**Patrick Moorhead:** Rahul, it's great to see you again. The last time we saw each other was in real life at Dell Technologies World in Las Vegas.

**Rahul Tikoo:** Just less than a week ago. So, pretty good to see you twice in two weeks with Pat Moorhead.

**Patrick Moorhead:** Oh man, it's my honor. And we had dinner, so-

**Rahul Tikoo:** Yes.

**Patrick Moorhead:** That was wonderful dinner, so thank you very much. So Rahul, you and I have known each other for over a decade, maybe two, but just for the sake of the audience, can you tell the audience what you do for Dell?

**Rahul Tikoo:** So I'm the Senior Vice President for Client Product Group here at Dell. So my team is responsible for all these wonderful products that you guys know about from the client perspective.

**Patrick Moorhead:** So, commercial and consumer that's incredible.

**Rahul Tikoo:** That's right.

**Patrick Moorhead:** We have the man here. So Dell has been doing intelligent edge devices for literally decades covering a wide variety of end user targets and different solutions. How strategically are you thinking about this right now?

**Rahul Tikoo:** So the way I think about intelligent edge devices, Pat, another way to think about this is a modern client or a modern PC. So, if you take a step back, these are devices that are self-aware. They're aware of things around them, like the peripherals monitors, headsets, cameras. They can seamlessly take advantage of the cloud and the edge based on workloads and capabilities of the device or the application that they're trying to run, or the use case that they're trying to run.

And we are able to run intelligent optimizations at the edge that drive really seamless experiences for the user. So, the way I think about this really is we're trying to make that personal computer personal again. Your experience is tailored to how you live, how you work, how you play. And that's in a nutshell, what I think about as intelligent edge devices.

**Patrick Moorhead:** I love the idea of making the personal computer more personal. It's kind of ironic that we talk like that given how long the personal computer has been out, but there is a ton of room to improve the PC experience. And I'm curious how you're approaching this with your roadmap and product lines.

**Rahul Tikoo:** You're absolutely right. 10 years ago, I think the PCs worked pretty much the same for everyone. There was the same base experience. About six to seven years ago, we implemented a performance optimization tool in our workstation lineup, Precision, that enhanced the performance of purpose built creative applications. Say Adobe Photoshop or Creative Cloud or AutoCAD, et cetera. We learned a lot there and we built significant IP along the way.

We've now implemented this AI ML tool. What we call Dell Optimizer across our entire commercial PC portfolio. And soon will be available on our consumer PCs too. Just today as I was looking at getting ready to talk to you, I was looking at the active user base of Dell Optimizer. We have about 3 million daily active users of this tool growing every day.

So what does it do? We run about seven machine learning models at the edge in Dell Optimizer that optimize application performance, battery life, power, audio experience, user presence, connectivity, security. And then as an example, audio optimization, we base our audio optimizations on over 76 years of trained machine learning data. Adaptive battery optimizations are using deep mural network optimizations that are based on five generations of product data across 12 million different users, battery data.

App optimizations. We're able to characterize over 15 different parameters that run simultaneously. That are deduced from 1200 different system parameters that we have learned over years of machine learning models. And so all of this together, as you apply this knowledge, this machine learning data, how you use your PCs, that makes Dell's endpoints the most intelligent commercial PCs out there.

Patrick Moorhead:    I remember using too ExpressSign-In, look away detect. I'm one of these users who doesn't like the display to go off it's weird. So I'll set it to like three or four hours, but the cool part about look away detect is literally you look away and it dims. And it's not only more private and secure, but also reduces the energy.

Rahul Tikoo:    Yeah.

Patrick Moorhead:    As well and improves battery life. So, it's getting to know how to use these have been fun. I'm curious, are there any other areas that you're embedding intelligence into? AI ML, big data type of things?

Rahul Tikoo:    We are not just looking at software experiences on the PC. We're looking at it more holistically on how we can imply intelligence and personalization across the entire ecosystem. So as an example late last year, right before CES, we announced our new future work reimagined. We called it Concept Flow, which is our vision for a world where employees can have a seamless experience. Not just on the PC, but when they transition from, let's say home to Rome, which is being on the go to their office.

And seamlessly transition to productivity as they move between these locations during the day. And we're able to do that by having intelligence software, like Optimizer. Devices that have sensors and intelligence built in. And this interesting thing that we're going to be bringing out into the world, and we showed this, around wireless charging and wireless docking technology. Where your PC can automatically connect to the monitor, the mouse, keyboard, and connect to the best wifi network in your office.

Even before you sit down you're fully productive. And when you're ready to leave, based on proximity detection, we're able to disconnect you and keep you secure. So your data isn't

exposed to anyone else. And so this experience between workspaces becomes very, very seamless.

Patrick Moorhead:     Rahul, what was the biggest driver for adding all this intelligence? Was it just that, Hey we have all this hardware that's sitting around being unused, was this through market research, or something different,

Rahul Tikoo:          I just think of it very simply, which is, employee experience is central to how this new workforce hybrid work is going to work. And there's a lot of digital natives in the workforce. So people that grew up with technology, I take the example of, I got an 18 year old who just started working in a vet's office. And my 18 year old has not known a world where she hasn't had smart technology access.

                       And so they're looking for those experiences from their work devices too. And so being able to give them those seamless experiences, another example, my 11 year were driving the car the other day, Pat. And we play music. That's our way of connecting with each other in the car is listening to music and she's trying to forward the radio.

                       It's very hard to explain to someone that is so used to a seamless streamline, I need what I need. I don't care about this song. I should be able to forward it. And so that's what was in my mind, as we were thinking through where do we want to go put our effort? It came down to how do we build the right intelligence so we can let you work, learn, play the way you want to. And that's where the idea of optimizer intelligence on the edge comes in.

Patrick Moorhead:     I love that you're bringing... I feel like the PC finally got its rightful home or stature in the industry. One thing I flash up all the time in my snarky tweets is an MIT tech review article that said the PC is dead. And I think this is about 12 years ago. But one of the thing that I think COVID did is really reinforced the PC's value, not only at work, but also in the home. And I also think it transformed us decades. And I think some of the intelligence factors that you're talking about were obviously driven by some of those needs.

                       Could you... It's funny, I've seen some pretty amazing demonstrations that you've done. There's one where you take the camera off the top of the notebook, or the desktop, and you stick it in the center of the display. And therefore that you'll always be looking at the person, even if you're looking at maybe some of the content like you and I are doing right now. What's the name of that?

Rahul Tikoo:          So, that's called concept Pari. And the whole idea is we're going to be collaborating like you and I are, this is here to stay. Even if we go back to the actual office, we'll be spending some amount of time collaborating the way you and I are on video conference calls. And if that's how we're going to be collaborating wouldn't it be nice if the camera was at your site line? So you could read whatever you need to read. You need to look at your presentation, but you still are talking to the person on the other side. And so that's where the concept of Pari comes in, where we can take a camera and put it on your site line on the monitor. And it magnetically attaches to the monitor

screen and you're able to move it anywhere you want your site line to be. Again, a very simple example of how we're rethinking hybrid work.

**Patrick Moorhead:** I know we talked a lot about intelligence on the edge. I think that's just intelligent product planning. Another cool thing that you're doing is you're also putting a lot of effort into sustainability. Project Luna is one of those. And it really strikes a chord with me. I was waiting for somebody to do a modular design with this. Can you talk a little bit about Project Luna?

**Rahul Tikoo:** So, if I take a step back the digital native generation that I talked about, they're also very, very... They place a lot of importance on what we're doing is good for the environment. I can't tell you how many climate conversations I have at home with my children. And so, if you start thinking about it in the realm of not only great technologies that make your life simpler. But great technologies that are also great for the environment. I think that's really where concept Luna and all of Dell's sort of commitment to sustainability, whether it's our 2030 product goals or 2050 carbon net neutrality goals that we have put out there, come in.

**Patrick Moorhead:** No, I love that.

**Rahul Tikoo:** And Pat, one of the things that I think about is, some of these goals require giant hockey sticks of innovation that we have to go through. And so concept Luna was our idea of let's just throw away what we know about the PC today. Let's start with, if we were to design a net carbon 50% reduction carbon PC, or a highly 50% of our product is recycled renewable in the PC. If we were to go design it with that principle, how would we do it? And it came down to completely rethinking product design, right? It came down to how do you reduce the biggest, most intensive carbon intensive part of the system, which is a motherboard, reduce the size of it, reduce the components on it. How do you make the product a lot more modular, a lot more accessible?

So that disassembly is easy and as a result, repair, reuse, refurb is easy. It was about how do you make some really, really important product material choices that are very, very sustainable. Whether it's bio-based polymers, bio-based resins in the feet of the product, hydro processed aluminum, aerospace recycled carbon fiber. All of those product choices or product material choices. If we really truly build out and learn from those, it gives us a North Star to go work towards, get our supply chain towards, get our design team towards. It allows us to actually hit those really lofty 2030, 2050 goals. And in the end, leave the planet a little better than where we started with it. And that's sort of what we're trying to do with Luna.

**Patrick Moorhead:** Rahul, I'm glad we could swing around and talk about that because I think in the end intelligence at the edge is not only intelligence that you're providing to the end user. But also I think it's being more intelligent about how we plan for the environment and the impact on technology. And I know everybody has different levels of how much they care about the environment.

But one thing I think there's a common thread on, and I think project Luna hits on this, is that people fundamentally do agree that we should be consuming less and using materials that pollute the environment less. So this was great Rahul. I really appreciate you coming on the Six

Five Summit. Not only did we see again, intelligence on the edge in multiple ways. And we saw it not only in what you're actually delivering today.

Which is a proof point to look to the future for Dell, but also talked a little bit about your projects. And I've say I love your projects that you bring out. I know that Dell innovates a lot and you're investing a lot in R&D to do this. And I do appreciate around every CES time that you bring some of these new projects out. So thanks for coming on the show.

Rahul Tikoo:       Thank you, Pat. It was really good to see you again.

Patrick Moorhead:   You too.