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CORPORATE PARTICIPANTS

Gregg Lampf *Ciena Corporation - IR*

Gary Smith *Ciena Corporation - President & CEO*

Jim Moylan *Ciena Corporation - SVP, Finance & CFO*

Francois Locoh-Donou *Ciena Corporation - SVP & COO*

CONFERENCE CALL PARTICIPANTS

Doug Clark *Goldman Sachs - Analyst*

Rod Hall *JPMorgan Chase - Analyst*

Simon Leopold *Raymond James - Analyst*

Paul Silverstein *Cowen and Company - Analyst*

Meta Marshall *Morgan Stanley - Analyst*

Stanley Kovler *Citi - Analyst*

Vijay Bhagavath *Deutsche Bank - Analyst*

Dmitry Netis *William Blair - Analyst*

Tim Savageaux *Northland Capital - Analyst*

Dan Bardis *Bank of America Merrill Lynch - Analyst*

Jess Lubert *Wells Fargo Securities - Analyst*

PRESENTATION

Operator

Good day, ladies and gentlemen and welcome to the Ciena Corporation Q3 2016 earnings conference call. (Operator Instructions). As a reminder, this conference is being recorded. I would now like to turn the conference over to Gregg Lampf, Vice President of Investor Relations. Sir, you may begin.

Gregg Lampf - *Ciena Corporation - IR*

Thank you, Takia. Good morning and welcome to Ciena's 2016 third-quarter review. With me today is Gary Smith, CEO and President; Jim Moylan, CFO; and Francois Locoh-Donou, COO.

This morning's press release is available on National Businesswire and ciena.com. We also will post to the investors section of ciena.com and accompanying investor presentation, including certain highlighted items from the quarter.

In our prepared remarks today, Gary will discuss management's view on the market and our progress and Jim will provide details on our Q3 results and provide guidance. We will then open the call to questions from the sell-side analysts taking one question per person.

Before turning the call over to Gary, I want to let everyone know that we have scheduled an investor chalk talk for next Thursday, September 8 at 11:30 AM Eastern. The topic is the breadth of the data center interconnect market. We hope you can join us at ciena.com, or listen to the archive.

During today's call, we will be making certain forward-looking statements. Such statements are based on current expectations, forecasts and assumptions regarding the Company that include risks and uncertainties that could cause actual results to differ materially from the statements discussed today.

These statements should be viewed in the context of the risk factors detailed on our most recent 10-Q filing. Our 10-Q is required to be filed with the SEC by September 8 and we expect to file by that date. Ciena assumes no obligation to update the information discussed in this conference call whether as a result of new information, future events or otherwise.

Today's discussion includes certain adjusted or non-GAAP measures of Ciena's results of operations. A detailed reconciliation of these non-GAAP measures to our GAAP results is included in today's press release available on ciena.com. This call is being recorded and will be available for replay from the Investors section of our website. Gary.

Gary Smith - *Ciena Corporation - President & CEO*

Thanks, Gregg, and good morning, everyone. In fiscal Q3, Ciena posted yet another quarter of strong results on all financial operating metrics. Revenue of $671 million was 11% higher than the year-ago period. With an excellent performance on both gross margin and operating expense, we generated over 13% operating margin and adjusted EPS of $0.42.

Our strategy continues to be validated by our steadily improving financial performance and by our marketshare growth. We are gaining share in a market that is performing essentially as we had expected. As we've said for some time, we expect the overall market, excluding China, to grow in the mid-single digits in the near to medium term. And we are now seeing most industry analysts and other market participants bring their expectations broadly in line with this view.

And of course, some segments are growing at different rates than the overall market, some faster and some slower. For instance, as we've expected, we are seeing long-haul market growth in the low single digits.

I think this really highlights the importance of having global scale and business diversification in terms of technology, product portfolio, market application, customer base and geographic exposure. Over the past several years, we've executed extremely well against our strategy to design and build a truly broad-based business in these areas, one that is capable of better withstanding a slower growth rate or pause in a particular market segment, application, geography or vertical.

As a result, we've been able to navigate these market dynamics, grow our revenue and gain share across many of the market segments in which we've invested as part of our business diversification. And much of this success is evident in our Q3 results. For example, in addition to strong revenue from our traditional service provider customer base, Q3 was a record quarter for non-telco infrastructure at 37% of total sales.

Sales to web-scale providers made up a sizable portion of that revenue as we had our best-ever quarter with this key growth vertical. In fact, direct sales to web-scale providers were over 12% of total revenue, a result that fluctuates quarter to quarter, but more typically has been in the range of 5% to 10%.

Our second-largest customer in the quarter and in fact two of our top six customers overall were major web-scale providers. And as you know, web-scale customers make up a significant portion of our sales into the data center interconnect space where our Waveserver value proposition is resonating extremely well.

At the end of Q3, we had a total of 11 Waveserver customers and we've continued to add to that total since the quarter closed. But DCI is more than just Waveserver and it's more than just web-scale customers. The market for DCI is broadening to include more and more carriers and enterprises and our success with this diverse mix of customers contributed to a strong quarter overall for our converged packet optical and packet solutions.

And finally in submarine, IHS just released its new report naming Ciena the global share leader in the submarine cable upgrade market. And we've recently won another major cable upgrade that spans our product portfolio and we are seeing a strong pipeline of future upgrade opportunities, as well as emerging opportunities with new cables. So the submarine vertical continues to be a strength for Ciena globally and especially in Asia Pacific.

Before turning the call over to Jim, I'd like to comment on our progress with the Blue Planet platform given that we recently passed the first anniversary of the Cyan acquisition. Overall, we are very pleased with the level of market interest and customer engagement on Blue Planet. As we've said from the beginning, 2016 is very much a year for building market traction and mindshare with an eye towards increasing monetization of the platform over time, and indeed interest in vendor-agnostic orchestration and Blue Planet specifically is very high. In fact, Ciena was just named a top three vendor for orchestration software in a recent IHS global survey of carriers.

Therefore, extensive Blue Planet engagements are underway across geographies, including multiple pilots, trials and awards from a range of customers that include MSOs, data center operators and tier 1 providers like Orange Business Services, and we continue to be encouraged by the variety of Blue Planet use cases ranging from VNF to WAN automation, to enterprise access, to the cloud.

In closing, our progress across the market and our steadily improving financial performance are direct results of disciplined investments in the strategic diversification of the business. We have positioned Ciena for long-term success with a variety of use cases to a broad range of customers, all of which is foundational for continued growth in revenue and earnings per share. Jim.

Jim Moylan - *Ciena Corporation - SVP, Finance & CFO*

Thanks, Gary. Good morning, everyone. We had another great quarter and 2016 as a whole is shaping up to be a very good year for Ciena. Market dynamics are playing to our favor and we have consistently made the necessary investments to capitalize on shifts that are occurring in the customer set and in the way networks are designed and operated. Our diversification efforts are working, and I'd like to take a few minutes to provide additional detail on our performance in a few key areas.

I will start with a regional view of the business. International sales were 39% of total revenue, which is slightly lower than we've seen in recent quarters. This is due in part to the strength of our results in North America where our business is as balanced as it's ever been and the benefits of our diversification are apparent. Looking at our business organically year-over-year and excluding AT&T, which we expected to be flat to down this year, we grew our North American revenue in double digits in Q3 of 2016.

In CALA, year-over-year revenue was down a bit from a particularly strong Q3 of last year. We like the improving tone of the market in both Mexico and Argentina, and Brazil continues to be a solid performer. Additionally, we are seeing new opportunities for submarine builds in the region. Overall, CALA is performing very well for us and we expect to show meaningful growth in that region for the full fiscal year.

In EMEA, we are encouraged by some key wins and our Q3 results. Q3 benefited from an uptick in regional activity by global web-scale accounts. That said, we still have work to do to recapture share with service provider customers in the region.

It was another excellent quarter in APAC with revenue up nearly 50% over Q3 of last year. Our business in the region is expanding, especially in India, which is our fastest-growing country. Mobility, cloud and DCI dominate most discussions and decisions at APAC, which is great for Ciena. We played a critical role in delivering the leading connectivity solutions to enable all of these applications. Other drivers include submarine, government spending and web-scale bandwidth consumption.

You might have noticed that we've referenced one of the trends that we are seeing across regions and that's the globalization of some critical applications. Web-scale applications, which had been largely North American-centric, are increasingly driving sales in other regions. DCI, which also started in North America, is gaining momentum across geographies as well. This underscores the value not only of our diversification in the technologies required to address these opportunities, but also our investments to scale our presence in these regions in order to capture these opportunities.

When we look at the business through the lens of our offerings, converged packet optical continues to be strong led by a record quarter for 100 gig port shipments. Our top two 100 gig customers in the quarter were both web-scale providers and we had another strong MSO quarter. 200

gig shipments were solid with the majority going to web-scale providers. In almost all cases, 200 gig shipments were for metro applications regardless of customer type.

Packet networking revenue was down a bit from a very strong Q2, but up 11% year-over-year. We added five new customers for the 8700 Packetwave, bringing our total to 36. Market momentum for the 8700 has been driven by a combination of network upgrades and DCI deployments. Software and software-related services revenue was up nearly 20% over Q3 of last year and about the same percentage year to date over 2015, reflecting an increase in recurring revenue from our software subscription model.

Turning now to our third-quarter financials, Q3 revenue was $671 million. Q3's adjusted gross margin was particularly strong at 46.8%. Q3's operating expense was in line at $223 million. We achieved $91 million in adjusted operating profit for Q3 for an adjusted operating margin of 13.5% and orders were solid, slightly less than our revenue.

We are very pleased with our progress in gross margin over the last two years. It reflects significant progress and innovation and cost reductions in our product set, a significantly improved services margin and in particular an overall better product mix, including software. That said, product and customer mix, early stages of large deployments and all of the other factors that cause fluctuation in our gross margin will continue to affect them going forward. As a result, we continue to believe that mid-40%s gross margin is where we are as a company today with some quarterly fluctuations above and below. Over time, as software and packet switching becomes a larger part of our revenue, we expect to see an upward trend.

We generated $70 million in cash from operations and we ended the quarter with approximately $1.27 billion in cash and investments. As you likely have seen, shortly following the end of Q3, we repurchased approximately $205 million of our outstanding 2017 convertible notes. We expect to continue to evaluate alternatives to manage our capital structure and to lower our financial leverage, including opportunistic debt repurchases. Lastly, Q3's adjusted earnings per share was $0.42.

I will now provide guidance for our fiscal fourth quarter. We expect Q4 revenue to be in the range of $700 million to $730 million. We expect Q4's adjusted gross margin to be in the mid-40s percentage, and we expect adjusted operating expense in Q4 to be approximately $230 million to $235 million reflecting some projects that have shifted from earlier quarters into Q4, as well as an expected high rate of order inflow for the quarter. You will remember that, at the beginning of this year, we guided operating expense to approximately $900 million for the year. At this level for Q4, we will remain well below that target.

In closing, we believe that our differentiated results reflect a differentiated strategy. Our diversification efforts have positioned Ciena to benefit from the current market dynamics. We believe that we are making the right investments to capitalize on future shifts as well, and in a market which is growing in the mid-single digit range, we expect to continue to take share and to show higher rates of growth than the overall market. We believe that we will continue to increase the value we bring to our customers and to deliver sustainable long-term growth with continued gains and profitability. Takia, we will now open the line for questions.

QUESTIONS AND ANSWERS

Operator

Thank you. (Operator Instructions). Doug Clark, Goldman Sachs.

Doug Clark - *Goldman Sachs - Analyst*

Thanks for taking my question. My first one is on gross margins and just the competitive dynamics in general. One of your competitors commented on increasing price pressures in the metro. I'm wondering if you can talk to that a little bit. Certainly the gross margins in the quarter reflected solid pricing and margin favorability. So if you could comment on competition and what you are seeing on a go-forward basis?

Gary Smith - *Ciena Corporation - President & CEO*

I think at the highest level, I think the dynamics from our perspective on the environment haven't really changed. It has been and it continues to be a very challenging environment. Not seeing anything appreciably change in that. It's pretty intense. It's just one of the dynamics of the space that I think we are well-equipped to deal with and particularly when you get into the metro, when you look at these high-end metros with convergence and packet and software capabilities, I think the value proposition that we are able to deliver there is standing up well and I think we are well-equipped to deal with that. We have vertical integration, global scale and the innovation is clearly being valued by our customers. So it's a challenging environment, but I think as you can see from our improving financial performance, and gross margin is a bit of a proxy for that, we are being well-valued by the customers.

Jim Moylan - *Ciena Corporation - SVP, Finance & CFO*

I would just add one point, that we've seen big competitors around the world attacking on price for years now and we've been able to navigate those waters very well. So we don't think that any significant change will come about as a result of someone else deciding they are going to compete on price.

Doug Clark - *Goldman Sachs - Analyst*

Great. That's really helpful. And then my other one is more geographic-specific. India and EMEA, you commented on strong trends and order opportunities, particularly submarine. A few peers and competitors who sell into those regions have commented on weakness. Have you seen any change, or in fact, are you still as positive as you were last quarter?

Francois Locoh-Donou - *Ciena Corporation - SVP & COO*

No, we are still as positive as we were last quarter. We are seeing a lot of opportunities in the submarine space, actually both in the upgrade market and increasingly actually in the new cable market. The architectures in the submarine space, the industry has embraced open cables and that favors the Ciena architecture. And we are also seeing a trend towards optimizing new cable for coherent technology, which favors the innovation we've brought to the table. So generally the submarine space is pretty active for us across the globe, EMEA, Asia-Pacific in particular, and we expect that to continue.

Operator

Rod Hall, JPMorgan.

Rod Hall - *JPMorgan Chase - Analyst*

Thanks for the question. I wanted to start off, Jim, you commented on this high order intake that you are expecting in the guided quarter and that's the reason for the OpEx being a little bit high. So I just wanted to get an idea of when you would expect revenues from those orders to come through? Is that the January quarter that we ought to be seeing that come through? So if you could give us a little bit more color on why you are expecting that order intake and how it affects the revenues looking forward.

And then, also, could you guys comment on these margins? They are considerably higher than we expected. Can you give us a little bit more color on why that's the case and how sustainable that might be? Thank you.

Jim Moylan - *Ciena Corporation - SVP, Finance & CFO*

Yes, on the order intake, that is the primary reason for the slightly higher OpEx in Q4. We also have some projects in both our IT, real estate and also R&D that have slipped from earlier quarters into Q4, so that's the reason why we are slightly higher. Again, I will say that we are well below the $900 million that we talked about for the year, so we will always get some fluctuations in our quarterly OpEx as a result of that, those two factors.

On when those orders come to revenue, we have talked about the fact that we are increasingly -- because our leadtimes have come in very nicely into as short as two weeks in some cases and four weeks in other cases, we are increasingly generating revenue in quarter from orders taken during that quarter, what we call our book to revenue revenue. And that's, as I say, orders that come in in the quarter that turn to revenue. A significant portion of that order inflow we do expect to come into Q4.

The one thing I would say on Q1 is that that's always going to be a slow quarter for us. It's a holiday period. It's a time when many operators around the world slow down their efforts to upgrade their systems, and then it's November, December, January and things don't just jump up when January occurs. So as you will note over the past long, long number of years, Q1 has been the off-trend quarter for us and we have a strong Q2, Q3, Q4. So just want to make that point to everybody.

And I will make a comment on the gross margins. I can't emphasize enough how pleased we are with our progress in gross margin. We have done a very good job in our innovation, in our cost reduction, and increasingly improving our engagements with our customers around the world and improving our product mix with those customers around the world. But there are always going to be fluctuations in our gross margin. We think that -- we know that this quarter was a particularly strong quarter in terms of product mix, and we believe that we are a mid-40%s gross margin company today. We know there's going to be some movement up and down around that and as we get an increasing amount of software revenue and packet switching, we can see an improving trend in gross margins. We just don't see it in the near term.

Rod Hall - *JPMorgan Chase - Analyst*

So can I just clarify one thing, Jim? Are you saying that seasonality then in Q1 should be more or less normal, or do you think it will be a little bit better than normal? And then I will cede the floor.

Jim Moylan - *Ciena Corporation - SVP, Finance & CFO*

I would expect normal seasonality.

Rod Hall - *JPMorgan Chase - Analyst*

Okay. Thanks very much.

Operator

Simon Leopold, Raymond James.

Simon Leopold - *Raymond James - Analyst*

Thanks for taking my question. I don't know to what degree you can talk specifically about the Verizon initiative that everybody has been paying attention to, but if you could give us some updates on the status of the new metro project and thoughts on how you expect that to play out.

And also of significance, I'd like to try to get a better understanding of how you see this as a reference for other customers in terms of adoption of very similar architectures and technologies. Where are other operators in terms of mirroring or duplicating what you've won at Verizon with the next-gen metro?

Gary Smith - *Ciena Corporation - President & CEO*

Simon, I will take the first part of that. I would say that everything is going well and I think essentially on track. Deployments have begun and we've begun to recognize some small amounts of revenues. We recognized some revenues in Q3. Don't expect that to be terribly large in our fiscal 2016, which is pretty much what we thought. Deployments will then gain momentum really in 2017, 2018 and out to 2019, and I think we are on track for that.

I would also say that our engagement with Verizon continues to expand. Obviously, we've got the long haul with them, but also in packets and software, and I think that relationship continues to expand, obviously, deeply embedded in the converged metro, but I think we have a lot more opportunities with them over time as well.

Francois Locoh-Donou - *Ciena Corporation - SVP & COO*

And I would add, Simon, in terms of other carriers around the world that are adopting a similar architecture, the context I would give you is the drivers for the Verizon project they are twofold. One is increased capacity in the metro because of general increase in traffic, video or otherwise requiring upgrade to 100 gig and beyond in terms of capacity. But the other driver is convergence of a number of services -- Ethernet services, TDM services, etc. -- onto a single platform, and that convergence is what requires the packet optical switching capabilities that we've invested into in the 6500 for the last five or six years.

So when you look at these drivers, we are seeing that basically most carriers who have TDM networks actually need to go through these upgrades, and we are seeing opportunities in the metro frankly across geographies. We are seeing and winning some opportunities in EMEA, in CALA, in Brazil in particular. In India, we are going through substantial upgrades, as well as metro network with packet optical convergence. So it's got broad applicability frankly across regions and a number of carriers.

Simon Leopold - *Raymond James - Analyst*

Thank you.

Operator

Paul Silverstein, Cowen and Company.

Paul Silverstein - *Cowen and Company - Analyst*

First off, on tier 1 metro wins, how many do you have at this point? I heard the commentary you just made, but how many total wins do you have? What's the revenue contribution at this point and what's your expectations in terms of timing? Then I'm hoping you will indulge me in one or two more questions.

Jim Moylan - *Ciena Corporation - SVP, Finance & CFO*

The question as to the number of tier 1 accounts, I don't have that number at my fingertips. What I would say is that we have swept the North American awards that have been made over the past now three years. There's been a number of these awards that have been made and we've swept them all. We are not sole provider to all of them, but we are in the mix in every one of them. We are seeing more and more globally. Francoise mentioned India.

If you look at where we are today, in this quarter, 43% of 40 gig and above revenue is shorter reach metro and regional, so that's what I can tell you, Paul. We feel very good about what we are doing in the metro. We think increasingly metro will be a bigger percentage of our revenue and not just because metro is growing faster than long haul. It's because we have a great set of products and we are going to continue to take marketshare in that space.

Paul Silverstein - *Cowen and Company - Analyst*

Jim, on the margin, can you just rehash with us in terms of versus corporate average, is metro deployments with DCI wins, your packet Ethernet business, can you remind us what the margin structure is relative to corporate average?

Jim Moylan - *Ciena Corporation - SVP, Finance & CFO*

Yes, the single biggest or highest gross margin, of course, is going to be software, at least as reported. You know that we have R&D spend to get there, but it's as reported the highest margins. Packet switching has been a strong margin area for us. When you get down into transport, you can see that the newest innovation, like 200 gig, typically that's going to be good margin. You can see when we are converging switching with transportation because of our innovation there. Those are good margins. But when you talk about individual customers, really there's not a huge amount of difference across the customer base in terms of our revenue.

Now when we have early-stage deployments, we know that that's going to be lower margin. We are selling commons and we are selling photonics and typically that's going to be at lower margins than later stages of the projects. But the customer set, really I wouldn't say there's a lot of difference across that. We sell to big companies who have a lot of purchasing power and they are smart, so there's just not going to be a lot of difference there.

Paul Silverstein - *Cowen and Company - Analyst*

Jim, just to be clear on the metro deployments, to the extent there is this view on the Street, or there appears to be this view that these metro deployments like Verizon are significantly below corporate average, I hear you saying not necessarily the case given the packet component. Just very quickly, what's the average size of your DCI deployments at this stage, or at least the wins roughly and (multiple speakers)?

Jim Moylan - *Ciena Corporation - SVP, Finance & CFO*

The average size of a win?

Francois Locoh-Donou - *Ciena Corporation - SVP & COO*

I think, Jim, if you want to talk to the margin number and the early stage of the deployment. But in terms of the DCI, average size of win, Paul, on the DCI, first of all for context, that's an application that we are seeing in the metro, but we are also that application in regional and long-haul networks. And actually, we are even seeing that application in submarine networks. One of the reasons we are getting very significant traction with our Waveserver platform is because it's probably a unique platform in the market in its ability to fulfill all of these applications, not just metro applications. So there isn't actually a typical size of deployment for a DCI network because they vary depending on whether they are metro, regional or long-haul networks. And they also vary depending on the type of customers because we are seeing DCI application with some of the big web-scale providers, but we've won the 11 customers that Jim mentioned earlier.

We have won Waveserver and DCI applications now, not just in the web-scale space, but in the media space and the enterprise space and also in the traditional telco space. So there is a wide variety of applications that we are winning, which is why we are getting so much traction in the DCI space.

Jim Moylan - *Ciena Corporation - SVP, Finance & CFO*

And remind everybody, where 12% of our revenue was in direct sales to DCI this quarter. That's higher than we've been. There's going to be some fluctuations around that, but we are having great traction with that product set with our full range of products.

On the Verizon margin, we are not going to comment on the margins with any particular customer. What I can say is that that deal is going to follow the same pattern of all the deals that we win around the world. It's going to be lower margin going in and higher margin later on. And we are very comfortable with our mid-40%s range of gross margin with that customer and all the other customers we are going to bring into the fold over the next year or so.

Operator

Meta Marshall, Morgan Stanley.

Meta Marshall - *Morgan Stanley - Analyst*

Thanks for taking my call. One of the things you mentioned was strength with web-scale in EMEA and I was just wondering are you seeing web-scale customers build out their own networks there versus leveraging wholesalers as they've done in other regions? Just a little bit of commentary there would be helpful. And then second, are you seeing any delays in India due to the spectrum auction delays, or are all projects there proceeding as planned? Thanks.

Gary Smith - *Ciena Corporation - President & CEO*

Meta, why don't I take that? In terms of the web-scale folks in Europe, it is more challenging for them to build their own infrastructure and access to fiber and some of the regulatory constraints that they have, so I think you are seeing a hybrid approach there where we are collaborating with some wholesalers and some other carriers to help facilitate that. So some of it is direct and some of it is indirect depending on the regulatory environment and the availability of some of the fiber. So it's mixed.

In terms of India, we are actually seeing very positive momentum there. I don't think I could pinpoint any impact yet on the delays on the spectrum. In fact, I think the buildout there for the 4G continues to be very, very strong. And, as Jim said in his commentary, it's our fastest-growing country, and we are seeing no signs of impact on that. In fact, we are seeing a broadening out of that demand. Last quarter, we announced the award of the government contract to us for an India-wide defense network, and we are continuing to see additional opportunities into the various government entities in India as well.

Meta Marshall - *Morgan Stanley - Analyst*

Great. Just to clarify. With the work you are doing with web-scale through the wholesalers, would that still count into the 12% you were saying as web-scale, or would that be in indirect revenue (multiple speakers)?

Gary Smith - *Ciena Corporation - President & CEO*

That's a good question, Meta. When we call out the percentage -- 12% -- that is where we contract with them directly. There's a whole other book of business, which is substantial, that we help facilitate or it goes direct to the carriers that ends up into our business. So, in fact, the impact of web-scale is way beyond the direct relationship we have with them for the 12%, and we don't include that in the number.

Meta Marshall - *Morgan Stanley - Analyst*

Great. Thank you, guys.

Operator

Stanley Kovler, Citi.

Stanley Kovler - *Citi - Analyst*

Thanks for taking my question. I just wanted to ask about the DCI market. When you look out at this market over the next couple of years, I think one of the themes that is emerging is whether or not the WebCo companies have an appetite to do what they've done to the server market and to the switching market, which is they use a lot of white-box solutions with pluggables. How close are we to that type of architecture and deployment in this particular market segment? And then I just have a follow-up. Thank you.

Francois Locoh-Donou - *Ciena Corporation - SVP & COO*

Thank you, Stanley. So I think there are two trends that I would point to you for deployments of optical capacity for web-scale. One trend is a trend for open line systems and that is the desire to build line systems with a vendor and have the opportunity to evolve and choose from a number of vendors for the capacity in-fills. We as a company embraced openness because we want our customers to have choice fundamentally. We find that that is an enabler that ultimately is a good trend for us and for our customers. So we embraced openness three years ago and we are getting actually a lot of business by open line systems and this open model with web-scale providers.

The other trend -- and you are pointing to some of the things that have been done intra-data center with the open compute projects and other initiatives to really de-cost servers. In the wide area network, so intra-data center connectivity, yes, we are seeing a trend towards bare metal optical capacity, and that's what you are seeing in platforms like DCI purpose-built platforms like Waveserver. They really are the equivalent of a white box in the optical domain and again, in that trend, we are doing very well because we build platforms that are purpose-built for that application. We expect that trend to continue and we expect that form of consumption of optical capacity to take hold probably not just in the web-scale segments, but as I said earlier in other potential segments. And it's a model of consumption of optical capacity that we like because it's built on maximizing spectral efficiency, maximizing the use of coherent technology and that's the technology that we've placed. So we are encouraging this trend.

Stanley Kovler - *Citi - Analyst*

Thanks. Just a follow-up on margins. To that point on Waveserver, I wonder if we can get a ranking of that within your gross margin profile where that sits. And then separately on operating expenses, as we think about the seasonality on revenue into Q1, should we expect similar seasonality on OpEx as some of these factors decrease into next year? And then the run rate for next year, given the fact that Q4 had some pull-ins of R&D and also higher order rates, so should the average run rate for next year be similar to the Q4 run rate, or below that, or higher? If we can get some sense of that. Thank you very much.

Jim Moylan - *Ciena Corporation - SVP, Finance & CFO*

Yes, the Waverserver margins are going to be similar to corporate averages. They are not going to be much different. On OpEx, we are way too early to be talking about 2017 OpEx. We are formulating our 2017 plan, and I will say that we have shown that we consistently grow revenue faster than we grow our OpEx and we do that very intentionally because we want to grow our operating margin. So that's the one thing I would say.

As we look at OpEx during the year, there is a trend that our Q4 OpEx is going to be -- or has been a bit higher than the average for the other quarters, mainly because, in the Q4 period, a lot of our commission-driven people are hitting their accelerators, and so we have that effect in our OpEx. That's the one thing I would say about our OpEx. Other than that, we don't have a lot of quarterly fluctuation -- not a seasonal fluctuation. We will have fluctuation driven by the timing of when various projects hit each quarter. And we have big projects in R&D. We have projects in our real estate where we are moving our two biggest innovation centers during this period of time and in IT.

So there will be some quarterly fluctuation, but one thing I would say is that if you look back over the last three or four years, we have been very consistent in our OpEx performance. We have been very disciplined in what we've done with our OpEx and we've consistently hit our plan.

Operator

Vijay Bhagavath, Deutsche Bank.

Vijay Bhagavath - *Deutsche Bank - Analyst*

Good morning, Gary, Jim. My question is on better understanding the cloud customers from an OpEx point of view. Is it reasonable to assume that the cloud customers are lighter touch from a sales OpEx and also from an R&D point of view versus some of the bigger telcos you work with? And if that's true, could we expect a lower OpEx number as a trend line heading into next year, or is this $230 million, $235 million you have guided to the new norm? Then I have a follow-up.

Gary Smith - *Ciena Corporation - President & CEO*

Vijay, let me try and answer that as best I can. I'd say the cloud web-scale folks have certain requirements. I wouldn't describe them as light on R&D and in fact, in many cases, they are the early adopters, for example, of the 200 gig capabilities and that's forming a large part of the uptake in 200 gig is actually from the web-scale folks and the R&D involved in that is, as you can imagine, quite intense and they are at the cutting edge of some of that development. They don't have as many other system constraints perhaps as some of the larger tier 1 global carriers because they don't have large existing networks and some of the compatibility costs that go into that.

But I would say on the whole, the blended R&D -- and as Jim alluded to -- you've seen the operating leverage that we've delivered on our R&D and we are going to continue to innovate along the whole transport spectrum better than anybody else, and that's why we've got number one marketshare in the world. So I think we have a lot of operating leverage there going forward.

Vijay Bhagavath - *Deutsche Bank - Analyst*

Perfect. And a quick follow-up -- thanks, Gary. In terms of -- how should we think of sales opportunities in emerging markets and in Europe in particular? And the reason I ask is are you seeing any demand pause, any ordering delays due to the strong dollar? Any higher discounting than usual to offset the strong dollar effects in the UK in particular and also in parts of emerging markets? Thanks.

Gary Smith - *Ciena Corporation - President & CEO*

We've seen a fair amount of obviously currency fluctuations over the last two to three years on a global basis and they can have short-term impact, but I think we are actually seeing a reasonably settled -- despite all the global turmoil, we are actually seeing a reasonably settled set of dynamics right now. And, in fact, and we are probably not the best barometer for this given some of the particular challenges that we've had in Europe, but we are actually seeing good progress in Europe and we think we're -- we've had a number of key wins. You see the performance in the last couple of quarters has improved. And we are actually quite optimistic around being able to have reasonable growth out of EMEA going forward.

In some of the emerging markets, I think you can see from the geographic performance of the business, CALA has performed incredibly well over the last two years and we are going to have excellent growth in CALA this year. And Asia-Pacific, as Jim said, is up 50% year on year, and there's a lot of the emerging markets that are contained within that. Obviously, the largest for us is India and we are seeing very, very good growth there and we have strong momentum. So we actually are quite positive around the global markets and some of the specific positioning that we have within them.

Vijay Bhagavath - *Deutsche Bank - Analyst*

Perfect. Thanks, Gary.

Operator

Dmitry Netis, William Blair.

Dmitry Netis - *William Blair - Analyst*

Thanks, guys. A couple of questions. I look at your guidance for Q4. It was [bracket] in consensus, but it was lower by about $7 million at the midpoint what consensus was. So I was just wondering was there any currency impact, Brexit, British pound impact? If you could comment on that. And also, can you talk about the backlog and whether your bookings were above revenue this quarter or not? Just kind of curious on those two.

Jim Moylan - *Ciena Corporation - SVP, Finance & CFO*

Yes, Dmitry. On the quarterly guide, you will recall that we said earlier in the year we tightened the range of our guidance for the full year. I think it was after Q2. We tightened our guidance for the year to specifically the midpoint of the 5% to 8% that we had called at the end of Q1, and we are pretty precisely on that number. You can argue about a couple million here or there, but we are very precisely on that number. So that's what I would say. We are again on this as we've done on OpEx, we've done and we are doing pretty much what we said we were going to do. There's really no FX, no significant FX -- or no incremental-FX effect from what we've seen and what we've talked about. So that's what I would say. We think that we are going to have a good Q4 and of course a great year.

On the question of the backlog, we said that the orders were a bit below revenue in Q3. We had a very strong Q2. We expect a strong Q4 as well. So we expect by the end of the year that our backlog will probably be up a bit.

Dmitry Netis - *William Blair - Analyst*

Very good. Excellent. And then my second question is just again touching the web-scale issue or topic, which snapped back quite nicely on both direct and indirect basis. You commented significant traction with Waveserver. So I'm just curious here is it skewed still more towards -- as you look at your total contribution in that vertical, or in that segment, is it skewed more toward 6500 still, or is it starting to flow or DCI Waveserver, for example? As we look at this quarter specifically? And is the mix largely due to new project activity, or did you see many capacity reorders in the quarter?

Francois Locoh-Donou - *Ciena Corporation - SVP & COO*

Yes, so the mix is still very heavily weighted on 6500 as a platform. I think we are still in the early stages of deployments of Waveserver and initial design wins. We have won 11 customers on the Waveserver. We have a number of other wins that occurred after the quarter and for a number of them, we are just in early stages of deployment. So I would expect that, not just for this quarter, but also for the next few quarters, that the mix would continue to be heavily weighted on 6500. And there is still a large portion of the applications for web-scale providers that require full chassis-based platforms with line systems and a number of switching capabilities. So that's where the mix is.

The other comment I would make is also a large portion of the needs of web-scale providers continue to be fulfilled by carriers, whether on terrestrial applications or submarine applications, and we have a very strong participation in these deployments, the vast majority of which are based on packet optical platforms like the 6500. So if you look at the overall business that's driven by web-scale providers into Ciena, the mix is still largely 6500.

Operator

Tim Savageaux, Northland Capital.

Tim Savageaux - *Northland Capital - Analyst*

Good morning. I have a question on growth rates, which at least on an organic basis appear like they are accelerating and perhaps sharply. So you mentioned overall market growth expectations and looking at the Q4 guide, obviously you had a very strong contribution from Cyan last year. So organically that looks like a pretty solid double-digit growth and I also want to focus in on the metric you mentioned. I think it was US or Americas ex-AT&T growing double digits in Q3. That looks to be accelerating quite sharply, maybe closer to 25%, 30% in Q4. So I'd like you to reflect on that math there and also maybe talk to what might be driving that acceleration in organic growth. Obviously it would be focused around 100 to 200 G.

So in the spirit of helpfully offering a lot of granularity on various aspects of your business, I guess I would ask if you might be able to bracket the 100 gig plus business overall as a percent of the total business and how much that's growing and to what extent that's a primary driver of some of this organic growth acceleration, if indeed that's the case. Thanks.

Jim Moylan - *Ciena Corporation - SVP, Finance & CFO*

That's more than one question, Tim.

Tim Savageaux - *Northland Capital - Analyst*

Really it's about 1.5 and it's all growth-related.

Jim Moylan - *Ciena Corporation - SVP, Finance & CFO*

I think Gary should address the overall growth rate. One thing I would say is we had a very strong quarter in North America. We expect to continue to take marketshare in North America. What I would say is, as we've always said about any individual quarter's performance, you should just be cautious about extrapolating any number from any quarter. Over time we've shown very consistent progress, growth rates in excess of the market, and we expect to continue to do that. But I just caution people not to take a quarter and derive a long-term growth rate based on what we do in any particular quarter. Gary, do you want to talk about the long term?

Gary Smith - *Ciena Corporation - President & CEO*

Yes. And obviously, we are very encouraged by the performance that we've been able to put together, frankly over the last five years. If you look at it on a half-year basis, it's incredibly consistent and we've basically outperformed the market, depending on your view of the market, in every single half-yearly segment. And given our positioning of global scale, some of the elements that you pointed out, Tim, around our performance, we are confident that we can continue to outperform the market.

We see the overall blended growth at about 4% to 5%, which is what the industry analysts are aligning around now. We will see how that plays through. Obviously, it's way too early to discuss next year and beyond and we are not providing that today. But we are confident that we can continue to grow faster than that market. As you point out, we are exposed to some of those higher growth elements such as metro, things like Waveserver. And our packet business is really driving -- really driving that growth. But it is a blended -- as our business gets bigger, you've got the challenge of larger numbers and we are very mindful of that as well.

Tim Savageaux - *Northland Capital - Analyst*

To follow up very briefly, sounds like that's a pass on the 100 gig sizing question. But even if you do take your comments about normal seasonality to heart for Q1, I think you are still looking at an organic double-digit growth rate there, I think. But I will pass it on. Thanks, guys.

Operator

Tal Liani, Bank of America Merrill Lynch.

Dan Bardis - *Bank of America Merrill Lynch - Analyst*

This is actually [Dan Bardis] on behalf of Tal. Thanks for taking my questions. First, just generally, I was wondering if you see a trend where carriers are favoring pluggables more and how might that affect you guys? Secondly, just wondering high level why services revenues have been under a little bit of pressure the last three quarters and how we should think about the trajectory there going forward. Thanks.

Francois Locoh-Donou - *Ciena Corporation - SVP & COO*

Hi, Dan. Yes, our carrier customers have been consuming pluggables from us and other providers actually for a few years now. We like pluggables in general because they are a way of giving our customers pay-as-you-go schemes. So it eases the entry cost of platforms and also they are a way of reducing costs at the edge of networks. So we actually expect the consumption of pluggables to continue. We are not seeing a materially different trend today than we were seeing say a year ago, but we are seeing a larger variety of pluggables across the industry both in terms of client plugs and in terms of line cards as well.

So a trend we expect to continue. We actually like the trend and in terms of impact to our business, it's pretty much factored into the business you've seen from Ciena both in terms of growth and gross margins over the last couple years.

Jim Moylan - *Ciena Corporation - SVP, Finance & CFO*

On the services side, I do think you have to take a bit of a longer view than just looking at individual quarters. We are up year-over-year. Our services business to date has largely been an attached services business, things like installation deployment and maintenance. Those are the two biggest pieces of our global services business, and our attach rates are reasonably consistent. We can have quarterly fluctuations, but they are reasonably consistent.

Operator

Jess Lubert, Wells Fargo Securities.

Jess Lubert - *Wells Fargo Securities - Analyst*

A couple of quick ones. First, can you remind us what you consider to be normal Q1 seasonality and when you think about metro upgrades, packet, cloud opportunities, which are most important next year and is there a reason we shouldn't expect some acceleration as these opportunities unfold? And then secondly, you alluded to a packet opportunity at Verizon tied to the metro build. So I was hoping you can help us understand what percentage of the metro opportunities you are working on have a packet opportunity associated with them and to what degree would you expect the packet business to ramp as some of your metro deployments begin to unfold over the next couple of years. Thanks.

Jim Moylan - *Ciena Corporation - SVP, Finance & CFO*

On the seasonality question, the way that we have looked at it is -- we've looked at it a couple of ways. We've looked at the percentage of the annual revenue, which first quarter as represented, and we've looked at the decline from Q4 into Q1, and those numbers have been relatively consistent. The former number is more consistent than the latter because we can have a superstrong Q4 and a little less than strong Q1, but those are the kinds of comparisons that we made and looking at them, they are relatively consistent over time.

I don't see that any particular metro rollout is going to influence that significantly. A metro rollout is complicated and there's always a question as to whether people want to begin a metro rollout during the holiday season. And so I'm not sure that you can expect a stronger or weaker Q1 based on all the things I just talked about. I think you should expect in line.

Francois Locoh-Donou - *Ciena Corporation - SVP & COO*

Jess, on your question on what sort of percentage of our metro opportunities will have packet networking components to them, I'd say to you actually a large proportion of them increasingly have that access, Ethernet access component to it. So most carrier modernization networks involve upgrading their transport and aggregation networks, but also involve upgrading their access networks to be based on (inaudible) Ethernet technologies for better economics and higher capacity. And that is why a number of the metro opportunities that you go after in these telco networks require both technologies, and that's why we've been investing in both technologies for so long. And it's not easy to actually go win business in the metro if you have a single product proposition or a single platform. That's why you are seeing the traction that we are getting in metro.

So most of them actually have both components. Some have much larger aspects of packet networking because a big carrier really wants to transform their access networks, but in some cases, even if the packet networking component is a very small portion of the deal, you cannot win the overall business unless you have this full portfolio from access, to metro, to core.

Jess Lubert - *Wells Fargo Securities - Analyst*

Just to follow up on my first question, can you comment on when you think about metro upgrades, packet and some of these cloud opportunities, which are most important next year and is there a reason we shouldn't expect some acceleration as some of these opportunities begin to more materially mature?

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Jim Moylan - *Ciena Corporation - SVP, Finance & CFO*

It sounds to me as though you are looking for guidance for fiscal 2017, Jess, and we are not prepared to give that. I would just reiterate what Gary said earlier. We think that the market is growing at overall mid-single digits, and we have been able to do somewhat better than that consistently over the past five, six years. So that's what we expect. As we develop our 2017 plan, we will, of course, talk about it next time.

Gregg Lampf - *Ciena Corporation - IR*

Thank you, everyone. We appreciate you joining us. Please don't forget the chalk talk we have on DCI. Obviously, that's topical and we are hoping you can make time to join us next Thursday, 11:30 AM Eastern. Thank you, everybody.

Operator

Ladies and gentlemen, thank you for your participation in today's conference. This concludes the program and you may now disconnect. Everyone have a great day.
