



MANAGEMENT'S PREPARED REMARKS

FOURTH QUARTER AND FISCAL YEAR ENDED

OCTOBER 31, 2018

Investors should also review the Important Notes to Investors immediately following these prepared remarks.

Opening Remarks

- Welcome to Ciena's 2018 Fiscal Fourth Quarter and Year End Review.
- This morning's report includes these prepared written remarks, which have been made available in advance of our live conference call with the financial community.
- We have also posted to the Investors section of Ciena.com an accompanying presentation that reflects this discussion as well as certain highlighted items from the quarter and fiscal year.
- Our comments today speak to our financial performance; touch on market dynamics and how we're addressing the opportunity in front of us; and include a discussion of our long-term financial targets.

Introduction

- Today we reported outstanding fiscal fourth quarter results to close out another strong year of performance in 2018.
 - Revenue, gross margin and operating margin for the quarter were particularly strong, demonstrating continued momentum in our business and an increasing preference for Ciena in the market.
- Consistent execution of our strategy and a relentless focus on meeting our customers' needs continues to drive this differentiated performance.
 - We're delivering sustained industry-leading growth – out-pacing the market with double-digit percent revenue growth in fiscal 2018; and reporting multiple quarters of record order flow and backlog – with Q4 being no exception.
 - We're also driving profitability gains, as illustrated by 22% growth in adjusted EPS for the fiscal year.
- This performance puts us in a position of clear market leadership and we are taking share as the competitive landscape continues to rationalize.
 - In fact, in calendar year 2018 we expect to have gained at least 2% of global market share as customers are increasingly looking for financial stability and certainty around the capacity for sustained forward innovation in their strategic partners.
- We believe that we've reached a pivotal point in the growth of our business.
 - The combination of our consistent technology leadership, successful anticipation and interception of market trends, and sustained ability to capture share and outperform

the market, along with an industry environment that is working in our favor, provides us with tremendous confidence in both the near and longer-term outlook for our business.

Q4'18 Commentary

- Our fiscal fourth quarter marked a strong end to the year across a number of key financial and operating metrics.
 - Total quarterly revenue was \$899 million.
 - Adjusted gross margin was 44.7%.
 - Adjusted operating expense in the quarter was \$278 million, due to higher variable compensation tied to our strong performance.
 - Adjusted earnings per share (EPS) was \$0.53.
 - Adjusted operating income was \$124.7 million, or 13.9% adjusted operating margin.
 - We again had record orders in the quarter, with bookings significantly greater than revenue, and finished the year with \$1.26 billion in backlog.
- This better-than-expected top line performance in Q4 was a direct result of the continued momentum across our business, including for our 6500 and WaveServer platforms, and in software and services.
 - We are clearly benefitting from our leading market position and strong demand, which we expect to continue into fiscal 2019.
- Also, in anticipation of the adoption of the new revenue recognition accounting standard ASC 606 in FY2019, we've adjusted certain terms and conditions of a number of customer contracts, which resulted in a one-time, approximately \$16 million benefit to revenue and gross margin in the fourth quarter.
 - These actions will not be repeated in future periods.
 - To be clear, absent this dynamic in the fourth quarter our results still would have been above our guidance range.

Business Drivers

- This performance gives us confidence that the fundamental demand drivers for our business remain strong.
 - The cloud continues to be a significant influencer on industry structure, network architectures and customer consumption models.

- Notably, it is the webscale players who continue to influence networks and markets beyond their own.
 - With strong capex growth plans to address capacity needs, this customer set is driving continued opportunity in DCI and submarine applications.
- Our outlook for APAC remains very positive. In fact, we're seeing a broadening set of growth drivers in the region, and continued strength in key markets like India, Japan and Australia.
- In different parts of the world, new initiatives related to fiber densification – like 5G and Fiber Deep – continue to drive new investments from service providers and cable operators alike.
- And, we're seeing increased interest from service providers for software automation of their networks.
- We've made significant, long-term investments over several years to address customer needs in high-growth markets and applications.
 - As a result, we are benefitting from that strategy and believe we will continue to do so going forward.
- The current industry environment is also working in our favor.
 - Many of the generalists in our space have dueling priorities and investment demands, and some face significant challenges with security concerns, tariffs and supply chain constraints.
 - The smaller players are increasingly faced with an intensifying scale problem and are challenged to invest at the rate required to stay competitive.
 - While these dynamics are not new, they are becoming more significant factors in the market and with our customers, which is creating additional opportunity for us to continue taking share.
- Our performance during fiscal 2018 illustrates the positive effect these drivers and the current market conditions are having on our business, and also proves that our strategy to diversify the business, drive the pace of innovation and leverage our global scale is working.
 - By way of example, our focus on diversifying the business has resulted in more than 40% market share in the webscale DCI market. Direct webscale came in at nearly 18% of total revenue in 2018, more than double that of last year. And, we now have 117 Waveserver customers, 23 of which were new in the fourth quarter alone.

- This diversification led to a significant increase in our non-telco revenue in 2018 to 35%, up from 29% in fiscal 2017.
 - We also remain out front in terms of innovation.
 - WaveLogic remains the only 400G-capable coherent technology in the industry with a strong roadmap designed to retain our market leadership in this space.
 - We also recently introduced our Adaptive IP capabilities for our Packet Networking portfolio, and we made two strategic acquisitions that help build out our Automation Software and Services portfolio.
 - Finally, our global scale gives us the capability to invest in both R&D and the front end of our business, which will fuel future growth.
- We have an effective strategy to diversify and scale our business while staying ahead of the innovation curve. And we have proven our unique ability to design and carry out this strategy with great success.

Our Approach

- Executing on that strategy includes pressing down on our technology leadership and investment capacity to force the pace of innovation. And, we are leveraging our ability to partner with customers for the long-term to help solve their business challenges.
- Key to that is the Adaptive Network – our vision of a new target end-state for network operators.
 - This vision is transforming the conversations we’re having with customers, allowing us to demonstrate the holistic value of our portfolio and enabling our customers to more clearly see how they can evolve their networks.
- Underpinning the Adaptive Network is our core business of programmable infrastructure, rooted in our industry-leading WaveLogic coherent technology.
 - To be clear, our wins in this space are as much about our roadmap and customers’ confidence that we will execute as planned as they are about our current technology.
 - We have a hyper-competitive roadmap that extends beyond 400G and delivers multiple form factors. We are committed to maintaining our technology leadership in this space over the long-term – an ability we’ve proven time and time again.
- Also key to our Adaptive Network vision is how it addresses the shift in IP infrastructure away from the core toward access and aggregation.
 - Our Adaptive IP capabilities, including support for coherent optics and multiple new purpose-built hardware platforms in our Packet Networking portfolio, empower service

providers and cable operators to capitalize on 5G, Fiber Deep, Business Services and more.

- Perhaps most critical in delivering the *full* potential of the Adaptive Network is software control and automation capabilities.
 - Our service providers customers must scale their networks while bending down their cost curves.
 - We've invested heavily – organically and inorganically – to build a comprehensive software automation suite and service delivery capability that is specifically designed to meet this need.
 - To continue honing our focus and resources on attacking this adjacent, high-growth market opportunity, Blue Planet will now operate as its own division within Ciena.
 - This formation enhances our ability to support a range of consumption models by allowing the software business to operate independently of our hardware business, where it makes sense.
 - We believe this move will help us achieve our growth objectives and contribute to continued long-term shareholder value.
 - Along with this change, we will further break down the revenue in this operating segment to provide greater clarity into the performance of our intelligent automation business.
 - Specifically, we will provide revenue for our Platform Software and Services, which includes our network management and domain control software, and all related services including software subscription.
 - And we will provide revenue for Blue Planet Automation Software and Services, which includes multi-domain service orchestration (MDSO), Inventory (BPI), Route Optimization and Assurance (ROA), NFV orchestration (NFVO), Analytics, and all related services and support, including software subscription.
 - This change can be seen in today's press release.

Long-Term Targets

- Last year at this time we shared how we intend to manage the business and what to expect over the next three years through a set of long-term financial targets.
 - Given that we significantly outpaced the overall market in fiscal 2018, we achieved outstanding results against those targets.

- Annual revenue was up more than 10% from fiscal 2017, which was significantly above our target growth rate of 5% to 7%.
 - Adjusted EPS for the year was \$1.39, which exceeded our target 14-16% annual growth rate.
 - Free cash flow generation for fiscal 2018 was \$162 million, or 48% of adjusted operating income. While this was slightly below our target range, we remain confident in achieving our long-term goal.
 - And, finally, adjusted operating margin for fiscal 2018 was approximately 11%. We generated this on lower-than-expected gross margin, which gives us confidence that 15% adjusted operating margin on an annualized basis is an achievable goal.
 - This overall performance is a direct result of our focus in 2018 on leveraging our leading technology and relationships to win new customer footprint and incumbency and to drive long-term market share gains.
- Following our strong 2018 performance, we believe it is appropriate to provide a new set of three-year targets that better reflect the changes in our business during the year as well as our current estimates of market growth.
 - We will continue to drive the business toward achieving a combination of top line growth and bottom line performance.
 - Gross margin and operating expense remain important financial metrics, but we believe the most important indicators of our performance and progress going forward will be revenue and adjusted EPS growth.
- With that in mind...
 - We believe we will continue to gain footprint and take market share. As a result, we have a new, higher target for annual revenue growth to average approximately 6% to 8% per year over the next three years.
 - With respect to operating margin, through projected revenue growth and disciplined operating expense management, we expect to achieve at least 15% adjusted operating margin for fiscal year 2021.
 - We also intend to remain focused on driving increased profitability. Given our expectations for higher growth and continued operating margin improvement, we have increased our target to grow our adjusted earnings per share at an average of greater than 20% per year over the next three years.
 - Finally, we continue to target annual free cash flow generation to be approximately 60% to 70% of adjusted operating income over each of the next three years.

- Underpinning these projected financial targets are a number of strategic drivers that we described in detail last year and include in our earnings presentation for which we've also set three-year targets.
 - Based on our strong market position and coherent modem roadmap, we continue to target annual revenue growth for our optical systems business of approximately 4% to 6% over the next three years.
 - In terms of our global network services business, or attached services, our transformation initiatives are well underway and we continue to target annual revenue growth of approximately 4% to 6% over the next three years.
 - In our packet networking business, the combination of increasing customer diversification and positive outlook for fiber densification initiatives, we are increasing our expectations for this portfolio to target annual revenue growth of approximately 8-10% over the next three years.
 - Given the changes in our software and services business, we are providing long-term targets that align with how we are organizing this business.
 - Specifically, we are targeting annual revenue growth from Platform Software and Software Related Services of 4-6% over the next three years – consistent with the expected growth rate of our correlated optical systems business.
 - For our Blue Planet Automation Software and Services, we are targeting \$100 million to \$120 million in annual revenue within the next three years.

Balance Sheet & Capital Allocation

- To wrap up today's prepared remarks, we'll review balance sheet and capital allocation activities.
 - We have settled the 2018 Convertible Notes, with the majority being paid in cash upon conversion.
 - With the recent performance of our stock price, we also exercised our option to convert the 2020 Convertible Notes, settling them with a combination of shares and cash.
 - As a result, we now have no convertible debt on our balance sheet.
 - We refinanced our existing term loan – increasing it to \$700 million, extending the maturity to 2025, and reducing our cost of borrowing.
- In addition, we successfully executed our plans to return capital to shareholders.
 - During fiscal 2018 we repurchased 4.2M shares for an aggregate price of approximately \$111 million.

- We also changed the method of tax withholding on employee equity awards to use cash instead of selling shares, which further reduces shareholder dilution.
 - This change is another form of share repurchase and we will report it in that manner.
- Given our strong balance sheet and our expectations for cash generation over the next three years, today we announced that our board of directors authorized a new program to repurchase up to \$500M of our common stock.
 - This replaces the existing program, but it does not change our capital allocation priorities or previously stated intent to retain minimum liquidity in the \$700 million to \$800 million range.

Closing Commentary

- As we enter fiscal 2019, we have tremendous confidence in both our near and longer-term outlooks.
- Our business is built for, focused on, and financially capable of intersecting the trends that are driving the market today and into the future.
- Specifically, through our diversification, innovation and scale, we are:
 - Addressing the opportunity presented by webscale transformation as the dominant force in driving changes to the industry's structure
 - Advancing our leadership in optical with a business that is strong and growing stronger
 - Augmenting our IP and packet networking capabilities to attack this market as the outlook for it strengthens
 - Building out our intelligent automation software business as service providers look to tackle service and network complexity in new ways
- Through our continued execution, we expect to be able to invest in our business, grow revenue and drive increased profitability in fiscal 2019 and beyond.
- Thank you for your time today, and we look forward to connecting with you soon.

IMPORTANT NOTES TO INVESTORS

Forward-Looking Statements

Information presented in these prepared remarks contains a number of forward-looking statements. These statements are based on current expectations, forecasts, assumptions and other information available to the Company as of the date hereof. Forward-looking statements include Ciena's long-term financial targets, prospective financial results, return of capital plans, business strategies, expectations about its addressable markets, competitive landscape and market share, and outlook for future periods, as well as statements regarding Ciena's expectations, beliefs, intentions or strategies regarding the future. Often, these can be identified by forward-looking words such as "target" "anticipate," "believe," "could," "estimate," "expect," "intend," "may," "should," "will," and "would" or similar words.

Forward-looking statements in these prepared remarks include, but are not limited to:

- "[In] calendar year 2018 we expect to have gained at least 2% of global market share."
- "[We] remain confident in achieving our long-term [free cash flow] goal."
- "[We have] confidence that 15% adjusted operating margin on an annualized basis is an achievable goal."
- "We believe we will continue to gain footprint and take market share. As a result, we have a new, higher target for annual revenue growth to average approximately 6% to 8% per year over the next three years."
- "[We] expect to achieve at least 15% adjusted operating margin for fiscal year 2021."
- "[We] have increased our target to grow our adjusted earnings per share at an average of greater than 20% per year over the next three years."
- "[We] continue to target annual free cash flow generation to be approximately 60% to 70% of adjusted operating income over each of the next three years."
- "[We] continue to target annual revenue growth for our optical systems business of approximately 4% to 6% over the next three years."
- "In terms of our global network services business, or attached services, our transformation initiatives are well underway and we continue to target annual revenue growth of approximately 4% to 6% over the next three years."
- "In our packet networking business, the combination of increasing customer diversification and positive outlook for fiber densification initiatives, we are increasing our expectations for this portfolio to target annual revenue growth of approximately 8-10% over the next three years."
- "[We] are targeting annual revenue growth from Platform Software and Software Related Services of 4-6% over the next three years."
- "For our Blue Planet Automation Software and Services, we are targeting \$100 million to \$120 million in annual revenue within the next three years."
- "[We intend] to retain minimum liquidity in the \$700 million to \$800 million range. "
- "[We] expect to be able to invest in our business, grow revenue and drive increased profitability in fiscal 2019 and beyond."

Ciena's actual results, performance or events may differ materially from these forward-looking statements made or implied due to a number of risks and uncertainties relating to Ciena's business, including: the effect of broader economic and market conditions on our customers and their business; the loss of a key customer or changes in network spending or network strategy by large communication service providers and Webscale providers; seasonality and the timing and size of customer orders, including our ability to recognize revenue relating to such sales; the level of competitive and pricing pressure we encounter; the product, customer and geographic mix of sales within the period; supply

chain disruptions and the level of success relating to efforts to optimize Ciena's operations; changes in foreign currency exchange rates affecting revenue and operating expense; disruptions in our operations due to acquisition activities; our ability to commercialize and grow our software business; cybersecurity incidents impact our business; changes in government regulations, including related to tax and trade policy; adverse litigation matters and similar claims; and the other risk factors disclosed in Ciena's Quarterly Report on Form 10-Q filed with the Securities and Exchange Commission (SEC) on September 5, 2018 and Ciena's Annual Report on Form 10-K to be filed with the SEC.

All information, statements, and projections in these prepared remarks speak only as of the date of these prepared remarks. Ciena assumes no obligation to update any forward-looking or other information included in these prepared remarks, whether as a result of new information, future events or otherwise.

Availability of Important Information

You are encouraged to review the Investors section of our website, where we routinely post press releases, SEC filings, recent news, financial results, supplemental financial information, and other announcements. From time to time we exclusively post material information to this website along with other disclosure channels that we use.

GAAP Measures at or as of Quarter ended October 31, 2018

The following table includes certain comparable GAAP measures for Non-GAAP measures included in these prepared remarks:

Gross Margin (%)	44.3%
Operating Expense	\$302.2 million
Operating Income	\$95.9 million
Operating Margin (%)	10.7%
Net Income	\$64.0 million
Net Income per diluted common share	\$0.34

Non-GAAP Measures

These prepared remarks include historical and prospective, non-GAAP measures of Ciena's gross margin, operating expense, operating profit, net income, and net income per share, as well as measures of net debt and gross debt to EBITDA. These measures are not intended to be a substitute for financial information presented in accordance with GAAP. In evaluating the operating performance of Ciena's business, management excludes certain charges and credits that are required by GAAP. These items share one or more of the following characteristics: they are unusual and Ciena does not expect them to recur in the ordinary course of its business; they do not involve the expenditure of cash; they are unrelated to the ongoing operation of the business in the ordinary course; or their magnitude and timing is largely outside of Ciena's control. Management believes that the non-GAAP measures provided herein provide management and investors useful information and meaningful insight to the operating performance of the business. The presentation of these non-GAAP financial measures should be considered in addition to Ciena's GAAP results and these measures are not intended to be a substitute for the financial information prepared and presented in accordance with GAAP. Ciena's non-GAAP measures and the related adjustments may differ from non-GAAP measures used by other companies

and should only be used to evaluate Ciena's results of operations in conjunction with our corresponding GAAP results.

A reconciliation of non-GAAP measures used in these prepared remarks to Ciena's GAAP results for the relevant period can be found in the Appendix to our Q4 FY2018 investor presentation, posted to the quarterly results page of the Investor Relations section of our website (<http://investor.ciena.com/phoenix.zhtml?c=99134&p=quarterlyEarnings>). Additional information can also be found in our press release filed this morning and in our reports filed with the Securities and Exchange Commission.

With respect to Ciena's forward looking targets or projections in the prepared remarks above, Ciena is not able to provide a quantitative reconciliation of the adjusted (non-GAAP) measures of gross profit and margin, operating expense, operating income and margin, net income, and corresponding per share measures thereof, to the comparable gross profit and margin, operating expense, operating income and margin, net income and per share GAAP measures without unreasonable efforts. Ciena cannot provide meaningful estimates of the non-recurring charges and credits excluded from these non-GAAP measures due to the forward-looking nature of these estimates and their inherent variability and uncertainty. For the same reasons, Ciena is unable to address the probable significance of the unavailable information.