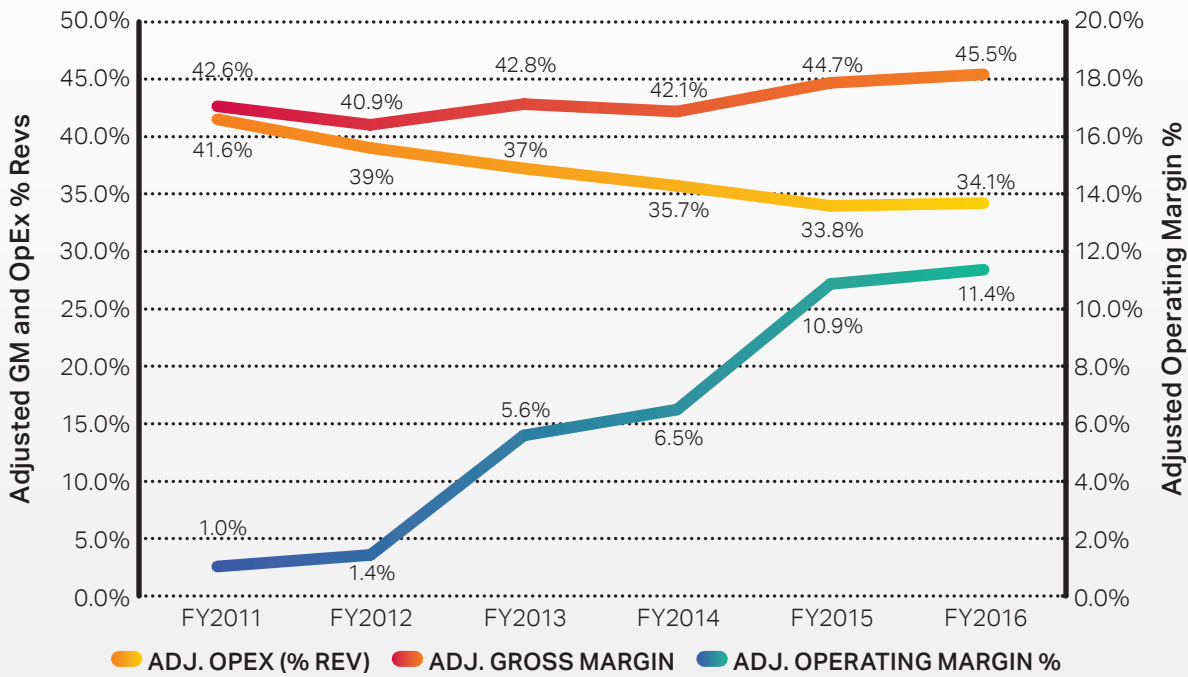


Measured by outcomes

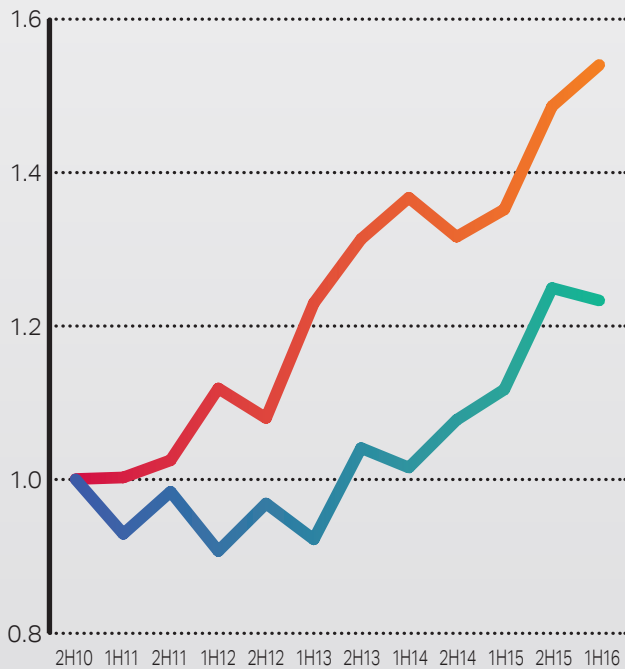


Increased operating leverage and sustainable momentum

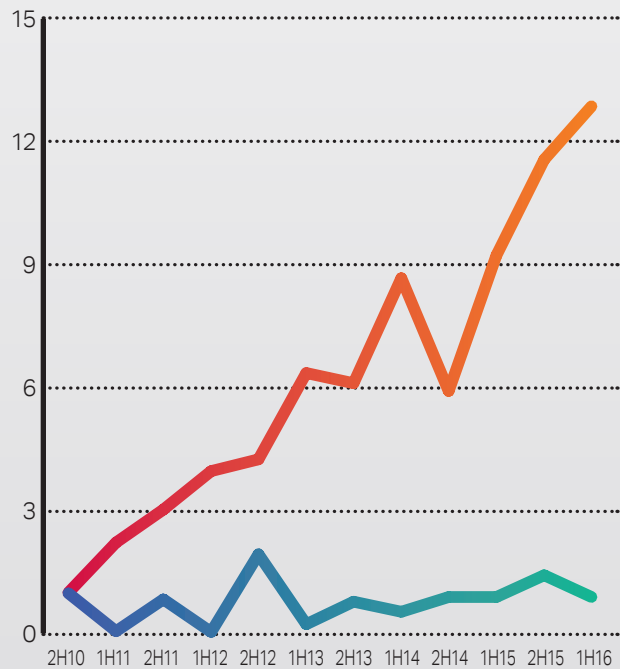


Financial leadership

Normalized Revenue



Normalized Adjusted Operating Profit



CIENA INDUSTRY AVERAGE



A Letter from Gary B. Smith

President and Chief Executive Officer



We have always believed that winners and losers would emerge as the telecommunications industry evolves toward converged solutions for the on-demand world and new network owners bring their new demands to the market. In fiscal 2016, Ciena emerged as one of the clear winners in this industry. We continued to diversify our business across products and customers, made strategic investments, gained market share and maintained a differentiated customer experience. In so doing, we delivered another year of outstanding financial performance, including a seventh consecutive year of growing revenue faster than the overall market as well as the highest adjusted net income in the company's history. We also positioned ourselves to take advantage of the next wave of opportunities focused on enabling greater choice for buyers of network technology.

Executing on Our Diversification Strategy

A cornerstone of our strategy in recent years has been to diversify our business, and in fiscal 2016 we executed extremely well against this strategy.

We broadened our portfolio

by focusing on higher growth applications for our products, including metro networking, data center interconnect and submarine networks, as well as by integrating the Blue Planet software platform into our business and driving market adoption for the platform. We completed the strategic acquisition of the high-speed photonics components business of TeraXion, which provides us greater control over important component technologies used in our business and helps accelerate the further development of our coherent packet-optical solutions.

We continued to diversify across our customer base, expanding our business with Web-scale providers, cable and multi-service operators, data center operators and enterprise customers.

In addition, we continued to diversify across our customer base, expanding our business with Web-scale providers, cable and multi-service operators, data center operators and enterprise customers. In

fact, approximately 31 percent of fiscal 2016 revenue was derived from these non-service provider customers, representing an 11 percent year-over-year increase. And, we benefited from geographic diversification and growth of our business in the Asia Pacific region, which grew revenue more than 30 percent year-over-year as a result of sales to additional customers in India as well as submarine consortia and network operators.

Winning with Our Customers

We are also relentlessly focused on delivering the best products, services and overall experience for

our customers, and these efforts paid off for us in fiscal 2016. We achieved numerous customer wins and gained market share across our newest solution offerings, including more than 2X growth in customers for the 8700 Packetwave platform, 6X growth in customers for Waveserver, and 2X growth in customers for the Blue Planet orchestration and control software platform.

Further, our customers clearly recognize us as differentiated from our competitors in a number of key product segments. Ciena was recently named by IHS Markit as the overall leader in its 2016 Optical Equipment Vendor Leadership Service Provider Survey, which measures the perception of network equipment vendors by global service providers. We were proud to take the #1 position in Technology Innovation, R&D, Solution Breadth, Product Reliability, Service & Support, Management Software and Transport SDN & Control Plane.

Delivering Record Financial Results

As a result of the above, Ciena had an outstanding year of financial performance in fiscal 2016:

- Revenue increased from \$2.4 billion to a record \$2.6 billion
- Adjusted gross margin improved from 44.7% to 45.5%
- Adjusted operating margin increased from 10.9% to 11.4%
- Adjusted net income increased from \$179 million to a record \$215 million

In addition, we significantly improved our balance sheet during the year. We generated \$290 million in cash from operations, exited the year with more than \$1.1 billion in cash and investments, and substantially reduced our debt position and improved our leverage by repurchasing more than \$260 million of our convertible senior notes due 2017.

Our financial performance this year also gives us confidence as we head into fiscal 2017. We received a record \$2.7 billion in sales orders in fiscal 2016, which enabled us to exit the year with a record backlog of

more than \$1.1 billion—representing a 15 percent increase from fiscal 2015 year-end.

Becoming a Leading Enabler of Choice for the Future

Looking at fiscal 2017 and beyond, we believe that the ability to make choices between various network technologies will be an important element of our customers' efforts to keep pace with increasing demands on network bandwidth, the shift to more automated and programmable networks, and the need to manage network costs. We anticipated this industry shift and have designed our business accordingly. Five years ago, we introduced our OPⁿ Architecture, a focused approach to next-generation networks through scalability, programmability and network level applications. Today, OPⁿ has evolved and expanded into our governing philosophy and broader belief system, which is rooted in enabling choice in the market through openness. We believe that the best way to enable choice for our customers is by developing and providing network technologies and strategies that facilitate openness through innovation, virtualization, automation and collaboration.

Our OPⁿ belief system guides our research and development strategy and solutions offerings, including:

- With the introduction of WaveLogic Ai, our next-generation coherent optical chipset, we're setting a new benchmark for scale, automation and analytics for a self-driving network;
- We're leading the market for multi-vendor network orchestration, management and control through our Blue Planet software platform;
- Our Waveserver platform embraces design principles that leverage open application programming interfaces, which facilitates openness and choice; and
- We've launched collaborative tools and environments such as our Emulation Cloud and the DevOps Toolkit, whereby we enable the development, testing and customization of services and applications.

Market Leadership



#1 GLOBALLY

- Data Center Interconnect
- Data Center Interconnect For ICPs

#1 NORTH AMERICA

- Packet Optical • Next-Gen Optical
- LH WDM • Metro WDM

#2 GLOBALLY

- Metro WDM
- Next-Gen Optical

Optical Networks Report, 3Q16



IHS Markit®

#1 NORTH AMERICA

- Carrier Ethernet Access Devices

Ethernet Access Devices Tracker,
September 2016

OVUM

#1 GLOBALLY

- Data Center Interconnect

Data Center Interconnect
Market Share Report, 3Q16

#1 GLOBALLY

- SLTE Upgrade

Subsea Optoelectronics
Market Share Report, 3Q16



A Network Strategy and Technology Company

Ciena Holds 2,000+ Patents Worldwide

- Packet-optical convergence platform
- Coherent optics with 40G and 100G solutions
- 100G transport SDN testbed adopting OpenFlow and an open source controller
- Multi-layer, multi-vendor transport SDN controller based on OpenDaylight
- Multi-vendor SDN/NFV ecosystem
- Carrier SDN platform
- Multi-domain orchestrator that integrates data center, NFV, and the WAN
- Carrier Ethernet aggregation switch supporting a virtualized switching architecture
- Intelligent optical core switch
- OTN control plane on an optical switch



Our OPⁿ belief system also influences our go-to-market approach, as we expect to increasingly partner with an ecosystem of solutions vendors and virtual network function providers, and to integrate services and applications across multi-vendor and multi-domain networks.

All of these offerings and approaches underscore our ability to unite hardware and software strengths for greater customer value, and enable Ciena to address the industry's need for a wider range of consumption models. Thereby, we have created a foundation that is already separating us from the competition.

In Closing

Fiscal 2016 was another excellent year for Ciena. We executed on our strategy and delivered what we promised, while increasing our profitability

and positioning ourselves for the next wave of opportunities in a changing industry. As a result, we continue to believe that we can achieve our next-stage financial milestone—15 percent adjusted operating margin—in the previously-established time frame of the next two to three years.

Finally, I would like to thank Ciena's employees around the world for their dedication, our customers and partners for entrusting their agendas to us, and our shareholders for their continued engagement and support. We look forward to another successful year together in fiscal 2017.

Gary B. Smith

President and Chief Executive Officer

Corporate information

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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 Thursday, March 23, 2017. Please visit www.virtualshareholdermeeting.com/ciena2017 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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www.Computershare.com

Common Stock Market Data

NYSE: CIEN

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Additional information is available on Ciena's website at www.Ciena.com/investors

Operating 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

François Locoh-Donou
Senior Vice President, Chief Operating Officer

Andrew Petrik
Vice President and Controller

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

Outside Board Members

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*General Partner
InterWest Partners*

Bruce L. Claflin
*Chairman
AMD Corporation*

Lawton W. Fitt
*Retired Partner
Goldman Sachs*

Patrick T. Gallagher
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Michael J. Rowny
*Chairman
Rowny Capital*

T. Michael Nevens
*Senior Adviser
Permira Advisers, LLC*

Notes to Investors This Annual Report contains certain forward-looking statements regarding future events or results that involve risks and uncertainties. These statements are based on current expectations, estimates, forecasts, assumptions and other information available to the Company as of the date hereof. Forward-looking statements include statements regarding Ciena's projections, expectations, beliefs, intentions or strategies and can be identified by words such as "anticipate," "believe," "could," "estimate," "expect," "intend," "may," "should," "will," and "would" or similar words. Ciena's actual results or performance may differ materially from these forward-looking statements, including due to certain risks and uncertainties relating to Ciena's business more fully disclosed in Ciena's Annual Report on Form 10-K contained herein. Ciena assumes no obligation to revise or update any forward-looking information included in this Annual Report.

This document includes certain adjusted or non-GAAP measures of Ciena's results of operations. Detailed reconciliations of these non-GAAP measures to our GAAP results are included in the press release for the relevant period available on Ciena.com.



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