Company Name: ADTRAN, Inc. (ADTN)
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<<Unidentified Analyst>>

Okay. We're going to kick off our next session here. The company presenting is ADTRAN and we're very pleased to have ADTRAN's CFO, Mike Foliano, who's going to present for us. Go ahead Mike.

<<Michael Foliano, Senior Vice President and Chief Financial Officer>>

Welcome everybody. I'm happy to be here. Everybody seems to be well engaged in lunch and it look like a pretty good lunch out there. So hopefully, I'll get to that thing shortly. Let me just start with a little bit of housekeeping. I always have to say this at the beginning. But I may make some forward-looking statements here. And when I make those statements, they are in the best judgment of management at this point, but things change. So I suggest that you should go out and look at our 10-K that was published in December. And make sure you understand the risk factors that are out there.

With that, let's move into the real presentation. So, I don't know what level of depth everybody has on the company. But I look at ADTRAN as a 35-year-old startup. So we're a company that has been around, started out in the early days of data modems way back in the 1980's, when the U.S. government was starting to breakup the Bell System and have evolved as we've gone to be one of the top three broadband suppliers in the markets where we play.

Those markets are North America, Europe and Middle East, and then also in Australia. So those are the places that we're focused on and where most of our sales come from. We did about $529 million last year in sales. And I think this year is looking to be roughly the same, if you look at the analyst expectations that are out there. Pretty broad customer base, 500-plus service providers at all different levels. So from the Tier 1 service providers around the world, all the way down to much smaller players, Tier 2s, regional service providers and even into utility companies that are now providing broadband services to their customers and in the cable space.

So we also provide products to the top cable companies in the U.S. and also in Latin America. We've been around since 1985, I think we've been public since 1995. We have a fairly robust supply chain. We got out ahead of the Chinese issues that are out there in the tariff world by moving our production out of China five or six ago. So we have a pretty solid resiliency building products in Vietnam, in Europe and also in the U.S. So it helps us to be able to fulfill orders quickly to our customers and also avoid some of the issues that you've heard from many companies about their issues with tariffs.

We have a fairly strong balance sheet, about $160 million of net cash and securities. We're headquartered in Huntsville, Alabama, and we have development centers that are in Alabama, in Hyderabad, in India and in Greifswald in the North of Germany. So our development and R&D is much like our production. It's scattered around the world in three large centers that really allows us to do continuous development pretty much around the clock. And the company is roughly 2,000 employees today, split fairly evenly between the U.S. and the rest of the world.

So what do we about? So our vision is really to connect, right, we're a connection company. And it's not just about connecting people anymore, it's connecting IoT devices, it's connecting a whole bunch of different things. So I look at as, we're in the connection business, we specialize in broadband access. We work really from the cloud edge to the subscriber edge. So that's really the access piece of the network. We have longstanding expertise in this domain. So for the past 30 years, that's really the place where we have been working and where we've been developing products.

And we're really all about helping service provider customers really meet their objectives. So what are the objectives that they are looking for? Well, it's really pretty simple in anybody's business model, right? The key thing for them is to retain and expand market share. There's been a loss of share at a lot of service providers where people are moving to lower rates and higher speeds elsewhere. So being able to avoid that churn and to grow share, also to increase the average revenue per user, right. Each of your subscribers, you want to be able to sell them more and increase that. And when you look at some of our customers, they've been losing in those areas. So that's a big imperative for them.

And then finally to reduce OpEx, to be able to build and operate networks efficiently is really driving to the bottom line. So those three things grow and expand the market share, be able to increase the revenue per user and then to reduce the OpEx in their business. So how do we do that? So we do that through a few different things that I'm going to walk you through how our business is structured and how those three things are supported by our business.

First, I want to hit just a couple of different things about what's driving the money into these companies. What's driving them to move ahead? So it's really two big things, right? One of them is governments and the other one is technologies. The first one in governments is when you start to look at what goes on around the world. Pretty much every country has recognized that being able to be competitive is driven by being able to have strong broadband infrastructure, right? And they are addressing that in many different ways, but they recognize that the power of broadband is out there.

Some of them are doing it just by setting targets and goals, other ones actually have funding programs where government monies are going into the development of broadband networks and that money is making its way to different operators across the world. Couple of examples of that, if you look at what's been going on post-Brexit in the UK, there's a significant number of what we call, alternate network providers that are out

there that are building 10-gigabit PON networks to overlay on the current networks that are out there from BT and Openreach to be able to provide another level of service. And a lot of that is aided by government funds.

If you look across Mexico, the change that happened there with their new President last year, one of his top requirements for the country, one of his six priorities was to push broadband out to the masses to make the country more competitive. And we're starting to see more and more of that happen. Just last month, Carlos Slim announced that he was going to put 40 billion pesos per year into the telecom infrastructure, right? That's about $2.1 billion across the telecom infrastructure there to be able to improve services. And then even in the U.S., you've seen things like the Connect America Fund, which is getting ready to morph into the Rural Development Opportunity Fund, which are all designed at expanding broadband out to underserved areas to be able to help smaller communities to grow.

The other side of it's the market, right? You've got governments that are doing this, but then you also have technology that continues to move ahead. When you look at the things that are happening in the way that devices are connected, in the way that we use our connections, right, over the top has just continued to grow, right? There is more and more streaming services that are being used and they're moving to higher and higher quality, right? A 4K stream takes 15 megabits to 18 megabits. You turn on a couple of TVs in your house and you have a few other things going on that now suddenly you need more bandwidth to be able to make that perform and it continues to grow, right? It's growing at almost 50% annual growth rate through 2022.

And at the same time, now 8K is moving out and you're starting to see that there'll be 8K broadcasts that are going to happen over streaming, which takes about 4 times the bandwidth, twice the pixels and twice the frame rate. Although there'll be some techniques to improve that a little bit. You're going to continue to see streaming drive usage and drive requirements for bandwidth. Gaming is also another one that continues to push the requirements up further and further.

And in gaming you got to have high quality, high bandwidth and low latency. So it really is a big driver of the bandwidth requirements. 25-megabits a session for HD gaming, go into 100-megabits plus per session as it starts to move into 8K graphics. And then one thing that I think everybody is now continuing to move into is connected devices. And if you think just about the security side of connected devices, I know at my home I have three different cameras. Each of those are HD type cameras, each one of them sucking up about 4-megabit stream and they're 24x7. They kick on whenever something news or the wind blows or leafs blow across the doorway. So all those things are pushing that up into the cloud and continuing to increase the need for bandwidth.

So what is the opportunity for us? Our opportunity is really around helping those carriers to be able to seize the moment here. So the one in the center there about broadband capacity and coverage, that's really what we do. Spurred by the policy requirements of governments and just the technical piece of the market, there is more and more need for

broadband. So they will continue to upgrade and build networks to be able to reduce churn and be able to grow their customer base.

On the left side there, it's about connected home and business. So what we are doing is being able to help those operators monetize the home piece of their business, the end point. Whereas in the past, we serviced endpoints like ONTs that were really just the drop-off of an optical connection. This is much more residential gateways and provides the ability for an operator to be able to actually sell a service, a cloud-based service on residential Wi-Fi, so to help manage the local area network inside the home.

And then on the right side there is really around services and support. How do we help these carriers to be able to build out their networks? So our strategy is really – it's really around aligning with those three needs, right? Ensuring that they're able to build networks that provide loyalty from customers, high-speed and high-reliability, being able to deliver the services all the way into the subscriber and being able to monetize that as well and then finally, to help deploy those architectures. Whether it's helping a Tier 1 carrier to build out a disaggregated system or it's helping a smaller Tier 2 or Tier 3 carrier to be able to design and develop a high speed network.

So we've aligned our business really around these three things. When – I think, when you look at our results, you can pull these three things out. Fiber access and fiber extension is the largest piece of our business, and I'll walk you through how we address that market. The next largest piece is the connected home and enterprise solutions, right? And that's the piece that's inside the customer – end customer premise.

And then professional services and solution integration, which is really helping them tie it all together and get it done. I think on, in general, the fiber access and aggregation is a little more than half of our business. And the connected home and enterprise solutions would be the next largest followed by professional services. So here's how that works on the fiber access and extension side. So the imperative from the operator is to retain and expand share. The way that they're doing that is through capacity and coverage, right? Giving higher bit rates to more customers in more places, so that you can gain customers and avoid churn.

So what does our portfolio look like? So it's a fairly broad portfolio of products, right? It's everything from fiber-to-the-home. So in fiber-to-the-home products there's gigabit products like GPON, EPON for the cable providers and there's 10 gigabit PON that I'll talk a little bit more about here momentarily, which is really the next generation that's rolling out. In fiber-to-the-node in the B&C that you see up there on the slide, it's really about pushing fiber into a neighborhood and then using the existing copper plant that is there, spend some very large rollouts in Europe and also in Mexico to build out fiber-to-the-node at different service levels. The first one there is the 17A vectored VDSL. The second one is super vector and we see the speed ratchets up as you go.

Also fiber-to-the-node for CAF in the Connect America world, it has a much larger reach on this product. So up in the far right there, when you need to connect someone who is

maybe way down on the end of a Farmhouse Road, you can still get 25 megabits per second out there with this product. And all these FTM products are low cost to deploy or simple sealed units that you just carry out and put up on a pole or in a man-haul and hook them up to the existing infrastructure in their fiber fed.

We also have a whole set of fiber-to-the-building or fiber-to-the-basement products, which is E up there. So that's really the G.fast portfolio, a very wide portfolio of products there that handle multiple different – port count, this tends to be where you're on a fiber into the basement of the multi-dwelling unit. It use all the interior wiring to be able to get symmetric speeds up to a gigabit without having to do anything inside the building itself. And then those actually also have a reverse power feature to where there's really no power that's required for the unit itself, or it's able to back feed the power back from subscribers.

And then fixed wireless access, so a couple of different flavors of fixed wireless access, one of them is to support a node, so millimeter waved to the node, where you can't get fiber out to a node and you can't get connectivity to a node that may be in a rural or a distant location that you can then run other technologies off that node. And then the other one is direct to the home. So that's really the breadth of portfolio there. Whereas all that going, so the exciting piece in here is the 10 gig PON portfolio, so our portfolio is really designed to be able to fit a number of different markets.

What we're seeing today is a deployment and what we call the Altnets, our alternate network providers, which is really an integrated cabinet based type solution that is easy to deploy. It's 10 gig PON symmetrical, so that XGS-PON and it's rolling out now to be able to provide mostly business services. But there is also the plan to be able to use those for residential services as well. In the Tier 1 world, they're using more of a disaggregated solution. So we also support that across multiple different Tier 1s to be able to build those out. And then in the cable space, it's really more of a Remote OLT, so all of their assets tend to be up on a pole and less at a node or a central office type layout. So these things actually go up on a pole, their strand mounted and are used to be able to deliver 10 gig services.

Moving onto the connected home piece, so this is the portion that's really around increasing the average revenue per user, right? It's helping operators to be able to monetize the service that's available out there inside the home of their subscribers and being able to also manage that from the cloud to make it a little more sticky, right? So today you see lots of people that just go out and go to Best Buy and buy a Wi-Fi network, that's can be a drag on the operator, right? When there's a problem in the Wi-Fi network, they call their operators. The operator looks at us as it's not my problem. It's your problem. You can monetize it and also reduce the operating expense. That's out there for customer support.

What's that portfolio look like now? Now there's really two pieces to it. There's the connected home piece and then there's the enterprise piece. In the connected home piece, we have a broad solution set that is really far for small businesses. It's also for homes that

includes a bunch of different access technologies, PON, DSL, G.fast and DOCSIS. So lots of different termination points as well as the residential gateway that can be a fiber connected there, a 1 gig in a 10 gig residential gateway that have the latest Wi-Fi and are connected back through our Smart OS service.

The other half of that portfolio is really around enterprise type equipment. So this is a whole set of IP GIG business gateways. Routers under our NetVanta brand, enterprise and ethernet LAN switches also under our NetVanta brand. And then that we sell mostly to small and medium businesses and also to carriers who then sell those on to their business customers. They are simple, easily managed all standard. They have – we've been in this business for a long time. So we believe that we know it very well. And they are all also the ones that are out there now are our SD-WAN remotely upgradable. So there's also the opportunity for a higher ROI from our operator customers who can later flip it over to be able to be SD-WAN compatible.

And then the last piece is around professional services and solution integration. So this one is really about focused on helping to reduce OpEx inside the operators. How do we do that? So we help design, develop, build, test and turn up networks. And then we also help to maintain them throughout the network lifecycle. So we have things like virtual CTO for smaller customers, where we actually help them to design their network for the long term. We have a network monitoring services, we have network review services, where we go in and find the weak points whether it would be in security and throughput and design. And then we use those to help them to implement new features in their network.

The biggest piece of this business is network implementations, where we are actually helping customers build out those networks. Everything from managing the project to doing actual the build, installation, test and turn up. And then there's the backend support for maintenance. In addition, there is a whole set of solutions integration that is really designed to help the smaller operators and even some of the larger ones to make the jump over to software defined networks, right? We do things in there like a software development for some of those companies and helping them to really figure out what's the next step to start to virtualize across my network. So that's also a piece of that service.

So just looking back to summarize there the three big pieces of the business in the way we're addressing the market are the fiber access and fiber extension portfolio, connected home and enterprise networking and then professional services and solution integration, right? And how do they help? Well, every customer will tell you that's being able to gain and retain share and improve the speed out to their customers through that broadband access innovation is something that thereafter being able to increase the ARPU across their customers is something that thereafter and being able to reduce their costs of delivery and evolving their network. That's how the market is shaping up for us and how we address it.

So I want to talk a little bit about some of the financials now, and just the last couple of minutes here. Looking backwards, so I want to look backwards first, before I look forward. Looking backward, this is really the revenue trend that we have seen in ADTRAN. So you can see in general were for the last 10 years or so, between $500 million and $700 million is a pretty good run in there at $600 million. When you look at the 2018, where it was a downturn in there. That was really driven by customer concentration and exposure to a very large project. I think we've seen some of that same customer concentration and project exposure in 2019 as we go through.

So I just want to show you next, what's the financial model? What are we doing for the long term? So really our mantra, our plan is to provide revenue growth and diversification, right? Diversification is absolutely key to be able to avoid some of the downturn, as you see from large customers and large projects with expense discipline, so making sure that the OpEx that we have out there, the things that we're placing our bets on, are the right things and making sure that we're disciplined in the way that we do that. So our long term annual operating model, and this isn't really a big stretch in my viewpoint, is that we should be $600 million plus in revenue. Looking backwards, you saw that we generally were $600 million plus in revenue. We need to be in the low to mid-40s in gross margins. Over the last few quarters, we've been in the low-40s 40%, 41%, 42%. So I think that certainly achievable with us with some minor tweaks to our supply chain.

And then being able to have that expense discipline and get to an operating expense level that's about $200 million a year. And if you put those three things together, right? Right, at $600 million, I think it comes in at about 9% EBIT and it levers up as the revenue grows fairly quickly because gross margin improves as the revenue grows or some fixed costs in there. And then the OpEx really doesn't grow at the same rate that the revenue grows, just based on things like a sales compensation and things like that, grow up with revenue. But the R&D pieces would be generally more fixed. So that's the model that we're looking toward going forward.

And with that I'd like to open it up to questions.

Q&A

<A – Michael Foliano>: Yes, sir.

<Q>: [Question Inaudible]

<A – Michael Foliano>: So thinking about the couple of large customers. We announced after the second quarter, that there was a slowdown with our largest customer in Europe. And we said then that we believe that, that project would start up again sometime in the new capital cycle, which begins in 2020. We don't specifically have any forecasts from them yet, but we do expect as we roll into next month that we will have a plan as to what they're going to do. And I do expect that it will rebound certainly above the levels that we've seen recently.

After that, as we rolled it through Q3, we had a downturn with another very large project, fiber-to-the-node project that was rolling out across Mexico. And that customer, we've pretty much always said is a, we've used the word lumpy, I don't know if that's the right word to use, but they tend to buy significant amounts and then digest those amounts by pushing them out into their network and turning up service, so they are a bit unpredictable.

We do expect, and I think, I mentioned earlier that there was information out in the press that Carlos Slim will continue to invest significant amounts in the telecom infrastructure across that country. And what we've heard from that customer is yes, they do plan to continue. It's just with them if it's always just a little bit hard to determine when, but that certainly is a project that we expect to continue into next year for sure.

Looking at the rest of the world, I think what we said at the end of our last quarter, if you set these two downturns aside, the rest of our business was actually up 20%. We were seeing strengths, pretty much broadly across our business. A lot of that's in our fiber solutions that I just walked you through there.

The downturns in those larger projects were in the fiber-to-the-node, so fiber-extensions solutions, so we are expecting that those fiber solutions will continue to grow. The biggest growth that we're seeing and we're expecting to go into the future is interest in the 10 gig PON products, multiple different customers, mostly in Europe have put out RFPs. We've won some of those RFPs. We've actually started to deploy some of those products there. They tend to be building out 10 gigabit networks that are right over the top of where the current incumbent carrier would be. We've also seen some strength in our services business, right, where we continue to help operators build networks. Most of that has been with our U.S. customer base, but some of that also occurs in Europe.

And in the Tier 2 space, I think we're also a – for some of our Tier 2 customers, they seem to be rebounding a little bit compared to where they've been. There are still some that are bit slow. But we have seen some rebound there. That answers your question?

<Q>: [Question Inaudible]

<A – Michael Foliano>: Yes, so we've done a number of things to try to improve that. And if you remember, we had a very large year on another very large project with CenturyLink in 2017 and then after the Level 3 merger, they decided they were going to focus more on business applications and that one went away. Although they have still been a strong and solid customer, they're certainly down from the levels that they were in 2017.

Well, we've been trying to do to be able to improve our diversification, really first started with trying to grow our business internationally. We felt like we were too tied to the U.S. market. So 2012 was the Nokia Siemens Broadband Access business acquisition, which

when you think about how all that worked out, now today we're about 50:50 international and U.S., so I think that one was fairly successful.

After that, we started trying to go deeper into the MSO and cable space. So we now are the leading supplier for EPON right in the U.S., unfortunately I think everybody knows that the cable suppliers or cables providers have really slowed down their capital spend not just on EPON, but pretty much on the DOCSIS network as well. So we continue to support those products and grow those products like the Remote OLT that I talked about, when that market rebounds, that actually will provide us a little bit of a diversification away from our typical carrier customers.

And then late last year, we bought a company called SmartRG to really be able to bolster that connected home portfolio. I talked about that piece as the second largest piece of our business in the three areas of focus that we have there. And that really brought with it residential gateways, it brought with it managed Wi-Fi cloud services and a bunch of tools for operators to be able to use, to be able to monetize that piece of their network and then also be able to help them to manage the customer better inside the customer's home or office.

So I think those are the things that we have been doing to attempt to diversify and trying also to bring on new customers with the whole 10 gigabit PON, there's a lot of customers that are brand new guys that we have not done business with before in the past, they are really starting up to be able to build their own networks there. So I think that will help as well, but there's still more work to be done there.

<Q>: [Question Inaudible]

<A – Michael Foliano>: Yes. So we believe that Connect America did help us, right. It was a six year project that really provided funding to build out some areas that frankly wouldn't have been dealt out without it, by getting out to some very rural and underserved areas. So, and not only from the equipment sales, a lot of our professional services actually go into helping design and build those networks. So that for us I think was a good thing.

When you look at the RDOF, which will hopefully replace the CAF is we're expecting that into next year it should be approved. So it's the difference that we expect to see, and this one is number one, it won't directly have a first right of refusal with the incumbent. So it's going to be open to just about anybody with just about any type of technology to be able to service these areas.

Number two, they're looking for higher speed connectivity and they will penalize offers that have lower speeds, so it's a scoring system on the speed of the connection. And then on top of that, there's a scoring system on latency. So between those two things, it's hard to say how it will all shake-out, but it is a significant amount of funding that's going to be going out there. We expect that we're going to play in it in one way or another, whether it

is some of the technologies I showed up there, up to including fixed wireless and even a backhaul solutions for fixed wireless depending on where this is, right.

We expect that we will have a big piece of it again. The timing of it, there's a little bit – it looks like that it will be approved as we move into next year and it would start up in the following year, and 2021 is when you'd actually see the spin start to progress and then go for the next six years.

<Q>: [Question Inaudible]

<A – Michael Foliano>: Yes. So that's the markets that we play in, so it depends which market you're in. So in the U.S. market, the two other players are Nokia and KLX. When you go into the European market, the two other players are Huawei and Nokia. And there's a little bit of noise out there in the world about Huawei right now, regarding some of the trade issues that are going on with the U.S. and potential banning the use of U.S. technology, which when previously governments only looked at that there could be a security concern there, a lot of governments said yes, so what, we're not really too worried about that because we already have a pretty big embedded base there.

But when operators start to look at, well, potentially there could be an availability and a supply concern, that's a whole different story, right, because you got to be able to support your network and bring on new customers. So that thing is really up in the air as the whole trade things are right there. There'll be a deal at some point, I would imagine and who knows what will be in it.

<<Unidentified Analyst>>: [indiscernible]

<<Michael Foliano, Senior Vice President and Chief Financial Officer>> Okay. Thank you.