Daniel Newman: Matt Murphy, CEO Marvell Technologies. Welcome to the 2022 Six Five Summit. It's so great to be here and be here with you live for this keynote session.

Matt Murphy: Great to see both of you guys and welcome to the Marvell campus. It's great to have you guys here. It's been too long. Seriously, too long.

Daniel Newman: For me it feels like it was forever. Because I think the first time we actually met in person finally, after years of working together, because that's how long this thing has actually gone on.

Matt Murphy: Exactly.

Daniel Newman: And so in this time you guys, Marvell have had a really impressive run. It's been a good couple of years for Silicon, for technology. Although it's been a really challenging couple of years in the background for the world. So there's going to be some really great things and exciting things that we're going to be able to talk about. And of course, we've always got to have a little bit of modesty and humility about everything in the world that's going on, but it is great to have you here. Definitely look forward to talking to you about all the things that you've been doing here at Marvell. So, Patrick.

Patrick Moorhead: I think one of my last events was actually your analyst event that you had years ago around the holidays. And I think that's the last time we saw each other face-to-face, but it was great to see you.

Matt Murphy: Right before the pandemic. So it's been a while but great to see you again.

Patrick Moorhead: One of the key things that I focus on in my coverage of Marvell is just the shear transformation. And I've been in and around Marvell since it was founded, right? I was at Compact Computer, at NCR and AT&T in the early days and it was a big consumer play. But in the years that you and your leadership team have been here, you've transformed it to pretty much an entire enterprise play and whether it's data center, whether it's the edge, automotive, you have made a very strong pivot there. In fact, you've been maniacally focused on that, I like to hear you say. What's going on in those markets? What can you talk about? What are your customers talking to you about?

Matt Murphy: Well, it has been a massive transformation journey for sure. And same as you, I've been in the chip industry for about 28 years. I've known Marvell since the very beginning from the outside looking in. And so when I joined in 2016, the prior year revenues, the company was over 60% consumer and market exposed, right with the remainder basically being enterprise, but true enterprise, campus, Soho, there was no cloud, there was no carrier. There was no, if you want to extend it into automotive, there's no automotive. There was nothing.

                    I mean, the revenues were de minimus and it's one of the hardest things to do is actually change the end market mix of a company. And we were able to do that over the last, almost six years now through actually very strong organic investment. So we doubled down on certain product

lines and technologies we had. The team did a great job on those, did some very strategic M and A, which we can get to later. Even recently, we did a smaller deal we can talk about.

And then we also, I think almost as important was the editing that we did, was the divestitures and rationalizing some certain product lines. And so fast forward to today to get to your question, 88% of our revenue is now what we call data infrastructure, which would be the catchall for those end markets you talked about. Our biggest end market is now data center at 43, 44% of revenues, almost double the next end market and within data center, the biggest portion of that is cloud.

And I think we've managed to get the company in these end markets that even in an uncertain environment we're in today, I think it's hard to argue that those don't all represent very strong secular growth opportunities, which would be cloud computing, the transition into 5G networks and ultimately 6G and all of the revolutions going on in the automotive industry.

I mean, we don't even need units to grow, to drive massive revenue and market share expansion and automotive, just because it's a content play. So I think the end markets that we participate in have really strong legs and enterprise, by the way, we can talk about that too, I think it's a renaissance in enterprise electronics.

Patrick Moorhead: You've really hit a lot of the key growth areas and not by luck either. And I think at the end of the day, when I look at what investors are looking at, you've certainly been rewarded for the risk return that you provided.

Matt Murphy: I'm a pretty conservative guy by nature, for those that know me, even though you said I'm maniacally focused, I'm not a maniac, but we have been certainly willing to take, and me personally, outsized bets and risk, to be honest, to do some of these big transformational things we do. And then in the end, you've got to go really be deliberate about that decision and be convinced. And then you've got to go execute like crazy to make sure that you get it all done.

And I'm fortunate to be a part of a company with an amazing team that reports to me, and even the next 50000 people, I mean, the top leadership of this company is just outstanding on every aspect. And so that's helped us get these ideas in place to implement the vision really. And so now we find ourselves in the middle of these key end markets, which will probably be a big theme of your conference, I imagine, all of those and Marvell is actually a critical enabling piece of all of those in terms of the core digital Silicon and also, some of the other components around it in the analog and mix signal domain that enable these applications.

Daniel Newman: And we have a track for just about everything you do. We have an automotive track, we have a data track, edge IOT track, cloud and infrastructure track. You're definitely in those right secular areas. And we've both pretty publicly, in fact, very publicly have opined about just how well this pivot and this repositioning of Marvell has been, the move to enterprise. Clearly that 88% of the market is, it's substantial. And it's been really great in terms of the results. We've made recommendations of kind of like here's the next semiconductor company to watch. There's the names everyone knows-

Patrick Moorhead: You made us look smart. Thank you.

Daniel Newman: But no, you hit it on the head. But you mentioned something when you were talking earlier about organic, but you've also gone inorganic and made a number of, I would say really intelligent acquisitions that are starting to really pan out. We broke, I believe the Inphi one, actually, you and I did a pod right away when it happened. One of the first that hit the street, and we were really enthused about what this would mean.

But now you're coming on a year in that timeline now since that's happened. How has that acquisition gone? How is the integration going? How are your cloud and data center customers benefiting from that being one of the, I think, was it the largest?

Matt Murphy: That was the largest by far, and it was even one of the largest ones, if you just look at the history of semiconductor M and A, certainly it's clouded by a few bigger ones, but it was $10 billion, right? And a few that didn't go through too. And a few of a few big ones that had high headline values that also ... And that's the challenge with the real big ones is obviously, the regulatory environment and getting those things across the line.

But no, we announced the acquisition of Inphi in the November timeframe in 2020, and then we closed it to your point about a year ago in April. That was a relatively fast close. At the time we paid one of the highest multiples ever paid. So, that was risky. And you guys were very helpful in explaining it early on, because if you remember the first ... it leaked the night before, and then the stock cratered the morning it was announced because there was a lot of the misinformation about the terms of the deal from the leak.

So, I appreciate you guys helping to set the record straight on actually what the economics were and the rationale, but basically it's been an absolute home run of a combination. I mean, we really merged Inphi into Marvell. We try not to treat our acquisitions like, hey, we just acquired you and now you work for us. And it just doesn't leave the right taste in people's mouths. So we try our best to really treat these as mergers.

And if you look at Inphi, one of the reasons it's been successful, and I'll give you some data points on why it has been successful, but basically, the CEO, Ford Tamer, he joined our board. He's still on our board today. He's an outstanding board member. He's an industry luminary, right? I'm so thrilled to have him as a part of our team. The founder of Inphi, Loi Nguyen. He reports to me, he's running the optical business of Inphi.

And I also gave him some Marvell business to run, right? And then Nariman Yousefi, who was one of the other key executives of Inphi, he joined my team, he's running his business from Inphi plus more Marvell businesses. And then the head of central engineering also joined us, right? So the key three guys came over and have been outstanding contributors. So, that really helped give their team some confidence.

And basically in the last year, the revenues outperformed versus our deal model pretty significantly. We were able to get the acquisition accretive earnings the first quarter out, some

point when we announced it, people were kind of squinting into the future, maybe we'll see an accretion here someday. It was accretive very quickly. And we're set up for a phenomenal year this year with the Inphi business.

It's continued to ramp, especially with traction in Pam four, the move to 200 and 400 gig optics, actually even 800 gig, and some AI applications is now taking off. And then another technology they had was the communication between data centers, right which is this 400 ZR standard. So all of the deal rationale actually came through. And more importantly, the team is outstanding and really came through in terms of the execution over the last year.

Patrick Moorhead: I mean, what I liked about it quite simply was, you're leaders in copper and, high tech is never a one thing or another, it's an and, right?

Daniel Newman: Absolutely.

Patrick Moorhead: And the and in this continuum is optical and adding that to your repertoire for the next 10 years, I think should give customers ... they should feel good about that, that there's a future here.

Matt Murphy: Completely. And it completely is additive, it's not actually replacing it. Our copper-

Patrick Moorhead: I think it's and.

Matt Murphy: Our copper PHY business has done phenomenally well over the last two years, it's been one of the highest growth product lines we have. The transition from one gig to multi gig and 10 gig, actually all the switches that they attach to, the content has gone up dramatically. Our new products have executed really well. And I think for customers, and this is a little known factoid I'll share with you guys, when we integrated the Inphi team into Marvell, especially on the optical side, we actually combined the engineering team. So it's one common DSP team. It's one common analog team. And we're finding in our new products, in our roadmap now, our guys are coming up with ideas that neither side on their own actually conceived of.

Patrick Moorhead: Interesting. I mean, you can't ask for anything better than that.

Matt Murphy: And to see the teamwork is phenomenal, right? It's actually genuine and the organization has come together. So I think on really high end mix signal and high end connectivity solutions, whether it's in the optical domain or copper domain, I think we are an absolute force to be reckoned with. And our engineering team is really second to none.

Patrick Moorhead: So cloud is about 15 years old if we go all the way back to S3, but it's had a lot of changes. And I think one of the biggest changes related to Silicon is one size doesn't fit all, right? You have these cloud providers who they want to be differentiated. They either want to have the highest performance, the lowest cost, the best throughput or a combination of them all.

And I've heard you use the term cloud optimized Silicon. The first thing I thought was, what a great marketing term. And I'm like, no, there is something behind this. Can you talk to us, talk to the audience about what do you mean when you say cloud optimize Silicon?

Matt Murphy: Sure. And you're spot on in terms of your assessment of where things were at the inception of the cloud, right? Which was basically by standard X86 base servers, right? Put them all in a giant data center, hook them up and there's your cloud. And then there was an evolution, right of as these companies, the cloud companies scaled, hey, we need to build our own, this isn't quite getting us there on cost or features.

So there was a move to design your own server. The Taiwan ODMs kind of got ramped up and there was still a view pervading, I think the industry at that juncture, which was still basically, it's going to be running on common processor technology with a lot of software and that's going to get you covered for all your apps you need to write.

And that clearly is not how it's played out. And so you can kind of take that evolution from all X86 to some version of heterogeneous computing. And there's been a lot of talk about that. And we actually think about cloud optimized as the next, where the puck is going, which is true optimization from the ground up of Silicon to not just replace a CPU as an example, but offload from the CPU, accelerate the CPU, accelerate the GPU.

And so we define it, and by the way, we define it, not just for processor technology, I mean, one of the things we do really well is we pioneered the concept of the smart NIC, right? This original concept was pioneered by Cavium and Annapurna Labs, which ultimately became part of Amazon. Those two entities really pioneered this concept. So we have a very strong portfolio there in terms of pioneering offload, but now we're taking that and we're actually able to customize those products, using our broad IP portfolio with all the acquisitions we've done.

But broader than that, even if you get into electro optics, as an example, Inphi was basically doing cloud optimized Silicon. This was not just, hey, we make one DSP, we make one TIA, we ship it to a module maker. They put it in. No, I mean, these are defined with the data center architectures in mind of these large companies, right? So I think throughout the portfolio, we're finding that customization and optimization is really critical because there's a huge value prop to the end customer.

And we didn't want to just use the term custom because it's not just custom, it's really optimized. And I think that trend that we foresaw and we actually built the whole company around is playing out as we speak. And we've talked about our own design wind momentum in this area and the success of our five nanometer technology platform, which brings all of this together. And so it's been really exciting to be kind of engaged with these very prestigious, exciting companies, right to help them achieve their Silicon ambitions.

Patrick Moorhead: Well, it's clearly where the puck is going as well. And heterogeneous computing even when I was back in the Silicon game was the big talk, but the software stacks, it pushed it onto the software providers. And one thing you've done to make it easy for customers is you're providing a full

stack along with that, as opposed to a bag of parts, which you think helps them to their time to market. And that's really part of the game is full solutions.

Matt Murphy: It totally is. I mean, I'll give you another example. If you think about the key aspects of a modern data center, right? Very big buckets, right? Compute, networking, and storage. So we talked a little bit about the compute side, a little bit about the networking as it related to Inphi, let's talk about storage for a second. The movement to more and more hotter, flash storage is a key part of the data center architecture, we are an absolute leader in that area.

And when you look at the solution we provide, it's not just a chip, we've quadrupled the size in the last five years of our firmware team in storage. And I'd say 85% of them plus are working on high end data center firmware directly with these customers to enable and improve the performance and optimize the performance of the flash in the storage system.

That is one, a huge barrier to entry, right? I mean, I just look at what it took for us to build that and then how long it actually takes in the storage market to sort of ramp these things to production. But it's super strategic. Because again, if you optimize on the storage front, you can do things like do it yourself, we can qualify multiple NAN sources, we can help work with an ODM partner with the cloud guy to build their own unique drive that they need.

So I think across all these aspects, it's not just a, hey, let's take a processor and tweak it and call it custom. It's a much broader concept that we apply even as a business model to it.

Daniel Newman: I also think the economics and the business model of optimized versus custom sounds a heck of a lot more scalable, right? Anytime you use the word, custom people start to go, it's small. Optimize, oh, that could grow to be very big. And of course, cloud optimized because the cloud is really big. But you said something, Matt about you guys really were one of the companies that pioneered the smart NIC, for instance, right?

And we've seen the nomenclature change a little bit. You hear things like DPU, IBU, right? And I've said for a while, Marvell is a company that's innovating at great scale, but sometimes doesn't always get credit. There's a lot of competitors in the Silicon space, all touting different optimization strategies as well. Where are you sort of feeling that you've really been able to succeed with this cloud optimized strategy in terms of traction? Are you feeling pressure and heat from these other, very successful, some of them are great marketing organizations that are coming out with derivatives or different vernaculars for what you're doing? How do you see this playing out and how do you see staying ahead and staying in the lead in this space?

Matt Murphy: Well, I think we have gone from as a company, I would say being a fast follower to a leader in a number of areas. And I think that changes how you have to operate. I think our strategy by the way, has candidly become the strategy. I think that's where the industry is headed. I mean, we wrote, I worked with my team to write our Mar mission statement five years ago, it hasn't changed, but basically we said we wanted to be the company that is the best in the world at chips that move data, store data, process data, and secure data, do it faster, more reliably than anyone else. It's that simple. That was five years ago. That was that, it was five years ago.

Daniel Newman:	It's a simple mission statement.
Matt Murphy:	It's a simple mission statement, but we didn't actually have what we ... So, that helped us set our strategy. But I think that, if you just boil that down, I think that's where everybody's headed. So then to your question, well, how do you differentiate? I think a few things have gone on that do give us a strong, competitive advantage at this point.

I think the first is that we've done a lot of the hard work starting back in 2019 to get all of the IP portfolio of all the different M and As onto five nanometer technology. I mean, just to give you an example, when we acquired Cavium, they were on 14 nanometer at Samsung. And then we did the Avera deal, which gave us this true custom ability, that came from GlobalFoundries 14, that we had Marvell Technology, which was on 12 and 16.

I mean, it was all. So we skipped seven nano meter almost completely. I mean, there was a few residual chips from some of the M and A. Everything went to five, the certies, the storage IO, the CPU core complex. I mean, everything came together in one. And so it's there today. This isn't a, oh, hey, I'm going to do an acquisition and I'm going to get my cloud optimized thing working. It doesn't work unless you actually have the technology platform.

So we're able to augment that now, we could talk later, we just did this acquisition of a company called Tanzanite, which we're making a big bet on CXL, but that's now a technology we can layer into that portfolio. You follow me? |
| Daniel Newman: | Absolutely. I see building blocks. |
| Matt Murphy: | And the same thing on, think about what Inphi brought, right? We had really good electrical certies, right that we had for our own high speed communication products, Inphi had very tuned optical certies, we're now putting that IP into our portfolio. So for example, our next generation high end ethernet switch product, it's the same certies on both sides and the DSP, as well as in the switch, huge benefits to doing that, right?

You guys know well enough the issues with inter-op and then how do you present a whole system to people? So I think having the platform approach and having this breadth of IP, that's quite frankly, unparalleled when you just sort of add up high end arm compute, high end networking applications, high end IO and interfaces, pulling together all of this rich IP from all these amazing really leader companies that we pulled together. And then obviously the mix signal expertise is quite competitive.

So that, and then basically I would say the other thing is which doesn't sound as sexy as some of the technical aspects of it, but it's the business model that we also engage in. So we're very flexible when it comes to how we work with our customers. They don't all want to do the same approach, meaning, someone wants us to do just a traditional ASIC. We've got a full design team. You're the back end, you're the job shop, by the way, we need help on X, Y, and Z. |

And we can add value there. Then some of it is, hey, you guys already have a ton of this IP already. Why do I need to go license it from six people or design it myself? I just want to drop in my RTL block, that's my special thing. We've got a whole way to do that in a very easy manner. You know what I mean?

We don't have to set up a new system to do that. And then I'd say, in a whole bunch of the cases, when we talk about cloud optimized, to be honest, it's a build to spec. At some point the customer actually says, can you just build this part for us and put our stamp on it? No problem. We can do that. And there's not a lot of companies, especially the larger ones, I think that have, just even the way of working internally to go pull all that off, because you have to have a different setup internally.

Can't be siloed, right? You've got to have everybody kind of on one team, you've got to be able to swim across the lanes. So it's kind of unique actually, what we've put together, but there will be competition for sure. I mean, but it's okay. This is going to be a huge growing gigantic market and there's going to be room for several.

Patrick Moorhead: Well, in fact, the whole idea of optimized Silicon seems to be in vogue with the trillion dollar club, right? You have Apple running a shop again, not a data center edge or enterprise, but on the consumer side, you have AWS with nitro and now a full bevy of accelerators. And it seems to me that the Googles and the Azures are planning to jump on that track too, if you believe the LinkedIn who they're hiring architects as opposed to developers.

So I have to ask, why do we need a Marvell if you have the biggest cloud providers in the cloud doing their own Silicon? How does Marvell fit in?

Matt Murphy: Well, when we see those types of announcements, that is great news for Marvell, as long as they don't hire our people, which is a problem, because at some point, if we don't enough people then we can't do the projects for these companies, but they're great and large and important customers of ours. And the way to think about it is, Apple is pretty much very unique as an entity, because they're, you guys would know the market numbers better than me, I'm not in handsets anymore, but they're doing 250 million iPhones a year probably, and X million iPads and macs.

And there's a huge economy of scale there that really only Huawei, pre all the restrictions, really had, And so they're able to do this and they're able to do their own optimized Silicon for consumer. As you go to the cloud and these large hyper-scalers, there are clearly things they want to do themselves. There's no question, but when you think about what it actually takes now to put together one of these radical buster, five nanometer SOCs, it's hugely intensive.

If you want to do the whole thing yourself, you've got to set up, obviously your entire EDA flow, you've actually got to figure out how to go work with your OSATs to go get substrates. And how do you get the wafers and how do you get the economies of scale on the cost and how do you go license IP from 27 different people? And at some point is that the value add. It's a different equation, it's a different thing they're solving for. So, that's where our flexible model is. We try to

come in as really, think of us as an extension of the engineering team. That's how we talk about it. That's our engagement model.

So we don't try to come in and say, hey, we know you have a team, but just buy our other part. We actually say, we know you have a team, how do we help you get there faster, because we have all of this capability we can bring to the table. And then you can focus on the special things that you want. Maybe it's your special security block. Maybe it's your own special IML. We can take black box IP in, by the way, we don't even want to know what's in it, and we can hook it up to the rest of the chip.

So that's a very attractive model that quite frankly, didn't exactly exist prior to Marvell creating this model. Because basically in the past, you either had to go to a pure ASIC house, and then you had to staff up a gigantic team, or you just had to build it yourself. And we've created this middle category, which actually enables faster time to market, lots of reuse and more velocity for those companies to do more chips. So our aspiration is just to become an indispensable extension of the engineering team of these companies.

Daniel Newman: So Matt's smiling when the next big super hyper-scale cloud company announces their cloud optimized strategy says we can help, right? I mean, essentially you're saying, and by the way, it kind of goes back to what I said earlier about the credit and getting credit and not, some of this you'll get more credit for than others, some of this you're going to really be in the background, helping these companies get it out, but in terms of those numbers, you're reporting every quarter, it'll be material and it'll be significant.

Matt Murphy: I think that's really, the only way you can measure it because obviously the confidentiality is extremely important. And certainly some of the products we can talk about. A lot of them, we can't. But we do break out in our financials, right? We break out our data center segment, as I mentioned, that was, call it 43, 44% of revenue. And we've also indicated that the cloud is the biggest portion of that, and growing very rapidly.

And we do give commentary, right at the aggregate level, the trends we're seeing, but we're not going to ... We just have to, we have to manage around the customer requirement, which we're totally fine doing. We're totally fine being the guy behind the guy, and we don't really need all the public credit necessarily. Actually, our teams know what we're working on and it really motivates them, right to be part of some of these very cool things that we're doing.

Daniel Newman: You'd probably need a BASF style commercial.

Matt Murphy: Exactly.

Patrick Moorhead: Well, one thing that I think people forget too, is the two companies that seem to have their act together the most have been doing it for over 10 years and the others not so much. And it takes decades, if not a decade to even get to the point and you've got to start small. So listen, I've been in the chip world, even though it's changed a lot, and with common designs, common

flows and the degree of difficulty in getting something to a fab, but it is still different because the permutations, cloud optimize doesn't mean homogeneous, right?

It means heterogeneous. And if people are looking for something that has some special sauce on it, they have to go custom. And this is where I think that Marvell has set itself up really nicely to not only have the IP, but the ability to pull it together in a fashion that delivers a specific end customer. And I can't think of too many companies in the industry who actually do that.

Matt Murphy: And we make it really easy to work with us. I mean, you guys probably both know one of our key executives is a guy named Raghib Hussain, who's our president of products and technologies. And he was promoted into that role over the last year. He runs a large P and L, he runs all of our compute stuff, but he actually has a role that spans the entire company's technology portfolio.

So when we go to engage as an example, we have a single president level executive, who by the way, has tremendous cred internally, right to go get things done. We have a very team oriented environment inside of Marvell. So with one person, one key person, who's my direct report, he can marshal the entire resource of Marvell, the CTOs from the different business groups, the key architects, the key Silicon people, our central engineering folks and pull them in and say, okay.

And then basically figure out how do we divvy up the work, right? It's not about this BU or that BU or this P and L. I mean, we've actually found projects and opportunities in one group, and we've literally steered it just to a complete other team in the company because they had the right skillset or whatever. It's actually not trivial to do this. You worked in a big company, you know this, this is where you can get bogged down. And I don't know, I've got to call the guy from the other group.

So that part of how we work actually took a long time to build for us. That was part of the Marvell culture I started to build five or six years ago, which was very team oriented and very kind of one Marvell and the goals and the recognition is all set up around that. So it's powerful.

Daniel Newman: So we talked about your biggest acquisition and one of the biggest in semis, and just recently, and maybe we can end here on a little innovation. CXL, it's an exciting, new technologies, not brand new, it's been out there for a while, but in terms of deploying at scale. Tanzanite was an opportunity that you guys pounced on. You've now brought them in-house as part of your quote, unquote, one Marvell.

Talk about kind of what drove that decision, the excitement or value you see in CXL, how quickly will Tanzanite be something that the street, the market and the customers will start to benefit from. I'd love to end on that, because it's always great to see continued growth and investment.

Matt Murphy: Sure. Well, this journey to get us to CXL as a technology to enable a market transition is something we've been working on for quite a while, to be honest with you. Think of Tanzanite, it's not closed yet, but it's announced, but it's a private deal and it'll be done relatively quickly, but we do, so if you step back at Marvell, we do an annual strategic review. It's the same week every year.

We've done a bunch of these. We've been to a couple of mid-year ones. We did one in the midst of Inphi, and we have a whole process we go through. And that is more technology portfolio strategy oriented, but we always do a CTO session. And if you guys haven't gotten to know our corporate CTO, Noah Mizrahi, amazing visionary guy in this area. So we were having discussions going back, I would say two years ago about disaggregation, and composable data center architectures.

And the idea that basically, and this was flagged, I would literally say two years ago that this issue of scaling was going to become a huge problem in the data center. Meaning, the biggest spend in the data center right now is DRAM.

Daniel Newman:	That's right.
Matt Murphy:	It's DRAM.
Patrick Moorhead:	That's right. Every time you want more memory, you have to buy more compute today.
Matt Murphy:	Exactly. So it's a one for one sort of pairing, right? And so the holy grail has always been, how do you develop an interconnect technology that allows a lot more flexibility, right to actually mix and match and potentially ... And especially as applications become more high speed data intensive, you actually need to scale the memory a lot faster than the compute. So, you know the problem statement, and then there was a lot of effort from different consortiums, right?
Patrick Moorhead:	Four of them, maybe five.
Matt Murphy:	And we watched them all.
Patrick Moorhead:	Who's counting?
Matt Murphy:	And then we were paying our dues to be part of those. And credit to Intel. They finally threw down the gauntlet on compute express link or CXL as an architecture, but this was something we had been planning on, we had been thinking, we had been developing solutions around. And I believe that this is going to be a major ... a very important technology transition. It's hugely enabling. And so think of Tanzanite as a way to get a very strong team that had done a lot of really good work into Marvell quickly.

And it allows us to actually take advantage of some opportunities for some custom Silicon today. These are opportunities happening now. Now they're going to take several ... We've got to develop the product and it'd be a few years out, but there's going to be a very large incremental Tam created through CXL. And by the way, there's expanders, there's re-timers, there's pooling, there's accelerators. There's going to be all kinds of use cases and products, so it's not just a one off.

And we're embedding CXL IP now in a lot of our products, SSDs, DPUs. So it's going to be a very important interface, but also how you manage the chip to chip connections is going to be, I

think, a differentiator. And we've gotten really good feedback because I think one, like a lot of the very good startup companies, they were talking to everybody, but they were a little smaller, and we were also talking to these companies, our customers about our CXL plan.

So when you announce it together, it just made total sense. And we're thrilled to get that closed and get them on board because I think what we can enable ... And this is a change too. I mean, when's the last time you saw Marvell come out with a thought leadership on a brand new technology that's a ways out and where we've got some real meet on the bone?

So, I think it's a sign, right? We've gone from kind of, how do we catch up and how do we go from A to B to how do we actually take the lead in some areas and help our customers, and help the industry, right enable new use cases. CXL is good for everybody.

Patrick Moorhead: Oh, it really is. And when I first heard of this, you doing this, I saw it as a, there's market making and market taking, and I see this as a market making opportunity for you, where even though the top five hyper-scalers don't publicly talk about it, they're all gearing up for composable memory.

Matt Murphy: Exactly.

Patrick Moorhead: And even though that's V3 and it's got some more work to do, they're all headed in that direction. And the ability to scale memory like you can processing and storage. But the second part of it is, is you're a big accelerator company and there's benefits to have shared memory between the main processor and any type of accelerator in the same memory space. It makes programming easier. And that's the next big thing. So if every accelerator should be theoretically easier to program, because it has some shared memory driven by the high speed, low latency, low power CXL.

Matt Murphy: Totally. And the efficiency improves, the overall power consumption improves. You're not now buying memory dedicated to the accelerator memory. So, it has a number of benefits, I think, at a system level. And I think you hit on a good point as we, as I think we're getting near the end here, but we very much view ourselves as a market making company. There's a lot of, sometimes from analysts or the financial community, there's sometimes a view that, and in some businesses it's true, that there's a zero sum game.

The markets that we've chosen to participate in, we don't view them as a zero sum game. It's not like we say, there's competitor A and B and C and they have this much and, oh, we're smaller, so we only have this much. So then if we just go get some market share, we'll go here and then they'll go here, and then we beat them.

Patrick Moorhead: It's investing ahead of the curve.

Matt Murphy: It's how do you enable these new markets through innovation, through new applications? And when you're in that business, it's not about I'm taking it from the other guy. The other guy might have a good solution, too. Sometimes we partner with the other guy we're actually, we're about

as Switzerland as you can get in terms of a large company. We partner with all the major compute companies as an example. We try to inter-operate with them. But I think if we were a market taker, then we'd be just looking around saying, how do we ... And we're competitive for sure. It's not like, there's no competition, but it's a different part of the market we've put ourselves into and a different strategy.

Daniel Newman: I mean, we say it all the time that innovation is not a zero sum game and that when one company leapfrogs, it's actually really good for the market, it's really good for the consumer, the customer and the enterprise, because it'll push that person that just got leapfrogged, that company that just got leapfrogged to continue to invest and innovate, and it brings up the whole level.

And your point about zero sum, I mean, cloud growth, data center growth, automotive growth, the overall Silicon, I mean, all the supply chain challenges that have happened over last year, what no one's really talking about is how much more Silicon we've actually shipped. So, the supply chain has been challenged, but not because of the supply, but really because of demand and that demand for compute is exponential and companies like yours are out there to solve these problems.

Matt Murphy: Well, it's certainly been a glass half empty view on supply. I mean, give you an example, for our Q1 that we guided, right we haven't reported it yet, if you just look at the org, because we didn't have Inphi for the full quarter a year ago, but if you just sort of assume that they did their quarter, and you could back into it, right it would suggest that the company's growing like 40% a year.

And then you say, that's cool. That's great. But that means we get 40% more supply, which is a lot of supply, it's not like 10% and I've got ... So I think you're right. The industry has reacted. It's generating, a lot more incremental supply. And to your point, our view's always been, this is about the market. Get in the right markets, for example, that's why we're not in smartphones. That's why we're not in PCs.

Not that those aren't good, but we weren't really a player. And those are zero sum games. Those have been largely X unit growth markets, a lot of these consumer markets for a long time. And so there, if units are just going to stay where they are, you get a little content, but basically it's who battles it out. And so I think we've been very purposeful from day one, which is basically that our view is the market always wins.

You've got product, you've got market, you've got a team. You can kind of pick your ... We say focus on the market, get in the right place. There'll be enough growth. You can absorb, not a 100% market share, it's okay. And those are the kind of businesses that we like to be in. And those are the exciting ones to be in.

Patrick Moorhead: Matt, I think this is a good place to wrap this up and some great words of wisdom. I mean, it's one thing to talk about what you're going to do, but it's also kind of refreshing to look back and look at the moves that you made that worked for the company. And also look at the next big

moves for the next five years of the company. And just want to thank you for doing today's keynote. Appreciate that.

Matt Murphy: Appreciate it. It's an honor. And thanks guys. And good luck at the entire conference. It's going to be great.

Patrick Moorhead: Appreciate that.

Daniel Newman: Thanks Matt.