- so just around the corner, which makes this a timely question -- an amazing amount of progress, and I know people in this room and people listening have been a big part of that. We're seeing now about three-quarters of enterprise desktops have moved to modern Windows, so that's great to see. We do see that, you know, 8.1 and all the new form factors will help that. And so, we believe that sort of last leg, if you will, of XP migrations, we think that Windows 8.1 and in particular the new devices can really help enterprises make that decision, and sort of get better, even better ROI from the investments that they're making in moving to a modern Windows. So, a lot of encouraging momentum for sure.

Kirk Skaugen: Good. And then, you know, a lot of chatter on store-in-store, and what Microsoft is doing in retail to drive product through, so maybe you could give us an update there.

Tami Reller: That's right. I think the Best Buy partnership is a classic example of that. I mean, we're so pleased with the environment that we've been able to create between Best Buy, Microsoft, Intel, and our partners, just a great environment. We call it the Windows store within Best Buy. If you look at back to school alone, there were 100new unique Windows 8 devices coming into the Best Buy environment for back

to school. And I know holiday is going to be terrific too. So, it's just a wonderful curated environment where customers can go and pick out the device that's best for them. And that's across 400 stores now across North America.

Kirk Skaugen: Well, great. It's a great partnership. I know the audience is very excited about Windows 8.1, so thank you very much for all your support.

Tami Reller: Yes, thank you, and thank you everyone for your support. Thank you.

Kirk Skaugen: So, we've talked a lot about consumer. I want to spend some time talking about what Intel's doing for business. And today, we have some exciting announcements that I think show the extensive nature of our commitment to real business SKUs. Today, we're announcing the fourth-generation core on track from the commitments I made earlier in the year around vPro Ultrabooks and vPro two-in-ones.

Versus a four year old PC, we're now almost two times faster, 13 times better media performance. We can wake up and work and be productive eight times faster than the average notebook in retail, and we're more than 50 percent thinner and 50 percent lighter than what most people are carrying around business today. So, that's pretty phenomenal. I just love this quote that was in Forbes that says that, "For the first time, we as end users may actually go and

hug our IT manager, and they still get the security and manageability that they want."

But, it's much more than just vPro. You know, we're excited, we now have over 150 business, purpose-built business SKUs around vPro. We're expecting more than 20 Ultrabooks to start launching, and a large percentage of those two-in-ones. So, we'll have two-in-ones for consumer and two-in-ones for business.

But, it's beyond just the CPU. This week, we also announced the Intel SSD Pro 1500. And this is a typical solid state disk -- this is a typical solid state disk that's in an IT environment. This is 128 gigs, same density of what we're announcing today with the Pro SSD. So, a pretty phenomenal form factor difference. We're supporting the Opal Standard. What this means is, for IT managers, it's taking 10 times less time to encrypt a disk. It used to take about seven hours to encrypt a disk. We can now do it in minutes. We can start remotely changing passwords. So, if you forget that encrypted password for your hard disk drive or SSD, we can go down the wire now. You don't have to go bring it up to your IT manager. So, significant enhancements, integrating fully into McAfee's real-time analytic software. So, a great opportunity here to upgrade the infrastructure to SSDs.

In addition, we're integrating location-based services into the vPro technology. So, this is a product from AeroScout, and this is an active RFID tag. So, if you're a hospital, what you'd typically do is

you'd put this on your high-profile assets to actually know where they're at. What's exciting is, we're partnering with AeroScout, and we're putting this \$70-\$80 device now integrated into vPro technology, and into the wireless. You can get unlimited access to vPro. So, if you have 100,000 until client network, you can now do things like, if you're walking into a new building, hey, where's the local printer, where's the closest printer? It can tell which conference rooms are occupied, so you can go find an empty conference room. You can even do document protection. So, you can get access to confidential documents, the second you walk out of the building it can restrict access to those confidential documents.

So, take a look at the demonstration of this, but it's pretty phenomenal. We're working with both Aruba and Cisco, so that Wi-Fi access points which represent over 80 percent of enterprise access points now are fully integrated in with the location-based services.

We're also today announcing Intel ProWiDi. What this is enabling, how many people spend 10 minutes at the beginning of every meeting trying to find the dongle to plug into the thing for the thing, to get access to the project, right? We're able now to remotely manage those projectors, update the firmware, allow only certain clients to access the wireless display technology, and we're working with projector vendors and adaptor vendors to basically make wireless display in business a reality, but make it remote and secure.

So, you'll start seeing that from a broad range of vendors including the business projector vendors, as we go into next year.

And then lastly, we're working first with Cisco and then with the rest of the industry around basically eliminating passwords completely from computing. We have that vision for both consumer but also for business. And what we're offering now is with something called Intel identity protection technology, with IPT we're taking the keys and putting them directly into hardware. So, you'll never have to sign in with another VPN password ever again. All right.

So, rather than me talk about these advancements for business, I have a special guest. I'd like to bring up Mario Muller, who is the vice president of IT infrastructure for BMW. Mario?

Mario Muller: Hi, good morning, how are you?

Kirk Skaugen: I'm good.

Mario Muller: Good morning, everybody.

Kirk Skaugen: Hey, this is a huge number of announcements at IDF. We've got quarks and everything. It was a big week for BMW, so what's the announcement?

Mario Muller: Look at that, look at that great car, the all-new BMW I8 was announced two days ago, our first hybrid car there. And we also announced the BMW . . .

Kirk Skaugen: That's an awesome car, huh?

Mario Muller: That's the first electric car.

Kirk Skaugen: One for everyone.

Mario Muller: Would you like to order right now? Just sign.

Kirk Skaugen: But there's something super special about this car, as far as I'm concerned.

Mario Muller: Yeah, that's true, that's true. So, there's an Atom built in the navigation system, hey, that works great.

Kirk Skaugen: Awesome. So, we talked about the internet of things yesterday. What are you doing with Atom in the car? What kind of activities are you doing?

Mario Muller: So, you know, we connect all our cars right now, over three million cars, to our backend IT, to exchange information with the car. So, like real-time traffic information directly displayed into the car, and it gives a great user experience for the driver, of course.

Kirk Skaugen: Awesome. So, we talked about vPro two-in-one. Obviously your employees are incredibly innovative, and obviously very productive. How are you making them productive with Intel technology?

Mario Muller: Even more with the newest fourth-generation core I processor with vPro. So, we will roll out soon, I mean, we will roll out in October approximately 120,000 systems to the employees of BMW, and 55,000 of them will be Ultrabooks with the core I5 vPro built in this, SSD, and hopefully the 1500s.

Kirk Skaugen: Yeah, good, so it's really the remote management and all that helping you make them more productive?

Mario Muller: Yeah, that's what we need, so we have to manage all the systems around the globe. It must be an easy process there. We have to install them remotely, and that's why we need the vPro integrated functionality, and I have to say we love it. It's a great feature.

Kirk Skaugen: And two-in-ones, you know, they're now just starting to roll out to business. How do you think about two-in-ones, as you think about your infrastructure of what, 106,000 employees?

Mario Muller: I think not for every 106,000 employees do you need 2-in-1, but I think 2-in-1 is a great thing. Nowadays you have a notebook or an ultrabook; you have a tablet, and also have the smartphone there. You carry many, many systems with you. With the newest

generation, if you get a tablet, if you want it, and a notebook, if you need it, that's great. And by the way, it saves a lot of money.

Kirk Skaugen: Hey, Mario, fantastic announcement. Everyone looks forward to getting their new car.

Mario Muller: I will be here, so I can help.

Kirk Skaugen: He'll be here taking preorders. Thank you very much for the partnership and for the amazing introduction.

Mario Muller: Thank you very much. Have a nice show. [Applause]

Kirk Skaugen: I want to be clear. Fourth generation Core is outstanding. The innovations for business around Core are outstanding, but it's not just at the high end of stack. Clearly, what Hermann talked about is amazing from a Bay Trail-T perspective, for tablet, but today I'm also announcing a broad range of products around the Bay Trail-M and Bay Trail-D architectures, which are going to revolutionize value based computing for power efficient laptops, 2-in-1s, desktops, and all-in-1s. We have huge momentum. In fact, this could be the highest amount of design wins we've ever been able to talk about. We have over 140 design wins across value mobile and value desktop computing, as we talked about today.

Again, we talked about enabling some amazing new things. Imagine by holiday non-touch clam shells down to 199 dollars, touch

machines at 299 dollars, and 2-in-1s at 349 dollars. I wanted to show you some of these amazing machines. This is a Dell that we'll be announcing soon, very nice. You see the Lenovo design here, a really interesting 300 degree hinge. It's a full product, but when you want to get into view mode, you can lean it back. It's very interesting. The Sony Vaio product here, launching at IFA, is really interesting because it's an amazingly thin product and it can simply flip and go into a tablet mode. These are the kinds of products you're going to see on Bay Trail-M, again, with price points as low as 349 dollars -- a huge momentum. Again, this isn't just 10 inch screen sizes. You know, we had de-focused from this market after netbook. I'm talking about value based systems with 10 inch, 11 inch, 13 inch, 15 inch screen sizes across a broad range of price points, and these being branded with a new Celeron and a new Pentium kind of capability.

We're also engaging with the China technology ecosystem. One of the commitments that Doug is going to talk much more greatly about is our commitment to what consumers want. Today, our commitment, as a business unit, is we're going to ensure that regardless of Core or Atom based architectures, that all of your operating systems run fast on Intel architecture for clients, whether it's Android, Mac OS, Chrome, Linux, Windows 7, or Windows 8, and derivatives. But what I wanted to show here is just a product that's out of China and the China tech ecosystem.

This is going to be targeted at a very low price point. This is actually, obviously, showing Windows 8. You can detach it as a tablet, put it back together. An incredibly thin device. But what's exciting about this is the exact same hardware and the exact same motherboard can also run Android. So we've got amazing innovation coming out of the China tech ecosystem. I think we all realize the impact they've had on the value tablet market. We're seeing huge success on both Windows and Android -- same hardware as we go out and roll this out across the China technology ecosystem as well. Good stuff. [Applause]

Okay, let me give you a sneak peek, now, of 2014. Haswell, our fourth generation Core, has been amazing. It's really the culmination of 11 years of work on the Tri-Gate Transistor combined with an amazing architecture. We delivered the first single chip SoC for ultrabooks and 2-in-1s. We had more than 50 percent better battery active life, almost 2x the battery life on things like a Mac Air. The first fanless systems, as Brian showed yesterday, and up to twice the graphics performance. And really, that's just the beginning. Broadwell, you saw yesterday already operating in an Ultrabook form factor. We're seeing amazing 2-in-1 designs coming on Broadwell. A broad range of new fanless systems based on Core with performance significantly above what an Atom or ARM architecture can deliver -- significantly greater performance and much, much lighter.

We showed you in the form factory yesterday. Now, I wanted to show you something directly out of the labs. First, let's just say, "What does 14 nanometer do for me from a form factor perspective?" This is the Haswell-Y product that was 6 watts and 4.5 watts. This is the Broadwell-Y product. You can just get a flavor for just how thin and small the 14 nanometer products become as we go to the next generation chip technology. Here, in front of me, is something directly out of the labs, and so what I wanted to do is just show you. . . Broadwell is going to enable two different kinds of devices. One, you can plug the chips directly into the existing systems. And second, we'll have brand new systems with a broad new range of fanless designs.

What I've done here is I'm normalizing a Haswell-Y based system and a Broadwell-Y based system, and I'm going to run CINEBENCH, which is a CPU extensive benchmark, and performance normalized just so I can show you the benefit of what 14 nanometers is already delivering without a lot of tuning. We're seeing up to a 30 percent power reduction at the same performance levels just by moving [SACA] compatible from the Haswell to the Broadwell, without even a lot of performance tuning that we'll do in the next months. We're really, really excited about what 14 nanometer is and the power that's going to deliver for fanless Core based systems. [Applause]

But it's not, again, just about the CPU. Now, what I wanted to share with you is some of the amazing new things we're doing around

ushering in a world of voice and 3D computing. You're already seeing Best Buy launch voice on 4 OEMs and 13 SKUs. We think that will well more than double going into the holiday season. As we go from basic command and control on voice, to next year delivering full native language processing on voice, integrated with well over 100 Web sites around the world.

Given the time, I thought I'd spend the most time today on 3D. In 2012, we launched a perceptual computing software development kit here at IDF. This has, with your enthusiasm, been the highest downloaded SDK in Intel's history. More than 25,000 people have downloaded this software development kit from a year. At IFA, about a week ago in Europe, we announced, through Creative, this new peripheral 3D camera, which is also available in that software development kit. You can get this now and start writing software for 3D. It's also going to be available in a broad range of retail stores for 199 dollars. And I think we all remember when we had these kind of things sitting on the top of our desktop computers a few years ago, right?

What I announced at Computex earlier this year was a 100 million dollar perceptual computing fund, and that was really to start the innovation around hundreds and hundreds of software applications that are going to be able to take advantage of 3D and voice. Things like 3D facial log in, getting rid of complete passwords by able to detect your pulse and your face, the 3D full image of your face, 3D image capture -- so if I wanted to sell this on eBay, I could literally

just rotate the object I want to sell in front of the camera and be able to post a full 3D image on a Web Site. Augmented reality and gaming, as well as the collaboration -- things like 3D video conferencing or video blogging where you can remove the whole background behind you and go forward.

So what I'm excited about today is to announce, from a variety of leading OEMs, Asus, Dell, HP, and Lenovo, as we go into the Broadwell system, we're going to take this 199 dollar camera -- if you remember what the Kinect Camera was, it actually plugged into the wall and was the size of a brick. For the next year or so, you'll get it into a USB peripheral. And we're going to put this into the Bezel Ultrabooks with new 3D camera technology directly from Intel Corporation. So this is a 2D and a 3D camera. [Applause]

What I have today is the first reference designs. This is the first Ultrabook reference design with a 3D camera built into the Bezel. This is a new reference design around a portable all-in-1 with the 3D camera built in there. What I thought I'd do is just show you at least one usage model that I'm excited about around augmented reality. Today happens to be my six year old's first day of 1st grade, so I want you to imagine that this is in elementary school's computer room and this is the book he's learning to read. What I can do is I can literally put this up and I can interact directly with this through the 3D spatial plain that's around this new 3D camera. Not only can I do that, but I can actually interact as well. So, if I bring this up, I can bring a butterfly up and you can see the butterfly will

actually fold the thing, which is pretty fun to do. But I can actually take it down, and it'll follow my hand around and you can interact with it.

So this is exciting for me. What I thought I'd do is just show you some raw footage of kids interacting with this technology to give you some of the excitement of why we think PC Refresh is going to increase over time. Can you roll the video, please?

[Video plays]

All right. Awesome stuff. So the world is going 3-D, and Intel plans to lead that transition. So in summary I just wanted to whet your appetite with a whole range of opportunity for developers, whether it's a completely new category of 2-in-1 devices that's growing 10x from first quarter to holiday this year, fourth-generation Intel Core built for business, 14 nanometer in Broadwell, and a whole range of new voice and 3-D that is coming to the platform really changing the interface we've had -- the mouse and keyboard that we've been using since 1968 or something like that. It's going to be an amazing year. Thank you very much [applause].

[Music plays]

Male Voice: Ladies and gentlemen, once again please welcome Doug Fisher.

Doug Fisher: All right. That's some very cool stuff we saw from Hermann and Kirk. I'm really excited about the great work we're doing with Microsoft and innovating around our platform.

Why is that innovation happening? Why is it being driven so quickly? I want to reflect back in 2008-2009; how many people remember the consumerization of IT? Remember that move? The same thing is happening in the PC space. All the expectations you have on your mobile device -- your handset -- are being driven into the PC. Your expectations -- end user expectations -- of devices we bring to market have those aspirations as well.

Things like fast boot. We've been working directly with Microsoft to improve the boot time. We improved it by 3x, booting in less than six seconds. Very compelling. They want battery life. Extended battery life. They want to charge it and have full-day battery life. They want responsiveness. When they touch that display -- whether it be touch or sensor or whatever -- they want it to respond quickly. So they want to have access to touch and sensors as well as responsive actions to when they engage with that device.

Kirk talked about the 4th generation Core; 50 percent of the devices will have touch. Story of a friend of mine, had his niece and nephew stay at their house. And their family -- his niece and nephew's family -- does not have television. But they do have phones and tablets. So when he put on the television, the kids started watching

it. They got bored with the content. Guess what they did to move to a new set of content? They got up out of the chair and walked up to the television and started swiping [laughter].

That tells you the generation of users that are coming. So we really need to embrace and develop applications that take advantage of touch capabilities. And that's what we've been engaging with the development community to do just that. But we don't want to lose the mass ecosystem that we've built with Microsoft. And so we are committing to full compatibility around applications and devices as we move forward to the new environment.

Kirk talked about the 2in1. And how important that is, that new category. Application developers need to take advantage of that as well. You saw some of the stuff Kirk showed around 2in1. I want to show you some more innovations we're doing to ensure that that usage model -- that experience, the engagement with that device -- takes advantage of that. When you move from the input modality of a keyboard and mouse, and then you move to a touch display, that application should recognize that dynamically and change the experience for the user so they can experience it in the way it should be.

So David, why don't we show them what we've done here.

David:

Sure. I'll show you the examples I have on the table here. First off, I want to start off with the Sony Vaio Duo 13; it's a 4th generation

Intel Core processor system. And I'm playing Skyrim because it's awesome. But you see the great graphics -- yeah, you know that. So you've got the great graphics, the great gameplay. I sit here and play it with my keyboard and mouse, like many of you do. Some of you might be playing right now.

Anyway, as we said, 2in1. Let's actually show you the 2in1. I'm going to flip this down to tablet mode, and up comes the software virtual controller. This is from [IDM], and it's a virtual overlay that can be customized by developers and gamers alike without the actual game developers themselves having to change any of their original code. So you can see what that touch capability is within your applications here.

There you go. See that? All right.

Next example. I'm going here to my Toshiba Portege CT-20, also 4th generation Intel Core processor system. And we've worked with KO in this open source drawing application to optimize for AVX2. So you've got faster brush strokes, and faster rendering within the different layers. But with this application called [Krita] Gemini what they've done is actually built in that 2in1 awareness as well.

With this detachable, I can actually show that 2in1 awareness when I detach it. The interface automatically changes to something that's a little bit more tablet-friendly. And that gives my active stylus here

to actually do some really great things like give you the little magnum PI as well a little soul patch there.

Print that. Send it off to you there. What do you think Doug?

Doug Fisher:

Thanks, David [laughter]. Does my hair really look like that?

All right. How did you as developers achieve things like that? How do you bring that capability to market? Intel is committed to this, and we are bringing tools. We saw what Kirk showed on perceptual computing. You just saw what David showed on the 2in1 experience. We have a broad set of tools to help you as developers bring those innovations to market.

Now there is such a large set of tools we have to make your job easier; really, the only thing you need to know is Intel Developer Zone. That is the one stop for all developers to engage with these type of experiences. So just remember, Intel Developer Zone is where you go.

So as you can see, we're innovating rapidly with Microsoft to bring these experiences, not only on the device itself to make it more mobile, and experiences you expect that you have on your handset to be brought to the PC, and the 2-in-1s. But we're also working with the ecosystem to bring applications that take advantage of these neat capabilities. So I'm very excited about that work.

So let's move forward. Let's talk about what we're doing with Google. Intel has been involved in open source technology for many years. We're one of the leading contributors to Linux in the marketplace. That knowledge and that expertise is being brought forward into our work on Android.

We have deep engagements in the operating system to optimize it for Intel architecture so that when you get our platforms you can be assured that it's taking full advantage of the architecture capabilities that we bring to market in our platform. Optimizing the drivers for power and performance and responsiveness.

Going up the stack we have tremendous expertise in runtime so we're optimizing the [Dalvik] runtime to get the best performance you can on Intel architecture. So when you grab an application off the Play store, it will run best on Intel architecture.

Some of the applications in the store have been native developed for other architectures. So we invented a bridging technology that allows you to run those applications unmodified on Intel platform. I showcased this in China at IDF, where I brought down a game called Need for Speed. Natively developed for another architecture, high performance application. Brought it onto the phone, and it ran flawlessly unmodified on our device. And that's the commitment we bring to you that we're going to bring that ecosystem along with us.

How do we participate? We participate by engaging deeply and optimizing. And we move forward. We're going to be adding things like 64-bit capabilities to the platform. For even further innovation around things like ultra high definition video.

But what's really exciting to me is the tools that we bring to help you as developers bring these things to market. We're about making your life easier. We're about bringing those capabilities to you so that you can get engaged and innovate where you do best. We bring those tools that help you innovate much more quickly. A couple of tools I'm really excited about, that we just brought out, one's called Beacon Mountain, and you know when you develop on Android, you collect a bunch of different capabilities. The analyzers, performance libraries, the SDK. We make this much simpler for you because you don't have to worry about revision control and getting all those tools pulled together.

Beacon Mountain does this automatically for you. Makes sure that you've got the latest revision of a tool and makes sure it's all pulled together seamlessly for you. It's a great tool for you as developers. Another one I'm really excited about is everybody should know about Havok, right? The physics engine and AI capabilities that they bring to the PC and gaming consoles. Havok has moved forward with Project Anarchy, and they're moving that same capability now -- it's available on the mobile platform. I'll show you here on this Android phone -- this Lenovo K900.

And you can see here a sample of very compelling graphics running the Anarchy Project. This is running Havok's capabilities -- a physics engine and AI -- on a mobile device. Very compelling stuff. Allowing you, as developers, to take full advantage of that. And it gets better. Project Anarchy is free for mobile developers. So Kirk gave away a BMW, I stepped it up, and I'm giving you guys a free tool. Yeah. No, don't mention it. It's okay, it's okay.

Don't mention it. So what really excites me, beyond just the tools we bring and the ability for us to participate with the entire ecosystem Google has, what excites me is when developers want to develop natively to Intel, want to write directly to our platform. So I'd like to bring up senior vice-president of Gameloft, Gonzague to talk about what he's doing on Intel architecture. Come on up. Good to see you.

Gonzague de Vallois: Good morning, everyone.

Doug Fisher: So why don't you tell everybody about Gameloft?

Gonzague de Vallois: So Gameloft is a leading mobile game publisher. We've been in this business for around 13 years and loving it.

Doug Fisher: Great. And so now you're working on Intel architecture. Tell us about that, why you do it.

Gonzague de Vallois: Yeah, you know, as a game publisher, what is important for us is performance, battery life, and when we looked at the Intel architecture, it brings all what we need.

Doug Fisher: Great. And so now you're using this device, using our tools, capabilities to enhance this, so what do you have here? Show us what you have here.

Gonzague de Vallois: So I have a tablet here where I can show you the latest edition of Asphalt 8, our famous racing franchise. And using, of course, so it's natively developed on Intel architecture, and as you can see, the quality of the graphics, the responsiveness of the touchscreen, and of course the driving [unintelligible].

Doug Fisher: Oh, very responsive. And now, this is on a Bay Trail form factor device -- this is available on Bay Trail?

Gonzague de Vallois: Yes.

Doug Fisher: Okay.

Gonzague de Vallois: A very good news is that this game is available today, as we speak, worldwide on Google Play, developed natively on Intel architecture.

Doug Fisher: So you can go to Google Play today and get this natively developed app on IA today?

Gonzague de Vallois:

Yeah, just today.

Doug Fisher:

Excellent. Fantastic. Thank you very much for working with Intel. So as you can see, we're investing heavily in bringing Android capabilities to the market. We're also taking that same mindset to our work on Chrome. The same things I described to you that we're doing in Android, we're doing on the Chrome OS. That same expertise we have is brought to bear there. We're optimizing the kernel, we're optimizing drivers, we're working in web kit and Blink to optimize that experience, the browser.

All aspects of the platform, we're optimizing to ensure that you get the best performance on Intel. So what are we doing with all this work we did on Chrome? Where's that going? Well, I'm proud to announce a whole new series, based on our next generation platform, of Chromebooks. Yeah. So these are coming to market for the holiday selling season. Here, we have an HP 14. It's a 14-inch device. They built it from ground up for Chrome. It has an optional 4G built in and greater than nine hours of battery life.

Here, we have the Acer device, very slick, light form factor, again, long battery life. Toshiba's coming to market, as well, in the holiday, with a Chromebook device. And ASUS has a very innovative device called the Chromebox. The Chromebox, it could be used at home, in a kiosk, call centers, for zero maintenance management. Now, this new generation of devices, this new

generation of Chromebooks, with our Haswell microarchitecture, improve battery life by 50 percent, performance by 15 percent, and we're greater than 2X the competition in performance.

So amazing, stunning devices coming to market for holiday. So our engagement with Google is very broad, indeed. We have well over 1,000 engineers working across Android and Chrome to bring these great devices to market. And I'd love to talk all day about what we're doing, but it would be much more impactful if I had somebody from Google talk about it with me. So I'd like to invite up onstage senior vice-president responsible for Android, Chrome, and the applications, welcome Sundar.

Sundar Pichai: Good to see you.

Doug Fisher: Good to see you.

Sundar Pichai: Given all the stuff you've been talking about Google, I thought I should bring out a Google hat.

Doug Fisher: I'm a Googler?

Sundar Pichai: This is what we make people wear on their first day at Google, and then you've got to run around the stage and make the fan go round and round. No, we'll spare you that.

Doug Fisher: Man, I tell you what, day one, you're harassing me. All right.

Sundar Pichai: Ah. Thanks for all the partnership. It's very exciting to be here.
Great set of announcements.

Doug Fisher: Yeah, and let's start with talking about Android. You're now responsible -- congratulations -- you have a broader responsibility. Why don't you talk to us a little bit about Android and how it's going?

Sundar Pichai: I've talked about this at our developer conference, as well. For us, both Android and Chrome represent two large platforms, two open platforms, designed from the ground up so that developers like you, partners like you, can work on top of it. And we are seeing amazing momentum across both platforms. On Android, we just announced, we have hit over 1 billion device activations globally.

So the momentum is great. We are working hard on our upcoming release. It's called [Kit At]. And we activate more than 1.5 million devices every single day. And if you look at Android, it's not just an operating system, it's an ecosystem. Google Play has over 50 billion apps that have been downloaded. So the momentum across the ecosystem is amazing to see.

Doug Fisher: It was on this exact stage two years ago that Intel and Google sit up and talked about what we're going to do with Android and bringing devices to market.

Sundar Pichai: Yeah. I mean, to me, to see Android phones and tablets based on Intel architecture is exceptionally exciting. I think the combination of higher performance for low power, that tradeoff, I think, adds a whole new dimension onto the devices out there. And we hope it drives a whole set of new adoption.

Doug Fisher: Yeah, you know, and so I just got done announcing these wonderful new Chromebooks that are coming for holiday. We've been working with you since day one on this. Why don't we talk about a little bit of the things we're doing there?

Sundar Pichai: Look, first, Chrome OS represents a new form of computing. We are seeing great momentum there, as well. By external analyst estimates, they already represent over 25 percent of the sub \$300 category. They're big in education, as well. They're now deployed in over 5,000 schools in the U.S., represents more than 20 percent of the school districts. Just before I walked in here, I checked.

They've been number one on -- the best selling laptop on Amazon for well over a year. In fact, the number two selling laptop on Amazon is a Chromebook, as well. I'm excited about the new set of devices. Haswell, to me, you get great performance with all-day battery life, nine to ten hours, on all the devices you talked about today, and at the price points they're going to come in, I think they'll be hugely disruptive in the market and as a tipping point.

Doug Fisher: That's fantastic. And I'm really appreciating the work we've done together. I really do.

Sundar Pichai: Yeah. Great.

Doug Fisher: So what about the future? Where do you see us going together?

Sundar Pichai: Look, you talked about you investing over 1,000 engineers. That's a huge commitment from Intel's side. We're very appreciative. We, from Google, are very committed to making sure Android and Chrome work great on top of Intel's architecture. I want to thank all of you, as well, the huge developer community, for working on top of our platforms. And I want to thank the OEM partners, Acer, HP, Toshiba, and Asus, who are announcing devices today. I think we're going to do a lot more. Excited.

Doug Fisher: All right, well, it's great to see you.

Sundar Pichai: Thanks, Doug.

Doug Fisher: Thanks, Sundar.

Sundar Pichai: Thanks.

Doug Fisher: So as you can -- this is going to be a giveaway. All right, so as you can see, we have been engaging deeply, and our commitment to Google and Android and Chrome is extremely deep, and we're

making great progress. So I've talked about how we work deeply within these ecosystems, how we do things with Microsoft to ensure the best performance and capabilities, and how we move developers to write applications that are innovative to the form factors we're bringing to market, like two-in-ones. And I've talked to you about what we're doing with Google on Android and Chrome, really bringing those experiences to life. As developers, you have an opportunity. There's a large footprint, a broad ecosystem out there. And there's an opportunity for you to bring that experience seamlessly across that heterogeneous environment.

You know, people want to participate with the device they have. But they want to share that experience with others. So crossing those boundaries and providing solutions that cut across those ecosystems is extremely critical.

I'm going to show you a demonstration. Over here, you can see a demonstration that has an all-in-one device on a table and different devices from Apple, Windows and Google operating environments playing seamlessly on a console.

So over here, we have Ed Douglas, the COO of Flying Helmet. And he's going to talk about the application he developed with his organization.

Ed Douglas:

Hi. So Eon Altar is a tabletop videogame. It was built cross platform for tablets and handsets. And we're bringing gamers

together to play face to face. So we're running here on Windows android and IOS.

So players use a shared, central tablet to explore the world and use their own personal mobile devices to see unique game-play experience.

Doug Fisher: Very cool.

Ed Douglas: Thanks. Back to you, Doug.

Doug Fisher: Very cool. So what you just saw -- very cool. Let's give a little applause there. That's pretty amazing. [applause] So what Flying Helmet has done, Ed and his team have done is cross those boundaries and deliver that experience.

So regardless of what device they have, they can participate together. So Intel is committed to helping you as developers build applications that broaden the base of opportunity for you. HTML5 is a great way to do that.

It's a great way to span ecosystems. So we're announcing the latest version of our XDK, which is an HTML5 development environment, to help you as developers bridge those ecosystems and provide your application solution across each one of those.

We've enhanced the UI. We've made it easier to use. We've added new APIs. We've added bracketing, all sorts of capabilities you as developers asked us to bring to market. It's one of the most popular mobile development environments on the market today.

So we're announcing the newest version of that that you can use. Now, when you combine that with what we're doing on cloud services platform -- back in January timeframe, we acquired two companies, Mashery and Aepona, to allow developers to get access to enterprise capabilities and service-provider capabilities to build solutions to bring value to end users and deliver value to them through this market.

And so before I get into how you can do that and the value, I think I need a quick shot of caffeine. So I'm going to order -- hey, Diana, can you get me a cappuccino with double shots?

Diana: Sure, Doug. One double Dougaccino coming right up.

Doug Fisher: All right. Okay.

Diana: Wait a second. Hold on.

Doug Fisher: Okay. We got sc --

Diana: There might be a little delay on that. [coughs] There might be a little delay on that Dougaccino.

Doug Fisher: Okay. This is the way we describe the situation. The situation is I need caffeine. I'm not going to get it. Diana needs my money. She's not going to get it. So we have a problem. And in today's world, what happens?

She calls the repair place. They take a day or two to come over and fix the machine. She loses revenue through that whole period. Is there something better we can do?

[Andrew]: Yeah. I built an application for the Presto Cappuccino Repair Company using Intel XDK, which stands for cross-platform development kit. It's an HTML5 development environment with drag-and-drop UI capability. And I incorporated some cloud services. I went to Mashery.

And that's where I discovered some great APIs. I went to Intel Cloud Services Platform where I got some functionality that any sort of application needs for just basic plumbing. And finally, I headed over to Aepona for some basic telecom services.

And then, using the Intel XDK, I was able to build native apps for a variety of platforms. Let me show you the application that I made. I'm going to task switch back to the XDK and actually show it to you in the emulator.

So a super user would log into the Presto app. And there, they'd see a list of service tickets that they've got over the Web. They'd be able to triage these issues, maybe read through them, assign a problem code. And then, they'd be able to assign the problem to a technician in the field based on their inventory and their location.

Here, let's say they assign it to Dave. Urgent. So he's going to get in his truck, and he's going to drive to the customer right now. And then, he's going to pull out his device, which is a Motorola RAZR, and he's going to log in to the exact same app using his account, his credentials.

And there it is. He's got the issue right there. He's going to select that. He's going to take that call. He is going to fix that espresso machine, which he's obviously doing right now. If he needs a part, he'd be able to use the integrated barcode scanner.

And that would update not only his inventory but also the invoice, which he would then be able to send to Diana, the barista owner. And then, she could confirm the payment on the Presto Espresso Repair Web site.

Doug Fisher: Fantastic. That's amazing. So Andrew, you're obviously [on an akker]. You're a developer --

Andrew: I'm that bad, hmm? Really? [laughter]

Doug Fisher: Yeah. Yeah. Yeah. You are. So tell us about this -- [laughter]

Andrew: Well --

Doug Fisher: How long did it take you to develop --

Andrew: I developed this proof of concept in about a week using Intel XDK, and I'm a Web guy.

Doug Fisher: That's awesome. So what you just witnessed is a breakdown in the value chain. I want to have a cappuccino. Diana wants to make some money. It broke down. What Andrew just did was look for inefficiencies in that value chain.

Taking advantage of the cloud-services platform, he was able to provide value for that small and medium business. He can gain revenue off of that. And Diana can have a happier customer because the cappuccino machine is up and running much faster.

This kind of thing can be done across so many different businesses in the market today that there's inefficiencies built in. This is a platform that allows you to build those services and capabilities and bring those to market.

So what I've talked about today is, how do we innovate and do great things within ecosystems? And also, how do we do great things and innovate across ecosystems, bringing those all together? I've talked

a lot about the tools we bring. There's one place for you to go. Everything you need is in the Intel Developer Zone.

So as a developer out there, go to that place and engage with Intel. You know, we want to be your best partner. So if you've registered for Intel Developer Zone, great. If you haven't -- and all of you have your smartphones. Pull it out or your tablet or your laptop. Pull it out right now and go to software.intel.com. [Software.intel.com](http://software.intel.com) and register.

You take your registration over to the software booth, and we'll give you a gift because you guys are the innovators. You brought us where we're at today. You invented the present. Together, we need to invent the future.

One of you out there has a brilliant idea. Don't sit on it. Innovate. Build that idea, and bring it to market. Thank you so much for your time and attention. Have a great IDF. [applause]