

Why the Intel vPro Platform is the Best for Business

0:00

Now starting all attendees are in listen only mode.

0:04

Hey, good morning everybody, this is ...

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ASI, I want to welcome everyone to day two of our 2020 winter technology summit.

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Today we have Chris Hubbard from Intel.

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Chris is going to be talking to us about V Pro and if you see, big smile on Chris's faces, because he's in Arizona, where you're telling me how awesome the weather is down there.

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How it's a great time of year to be in Arizona, though, most of us can be jealous of, Chris says, weather situation. But before we get started, there's a couple of things that I wanted to announce.

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First and foremost, from our session, yesterday, we talked about Quadro from the PNY and the prize they were raffling was an iPad and we said that today, this morning, before we started this session, that we're going to announce the winner of that iPad.

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And I want to go ahead and do that right now, and our winter from yesterday's session is Marco Vila from Canada. So one of our good customers from up north, congratulations, Marco.

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We'll be sending an e-mail to connect with you about that, iPad's work, on getting that over to you.

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Also, from yesterday's session, we sent out a very short survey from PNY and I have to apologize, we made a mistake on the survey in that we didn't include an opportunity for you guys to put in your name or your e-mail address.

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Now, fortunately, like 80% of you responded to the survey.

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So, what I decided that I wanted to do, is use the attendee list from yesterday's session to use that as our raffle list for the survey prize, which we said, we're gonna give away an Intel NUC.

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Now, before you all start virtually booing and hissing and starting a recall campaign to change moderators for the next series of calls, I wanted to let you guys know that because of the mistake and confusion for today, not only are we going to give away a NUC at the end of Chris's presentation.

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But I'll give away two NUCs.

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So today, you guys stay with us for the entire session, and you will automatically be entered into a drawing for a chance to win 1 of 2 NUCs.

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So it's kind of my way of apologizing for the mistake from yesterday regarding the survey.

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So we'll give away an extra NUC, and I hope that kind of makes everybody happy, and now maybe you're all hoping that I'll continue to make mistakes, And if you know me, then you know there's a good chance that will probably continue to happen.

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So for yesterday, for the seminar survey, I want to congratulate John Brosky from Illinois. John, you are the winner of the Intel NUC System from the PNY Survey that we did yesterday and we'll send you an e-mail to connect with you on that.

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So Now that we have the fun stuff done, we gave away the prizes.

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I want to remind everybody that for this session today, for questions.

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If you guys have any questions, you have a question box in your control panel. Just go ahead and type your question in there.

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And we'll make sure that we ask Chris, or your question, either sometime during the seminar or at the end of this session.

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But go ahead and type those questions in, so that we can get them over to Chris and get those answered for you guys right away.

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Um, so, without further ado, I will have some announcements at the end.

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We'll talk a little bit more about the prizes and we'll talk about the next two sessions that are coming up, which are tomorrow and Friday, also at 11 o'clock.

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But I don't want to keep Chris waiting.

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He's anxiously chomping at the bit to get going.

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So, uh, Chris, go ahead and take it away.

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All right, Well, thanks. I'm really happy to be here today, because I know a lot of times, you'll get presentations on technologies, and it's just lots of speeds and feeds. And you're really not quite sure how you're going to talk to your customer about why they need to buy that, and today is going to totally break the mold and really want to talk about how your customers benefit from this using real-world examples.

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And hopefully, this is something where you've heard about V Pro in the past, but maybe you, you're not quite sure how to present it to your customers.

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So today, we're going to go through it in a way that hopefully makes sense to mere mortals and not intel technology engineers.

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So let's dive in.

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Well, go ahead, actually, I'm going to let me hit this really fast.

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So there is a new designation that Intel has created for document called limited distribution.

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And so some of the slides that I'm going to be showing you today are in this new limited distribution that sits between public and NDA. And so with these limited distribution, it isn't restricted by an NDA. You can go ahead and share it with your customers, but it's not intended for, like, a consumer end user.

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If you're talking to an IT manager, by all means, use this slide, they understand the context, and, and you can have a good discussion with them. But we don't want these slides showing up on public websites. We don't want it being just shown to general consumers and such. So bear in mind that we have this new designation. You'll start seeing more of this content coming from Intel in 20 21. And the whole idea was to make it easier for you to get content from Intel and to share it with your end customers who are savvy IT decision makers, and can take a little bit more sophisticated information than a general consumer.

6:24

All right, so, as you're talking to your customers, the first probably something they've heard for a long time. I helped launch VPro back in 2006.

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So I know we've been singing this song for a long time, but really want to try to make it resonate with customers.

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So, when you're talking to a customer, if you could memorize this 32nd pitch, you're gonna go a long way towards helping them really see the value.

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Because the pro platform, it's really an umbrella of lots of different technologies that Intel has put together so that IT can deliver business class performance so that employees can maximize their workday if the PC is a productivity tool.

7:11

But in addition to that productivity, we want to deliver manageability and stability so that those companies can reduce the disruptions to that workday and minimize your support costs.

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And then, lastly, the hardware Enhanced Security that's built-in is really going to allow companies to better respond to threats before, during, and after an attack.

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So, when you're talking to your customers, that's what they're getting when they're buying the ... Platform. And we're gonna walk through what that really means.

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But telling you what I'm about to tell you, that's what V Pro is all about.

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So, when we look at what your customers are really looking for, you know, they really gotta balance some top priorities.

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They want to improve productivity. They know that's the secret to their success.

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They also know they need to reduce downtime.

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And so those two almost go hand in hand.

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But at the same time, we got to improve security. The threats are increasing all the time, you know the security story.

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If we didn't have budgets, if we had infinite funds, this would be so easy. We'd, by everyone, a \$20,000 workstation would replace it every 12 months and we've loaded up with every security app known to man.

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But unfortunately, your customers also have to control costs that don't have infinite budgets.

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So it's really about finding the right balance that gives them the productivity they need with the reduced downtime through better stability, while also allowing them to improve their security and control costs the same time. It is a really delicate balancing act, and very difficult for a customer to do on their own. And so Intel has tried to make that job easier by combining those things into the ... platform.

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So first, we look at the performance aspect that's going to drive the productivity.

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And it's not just about Ross' CPU power anymore. It's the total experience that the user has.

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So Optane memory to speed up storage performance, new WI fi six to increase the communications and Thunderbolt for better docking and faster transfers to peripherals. So Intel works to build all of that into the performance pillar of the pro.

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Then, as we look at the stability side, these parts are designed from the get go to help reduce downtime.

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We do that through additional testing, better design, and interoperability work with the various players in the ecosystem, mmm hmm.

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Then security, we're designing components into this hardware to specifically help reduce the attack surface areas and protect the data so that before an attack you can increase your defenses than during an attack. You can detect those attacks faster and respond quickly to limit the spread.

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And then after an attack, the pro has capabilities to help you clean up the mess And then improve your defenses for the next time. Learn from that attack and be better prepared the next time.

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And then lastly, the manageability is really where the support costs really come into play.

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Studies will show that 80% of the total cost of ownership for a PC is not the purchase price. It is the ongoing support and maintenance of it. So with only 20% of the total cost of ownership on the initial purchase price, there is a huge opportunity.

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To really drive, the total cost of ownership down, as we focus on that remaining 80%, Spending a little bit more, maybe on the purchase price, to get capabilities that are going to allow us to really drop that 80%.

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By better managing those systems, we'll go through the gory details there.

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So let's go ahead and take a look at the first pillar, the productivity.

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We're asking PCs to do more and more today.

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The primary tasks that we're running in the foreground, e-mail, Internet, word Processing, et cetera.

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In 20 20, we've turn that on its head, because now we're also having to do all of this collaboration tools because we're working remotely and such. So we're really stressing out the CPUs just on our primary tasks in the foreground.

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But then IT is not making our job easier, because they're loading up the background tasks with all their security tools. But also, they want to do cloud backups of all our data files. We've got network access.

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So, really making our PCs do a lot more, just than what we were doing a year ago.

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And so, the first part of buying a V Probe platform-based PC is just knowing that Intel puts a performance floor on there, and we specifically choose the processors that get the V Pro badge. So that we can ensure that you're getting Business Class performance.

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That's gonna give you the headroom you need so that during that three-year life cycle of that device, you're going to have the performance to deliver the productivity to the user.

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So you can see an example here of, with our 10th generation product versus the three-year-old product, 65% overall system performance and 1.4 times faster office multitasking. So these are the things that are really driving day to day work.

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You don't want your employees waiting and the core V Pro processors are delivered with that level of performance to make sure that they're not slowed down.

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And we make sure that this ... platform is available on notebooks, desktops, and workstations. So you're able to get the ... platform in whichever form factor is best for the job for that specific employee.

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Now, I want to take a little a bit of time to talk about the competition and the reality is that in the last couple of years, AMD has really started to narrow the performance gap. used to be a significant performance, delta between Intel's products and AMD's products.

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And they have done a really good job of addressing their performance deficiencies and starting to really close the gaps.

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Um, we're not going to do a deep dive on the benchmarks, but it is really important that when you start talking about performance differences, you really look at: what is the use case that this user is going to use, and then, you know, what is the best solution for that work case. And I'm going to use this as the example here, because this is on mobile platform performance, so a laptop.

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Now, if you look at the benchmark data for a laptop plugged into its AC power adapter, the AMD products are going to perform roughly the same as the Intel products. Maybe a little bit better in some tests, even.

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But we don't buy laptops to be primarily plugged into the AC power adapter. They've got a battery on them.

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And when you unplug that laptop and start running on the battery, suddenly we see a huge performance difference, as you can see here on the right-hand side of the slide.

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So that's where it's really important to look at the whole system performance rather than just 1 or 2 benchmarks, because your user might not be very happy when they find out that they're getting a 50 to 100% performance.

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They're missing out on a 50 to 100% performance boost because they're not using an Intel processor. So these can really make a big difference in your users, productivity. So look into that.

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The other thing I'd just point out is that we're also focusing on the total system performance.

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So that's where things like Optane, memory, to speed up how quickly you can launch applications and boots your PC, is going to really make a difference for the users day, in and day out, and then things like Wi-Fi six, and Thunderbolt three. So when we look at Performance, it's not just about the CPU.

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It's about the whole system platform, and V Pros building that.

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So let's take a look at the Thunderbolt three and the implications there, because it's not, again, just about performance.

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So USB type C, just came out a couple of years ago, very exciting development, you know, a new connector goes plugs in, either, it's upside down, or right, side up, doesn't matter.

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The problem is that the USB spec has too many options. And so you can see on the left-hand side here, there are 12 different official, USB type C connectors with 12 different behaviors.

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Think about how small those connectors are on the side of a laptop.

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Think about how small those little sub screened icons are going to be.

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It's very difficult for people to be able to see and recognize what the differences are, and then to know what the difference in performance and operation is, just based on those icons.

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It's causing a lot of confusion for customers. The one, I'll just point out here, is this in the middle.

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These ones that have the kind of stylized D those support display port.

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So if you plug a monitor, a USB type C monitor, enter those ports in the middle, it will drive the monitor, But if you plug it into any of the other ports, your monitor stays blank. It won't drive the video stack kind of inconsistent behavior. That's gonna drive customers crazy. It's gonna lead to confusion and that's going to drive support calls. Hey, I, I was plugging most monitor into the computer yesterday. And it was working fine. I tried to plug it into my other laptop today, and suddenly, it's not working, what's wrong?

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And it's just because that port is behaving differently on each computer.

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And that's a big reason why Intel, has standardized on Thunderbolt for the ...

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platform, is to get away from all of that confusion. And so there's one Thunderbolt Port.

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We work with all of the PC manufacturers and the peripheral vendors to certify their equipment to make sure that it actually behaves according to the spec. We don't have all the options in the specification so that you get a consistent performance.

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And then, in addition to that, consistent performance, there's security at again.

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And it's the fastest connection, 40 gigabits per second.

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So when you're buying a V Pro system, you just now have got these Thunderbolt ports and they're completely backwards compatible with USB type C so you don't have to worry about that.

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But you also know that you're gonna get consistent behavior, whether you're buying a Del V Pro System, or a Lenovo ... system, the Thunderbolt parts on both of those are going to be the same.

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The reason IT Departments love this, is because you can now use that Thunderbolt port has the power supply for the laptop. So now, you've got consistent power supplies between OEM's.

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And you can now use that for the adopting solution.

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So again, you have one consistent docking solution, regardless of whether you're buying from Dell, HP, Lenovo, or some other vendor. They'll all work with a Thunderbolt docking station.

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That kind of leads into the next part, which is, we really designed the ... platform, all the parts that go into it to work together.

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So if you wanted to go off and build a laptop on your own, you could go cobble together the pieces from various vendors and get a CPU from company A and you buy a graphics chip, company, B and a Wi-Fi chip, company, C and an Ethernet controller from company to put it all together and just get it to work.

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But the question is, were they designed specifically to work with each other?

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Were they tested, and validated together?

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And if you find out that there's a driver interoperability issue between company sees, part, and company ...

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part, who do you call to get it fixed? And how long is it going to take those two companies to figure out how to fix the problem?

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And that's a big value proposition for the ... platform, because Intel's taking ownership for the entire platform. So we're working on the graphics chip, and the CPU, and the Wi-Fi, and the Thunderbolt. And we're making sure that those design teams are all working together so that their products interoperate properly.

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Then we have strict validation testing that goes on to make sure that we don't have interoperability issues.

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Our engineers come up with an electrical, thermal, and mechanical engineering guidance for the PC manufacturers. So they can say, hey, as you're building your laptop's, make sure that you design this way for optimal performance.

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Then until it goes and works with the rest of the ecosystem, to make sure the software is enabled properly, now we've got global distribution, so that you've got a complete package.

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So again, for your customers, there's big value in just buying the ... platform, knowing that it's getting this extra level of due diligence that a non Vpro system doesn't get.

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Let me walk you through a little bit of gory details, that I'll go quickly.

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So when you look at the actual GPRO validation and verification process, we start off with a specification.

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These are the actual requirements to get the V Pro logo.

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The OEM goes off and builds a system and then we test that system against those specifications to make sure that that actually implements the proper V pro specification.

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Then we have the Intel Stable Image Platform program, stable IOT Platform Program.

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That reduces the variations in hardware components over the life cycle. So for 15 months you're gonna make sure that you're getting the same WI Fi Controller and the same Ethernet controller.

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It's not gonna get switched out halfway through the laptops life cycle And then working with the ISVs to make sure that their software right to the V pro specification and implements that properly. Then we deliver that system to the customer.

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So the customer ends up with consistent features across the OEMs, rigorous compliance testing across the OEMs that non ... systems don't yet.

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They get this promise of no hardware changes. And Intel has validated against the Windows 10 versions.

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So again, another assurance that any of the low hanging errors that could lower your productivity have been tested and squeezed out of the system.

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And then any software that you're looking to buy that has been designed to work with the ... platform has already been tested against that. So you know it's going to work well. And result there, for the customer is, they're buying a computer that's going to have more stability and less downtime just by buying it. Even if they don't turn on anything else, it's had much more testing, much more engineering put into it, and that gives them that peace of mind.

24:06

Now, the competition also has a Pro series product, And they do talk about a platform stability promise that they offer, as well. I'm not going to go into the gory details on this slide.

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But just take a look on the right-hand side here.

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You'll notice that Intel includes multiple components like graphics, wireless, LAN and wired LAN into that platform stability PROMIS.

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Whereas, AMD only includes the CPU and the chipset in that stability promise. So you're not getting a stability promise for graphics, wireless, LAN, or wired LAN on the AMD solution.

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And then add in all of the testing that we do, both with the OEMs and with Microsoft.

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There's a significant Delta between the stability that you get from a V press system and an ... system.

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Now, let's talk about kind of thing what most people know VPro for is its manageability.

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And originally, we really started out focusing on large enterprises with the V Pro manageability offering, and overtime we really simplify that process and we've made it. So, it's really effective for small and medium businesses as well. So, you don't have to be a large multinational corporation with a huge IT department to be able to turn on the ... manageability features and extract value out of it.

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What we're finding is in 2020 like many other things in the technology industry, suddenly the manageability capabilities of V pro are helping people respond to the changes that we've seen this year.

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So do you have devices that are inside and outside of the firewall or they're connected via Wi-Fi and via wired ethernet? Do some of them have a healthy OS or an inoperable OS? as we've all started moving towards remote working?

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We're all outside the firewall now.

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Not only are the employees outside the firewall, but a lot of the IT agents themselves are outside of the corporate firewall as well.

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And with V Pro, we recently introduced a cloud based capability so that, now, you can put all of those management servers inside the cloud.

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And in a public cloud, like Amazon, Azure, or Google.

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And then any PC that can access that public cloud, whether it's inside the firewall or outside the firewall. If it can find that public cloud and connect to the management server, then your IT agents can also connect to it.

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Take control of that computer, and fix it.

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Now a lot of customers will say, I've already got management software that lets me do remote KVM and such, but those are software based. So the minute your operating system is no longer functioning, you lose connectivity.

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And if that's the case, you're basically either going to have someone jump in a car and drive somewhere to get their computer fixed, or they're going to put it in a box and ship it somewhere to get fixed. Either one is going to increase costs and time.

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So with, with this solution, we've got a lot of companies that are now turning on this capability.

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And if someone is sitting at home and they're unable to get their PC to work properly, they can connect to that cloud, IT can connect to the PC and they can actually reboot the system, if necessary, re image and put a fresh Windows 10 image on that laptop, even while it's sitting at home, while outside the corporate firewall. So it's a game changer for your customers who have to figure out a better way to support these clients.

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The other thing I'll point out is, this isn't just for the PCs and laptops. There are solutions for kiosks for digital signage.

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So, any of the devices that are PC based, that your customers are using, can be designed with the V pro solution in it and then they can take advantage of manageability solution.

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So, big deal here and 2020 is really put a spotlight on why you need this and why it's valuable.

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Yeah.

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The real proof is in the pudding, so to say, you know, I can tell you how great it is.

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But it's really about, what is it like for a real customer?

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So Forrester Consulting, we commissioned them to go off and do a study of this, and they analyze that.

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for the typical customer, it's a nine month payback to go off and deploy V pro. So, you may end up spending a little bit more on the initial purchase price of the PCs.

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And then, you've got the engineering time to set up the actual infrastructure properly, But, that pays for itself in nine months.

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And so, the other two point two years of PC life is pure gravy where you are reaping back a return on your investment through increased productivity, reduce downtime, and reduce support costs. So, it's money in the bank for these customers to purchase and deploy the pro.

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And we've actually made an estimator tool. You can go here.

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And there's the basic cost structure built in there. And then your customers can go in and change the specific number of systems, what the hourly cost is for IT support. Like the hourly cost is for the employee.

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So they can really customize that calculation for their company. And based off of Forrester consulting data, get an estimate for what kind of value they would get in their company.

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So, highly recommend, make sure you use that with your customers, Walk in there and show them, You know, you're leaving this much money on the table, because you're not buying and deploying V pro. Do you? Do you know you're leaving that much money on the table? That's all, I have a really good conversation about priorities.

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Just as with before, AMD also has a manageability solution that they talk about. There are some significant differences here, I will just point out the biggest ones.

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There is no cloud based option on the AMD solution today.

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The next big deal breaker for a lot of people is the AMD solution only works on wired Ethernet.

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It will not manage a system over WI Fi and all of us at home are probably run in Wi-Fi. So that's a deal breaker and there's plenty of buildings that don't run Ethernet to the desk anymore. So even desktops are running over Wi-Fi.

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So most companies find this a severely limiting feature on the AMD solution.

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The other one I'll just point out is, according to AMD's Web site, they can only support up to 500 endpoints.

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So, for a small business, does everything over wired ethernet?

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Yeah, it's a viable solution.

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But if you're looking to get into medium and large sized businesses that have more than 500 endpoints, the AMD manageability offering is not going to work for you.

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Whereas the AMT we've got customers that have over 100,000 clients that they're running. And there's no limit to how much we could scale that up.

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Lots of links here if you want to get more information.

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But, uh, manageability isn't going away.

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And, you know, definitely as we've moved for more remote work environment, it's critical to have really strong remote manageability tools in your toolbox.

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All right.

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Let's move over to the security side, the first part. If you think about your house, you know.

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First, you want to like, batten down the hatches and make it secure before an attack ever happens. So the first place we do that with the PC is we really try to reduce the attack surface.

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Now, the attackers know that it's very difficult these days to write an attack in the OS and not get detected the antivirus software, plus the operating itself system itself has gotten really good at detecting anomalous behavior, blocking it, shutting it down.

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So these attackers have looked to say, how can I get my malware underneath the operating system so that all of the antivirus stuff that's running up here can just never even see down?

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There has no idea that this malware is living down below the OS and compromising the system.

34:03

So the first thing Intel's done is we've worked with you PC manufacturers. And we've put extra protections in the hardware to protect the bias against attacks. So these attackers were saying, all right, if there's memory that the bios uses, and if I can compromise that memory, then I can redirect to the buy us to do stuff that it's not supposed to be doing.

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So Intel, the pro technology, has this Intel Hardware shield, which allows the OEMs to write, thereby off with locks on it, that locked down those memory ranges, and protect them from being compromised.

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This is only available on the, the pro hardware.

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So, if you're buying a non V Pro system, intel based, non V Pro system, from Company A, then you buy their V pro based system.

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From the same company, those biases are going to be different because the V Pro by us has the locks, The other one doesn't.

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So just by buying a V Pro system, you're getting a higher level of security, then you get from that same vendor without the V Pro system.

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Then the next test is, all right, how do we make sure that the hackers haven't inserted a hypervisor in-between the bios and the OS?

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And so, we've put features in the V ...

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platform, to also allow the OS to detect if it's running on bare hardware, or, if a hypervisor has been inserted. And so then IT can go wait a minute. There's not supposed to be a hypervisor here.

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That's probably a rootkit, we need to shut this computer down and get it cleaned up.

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And then there's also the ability for the OS to monitor how the bios is using hardware resources.

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And it can detect anomalous or malicious behavior.

36:01

Again, it can sound an alert and say, hey, something, something's going wrong, beneath ELS IT, you need to take a look at this. So think about it. That's the alarm system on your house.

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We're adding bolt's to the doors and, and really securing stuff. So it's harder for people to get in. And then, obviously, protecting the data.

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one of the best things you can do is to encrypt data as much as possible, and we've put hardware in the processors to accelerate the encryption process.

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So tools like Microsoft Bitlocker automatically detect this encryption accelerator, and use that accelerator so that the encryption process happens faster and it's more transparent and in the background.

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All right, so now, what do you do when there's actually an attack?

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Now, now you need that alarm to go off and alert you.

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IT has always known that the best way to do that is to run frequent security scans and intense security scans.

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The problem is that we've all experienced that is those chew up the CPU really fast. And so the security scan starts, and suddenly your mouse starts lagging. You're trying to get work done, and your PC is just not responding. And then, the worst thing that happens is the user opens up Task Manager and starts trying to turn off the security tools. So they can get their job done.

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Just took a bad situation, and made it worse. So what we've done with the ...

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platform, is we've included this thing called threat detection technology, because each V Pro processor has a graphics processor in it.

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And, you know, if you're playing three-d. games, that through the graphics processor, is going to be used a lot.

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But when we're doing Office Apps, PowerPoint e-mail, the GPU is barely used at all. And so what we've done, is we've allowed the software, the security software companies, to write their software, to run on the graphics processor.

38:12

And so now, we can run these really intense security scans, and we can run them frequently, because it's going to be using the GPU, and that leaves the CPU free for the user to get their productivity done.

38:27

Huge game changer.

38:29

And the thing I'll tell you is, not only are security companies like sentinel one, building this into their product, but this has been built into Windows Defender that's shipping on Windows 10.

38:45

So if you buy two laptops, one that's V zero, and one that's non V Pro, you load them both with the latest version of Windows.

38:55

That V Pro laptop is going to run a more aggressive Windows Defender security scan, then the same than the non V Pro laptop, running the same version of Windows. So your customers don't have to install anything special.

39:11

They don't have to turn anything on special just by buying the V plus system, and running the latest version of Windows 10. They're getting a higher level of security scanning that automatically takes advantage of threat detection technology.

39:26

So again, it kind of goes back to, why wouldn't you buy a V Pro system? Do you not want the maximum amount of protection from Windows Defender that it can offer?

39:36

So make sure your customers are aware of that.

39:39

Um, and as we go forward, there's some really cool applications of using artificial intelligence, that we're working with software companies on. So that we'll be using artificial intelligence to learn and predict future attacks. And we'll be using this threat detection technology in that as well.

40:01

Once, once the alarm has been sounded, we've detected the attack, you want to minimize the impact.

40:08

The active management technology that's built into the ...

40:12

platform allows you to limit the malware from spreading.

40:16

You can actually quarantine an individual computer, you could just shut off, You can send basically a poison pill down the wire and shut off that come that PCs Internet access.

40:29

You could shut it off entirely, or if you found that it's really only uncertain ports, that this malware is spreading. You can shut down the ports on all the V Pro systems in your environment, so that the malware can't spread on those ports anymore.

40:46

So there's some really good tools there that you can use to very quickly shut down, stop the spread, quarantine, the infected systems, really minimize the impact of an attack once you've detected it.

41:03

Then the last job is to clean up the attack.

41:09

And so, active management technology, because you can remotely connect to those PCs, and you can even re image them even outside of the OS, that allows IT to then very quickly, re image any potentially infected PC, because they can do that down the wire. You can do it with multiple PCs simultaneously, versus if you were to have someone hand carry their laptop into a technician and that technician has to do it manually.

41:39

So, really good way for IT too to make the process faster and more automated, which again, you're reducing the downtime and you're reducing the costs to get back to normal running.

41:55

Then, as I mentioned, you want to improve your defenses for the next time and that's where Intel's working with these companies. On, how do we use the threat detection capability and CPU telemetry, and Artificial Intelligence to analyze attacks update filters, and to better detect anomalous behavior in the future based off of what we're seeing in the present.

42:19

So, overall, this is a huge game changer for security.

42:26

And Intel is going to continue to invest here in the ... platform, and to work with security vendors to make sure that we're offering the most security features that you can get in the business PC.

42:40

So again, if, you know, if your customers are buying a V Pearl platform, do they not value security? Or do they just are they just not aware of what comes out of the box with a ... platform?

42:59

Competition slide, you can see some of the features that they have are similar, and some of that is by design.

43:07

Obviously, Microsoft wants things like encryption, accelerators, and virtualization technology to work similarly. So there's several places where it's basically comparable. But then you can see there's big gaps as well, things like that.

43:23

The hardware shield threat detection, the bias hardening, et cetera, is only available on the ... platform.

43:36

So as we start wrapping this up and start queuing up your questions if you've got them, because, I wanted to make sure we have plenty of time for you guys to get your questions answered.

43:50

I think for a long time, a lot of people were thinking, the pro is something for large enterprise, and if you're an SMB, it's really not a solution for you.

43:59

And that's not the truth. Hopefully, as you've been watching for the last 40 minutes, you've seen that these are solutions that a company of any size really needs in today's environment.

44:12

When we started looking at the data, we see that even for small businesses, there's a very good percentage of them that have a very sophisticated, robust IT management process.

44:28

So 15% of them do that in house formally, and about 16% of them are outsourcing that through a managed service provider.

44:37

So one third of the small businesses already are basically eating the dog food and practicing managed IT practices.

44:51

The next group is informally managed that 41%, this is the lowest hanging fruit you can imagine because they know what's important.

45:01

They're trying to make steps to really increase their manageability and security, but they're not quite there yet.

45:09

So, these are ones where you really want to have that conversation with them because they already recognize the value. They probably just don't know how to take it to the next level. And that's where you can talk to them about, hey, if, if you buy a ...

45:24

platform, one, you're just gonna get better security right out of the box with some of those features. Just work automatically, either at the bios level or at the OS level.

45:35

Then, if you're using one of these management tools, those are designed to work automatically with the viewport platform as well and so the Manageability Capabilities are built-in here.

45:48

And it's very easy for customers to just turn it on and start getting the benefits like that remote KVM session that can survive, reboots and such.

46:00

So for this big quadrant of the market, V Pro should really be the starting point.

46:08

Any business, P C, opening offer should start with a View Pro platform. And if the customer wants to go down to something lower, you should have the discussion. That is security not important as manageability is stability.

46:22

Those, those aren't important to you.

46:27

For the last 28% here that are truly unmanaged, you know, these are probably going to be really small, Mom and pop type stores, sneaker nets and such.

46:37

Definitely, you might want to talk to them about the ... platform.

46:41

But, if that's really not the right solution for them, we obviously have some great, non V Pro systems based off of our core processor that you still go sell. They're gonna get some of those great features. But they're not going to get all of the great deeper features.

46:58

So, I think my, my one key takeaway here for you is, you should always be leading with V Pro. Because the vast majority of customers, and this is a small business, 70% of those customers are going to be interested in vitro, and as you start moving up to medium and large size companies, the number of people that are going to be interested in that story is going to be even higher.

47:27

So, the last thing to really talk with your customers about is you don't have to do it all at once.

47:34

And you have the opportunity to kind of increase the value as you're comfortable doing that.

47:40

So, you start off with step one, Just buy the V Pro system, and you're gonna get great features right out of the box that help improve the security, both at the bios level and the OS level.

47:55

And you don't have to do anything other than turn the system on, and you've already increased your security capabilities.

48:03

Step two is till then turn on the modern manageability capabilities. So, this is the active management technology.

48:13

And that if you're running these management consoles like SCCM, Connectwise, Spiceworks is already built-in or easily added. So it's not a heavy lift at all.

48:28

And if the customer doesn't have any of those tools, Intel actually has the Endpoint Management Assistant, Emma, what we call it, that will also help get that customer up and running, and give them a no cost tool to start managing those systems.

48:45

Then the third step for customers that really want to take it to the max.

48:49

There are some additional services that are available from the OEM's at the time of purchase, such as transparent supply chain that helps ensure that the PC that arrives at your door is the exact same PC that left the factory, and it hasn't been tampered with in transit.

49:07

So, when your customers buy the Pro, they don't have to, If the elephant's, all at once, they can start off easy, and then as they get more familiar with it, start adding and turning on more of those features.

49:25

So in summary, you know, if you can remember the puzzle pieces, you know, the ... platform is all about Intel, trying to put the pieces together so that your customers don't have to.

49:38

We do all of the hard work upfront with the PC OEMs to make sure that these systems are more reliable, they're more stable, more secure, and they're more manageable. And the end result for the customer is that they're buying a system that delivers better productivity.

49:55

It has these built-in security features that non V Pro systems don't have, and it's going to help them reach their optimal total cost of ownership so they can really take their destiny into their hands versus kind of being subject to it.

50:12

So V Pro platform, we offer it in a wide range from core I five, all the way up to core I nine processors, and as I talked before, desktop form factors, laptop form factors, and workstation form factors.

50:28

So we're really bullish on this.

50:30

Really hope that you're able to talk with your customers about the value of V Pro and convince them that, that this is really the biggest no-brainer that they can make because instant benefits right out of the box plus the opportunity for growth in the future.

50:50

So with that, Kent's, why don't we go ahead and check on questions? Sounds great. Thank you very much, Chris.

50:59

We do have some questions, but if you guys have additional questions, go ahead and type those in and we'll get as many answered by Chris as possible.

51:08

If we don't get a chance to answer your question, we'll still have it available to us through the reports that we get through the interface that we're using, and we can either ask Chris to help us answer those, or we can get an answer back to you through e-mail.

51:22

So, go ahead and type in your question, and I'll, hopefully we can get answered by Chris here in the next 5 or 10 minutes or so, Chris, on the security features, you're talking about, I know when people think of a pro, we kind of tend to think about, always, be pro for business, but it seems there's a good home use value for V Pro as well, just around the security features, so Do you see that being an opportunity for the resellers also even selling the pro?

51:56

to just regular home?

51:58

home users?

52:02

Um, I mean, so, definitely, there is an advantage there.

52:07

And so, I mean, I, personally, just because I'm kinda techie, and in the market and stuff, I run Lenovo think pads as my personal device. So, yeah, I'm getting that benefit.

52:25

I wouldn't lead with it for most consumers. But, yeah, if you've got someone who's kind of savvy and knows what's going on with the security angle, by all means, you know, like I said, a lot of those features you don't need an IT Department to get the benefits. So the hardened by us, the OS improvements, the scanning and such.

52:49

You don't need to have the whole IT infrastructure to get that benefit. So, yeah, if you were to buy a V plus system and just run it as a home PC, you're going to be able to use those extra security benefits.

53:01

Yeah. So, we didn't talk specifically about, you know, Meltdown and specter. But we do have a question here about whether ...

53:09

can help detect or warn about attacks related to Meltdown and specter.

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Well, I think the big thing there is that the Intel has changed the hardware since Meltdown and specter were first found.

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So if you're buying 10th generation processors, they already have the, the fixes in the silicon for Meltdown and specter so that those attacks are going to be going against older silicon now.

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And so, I don't think it's really relevant anymore, unless someone's trying to run us a three year old PC.

53:54

In that case, I'm not aware of how zebra would be able to detect those because those were very sophisticated attack.

54:01

OK, how about ransomware? I know you've talked a lot about malware in different kinds of attacks. What about V Pro working against ransomware attacks?

54:12

Yeah, the threat detection technology where you're able to use the GPU to scan is a big deal for ransomware because most ransomware is delivered as what's known as polymorphic software, which it's a shapeshifter. So when you download it, it looks innocuous, it looks safe.

54:33

Your virus scanner is going to check it, and say, it's absolutely fine, go ahead and run it. Once you double click it and execute it, it gets into your DRAM. Then recompile is itself, and turns into malware. And then, and that's how the ransomware is usually able to get past the defenses and then hijack the system.

54:55

And so, with the threat detection capability, being able to scan the memory, the DRAM frequently, and then also look for certain behaviors, they're able to detect that much faster than, than without V pro technology.

55:16

The other one I'll point out is crypto mining.

55:19

So Intel has worked with some companies.

55:22

And we figured out what the general CPU patterns are for someone who's crypto mining. And we can do the same thing. We can detect that, hey, it looks like someone's crypto mining on this PC, send an alert to IT.

55:38

So that capability is really branching out to really specialize on some of these very specific attacks, like ransomware and crypto mining.

55:49

I know there's, there are a lot of software that customers can use that can allow an IT person to get remote access to, to a PC.

56:00

So, how would V Pro no differ from using something that, you know, you can just load on your system and then give somebody access to dial in to help troubleshoot that system remotely.

56:14

Yep. So those software based tools are Great and those are going to be your primary support tool.

56:21

The problem is, once the OS is no longer healthy, the software tools stop working, and let's say, you've got a problem during the boot process.

56:33

You really want IT to be able to watch the boot process and see what's throwing the air, or, but with a software based tool, they can't watch the boot process because the tool won't start running until after the OS is completed. So that's where V pro really sets itself apart. It is a hardware KVM.

56:52

And so you can drop into the bios.

56:55

You can reboot even if the OS is blue screening during the boot cycle. With the Pro, your remote agent is going to see that blue screen, can control, alt, delete, and drop into the bios, and, if necessary, re-imagine the system.

57:14

So that's the big difference there, not trying to replace the software based tools. But when the software based tools no longer work, because the OS isn't healthy. That's where V Pro can step in and save the day.

57:27

You talked earlier in the presentation about Thunderbolt So is Thunderbolt three spec for the Pro System?

57:36

So all the Pro systems would have under bult.

57:43

Yes!

57:43

So for the 10th generation, all the Pro Systems have Thunderbolt.

57:50

Now, on the Intel threat detection technology, you talked about how software is written specifically to take advantage of that.

58:01

Is there a way that customers could identify which software would be able to utilize Intel threat to technology? I know you mentioned, bit, Bit Defender or Windows Defender and Windows 10, but are there other one would?

58:18

How would we know if that software supports that feature?

58:23

Yeah, unfortunately, there isn't a mechanism like a logo yet.

58:30

And I suspect that as we move forward and more companies come online, there'll be something like that. So the ones that I'm aware of right now is Windows Defender built into Windows 10.

58:44

So that's, that's the biggest no-brainer right there.

58:47

Sentinel one has been using it. and they've seen great results as well. And the other companies that I'm aware of, haven't publicly announced yet. So, those are the two that I'm aware of that have publicly announced.

59:02

And there's a couple others that are, I suspect, gone you, announce here in the next month or two. OK, so, we have time for a couple more questions, so I'm gonna go ahead and throw those really quick at Chris. But, again, you can keep submitting your questions, and we'll, we'll have access to them after the session.

59:23

So once we wrap things up with, Chris, I have a couple of quick announcements to make at the end. And then we'll get everybody out on their way for the remainder of their day.

59:33

But kinda, jumping back to the questions about Thunderbolt.

59:43

Let me see, I actually lost my question. Erica, it looks like I lost the question on that one.

59:51

So let me try to ask this last question that I'm going to try not to mess this one up.

59:59

So hopefully I can ask the question correctly, but a customer wants to know what protections are or what protections are in place to protect V Pro.

1:00:12

Given proliferation of UEFI exploits, it is a concern.

1:00:17

So, is there anything in place to protect V Pro if I asked the question correctly?

1:00:25

Yes, I think what's being asked there is so the V Pro Engine itself vitro doesn't run in the CPU itself. There's actually a dedicated bike row.

1:00:42

This microprocessor a micro microprocessor that the V Pro manageability engine runs on and that's built into the hardware. And that's separate from the Main CPU, which is where UEFI and bios run.

1:00:59

So, yeah, we've kind of built this secure, little isolated, manage your build, all the engine, and that's where V Pro runs. And then obviously, Intel has security reviews and they have to do security reviews with the OEMs and such.

1:01:15

So the first level of defense for the ... Pro Engine itself, is the fact that it's just totally isolated from the rest of the CPU. And, and only very, very select processes get access to that. So it's very difficult to get in and do any damage there. That's that's going to be the biggest way.

1:01:39

OK. So last question is, we've seen a lot of the advertisements recently about Intel ego.

1:01:48

So is the pro part of the ego or, or is, would there be a evo be Pro System Notebook?

1:02:00

Yes, to the ladder. So if you think about V Pro is really all about the IT needs.

1:02:08

And the Evo is all about the end user experience.

1:02:13

And so we're going to be combining those next year into kind of like the Reese's Peanut Butter Cup.

1:02:21

So IT is going to be happy and the end user is going to be happy. So yeah, watch for that.

1:02:28

Great. Alright, so I'm gonna go ahead and wrap things up a bit.

1:02:34

I want to thank you Chris for joining us today for our day two of our Tech Summit.

1:02:42

So, for everybody that's on the line, just a reminder, that tomorrow and Friday, we have sessions at the same time. So we have at 11 o'clock tomorrow, which will be Samsung.

1:02:54

Samsung will be raffling a 50 inch LED smart TV.

1:02:59

So make sure you jump on to connect for the Samsung session tomorrow and then on Friday, we'll be closing things up with Supermicro, and there'll be raffling a pair of headphones.

1:03:12

Now, as a reminder, our grand prize, it will be raffling as an Intel notebook, So for those of you that attend all four of those sessions, you'll be entered into the drawing for a chance to win the Notebook. So I just wanted to make sure you've, you've made it to the first, to make sure you get to the last two, so that you can be entered in that drawing for the Notebook.

1:03:33

And then for today's session as promised, we'll be raffling off to Intel nuc system.

1:03:40

We decided to add a second one because of a little bit of confusion that we had yesterday around our survey.

1:03:47

So we'll be doing to Intel looks today, instead of one, and we're all hoping that Kent continues to make mistakes so we can throw additional prizes for the remaining seminars, but we'll be announcing the winner of those two No tomorrow morning at tomorrow, Samsung session.

1:04:04

So, last things to remind everybody, we will be e-mailing you links for the slide deck. And also the recorded session so that you'll have access to those.

1:04:18

So that if you want to share them with other people or you want to come back and watch them again because there was a lot of great information that Chris provided in this session.

1:04:28

So, last thing in closing regarding be pro. Really, I thought there's a lot of tremendous information here around security manageability, You know, how you're able to get into the pro.

1:04:42

I think the main message to take away is when really don't want be pro just to be something that's a check mark.

1:04:50

Off the, off the config list.

1:04:52

Something that you checkmark, there's really a lot of value in vitro that can bring some tremendous benefits to your business and to the sales model that you're introducing to customers and wants.

1:05:03

You get customers onto the ... Pro technology. They're gonna continue to utilize the pro technology, and it just makes the whole engagement with your customer a lot more connected and, and sticky, as they say. So, V Pro really should be more than just an item that we're checking, just a checkbox item.

1:05:23

So, keep that in mind as you're talking to your customers.

1:05:28

Last thing, Chris, you want say anything in closing, and then we'll let everybody go for the remainder of the day.

1:05:37

Just thank you for listening.

1:05:40

You know, Intel's in a unique position, we don't really sell our products to end users.

1:05:46

We really depend on professionals like you to relay our message out to the customers. So, you know, first of all, thank you for listening, and then, you know, by all means, please, if you need anything else, to help take this message out.

1:06:02

We're really dependent on you, to educate your customers on the value that they can get out of something like the ... Platform.

1:06:11

But thank you, and Happy holidays, and happy new Year.

1:06:14

All right. Great. So with that said, we're going to go ahead and close out the session. Thank you again, Chris, on behalf of ASI.

1:06:22

And all our customers are really appreciate you joining us today and doing the presentation for everybody on the line. On behalf of AI side, thank you so much for joining us today. I hope to see everybody back tomorrow and we'll be giving away some look systems and announcing the winners of those tomorrow morning.

1:06:42

Thanks, everybody. Go off and have a great rest of the day. Thank you very much.