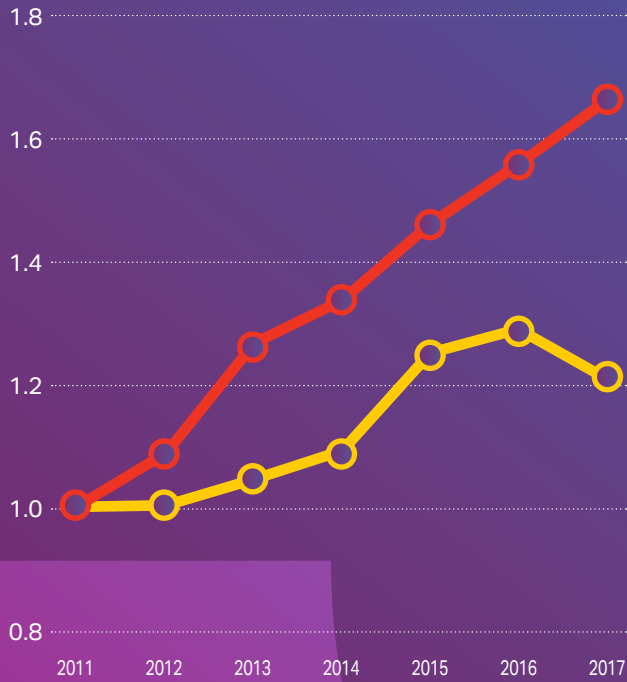


Pulling Away

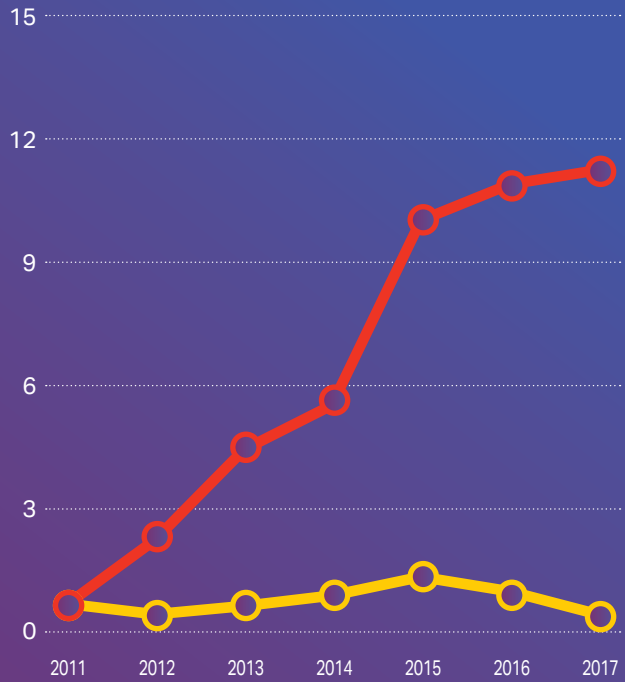
Outperforming Peer Group for More than 5 Years

Ciena has delivered differentiated growth & profit expansion

Normalized Revenue



Normalized Adjusted Operating Margin

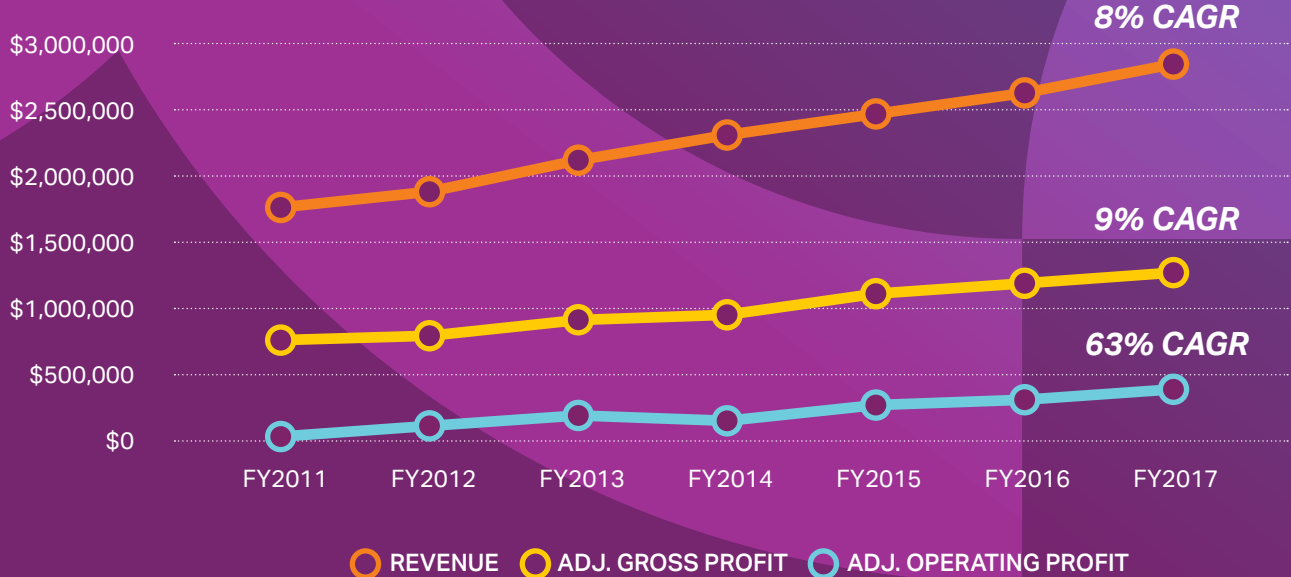


● CIENA ● INDUSTRY AVERAGE

*Industry Peer Average: Adtran, Adva, Cisco, Ericsson, Infinera, Juniper, and Nokia's IP Networks segment
2017 represents Ciena fiscal 2017 actuals and midpoint of our Q1'18 guidance, and industry peer consensus estimates as of 28 November 2017

Consistent Execution = Sustained Growth & Profitability

(\$ in millions)



A Letter from Gary B. Smith, President & CEO



Gary B. Smith, President and CEO

In 2017, we celebrated the 25th anniversary of the founding of Ciena, marking a significant milestone in our history of growth and increasing profitability in the global networking industry. We have built our company to capitalize on next generation network demands, and I am enormously proud of our strategy and our execution as we have become a market leader in innovation, market share, and financial strength.

We have a diverse portfolio across systems, components, software and services. We sell into a broad set of geographies and customer verticals, and across a wide range of network applications. As a result, we have consistently outperformed the industry in both revenue growth and profitability while strengthening our balance sheet and generating cash.

We are pulling away from the competition. And, we are extremely well positioned to continue driving the pace of innovation and to deliver greater value to our customers and shareholders.

Fiscal 2017 Performance

Reflecting on fiscal 2017, our momentum can be measured across several dimensions—starting with the \$2.8 billion we generated in revenue, representing nearly 8% top-line annual growth in an industry that showed a small decline.

A key to this success was our persistent focus on the diversification of our business. This includes the continued extension of our product portfolio and technology applications, as well the expansion of our customer set beyond traditional service providers. This past year those efforts were evident in several areas, including:

- Annual revenue growth of 20% in our direct **data center interconnect** business, led by our purpose-built Waveserver platform, which exceeded expectations with 70+ customers and \$110 million in annual revenue
- Annual revenue growth of more than 50% in our **Asia Pacific** region, including a near doubling of revenue from India, where we also achieved #1 market share
- Annual revenue growth of nearly 30% in our **Software and Software-Related Services** segment
- Annual revenue growth of approximately 25% in our **Packet Networking** segment

Continued execution of our strategy to diversify and scale our business

Ciena has reached an important inflection point in our recent transformation

	FY2014	FY2017	
Financial Performance	Revenue	\$2.29B	\$2.80B
	Adj. Operating Margin	6.5%	11.9%
	Net (Debt) / Cash*	(\$674M)	\$33M
Diversification	APAC	~8% total revenue India: \$38M	~18% total revenue India: \$230M+
	Webscale**	~15% total revenue	~25% total revenue
	Subsea	Upgrade market only	Upgrade & New Build market
	Software portfolio	Ciena Network Management Software	Virtualization, multi-vendor network management, domain control and orchestration
Scale	Customers	1,000	1,300
	Countries	60	80+

*Cash & cash equivalents

**Direct, indirect, and apportioned subsea

Our greater profitability and strengthened balance sheet stand in stark contrast to many others in our industry. By way of example, in fiscal 2017 we achieved a 20% year-over-year increase in adjusted net income and more than 20% year-over-year increase in adjusted EPS. In addition, we had another year of strong free cash flow, including \$235 million in cash generated from operations. We ended the year with a cash position of \$970 million, after reducing our debt by approximately \$230 million during fiscal 2017.

Positioned for Growth

Taking full advantage of this momentum and the current industry dynamics, we are focused on addressing market share gain opportunities and accessing new and emerging markets. We intend to leverage our momentum and focus our efforts across specific strategic growth drivers of our business, including:

- Our **optical systems business**, where we are the only player who can address the complete range of key applications.
- Our **global network services business**, where we've begun a multi-year transformation process to improve our delivery capability and expand our opportunity.
- Our **packet networking business**, where we are adding IP capabilities that will enable us to play a strategic role in our customers' network densification initiatives, such as 5G and Fiber Deep.
- Our **software and related services business**, where we are focused on migrating customers to our Blue Planet network domain controller platform and driving adoption of our Blue Planet analytics and orchestration technologies.
- And, finally, the **component space**, where we continue to drive business development efforts with our partners to make our WaveLogic modem technology available to a broader set of markets and customers.

We remain focused on increasing our role in and contribution from certain important market verticals and geographies that intersect with one or more of the

strategic drivers above. These include **global content network providers**, the **submarine market**, **Asia Pacific** as a region, and India specifically, all in addition to new and existing **service provider customers**. These areas are already outstanding success stories for Ciena, and we believe that they represent further growth prospects going forward.

Our Financial Future

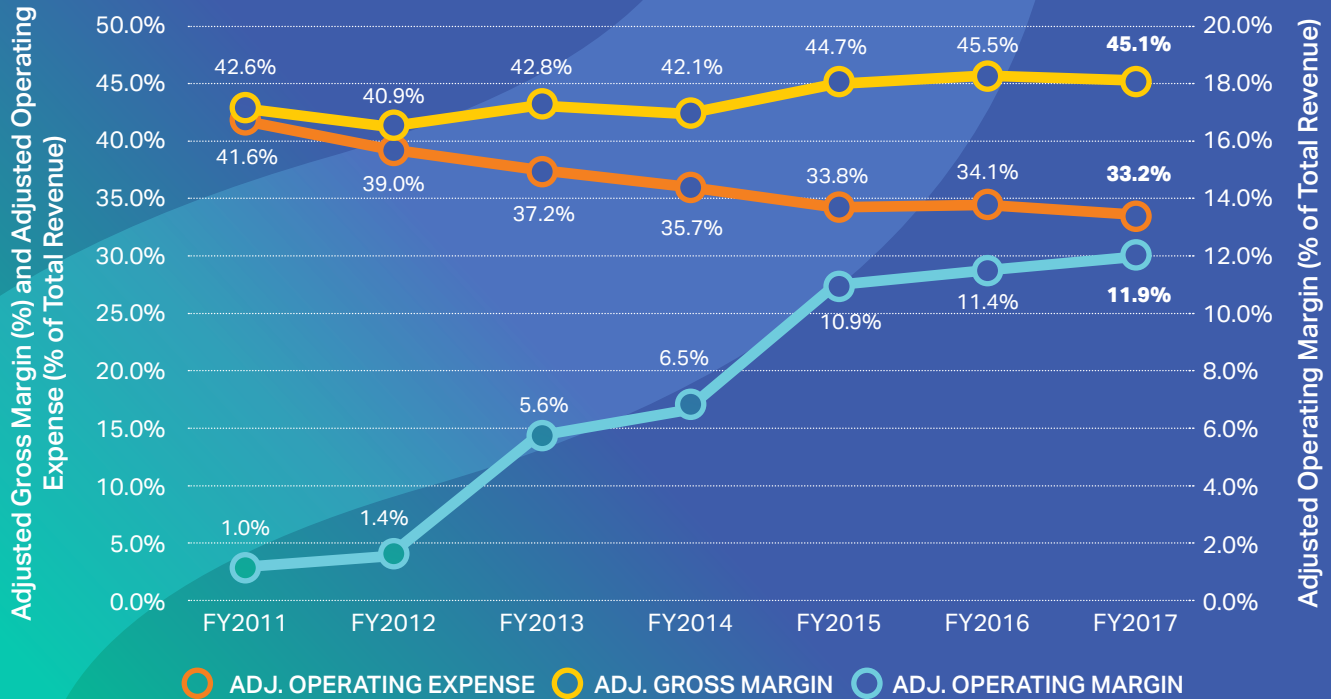
As we manage our business for the long-term, we will press down our competitive advantage and advance our leadership position in these key growth areas to continue delivering a combination of top-line growth, profitability and cash generation. Our longer-term strategic plan, based on current assumptions of overall market growth in the low single digits, is designed around that construct.

We are very pleased with the maturity and strength of our business, which allows us to confidently share with you our longer-term goals and how we plan to manage the business going forward. We have a proven strategy for long-term growth that has been reviewed with our Board of Directors and has their support. As a result, we have established several longer-term financial targets that we believe are achievable, and that we will be driving the company to achieve, in the next few years. These include:

- Faster-than-market revenue growth of approximately 5-7% per year over the next three years
- 15% adjusted operating margin on an annualized basis within three years
- Adjusted earnings per share (EPS) growth of approximately 14-16% per year over the next three years
- Annual free cash flow generation of approximately 60-70% of adjusted operating income over each of the next three years

Also, we are now in a position to incorporate the return of capital to shareholders in our strategic and operational plans. In late 2017 the Board authorized a

Increased Operating Leverage



program to repurchase up to \$300 million of the company's common stock through the end of fiscal 2020. This is in addition to our previously announced intent to cash settle \$289 million of our convertible notes in October 2018. These actions complement a variety of other improvements, including a reduction of our convertible note balance from \$1.4 billion to \$540 million, improvement of our net debt position from \$712 million to an actual net cash position of \$33 million, and a substantial decrease of our gross debt-to-EBITDA leverage ratio from 12x to 2.8x over the past several years. Taken together, these actions demonstrate and reflect the confidence we have in our long-term growth strategy and our strong balance sheet and cash flow generation.

Our Business Transformed

Through a combination of leading technology, global scale, diversity of applications, and deep customer relationships built over the last 25 years, we have completely transformed our business. As a result, we have an indisputable strong market leadership position.

We have also proven that our model is durable. While our industry can be challenging and dynamic, our improving business and financial results demonstrate our ability to adapt to changing market conditions and develop new markets while delivering consistent financial performance.

Today, we've never felt more confident about our future. We intend to continue expanding our influence across the industry, and to build a bigger, even more resilient and more profitable business in the years to come.

On behalf of myself and our Board of Directors, I would like to thank our nearly 6,000 employees and more than 1,300 customers around the world, as well as our growing shareholder base, for your support. We look forward to continuing to create long-term value as we execute on the exciting next phase of Ciena's strategy.

Gary B. Smith, *President and CEO*

Corporate Information

Corporate Headquarters

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Hanover, MD 21076
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or (410) 694-5700
www.Ciena.com

Virtual Annual Meeting

Ciena's annual meeting of shareholders will be held at 3:00 PM (Eastern) on Tuesday, April 3, 2018. Please visit www.virtualshareholdermeeting.com/ciena2018 at least 10 minutes prior to the start time.

Independent Registered Public Accounting Firm

PricewaterhouseCoopers LLP

Outside Counsel

Hogan Lovells US LLP

Transfer Agent

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P.O. Box 505000
Louisville, KY 40233-5000
Stockholder Inquiries: (781) 575-2879
www.Computershare.com

Common Stock Market Data

NYSE: CIEN

Investor Relations

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7035 Ridge Road
Hanover, MD 21076
Telephone: (877) 243-6273
Additional information is available on Ciena's website at investor.Ciena.com

Executive Officers

Patrick H. Nettles, Ph.D.
Executive Chairman of the Board of Directors

Gary B. Smith
President, Chief Executive Officer and Director

James E. Moylan, Jr.
Senior Vice President, Chief Financial Officer

Stephen B. Alexander
Senior Vice President, Chief Technology Officer

James Frodsham
Senior Vice President, Chief Strategy Officer

Rick L. Hamilton
Senior Vice President, Global Software and Services

Scott A. McFeely
Senior Vice President, Networking Platforms

Andrew Petrik
Vice President and Controller

Jason M. Phipps
Senior Vice President, Global Sales and Marketing

David M. Rothenstein
Senior Vice President, General Counsel and Secretary

Outside Board Members

Harvey B. Cash
Retired General Partner InterWest Partners

Bruce L. Claflin
Former Chairman AMD Corporation

William D. Fathers
Senior Operating Partner Stonepeak Infrastructure Partners and Senior Advisor Berkshire Partners

Lawton W. Fitt
Retired Partner Goldman Sachs

Patrick T. Gallagher
Chairman Harmonic, Inc.

Judith M. O'Brien
Partner King & Spalding LLP

T. Michael Nevens
Senior Adviser Permira Advisers, LLC

Michael J. Rowny
Chairman Rowny Capital

Notes to Investors The Annual Report contains certain forward-looking statements regarding future events or results that involve risks and uncertainties. These statements are based on current expectations, forecasts, assumptions and other information available to Ciena 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 and market share, and business 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.

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; changes in network spending or network strategy by large communication service providers; seasonality and the timing and size of customer orders, including our ability to recognize revenue relating to such sales; the level of competitive 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 our operations; changes in foreign currency exchange rates affecting revenue and operating expense; and the other risk factors disclosed in Ciena's Annual Report on Form 10-K contained herein. All information, statements, and projections in this Annual Report speak only as of the date of the Annual Report. Ciena assumes no obligation to revise or update any forward-looking information included in this Annual Report, whether as a result of new information, future events, or otherwise.

This document includes certain adjusted or non-GAAP measures of Ciena's results of operations. These measures are not intended to be a substitute for financial information presented in accordance with GAAP. A detailed reconciliation of these non-GAAP measures to our GAAP results are included in the press release for the relevant period available on Ciena.com.

