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ADTN - Q2 2017 ADTRAN Inc Earnings Call

EVENT DATE/TIME: JULY 19, 2017 / 2:30PM GMT

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PRESENTATION

Operator

Ladies and gentlemen, thank you for standing by, and welcome to ADTRAN's Second Quarter 2017 Earnings Release Conference Call. (Operator Instructions) During the course of the conference call, ADTRAN representatives expect to make forward-looking statements, which reflect management's best judgments, based on factors currently known. However, these statements involve risks and uncertainties, included in the successful development and market acceptance of core products, the degree of competition in the market for such products, the product and channel mix, component cost, manufacturing efficiencies and other risks detailed in our annual report on Form 10-K for the year ended December 31, 2016. These risks and uncertainties could cause actual results to differ materially from those in the forward-looking statements, which may be made during the call.

It is now my pleasure to turn the call over the Tom Stanton, Chief Executive Officer of ADTRAN. Please go ahead, sir.

Thomas R. Stanton - *ADTRAN, Inc. - Chairman and CEO*

Thank you, Lynne. Good morning, everyone. Thank you for joining us for our Second Quarter 2017 Conference Call. With me to his morning is Roger Shannon, Senior Vice President and Chief Financial Officer. I'd like to begin this morning by discussing the details behind our second quarter results, and I will end with some comments on what we see on the future. Roger will then discuss our Q2 performance in more detail, and he will then open the call up for any questions that you may have.

As we stated in our earlier press release, revenues for the quarter were $184.7 million, a second quarter record, and up 14% over the second quarter last year. Our networking solutions revenue, including both international and domestic markets, came in at $155.5 million, up 12% for the same period last year. And our services and support revenues came in at $29.1 million, a 21% growth over last year.

Revenue for our domestic markets came in at $146.7 million or 79% of the total while our international revenues were $38 million for the quarter or 21% of the total.

On a year-over-year basis, our domestic revenues increased 10%, and our international business was up 31% over the same period last year. Both numbers were driven by increasing demand for our ultra-high-speed solutions.

Moving down a little deeper, our Access and Aggregation category had a strong performance, up 36% over the same period last year, with growth both domestically and internationally. Customer Devices was down 17% over the same quarter last year, impacted mainly by an accelerated ethernet infrastructure build, which occurred in Q2 of last year. Finally, our traditional products and other categories were down 38% versus the same quarter last year, mainly due to the expected slowdowns in our older generation DSL products.

I mentioned last quarter our efforts on a broad-based of technologies, including G.fast, NG-PON2, 10-gig PON, and of course, our Mosaic Cloud Platform developments. These development efforts are targeted for not only expanding our market share in our existing customer base but also enabling our expansion into adjacent markets. I'm glad to say that in the second quarter, we made progress on both fronts.

During the quarter, we exited our G.fast and Mosaic Tech trial and moved into full deployment in production status with a major Tier 1 carrier here in the U.S. During the quarter, we completed lab testing and began first deployment of our 10-gig EPON solution with a major U.S. cable MSO, a significant milestone for our company. The quarter also saw us launching our first Tier 1 deployments of our XGS-PON solution, utilizing the industry's first deployed virtual LLC, with a Tier 1 U.S. carrier.

This implementation utilize our Mosaic software-defined access platform. And as of today, we have over 10 global Tier 1 carriers who have either selected or are field trialing Mosaic for deployment. Also yesterday, we announced our trial with Deutsche Telecom with the world's first 212 megahertz G.fast solution, providing over 1 gigabit of speed with enhanced upstream performance over a single pair of copper. And finally, I'm pleased with our announcement yesterday of our contract win with NBN, a government owned carrier in Australia, to provide software, hardware and services as they move forward in deploying their fiber-to-the-curb network. This was a material win for our company, and we expect to begin shipments in the first half of 2018.

Looking forward, our focus remains on being the world's most comprehensive access solution provider with clear industry-leading solutions for software-defined access, fiber access and ultra-high-speed copper. With the world's most complete access virtualization products, we believe we are well-positioned to capitalize on the evolution and access as carriers around the world upgrade their infrastructure to meet customer demand. I'd now like Roger Shannon to review our results for the second quarter of 2017 and provide some comments on the third quarter of 2017 as well. We'll then open up the call for any questions that you may have. Roger?

Roger D. Shannon - *ADTRAN, Inc. - CFO, SVP of Finance, Corporate Treasurer and Secretary*

Thank you, Tom, and good morning. I will speak about our second quarter results, discuss what we see for the next quarter. During my report, I'll be referencing both GAAP and non-GAAP results. As Tom stated, ADTRAN's second quarter revenue was $184.7 million, which is up 14% compared to $162.7 million for quarter 2 of 2016, and up 8% from $170.3 million we reported last quarter. Our Network Solutions revenues for the second quarter were $155.5 million, up 12% from $138.5 million for Q2 of last year, and up 8% from $143.6 million recorded for Q1 of 2017.

Our services and support segment continued its strong year-over-year and quarter-over-quarter growth as Q2, 2017, revenues were $29.1 million, up 21% compared to the $24.2 million earned in quarter 2 of 2016, and up 9% versus the $26.7 million recorded for the first quarter of this year. Across our revenue categories, Access and Aggregation revenues for quarter 2 2017 were $138.6 million, up 36% compared to $102.2 million for quarter 2 2016. Customer Devices revenues for the quarter were $33.8 million, down 17% compared to $40.9 million for quarter 2 of 2016 and down 7% compared to $36.3 million for quarter 1 of 2017.

Finally, traditional and other product revenues for quarter 2 2017 were $12.2 million, down 38% compared to $19.6 million for quarter 2 of 2016 and down 12% compared to $13.9 million for quarter 1 2017.

Looking at revenues geographically. Domestic revenues for quarter 2 were $146.7 million, up $13.1 million or 10% from $133.6 million we recorded in quarter 2 of last year, and up $27.4 million or 23% from $119.3 million in quarter 1 of 2017.

Our international revenues for quarter 2 were $38 million or up 31% compared to $29.1 million in quarter 2 of last year, but down 26% as expected from the $51 million of quarter 1 of 2017. We published the reporting in each of these categories in our Investor Relations webpage at adtran.com.

For the quarter, we had 2 10% of revenue customers. Our GAAP gross margins for the second quarter of this year was 45.8% compared to 48.5% in the second quarter of 2016 and 43.3% in the last quarter. The year-over-year decrease in our current quarter gross margins was driven primarily by higher domestic services and international revenues versus the same period last year. Our gross margin improvement over last quarter's results is attributable to higher domestic revenues and a favorable mix of services. Total operating expenses on a GAAP basis were $68.2 million for quarter 2 of 2017 compared to $64.1 million for quarter 2 of 2016, and $66.7 million for quarter 1 of 2017. While our SG&A expenses were down quarter-over-quarter, our R&D expenses were up over last quarter as expected.

On a non-GAAP basis, our Q2 operating expenses were $65.5 million compared to $62.3 million in quarter 2 of last year and $63.8 million last quarter.

The quarter-over-quarter increase in operating expenses was a result of customer-specific research and development projects. The year-over-year increase in operating expenses was a result of the previously mentioned customer-specific projects, performance and equity-based compensation, amortization and acquisition-related intangibles and ERP project implementation expenses. The difference between GAAP versus non-GAAP operating expenses in Q2 is due to amortization expenses associated with our Active EPON and project acquisition in the third quarter of last year and equity-based compensation. Operating income on a GAAP basis for the quarter just ended with $16.4 million, up 11% compared to $14.8 million reported in Q2 of last year and up 134% versus the $7 million that we reported in quarter 1 of 2017. The increase in Q2 GAAP operating income as compared to Q1 is attributable to higher revenues with stronger gross margins that were slightly offset by higher operating expenses. The year-over-year increase in operating income is attributable to higher revenue, partially offset by the previously explained lower gross margin percentage and higher operating expenses. Non-GAAP operating income for Q2 2017 was $19.2 million compared to $16.8 million for quarter 2 of last year and $10.1 million for quarter 1 of 2017. As described in our supplemental information provided on our operating results disclosure, stock-based compensation expense, net of tax, was $1.4 million for quarter 2 of 2017 compared to $1.3 million reported in quarter 2 of last year and $1.5 million in quarter 1 of this year.

Expenses related to the amortization of acquired intangibles were $582,000, net of tax, compared to $293,000 in quarter 2 of last year and $713,000 last quarter. All other income, net of interest expense for Q2 2017 was $1.4 million compared to $1.6 million for quarter 2 of 2016 and $1.3 million last quarter. The year-over-year decrease and all other income is a result of lower investment gains in the quarter versus the comparable period. As previously communicated, gains and losses from our FX hedging program resulting from an increase in our international business were recognized in other income.

The company's tax provision for Q2 2017 was an expense of $5.5 million or an effective tax rate of 30.6% compared to a tax provision rate of 37.8% for quarter 2 of last year and 20.3% in quarter 1 of 2017. The decrease in the tax rate versus quarter 2 of last year was primarily due to stronger international revenues in the current quarter. As we discussed last quarter, quarter 1's lower tax rate was primarily due to benefits recognized from foreign tax filings and greater mix of international revenue. Net income for Q2 2017 was $12.4 million compared to $10.2 million in quarter 2 of last year and $6.7 million in quarter 1 of 2017. Non-GAAP net income for the second quarter of 2017 was $14.4 million compared to $11.9 million in quarter 2 of 2016 and $8.9 million last quarter.

Earnings per share on a GAAP basis, assuming dilution for the second quarter of 2017, were $0.26 per share compared to $0.21 per share in quarter 2 of last year and $0.14 per share for quarter 1 of 2017. Non-GAAP earnings per share for the second quarter of this year were $0.30 compared to $0.25 per share for quarter 2 of last year and $0.18 per share for quarter 1 of this year. Non-GAAP earnings per share excluded the effects of amortization of acquired intangibles and stock compensation expense in each respective quarter. We provided a reconciliation between diluted GAAP earnings per share and diluted non-GAAP earnings per share in our operating results disclosure.

Now turning to the balance sheet. Unrestricted cash and marketable securities, net of debt, totaled $249.3 million at quarter end after paying $4.4 million in dividends and repurchasing just under 595,000 shares of common stock for $11.8 million during the quarter. For the quarter, ADTRAN produced $11.5 million of cash flow from operations.

Net trade accounts receivables were $79.9 million at quarter end, resulting in a DSO of 39 days compared to 50 days at the end of the second quarter of 2016 and 45 days at the end of quarter 1 2017. The year-over-year and quarter-over-quarter improvements in our current quarter DSO are attributable to customer mix and the timing of shipments within the quarter.

Inventories were $114 million at the end of the quarter just ended, up from $112.8 million last quarter. The increase in inventory in the quarter was due to customer-specific projects.

Looking ahead to next quarter. The book-and-ship nature of our business, to time in our revenues associated with the March projects, the variability of order patterns of customer base and to which we sell and the fluctuation in currency exchange rates in international markets we sell into may cause material differences between our expectations and actual results. However, our current expectations are the third quarter 2017 revenues will be flat versus the quarter just ended. Taking into account the potential impact of currency exchange rates and anticipated mix, we expect that our third quarter gross margins on a GAAP basis will be flattish with the quarter just ended. We're also expecting GAAP operating expenses for Q3 2017 to be flattish with the quarter just ended.

Finally, we anticipate the consolidated tax rate in the third quarter to be in the low 30% range.

We believe the significant factors impacting revenue and earnings realized in 2017 will be the following: The macro spending environment for the carriers and enterprises, currency exchange rate movements, the variability of mix and revenues associated with project rollouts; professional services activity levels both domestic and international; the timing of revenue related to the Connect America Fund projects; the adoption rate of our Broadband Access rates platforms and inventory fluctuations in our distribution channels. Finally, I'd like to encourage our listeners to visit ADTRAN's new Investor Relations website by going to www.adtran.com and following the Investor Relations link. We've made our Investor Relations website much easier to navigate and much more user-friendly. We have also added resources such as interactive financials to provide insight into our performance. With that, I'll now turn the call back over to Tom.

Thomas R. Stanton - *ADTRAN, Inc. - Chairman and CEO*

Great. Lynne, at this point, we're ready to open up for any questions people may have.

QUESTIONS AND ANSWERS

Operator

(Operator Instructions) And we'll take our first question from Rod Hall with JPMorgan.

Roderick B. Hall - *JP Morgan Chase & Co, Research Division - VP and Senior Analyst*

I just wanted to ask a couple of questions. First of all, could you guys comment on the large G.fast customer in the U.S? Like how much revenue was that in the quarter? And how are you feeling about visibility there? Could you just talk a little bit about that? And then also I know last quarter you guys talk about his fiber access delays that I think pushed some of that G.fast rollout into the second half. What -- can you update us on those delays in terms of access? Are they still planning delays out there as that's moving forward a little bit better?

Thomas R. Stanton - *ADTRAN, Inc. - Chairman and CEO*

So I appreciate the call. So we did start shipping this quarter. I wouldn't call it a material shipment. But to be honest with you, just to get it into production is a material move. So we're very happy with that. If you recall, there are 2 phases of that project. So there's an outer region phase and in region phase. The out of region phase, which is outside of their traditional footprint is actually which started the in region phase which is still targeted towards second tail end of the year. Third-ish -- third quarter, fourth quarter right around that pivot point. And we just expected to ramp from here. So I'd say initial shipments started and we expect -- we just expect that the referent year. They have told us from particular product that actually been and the press is a little vocal about that as well. I know there's been some things written on it. But exactly what that ramp will be, we still don't know. At this point in time, I'm not -- I don't think that there's any material things impacting the deployment of the service. I just think we're expecting a normal ramp. Did that answer your question?

Unidentified Analyst

Yes. I was just wondering if that's ramping on through the third quarter, why is the guidance just flat? Is it because you guys think the likelihood is that the acceleration really happens more towards the back end of your -- it sounds like that's kind of what you're saying I just wanted to clarify that.

Thomas R. Stanton - *ADTRAN, Inc. - Chairman and CEO*

Yes. I think you're exactly right. This is something we have no track record on. So without having the track record it's kind of hard to forecast. But my expectation is it'll get better. It'll get faster and it be more aggressive in selling it and this kind of build throughout the year. So just expect more momentum in the fourth quarter than the third quarter.

Roderick B. Hall - *JP Morgan Chase & Co, Research Division - VP and Senior Analyst*

And could you make some comments about those planning delays that you guys had flagged earlier in the year? Is that still a factor? Or do you see those kind of moving forward a little bit quicker? Or what's happening...

Thomas R. Stanton - *ADTRAN, Inc. - Chairman and CEO*

I'll be honest with you. That's slipped my mind planning delays. I know that there were issues initially when getting the fiber test some of the MD use. There were also issues this kind of normal when you're going out in selling out region the tactical and logistical plans in that. Having said that, I don't want to speak for that customer. It's a very touchy customer about that. And as far as I'm concerned we're doing a fantastic job.

Roderick B. Hall - *JP Morgan Chase & Co, Research Division - VP and Senior Analyst*

Okay and great. And just one under thing on the MSO customer. Is that a new customer for you? I mean, could that be a 10% customer, is it already could you just give us some kind of color on that on the deals you guys talked about earlier in the call?

Thomas R. Stanton - *ADTRAN, Inc. - Chairman and CEO*

Not a 10% customer by any stretch. Never has been a 10% customer for us. I wouldn't say they're -- we may have sold them some things. But it's practically a new customer. Because we sell switches and things to a lot of different customers. But for infrastructure, without a doubt, a new customer.

Operator

And we'll take our next question from Richard Valera with Needham & Company.

Richard Frank Valera - *Needham & Company, LLC, Research Division - Senior Analyst*

I was wondering if you could give us an update on your international customers, particularly your German and how they were in the quarter and how you see that trajectory for the balance of the year?

Thomas R. Stanton - *ADTRAN, Inc. - Chairman and CEO*

I think they were pretty much right on track. Maybe a little stronger than we expected. But we typically see with that customer is kind of Q1 is typically strong and then was even tail off towards the tail end of the year. Last year was a little bit of an anomaly. But that's what our expectations are here as well. We would, at this point in time, expect them to tail off in the third and the fourth quarters. Fourth quarter is kind of sometimes they come in and want you to the incremental work for them. We definitely got hit with that last year. But at this point in time, that's not what our plan is.

Richard Frank Valera - *Needham & Company, LLC, Research Division - Senior Analyst*

Got it. And then there is a PPE-related programs that you've been talking about customer.

Thomas R. Stanton - *ADTRAN, Inc. - Chairman and CEO*

Thank you for remembering.

Richard Frank Valera - *Needham & Company, LLC, Research Division - Senior Analyst*

Can you give us an update on that it sounds like you're closer to that

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Thomas R. Stanton - *ADTRAN, Inc. - Chairman and CEO*

We started shipping. So that was really good. So we actually did shape. We shipped a little bit in Q1 if I recall, Roger. Of course, we shipped in Q2. It is not ramped yet. That service, I don't know how broadly available it is yet. But we would expect that to ramp through 2018.

Richard Frank Valera - *Needham & Company, LLC, Research Division - Senior Analyst*

Great. And just final one. Mexico, sounded like it's a bit of a holding pattern due to sort of political and regulatory stuff there. Is there any updates there? Or still kind of status quo.

Thomas R. Stanton - *ADTRAN, Inc. - Chairman and CEO*

The update is no change. They really are still -- they are -- we have, as you know, as you may know, there are several things that have queued up in the lab and ready for approval. But as far as capital budget for our type of equipment, we have not seen a change.

Operator

And we'll take our next question from Paul Silverstein with Collin.

Paul Jonas Silverstein - *Cowen and Company, LLC, Research Division - MD and Senior Research Analyst*

Two questions if I might. One, for Roger, going back to the 2 questions. I appreciate the sensitivity (inaudible) customer. But there's been some recent press about and the German regulatory authority, having conversations. The relators barely want the network regulators always want (inaudible) to do and talk about how would that adversely impact rollouts to do that. Any insight you could see there? Announcements in the G.fast trials but any insight that you can share? And then the other question is, Roger, could you give us an update on your thoughts on where gross margin could go to and the key drivers and get it here now that you've done Mosaic I would assume you have traction I would meaningful positive impact. I know there's some offsets in the service side, et cetera. But if you could update us, that would be great.

Thomas R. Stanton - *ADTRAN, Inc. - Chairman and CEO*

Yes. So as far as (inaudible) is concerned, there is periodically negotiations to, say, that go on between carriers and their governments. And if you recall, Paul, that happened about 1.5 years ago or so when they really started talking about super-vectoring. That's without negotiation, together right to expand their footprint by another 15% or so. I do think that in Europe, there was a strong demand for bandwidth, which is one of the reasons that you are seeing faster movement on G.fast as well. But as far as them talking to us directly, we're really see no change in the plants. They plan on rolling out and continue to rollout victory. They plan to roll out super-vectoring next year, and you see them following on G.fast. That's the current plan of record that they share with us. As far as gross margins, do you want to touch that?

Roger D. Shannon - *ADTRAN, Inc. - CFO, SVP of Finance, Corporate Treasurer and Secretary*

Yes. As far as gross margin, like you mentioned, the gross margins for the quarter just ended were slightly above our prior expectations kind of driven by the mix both within the product set and with services. We're guiding for gross margins to be flattish in the next quarter. The considerably said our expectations are for gross margins go up. If you recall over quarter 1 gross margins were negatively impacted by the higher shipments on greenfield (inaudible) European Tier 1. I'm not going to, at this point, get it on where we're looking into in the next quarter on the mix. We do -- there is variability within the services. We consistently say that service is lower than the corporate average gross margin is creative at the operating income level. But we do see some variability in that mix and we saw that in the current quarter.

Paul Jonas Silverstein - *Cowen and Company, LLC, Research Division - MD and Senior Research Analyst*

Guys, one more if I might. Returning to Ross questions new cable court customer that you referenced. Maybe I'm but in terms of I understand it's not today. But could that be a 10% customer in terms of the projects you are doing for them? Does It have that and of potential overtime?

Thomas R. Stanton - *ADTRAN, Inc. - Chairman and CEO*

They stated -- the answer is it does have the potential overtime. But I don't think I would expect to see that near-term.

Operator

And we'll take our next question from Simon Leopold with Raymond James.

Simon Matthew Leopold - *Raymond James & Associates, Inc., Research Division - Research Analyst*

I wanted to just follow up and clarify the gross margin in the last quarter. And I did hear the answer in the last question but I'm still a bit confused. So you had indicated that you expected, I believe, a lower gross margin for June than you've reported, given that we thought it would be kind of flattish versus the March quarter. And I guess all this is attributed that trend, the expectation to the international mix. Basically how your international coinciding with a lower gross margin. Yet in this June quarter, we saw a very dramatic shift in international from the last 2 quarters. I guess what I'm truly trying to understand here is were you surprised by this mix shift? And so should we think that in this quarter, you had a negative surprise, meaning, your international business fell off completely offset by a positive revenue surprise that netted out to gross margin upside? Am I reading too much into this? Can you help me understand?

Thomas R. Stanton - *ADTRAN, Inc. - Chairman and CEO*

Yes. First thing, I'm not sure about the comment about material change and rethinking on revenue and international. But let me -- so there are a couple of things that without -- on a macro perspective, international versus domestic has an impact. Where we saw improvement that we were happy about one is -- the biggest one is in service as gross margin profile in the U.S. that we saw a meaningful uptick there. Some of that, I think, we're just getting better at it. Some of it has to do with the services mix itself. But if I look at this mix of services itself versus any other mid-quarter, first quarter is typically has a different feel to it. It wasn't anything really strange about the mix. I just think -- honestly, I think we're just getting more efficient. We're doing it now for a couple of years and I think we're managing it better. And that was probably the biggest material change from what we thought coming into the quarter, pardon say that again?

Simon Matthew Leopold - *Raymond James & Associates, Inc., Research Division - Research Analyst*

I just wanted to say the geographic mix shift in June did not surprise you, you expected that?

Thomas R. Stanton - *ADTRAN, Inc. - Chairman and CEO*

No. The international business came in as pretty much exactly where expected on a revenue and a gross margin profile perspective.

Simon Matthew Leopold - *Raymond James & Associates, Inc., Research Division - Research Analyst*

Okay, that's very helpful. The other thing I wanted -- really wanted to ask about was the opportunity and prospects you see at a BT in light of the fact that BT recently has seem to renew its interest in fiber to the home technology. It looks like they're issuing some new tenders. While he didn't get a leading position in their G.fast initiative that you participated in, it sounds like they're looking at some new prospects and fiber to the home technology and perhaps being encouraged by the regulatory agencies in the U.K. Could you talk a little bit about how you see that market opportunity evolving for ADTRAN?

Thomas R. Stanton - *ADTRAN, Inc. - Chairman and CEO*

I can't. I mean anytime there's an opportunity in the access base its with a customer of that size, we tend to focus on and typically win more than our fair share. I would tell you that a tender with a company and we have been through -- we just went through a tender with them. This takes very long time. So it's something that it would be very speculative to talk about. And I think that even to understand the opportunity right now is probably mature. But it is something that we would be going after of course and we've already got relations with things in that carrier.

Simon Matthew Leopold - *Raymond James & Associates, Inc., Research Division - Research Analyst*

And one last one. You also announced the NBN deal yesterday. Could you give us some perspective on how to think about the materiality of that particular opportunity?

Thomas R. Stanton - *ADTRAN, Inc. - Chairman and CEO*

It's one that we have been excited about and working towards literally for over 2 years. It's -- they are because they're a government entity, they're very republic even with our press release when we talk about reaching over 1 million homes. It's a material win for ourselves. I think the key to us now is getting out of the lab and getting it rolling out. And we feel good where we are. We already had a relationship with them. Strengthened with our Mosaic Cloud Platform, which is being used to manage a large percentage of their access networks. So I don't know what to tell you out of then yes, it is a material win for us. We think that it will actually be meaningful in our numbers and the key to us is to be able to execute on finishing up the lab process.

Simon Matthew Leopold - *Raymond James & Associates, Inc., Research Division - Research Analyst*

Just to close on that NBN comment. I assume this is something that multisourcing that they've been purchasing Broadband Access products from others in the past, I assume.

Thomas R. Stanton - *ADTRAN, Inc. - Chairman and CEO*

It is a multisource -- yes, there's more than 1 source in their working and in most areas at this point. I mean, we feel pretty good how we're positioned.

Operator

And we'll take our next question from Michael Genovese with MKM Partners.

Michael Edward Genovese - *MKM Partners LLC, Research Division - MD & Senior Analyst*

First question on the XGS-PON deployment with a Tier 1 U.S. carrier. Was there actually revenue in the second quarter? How material was it if so? As a time line of that move that because I thought it was going to be a 2018 event?

Thomas R. Stanton - *ADTRAN, Inc. - Chairman and CEO*

Yes. I think what I was trying to touch here so you know there were a couple of further along as far as the carriers plan b DMSO, and I saw one that is fairly far law. Of course the G.fast fuming the U.S. is fairly far along. NBN is fairly far along. This is less far along the reason for me to bring that up is the fact that we're to first vendor to actually produce and be able to ship virtual LLT on a mosaic environment. Although this is being rolled out, I would say it's probably -- it's not something in it of itself that I think will be material in the short-term. I think it's a longer-term play.

Michael Edward Genovese - *MKM Partners LLC, Research Division - MD & Senior Analyst*

Okay, great. And then my other question or questions are sort of bigger picture in nature. A couple of related questions here. I think in this kind of pre-5G era that we're in, you seem to be the sweet spot because there's not a lot of wireless access going in and it seems like to get to 5G carriers realized they have to upgrade their wired access networks. But still at the same time, we have a lot of copper still in the last 1,000 feet. So the first question is, in a couple of years, when 5G positively inflex, when 5G access spending starts to go up, do you still think wired access will still be in the sweet spot at that point? Or we'll sort of see a shift to wireless spending? And then secondly, how long until fiber all the way to the Prem becomes a bigger business than the solutions that have copper on the last 1,000 feet?

Thomas R. Stanton - *ADTRAN, Inc. - Chairman and CEO*

Yes. That's really -- that last one, of course, is a really good question. So let me start with the 5G piece. We actually see 5G is being accretive to do business. The key with 5G technology proves itself how use cases but just to build the infrastructure itself, which like you said,'s going to be predominantly fiber similar to what 4G is. Just a multitude, the kind of exponential growth and connection points is really good for the access business. So was he to build up that that working accretive to our overall performance. Where does to the extent that we are able to deliver a gigabit plus of service over copper in a much more cost efficient manner than fiber, I think there's still demand. And he think people are positioning themselves between now and 2020 I'm being able to keep that residential customer in-house or within their domain. So when does it go to fiber? Without 5G, we'll probably help push that because we'll have a lot more routes in that but it's that last access to that fiber, which is why G.fast is so poplar at this point in time. That last piece will not be really driven by 5G. So it's probably some time. And I think the strange thing is as you probably can remember it wasn't that long ago that we thought 50 megabits was the most were getting out of copper. We just did a trial and were delivering 1.2 gigabits of copper meaningfully changing the economics of deploying that type of service to the customer. So if I told you it would be run wouldn't likely to be I would say data was probably too quick because were able to continue to buy things out. But in most of fiber, think that'll be great. The strong business for us will wear position and redoing virtualization and our whole XGS-PON and NG-PON2 efforts. But I think the period of time is still a ways away.

Operator

And we'll go next to George Notter with Jefferies.

George Charles Notter - *Jefferies LLC, Research Division - MD and Equity Research Analyst*

I guess I wanted to ask about the professional services business. Philosophically, I think the way to characterize the bigger picture here is somebody is bigger, operators essentially world others expressing cost pressures and their business and they're pushing more and more of that labor peace onto vendors. Can you just talk about -- are you seeing that increasingly or are you getting more new efforts to engage services and what's your approach to doing that business? Is it all businesses are worthwhile? Or are there certain pieces of the business that you would like to do and turn away other pieces? Like how do we think about services philosophically overtime for ADTRAN?

Thomas R. Stanton - *ADTRAN, Inc. - Chairman and CEO*

Yes. I think the frame of the question is different than the way we frame it. We don't view them as pushing them off, we view them as business we're trying to go after. We think it's accretive. We think we're getting better and better at it. We think we're getting more efficient. And it's not just a matter of handling your internal peace. One of the keys is having an ecosystem contract and support personnel that can actually that you can work with and you can get drive kind of point to deficiencies with those particular contractors. So we like the business and we absolutely are trying to grow that business. We do say at the end of the day, it has to be something that is good for our shareholders and good for the company to be able to do. But I would say we're getting good at it. So I think if it makes sense for other people, there's a chance -- there's a good chance it will make sense for us. Having said that, we're still say periodically. Interactions with our customers growth. Actually, just in the last 6 months, we've had more people come to us and talk to us about what we can do for them. One of the things that drives that is if you look at CAF spend itself. If you look at some of these projects related with particular cities or particular regions where they're just trying to go they just don't have the staff there and to bring them on board no can have a handle on difficult for them. So we can come in and offer effectively a turnkey service what we do project management. We meet our dates we meet or got started. That's meaningfully important to them. So it's a good business for us. I don't see it back in away from that at this point.

Operator

And we'll go next to Greg McNiff with Drexel Hamilton.

Gregory Mesniaeff - *Drexel Hamilton, LLC, Research Division - Senior Equity Research Analyst*

I wanted to ask you guys about some data points relative to your increase in international sales, which were up 31% year-over-year. With that, your -- number one, your SG&A seems to be very nicely under control as far as levels; and number two, your DSOs came down year-over-year and quarter-over-quarter despite the pickup in international. So I'm wondering how you can sort of give us some backdrop as to how you're managing to put up those types of data points in the face of higher international sales mix?

Roger D. Shannon - *ADTRAN, Inc. - CFO, SVP of Finance, Corporate Treasurer and Secretary*

Greg, is a great question. First of all, get a lot of credit to our team. Our relationship with our customers are collections process. And just the mechanics of that are very strong. This year, this quarter in particular, we've seen really good linearity across the quarter, across the months. And those sales and that has had some positive impact. And just the mix of the customers themselves, there's -- we've had long-standing in good processes in place for how we work with them, how they pay so it's just been on our part continues improvement and working with them, improving our processes on getting those collections done. Probably the biggest impact was linearity. We had a very linear quarter. And if you think about international customers, they tend to be stronger in the first half of the year actually strong at the beginning of the year in the quarter.

Roger D. Shannon - *ADTRAN, Inc. - CFO, SVP of Finance, Corporate Treasurer and Secretary*

That's right.

Gregory Mesniaeff - *Drexel Hamilton, LLC, Research Division - Senior Equity Research Analyst*

So it's fair to say that vacation season in Europe is probably going to be a factor in the flat guide you gave for the third quarter.

Thomas R. Stanton - *ADTRAN, Inc. - Chairman and CEO*

We would expect the European business to be down in the third quarter.

Operator

And we'll go next to Doug Clark with Goldman Sachs.

Douglas Clark - *Goldman Sachs Group Inc., Research Division - Research Analyst*

My first one is kind of a conceptual customer question. If you look at some of your core customers, specifically the U.S. Tier 2s in general. There is some liquidity and M&A-related potential disruptions. I'm just wondering if your conversations and our outlook for this customers reflect any kind of conservatism in that or if you just see them continuing to spend on projects regardless.

Thomas R. Stanton - *ADTRAN, Inc. - Chairman and CEO*

You always have to be mindful of that. But at the end of the day, you factor in what you know and one of the things that we always have going for us is we tend not to get too far ahead of our headlights. So talking about next quarter, especially when you're talking about projects that you're doing an awful lot of the work associated with the last few plan little better and a little tighter that we typically would. We've had discussions about potential impacts. And right now, we are being told no changes that, in fact, we're being encouraged to make sure that we don't let off the gas and slow anything down. I have no reason to this comp it other than the fact that we do know that there's a potential for that anytime that you have a meaningful change in ownership. So we'll just be mindful of that and continue to try to factor that in.

Douglas Clark - *Goldman Sachs Group Inc., Research Division - Research Analyst*

Okay, great. That makes sense and that's helpful. My other question is a bit of a two-part just looking in second half of the year. Looking back at past years at the services mix that pickup in the second half. I'm wondering if that's as a percentage of sales I'm wondering if that's a reasonable expectation to be made. And then also last quarter, you had talked about some projects cussing kind of higher R&D and OpEx levels that might trail off. Is that still the case going forward?

Thomas R. Stanton - *ADTRAN, Inc. - Chairman and CEO*

That is the case but that won't drill off next quarter. So they're continuing on and you are correct that and we gave in third quarter does include a pickup in the services business.

Operator

And we'll go next to Bill does a limb Dezellem with Titan Capital.

William J. Dezellem - *Tieton Capital Management, LLC - President, CIO, and Chief Compliance Officer*

I have a couple of questions. First of all, relative to your inventory levels being up versus 1 year ago, would you anticipate holding these inventories at this level given that your business' run rate is now higher? Or are you thinking that you're going to be able to bring those down?

Thomas R. Stanton - *ADTRAN, Inc. - Chairman and CEO*

That inventory level, Bill, is up due to customer projects. And that increase has been primarily in field inventory. So we have equipment out at customer locations and sites and process of being deployed. So I think a lot of that is you kind of do the nature of the projects that are underway with those customers.

Thomas R. Stanton - *ADTRAN, Inc. - Chairman and CEO*

Bill, let me add one little piece of that. I think our inventory level was a year ago was not optimized either. So my hope is we tend to think of inventory as internally. We tend to think of inventory as kind of net of field inventory because field inventory is something that de facto have purchase orders on and trying to finish up and that's kind of a different drive. So if you look at just inventory in-house, it basically from Q2 I would love to see some improvement depending on what the demand level is and our ability to forecast that demand level though. If it's kind of flat, which I would be happy to (inaudible)

William J. Dezellem - *Tieton Capital Management, LLC - President, CIO, and Chief Compliance Officer*

Great. So the net of it is the increase, we should be happy with it because that's product in the field that's ready to be deployed and in house, you're very comfortable with that positioning?

Thomas R. Stanton - *ADTRAN, Inc. - Chairman and CEO*

Yes. I would like it to be better because we probably have operations people know I would like it to be better but we're not in a bad space. I do know that if you get to guide you'll run into a (inaudible). But I do think we can improve from here.

William J. Dezellem - *Tieton Capital Management, LLC - President, CIO, and Chief Compliance Officer*

Great. And I hope those operations people do what they need to do to make that.

Thomas R. Stanton - *ADTRAN, Inc. - Chairman and CEO*

They're doing a great job.

William J. Dezellem - *Tieton Capital Management, LLC - President, CIO, and Chief Compliance Officer*

Let's jump to R&D for just a quick moment. You had mentioned earlier in the comments that the increase in R&D was a function of customer projects. Are you in a position to talk about what those projects are? And how long you anticipate the higher spending to last with those projects?

Thomas R. Stanton - *ADTRAN, Inc. - Chairman and CEO*

Sure. It's really 1 project that's driving, if not the majority, if not all, but by far the majority. And that's an NG-PON2 RFP that is out on The Street. In fact, we've announced it, right, and Verizon mentioned that. We're doing a trial with them. And that's the biggest impact. They are -- that is a technically -- it's a definitely a next generation network. So it includes components. It includes everything that you would think off as next generation SD excess. And incorporates functionality that was not included in what we would call the access domain 2 years ago. So it's a -- technically, an aggressive project. So that's driving our staffing level right now.

William J. Dezellem - *Tieton Capital Management, LLC - President, CIO, and Chief Compliance Officer*

Great. That's helpful. And then lastly, cap spending. Would you provide additional color on how you were spending that unfolding, both this year and in the future?

Roger D. Shannon - *ADTRAN, Inc. - CFO, SVP of Finance, Corporate Treasurer and Secretary*

I would expect it to probably pick up from Q2 to Q3 a little. It was down a little from Q1 to Q2. But that is all based off of when projects get closed. They have particular milestones that they have to meet. And you tend to see a pickup in sign-up activity and getting things turned up as those milestones approach. So I think you'll see some variability on that. But basically, it's kind of at a run rate that's consistent with what we've talked about.

William J. Dezellem - *Tieton Capital Management, LLC - President, CIO, and Chief Compliance Officer*

And as we go forward in the coming years, would you anticipate basically holding at this run rate. Is that kind of the run rate to think about it?

Thomas R. Stanton - *ADTRAN, Inc. - Chairman and CEO*

I think for the Tier 2 -- let me just call the Tier 2, right? The rate of return, I would look at that, to rate of return the price cap peers. The rate of return carrier piece would be coming on. So that hasn't yet started. In fact, there are many, many RFPs out there associated with -- there I think there was over 100 different customers are also going to participate in CAF and those have not started yet.

William J. Dezellem - *Tieton Capital Management, LLC - President, CIO, and Chief Compliance Officer*

And when will those start in your estimation?

Thomas R. Stanton - *ADTRAN, Inc. - Chairman and CEO*

Probably, early 2018. Just say first half 2018.

Operator

And we'll go next to Tim Savageaux with Northland Capital.

Timothy Paul Savageaux - *Northland Capital Markets, Research Division - MD and Senior Research Analyst*

We're in the start kind of on the major Tier 1 engagement front. When these big deals, appears to to be stacking up a little bit. It sounds like you're potentially in a way to 4 new 10% customers. But feel free to correct me on that. I wonder if you kind of tattle around and focusing on Verizon in terms of whether you're close enough to begin the size that opportunity. I think last quarter, you talked about some acceleration in activity. You just made a reference here on this call to a lot of R&Ds. So as -- well, and you mentioned this big deals and I would say I think arising is doing NG-PON2, not STX PONs so that was another Tier 1 carrier.

Thomas R. Stanton - *ADTRAN, Inc. - Chairman and CEO*

Yes. I didn't say that, that was a 10% opportunity. The other one. I just said that it takes some time.

Timothy Paul Savageaux - *Northland Capital Markets, Research Division - MD and Senior Research Analyst*

Oh, I know that and I would speculate that CenturyLink from my perspective. But as you look at these since I brought it up, I mean, if we look at G.fast, NBN, cable MSO, you've already talked about the potential for those over time. I assume you put Verizon in that category as well. And given that we're getting pretty close, I'll ask you since it's my tradition on this call to ask whether you care to talk in a more granular fashion about that. Verizon opportunity relative to either the kind of commitments there tossing around with the Corning what we saw the original GPON ramp for Verizon back in the day, understanding they're smaller for a wireline perspective than they were.

Thomas R. Stanton - *ADTRAN, Inc. - Chairman and CEO*

Right. And probably one thing I should mention, right, the more 10% customers you have, the higher it is to be 10% and the harder it is.

Timothy Paul Savageaux - *Northland Capital Markets, Research Division - MD and Senior Research Analyst*

Understood. Difficulty of the math but it is problem overall.

Thomas R. Stanton - *ADTRAN, Inc. - Chairman and CEO*

Right. And I understand -- and I definitely understand your comment on Verizon. And the problem I have here is I can't talk about what their strategy is without getting upset. So if the way that we think about the project and through conversations with different people at Verizon, we feel it is without a doubt is material as anything would do. And so the key to this -- the key to that, to fruition of course is every carrier changes their plan. And so the key to this is how much of what their current plan is holds up either gets bigger or smaller over time. But the only way we could think about is based on the career information we have and based on the carrier information we have, it is a very large opportunity. You can ask me specific question that you think I can answer, I would do that but I don't

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Timothy Paul Savageaux - *Northland Capital Markets, Research Division - MD and Senior Research Analyst*

You know what, I will take that. I think that's great. And I did want to follow-up. I think there was some lingering concern heading CenturyLink M&A and Frontier kind of falling a part a bit about how they use business might ferret basis I look at it and the question is to kind of confirm and amplify on this. It looks like your network business, and that has taken on CPEs and services in the U.S., very, very strong in the quarter. Something like 50%, 60% sequentially, 40% year-over-year. I wonder if you could talk about that kind of U.S. network product-focused business and what's really driving that. Because those are sort of hyper growth numbers and maybe not the sort we would expect to see if we peel these onions right? With taken out legacies our big decline year-over-year taking out CPE, et cetera.

Thomas R. Stanton - *ADTRAN, Inc. - Chairman and CEO*

I think there are multiple things. Without a doubt, we have one large customer that is doing a fairly extensive 100 meg rollout. And that 100 meg rollout has been very positive for us because of our market position there. And the fact that we have a very broad products going into there. The customer also does fiber access as well. And I think we've done a good job of picking up market share within that segment as well. But you have multiple carriers either looking at deploying -- they're all talking about how do I keep my customer. And some of that has to do with true end customer demand. Some of that has to do with the fact that you got major cable companies here in the U.S. that everybody knows is in the midst of rolling out 3.1. And so as you know, if you lose that customer, it's very difficult to get them back, right? So I think you have a lot -- all of the carriers, regardless of their financial situation, trying to figure out what are the key markets that they have to hang onto and how do they deliver something or say north of 75 to 100 meg that actually allow that customer to be sticky and they can withstand the 3.1 rollout. And I think at a macro perspective, that's just what's happening. I think it's going to get heated as we roll into 2018 because of the fact that that's when you really start seeing meaningful deployments from the MSOs.

Operator

We'll go next to Owen Hirschman with AIG investment.

Unidentified Analyst

(inaudible) on the last question. If you look at the overall picture compared to 6 months ago and 1 year ago, both if I can ask you a separate (inaudible) between the what would you say 50,000 feet. Are we beginning to see the pressure for reinvestment at this point after (inaudible) fall starts and all? What would give you any conviction that this time will be different?

Thomas R. Stanton - *ADTRAN, Inc. - Chairman and CEO*

I think we're past the false start phase. I think from just for my perspective, we have been thinking for some period of time that there were 2 things that were positive to get the market going again. And as I'm sure you recall, investor all the way back in 2012 that we actually saw the decline in investment and the access market share in the U.S. and it's taken up until last year. We started seeing increase last year of course. And I think the 2 catalysts were the, one, we just spoke about, which is the competitive landscape changing with the deployment of 3.1 in the MSOs space. And the second I think was CAF. I think CAF was a catalyst that give people moving again and we looking at their architecture and thinking what they could do with it. And I think those 2 drivers are what got us here today. So we feel like the pass cost that does not mean there will be bumps in the road because at the end of the day, we're still selling to relatively handful of customers and any change in customer can affect it. But if you look at the overall scope what's going on for the largest carriers here in the U.S. to the smallest, they're all on the same train. And they're all doing the same thing. There are differences in timing and an individual one. But a movie support. So I think the difference of those 2 catalysts is coming into real play here.

Unidentified Analyst

Okay. And just going back to us what you're referencing project from a technical perspective. still questions is in being able to do anything from a technical perspective as opposed to just fine-tuning things? Meaning is there any lack of optical components necessary to price points be more specific on the question.

Thomas R. Stanton - *ADTRAN, Inc. - Chairman and CEO*

No. There was not a question of feasibility. This is all about implementation.

Operator

Thank you. We'll go next to Fahad Najam with Colin.

Fahad Najam - *Cowen and Company, LLC, Research Division - Associate*

I had a question on the G.fast opportunity. If I go back last quarter, you had sort of scenario you still expected the ramp on the G.fast opportunity Tier 1 U.S. operator to start in the second half of '17. Do you think that has moved forward and you saw the ramp in the second quarter? And just to be clear, this 10% FCS wasn't part of the 10% revenue rate?

Thomas R. Stanton - *ADTRAN, Inc. - Chairman and CEO*

It was -- that was not. The SGX was not a meaningful piece of that. And as far as the ramp, nothing has really changed initial shipments in the second quarter that was we saw and we would expect to just kind of ramp from here.

Fahad Najam - *Cowen and Company, LLC, Research Division - Associate*

So in a sequential basis, do you expect to ramp to come in Turkey, ramping up -- third quarter ramping up to fourth quarter without ramp.

Thomas R. Stanton - *ADTRAN, Inc. - Chairman and CEO*

Yes. Honestly, to be more direct, we expect it to be higher in third quarter and higher in fourth quarter. But we expect that ramp to continue to go on through 2018.

I think at this point, we are out of time. So I appreciate everybody going as for the call and we look forward to talking to you next quarter.

Operator

This does conclude today's program. Thank you for your participation. You may disconnect your line at anytime, and have a wonderful day.