

UNITED STATES SECURITIES AND EXCHANGE COMMISSION
WASHINGTON, D.C. 20549

SCHEDULE 14A

(Rule 14a-101)

INFORMATION REQUIRED IN PROXY STATEMENT

SCHEDULE 14A INFORMATION

Proxy Statement Pursuant to Section 14(a) of the Securities
Exchange Act of 1934 (Amendment No.)

Filed by the Registrant

Filed by a Party other than the Registrant

Check the appropriate box:

Preliminary Proxy Statement

Confidential, for Use of the Commission Only (as permitted by Rule 14a-6(e)(2))

Definitive Proxy Statement

Definitive Additional Materials

Soliciting Material Pursuant to § 240.14a-12

Ciena Corporation

(Name of Registrant as Specified in Its Charter)

(Name of Person(s) Filing Proxy Statement if other than the Registrant)

Payment of Filing Fee (Check the appropriate box): No fee required. Fee computed on table below per Exchange Act Rules 14a-6(i)(1) and 0-11.

(1) Title of each class of securities to which transaction applies:

(2) Aggregate number of securities to which transaction applies:

(3) Per unit price or other underlying value of transaction computed pursuant to Exchange Act Rule 0-11 (Set forth the amount on which the filing fee is calculated and state how it was determined):

(4) Proposed maximum aggregate value of transaction:

(5) Total fee paid:

Fee paid previously with preliminary materials.


Check box if any part of the fee is offset as provided by Exchange Act Rule 0-11(a)(2) and identify the filing for which the offsetting fee was paid previously. Identify the previous filing by registration statement number, or the form or schedule and the date of its filing.

(1) Amount previously paid:

(2) Form, schedule or registration statement no.:

(3) Filing party:

(4) Date filed:



ciena.

Proxy Statement
2020 Annual meeting of stockholders



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

“We had an extraordinary year of growth and profitability, and we believe that our strategy, our people, and our commitment to high ethical standards and sustainability are integral to that success.”

- Patrick H. Nettles, Ph.D.

Message from our Board of Directors

Dear Fellow Stockholders:

Fiscal 2019 was an extraordinary year for Ciena! We outperformed most of our long-term financial targets and advanced our market leadership. We delivered annual growth in revenue and profitability that outpaced the competition, gained market share, strengthened our balance sheet, and returned value to our stockholders through increased share repurchases. We were able to deliver these results through the consistent execution of our strategy and our ability to leverage our competitive strengths – innovation leadership, diversification and global scale. These strengths serve as the foundation of a uniquely resilient business, differentiating us in the market and giving us confidence about our future.

Our management and our Board believe strongly that good corporate governance and a commitment to high ethical standards and sustainability are essential to Ciena’s success. In 2019, we took several meaningful steps to improve our existing strong practices in these areas, including:

- *Commitment to Board Refreshment and Diversity.* We appointed Devinder Kumar, Senior Vice President, Chief Financial Officer and Treasurer of Advanced Micro Devices, Inc., as a new director and member of our Audit Committee.
- *ESG Engagement and Oversight.* We reached out to our top 30 stockholders to provide an update and hear feedback from them on matters relating to environmental sustainability, social responsibility, community engagement and corporate governance, including our compensation practices. We also updated the charters for each of our standing Board committees, including with respect to Board oversight of these areas.
- *Reduction of “Overboarding” Risk.* We implemented a new, stricter limitation in our Principles of Corporate Governance on the number of other public company boards on which our employee and non-employee directors can serve.

As we look ahead, we recognize that our industry and innovation leadership depend on the engagement of the talented personnel that make up our global workforce. Investing in our employees and adopting progressive human capital management initiatives have been key focus areas of our strategy. As part of this effort, we have taken steps to deliver equity awards deeper into our organization and to more employees, particularly in engineering and other technical functions. In this regard, and for the first time in three years, our Board is recommending an increase in the number of shares authorized for issuance under our 2017 Omnibus Incentive Plan.

I encourage you to read more about our Board of Directors, corporate governance practices and executive compensation in the attached proxy statement. I am confident that you will recognize our commitment to best practices in these areas. Thank you for your continued support of Ciena and your participation in this year’s Annual Meeting.

On behalf of the Board of Directors,

Patrick H. Nettles, Ph.D.



Ciena Corporation
7035 Ridge Road
Hanover, Maryland 21076

NOTICE OF ANNUAL MEETING OF STOCKHOLDERS

Date: April 2, 2020	Record Date: February 4, 2020
Time: 3:00 p.m. Eastern Time	Attendance: www.virtualshareholdermeeting.com/ciena2020

To the Stockholders of Ciena Corporation:

The 2020 Annual Meeting of Stockholders of Ciena Corporation will be held on April 2, 2020 at 3:00 p.m. Eastern Time. Our Annual Meeting will be a virtual meeting held over the Internet. You will be able to attend the Annual Meeting, vote your shares electronically and submit your questions during the live webcast of the meeting by visiting www.virtualshareholdermeeting.com/ciena2020 and entering your 16-digit control number included in the notice containing instructions on how to access Annual Meeting materials, your proxy card, or the voting instructions that accompanied your proxy materials.

Items of Business

1. Elect three members of the Board of Directors from the nominees named in the attached proxy statement to serve as Class II directors for three-year terms ending in 2023, or until their respective successors are elected and qualified, and elect one director, previously elected by the Board of Directors to fill a newly created vacancy in Class I, to serve as a Class I director for the remainder of his term ending in 2022, or until his successor is elected and qualified.
2. Approve the amendment of the 2017 Omnibus Incentive Plan to increase the number of shares available for issuance thereunder by 12.2 million shares.
3. Ratify the appointment of PricewaterhouseCoopers LLP as our independent registered public accounting firm for the fiscal year ending October 31, 2020.
4. Conduct an advisory vote on our named executive officer compensation, as described in these proxy materials.
5. Consider and act upon such other business as may properly come before the Annual Meeting or any adjournment or postponement thereof.

These matters are more fully described in the proxy statement accompanying this notice. You are entitled to notice of, and are eligible to vote at, this year's Annual Meeting if you were a stockholder of record as of the close of business on February 4, 2020.

In accordance with Securities and Exchange Commission rules, we are furnishing these proxy materials and our Annual Report to Stockholders for fiscal 2019 via the Internet. On February 19, 2020, we mailed to stockholders as of the record date a notice with instructions on how to access our Annual Meeting materials and vote via the Internet, or by mail or telephone.

We believe that your vote, and the vote of every Ciena stockholder, is important. Whether or not you plan to participate in the Annual Meeting, we encourage you to review the accompanying proxy statement for information relating to each of the proposals and to cast your vote promptly.

By Order of the Board of Directors,

A handwritten signature in black ink, appearing to read "David M. Rothenstein".

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

Hanover, Maryland
February 19, 2020

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PROXY STATEMENT SUMMARY

This summary highlights information that is contained elsewhere in this proxy statement. It does not include all information necessary to make a voting decision and you should read this proxy statement in its entirety before casting your vote.

VOTING OVERVIEW

Proposals	Board Vote Recommendation	Page
1. Elect three Class II Director nominees and one Class I Director nominee	FOR each nominee	6
2. Approve amendment of the 2017 Omnibus Incentive Plan to increase the number of shares available for issuance thereunder by 12.2 million shares	FOR	28
3. Ratify appointment of PricewaterhouseCoopers LLP as our independent registered public accounting firm for fiscal 2020	FOR	35
4. Advisory vote on named executive officer compensation ("Say-on-Pay")	FOR	75

CIENA AT A GLANCE

Ciena is an industry-leading, global networking systems, services and software company



\$3.6B
FY19 Annual Revenue



15%
Annual Revenue Growth



\$1B
Cash Position at FYE 19



#1 or #2
Market Position in the markets in which we operate



80+
Countries in which we sell products



6,500+
Employees



1,500+
Customers



Strong
Governance Practices

Our Foundational Strengths

 **Innovation**



We are a market leader in coherent technology and leverage our significant investment capacity to push the pace of innovation in our industry

 **Diversification**



We have a broad-based business that spans a diverse set of customer segments, geographies and applications and positions us to better withstand challenges in individual markets

 **Global Scale**



We have significant talent and deep resources in engineering, sales, services and customer support that advance our global business

Our Strategic Initiatives

 **Grow**
Our Core Business

- Push the pace of innovation and deliver on our robust technology roadmap and Adaptive Network vision through advances in programmable hardware, analytics and software control and automation
- Grow our optical and packet infrastructure business by addressing fast-growing applications including data center interconnection, packet aggregation and switching, network densification, including 5G mobile and fiber deep, and access submarine networks
- Transform our attached services business to include broader, more consultative service offerings and engagements including network migration and optimization and multivendor network integration

 **Access & Disrupt**
Multiple Consumption Models

- Offer a range of networking solutions across consumption models to drive the evolution of next-generation network infrastructures and promote choice in our markets
- Leverage our WaveLogic technology as a “merchant modem” to address multiple consumption models and secure a larger portion of the world’s optical network wavelengths
- Pursue multiple development paths for our next-generation coherent optical chipset to make our technology available in both integrated systems and pluggable form

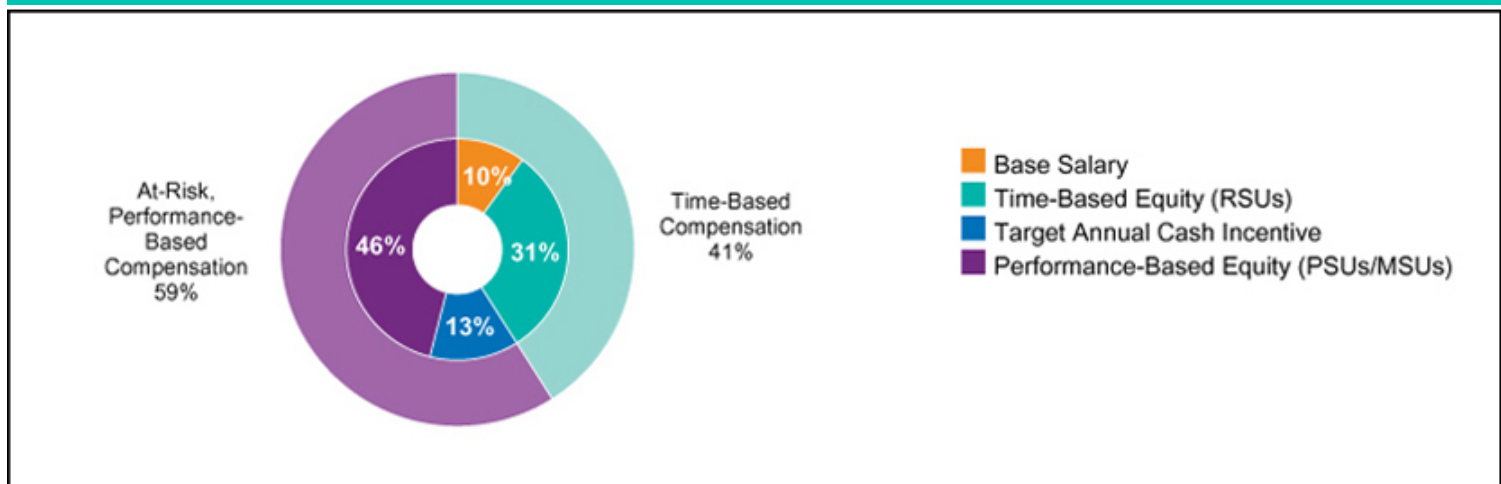
 **Expand**
Software & Services Portfolio

- Promote broader adoption of our Blue Planet software as an intelligent automation platform to transform network operations and management
- Enhance services capability and diversify our portfolio to drive services-led solutions engagements and enable our Adaptive Network vision

FISCAL 2019 COMPENSATION HIGHLIGHTS

Base Salaries	Increased the base salary of the CEO and certain NEOs, three of whom had not received increases in three years, in order to better align with the market median for their positions and to reflect their and Ciena's recent strong performance	Target Cash Incentives	<p>Did not increase the target cash incentive opportunity for the CEO</p> <p>Increased the target cash incentive opportunity for two NEOs to better align with the market median and due to the size, scope and criticality of their roles</p>
Equity Award Values	Delivered annual equity awards for the CEO and the other NEOs that represented reasonable year-over-year increases in target value in order to keep pace and ensure alignment with the market and to reflect their and Ciena's recent strong performance	Equity Award Structure	<p>Structured equity awards so that 60% of the target award value for the CEO, and 50% of the target award value for the other NEOs, was allocated to at-risk, performance-based equity</p> <p>Continued to allocate a component of performance-based equity to MSUs, based on a relative TSR goal measured over a three-year performance period</p>

CEO Fiscal 2019 Target Total Direct Compensation Mix



CORPORATE GOVERNANCE AND STOCKHOLDER OUTREACH

Stockholder Outreach

We believe that strong corporate governance practices should include regular outreach and conversations with our stockholders, with whom we regularly discuss our business, financial performance and industry dynamics. These regular engagements allow us to obtain feedback on stockholders' perception and understanding of our markets, business and industry. They have also influenced our communications, which include the publication of long-term financial targets, communication of the key elements of our corporate strategy and an articulation of our capital allocation priorities. In addition, in connection with our proposal to increase the number of shares available under our 2017 Omnibus Incentive Plan, we reached out to a number of our largest stockholders to provide an opportunity to discuss our current equity practices. Since our last annual meeting, we have also engaged in outreach with our stockholders with respect to our environmental, social and governance practices.

Environmental, Social & Governance (ESG) Engagement

- ❖ Reached out to our 30 largest stockholders (representing approximately 54% of our shares)
- ❖ Shared our recent progress on environmental sustainability, social responsibility, community engagement and corporate governance, including compensation practices
- ❖ Members of our executive leadership team personally met with stockholders representing more than 25% of our outstanding shares, including our three largest holders
- ❖ Reviewed stockholder feedback with our Board and, partially in response to feedback, added a stricter limitation on director overboarding and updated the charters of standing Board committees to clearly allocate responsibility for ESG matters

Fiscal 2019 Governance Changes

Category	What We've Done
Board Composition	<ul style="list-style-type: none"> ❖ Appointed a new independent director ❖ Four of nine directors bring gender or ethnic diversity to the Board ❖ Added a stricter limitation on director overboarding
ESG	<ul style="list-style-type: none"> ❖ Communicated sustainability and human capital management initiatives to our stockholders ❖ Issued first CSR Report in fiscal 2019 ❖ Updated charters to allocate committee responsibility for the Board's oversight of strategy and approach to environmental, social and governance matters ❖ Updated Compensation Committee charter to reflect its practice of exercising oversight of human capital management initiatives, including promotion of physical and emotional well-being of employees
Policies and Charters	<ul style="list-style-type: none"> ❖ Updated Principles of Corporate Governance, Code of Ethics for Directors, and charters of standing Board committees to align with governance best practices

Existing Strong Governance Structure

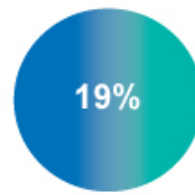
- ❖ Seven of nine directors are independent
- ❖ Standing committees are comprised solely of independent directors
- ❖ Lead Independent Director
- ❖ Separate Chairman and CEO roles
- ❖ Code of Ethics for Directors
- ❖ Annual Board and committee self-assessments
- ❖ Proxy access bylaw
- ❖ Majority voting in uncontested director elections
- ❖ Limits on annual director compensation
- ❖ Independent directors regularly meet without management present

FISCAL 2019 PERFORMANCE AND BUSINESS HIGHLIGHTS

Financial Performance



annual revenue



total stockholder return

Year-Over-Year Increases (from fiscal 2018 to fiscal 2019)



increase in annual revenue



increase in adjusted EBITDA



increase in adjusted operating margin



increase in adjusted earnings per share

Contained above, and elsewhere in this proxy statement, are certain non-GAAP measures of Ciena's financial performance for fiscal 2018 and 2019. These measures, along with their corresponding GAAP measures and reconciliations thereto, have been previously disclosed in exhibits to Ciena's Current Report on Form 8-K filed with the SEC on December 12, 2019. Also see "Non-GAAP Measures" below for more information about these measures and how they are used.

Business Highlights

- ❖ Pushed the pace of technical innovation by extending our WaveLogic roadmap beyond 400G and with multiple form factors
- ❖ Developed Adaptive IP capabilities to address network fiber densification
- ❖ Acquired Centina Systems to strengthen Blue Planet Software's closed-loop automation portfolio
- ❖ Successfully diversified the business, with our top customers including service provider, cable, and Web-scale customers across several geographies
- ❖ Established and communicated new long-term financial targets
- ❖ Generated over \$350 million in free cash flow
- ❖ Ended fiscal 2019 with over \$1 billion in cash and investments
- ❖ Increased stock repurchase program and returned capital to stockholders by repurchasing 3.8 million shares for \$150 million
- ❖ Received ratings agency upgrades from Moody's and S&P

PROPOSAL NO. 1

Election of Class I Director and Class II Directors

Overview

Our Board of Directors currently consists of nine directors divided into three classes. Each class of our Board of Directors serves a staggered three-year term. At the Annual Meeting, three directors will be elected to fill positions in Class II, whose term expires at the Annual Meeting. Judith M. O'Brien, Joanne B. Olsen and Gary B. Smith, our current Class II directors, are nominees for election at the Annual Meeting. Each of the nominees for Class II, if elected, will serve for a three-year term expiring at the 2023 Annual Meeting, or until his or her successor is elected and qualified, or until such director's earlier death, resignation or removal from the Board.

Effective August 28, 2019, the Board of Directors increased the size of the Board from eight to nine directors and appointed Devinder Kumar to fill the newly created vacancy in Class I of the Board. Mr. Kumar was initially identified as a possible candidate for Board service by a third-party search firm engaged by the Board and was recommended to the Board following a vetting process conducted by the Board. The term of office for Class I directors continues until the 2022 Annual Meeting, or until their successors are duly elected and qualified. Our bylaws, however, limit the term of office of any director elected by the Board of Directors to fill a vacancy to a term that lasts until the first annual meeting following election. Mr. Kumar is therefore a nominee for election at the Annual Meeting. Our bylaws also provide that any director so elected will serve the remainder of the term of the class to which such director was elected. Accordingly, if elected by stockholders at the Annual Meeting, Mr. Kumar will serve the remainder of his term as a Class I director until the 2022 Annual Meeting, or until his successor is elected and qualified, or until his earlier death, resignation or removal from the Board.

The nomination of these directors to stand for election at the Annual Meeting has been recommended by the Governance and Nominations Committee and approved by the Board of Directors.

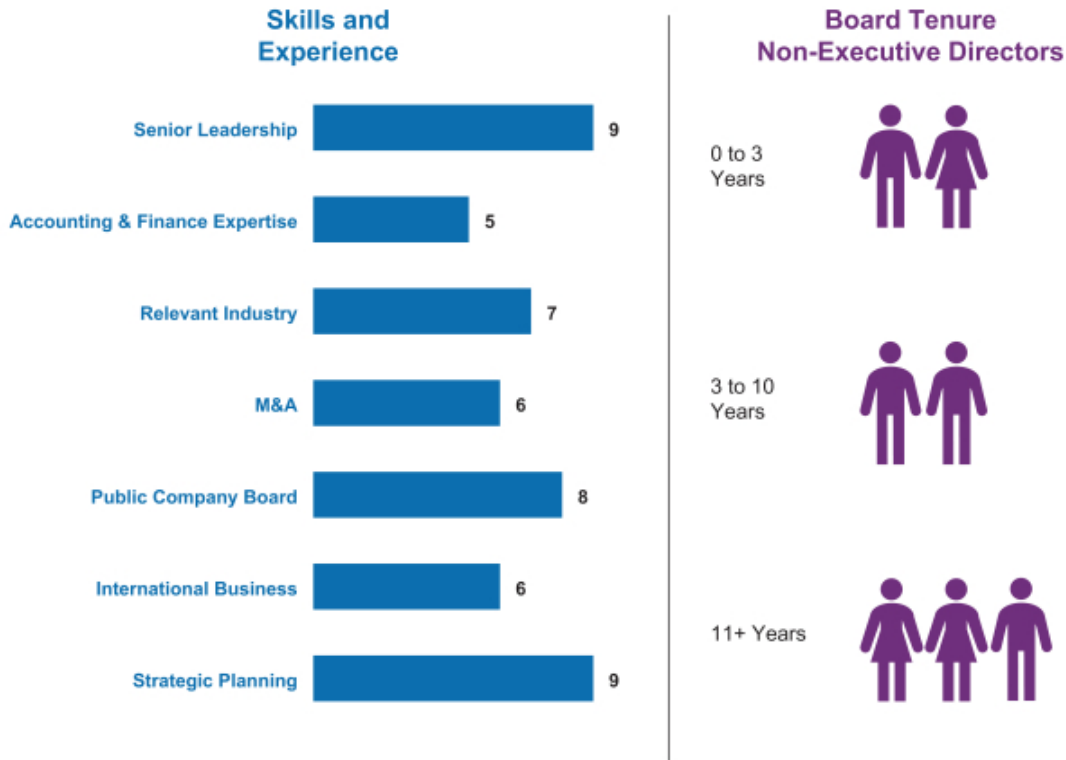
Director Qualifications

The Governance and Nominations Committee reviews candidates for service on the Board and recommends nominees for election to fill vacancies on the Board of Directors, including nomination for re-election of directors whose terms are due to expire. The Governance and Nominations Committee endeavors to identify, recruit and nominate candidates who possess a combination of wisdom, sound judgment, excellent business skills, maturity and high integrity. In particular, the Governance and Nominations Committee seeks individuals with a record of accomplishment and senior leadership experience in their chosen fields who display the independence of mind and strength of character to be committed to representing the long-term interests of various stakeholders, including our stockholders, customers, partners, employees and community.

The Governance and Nominations Committee also seeks to ensure that the Board of Directors is composed of individuals of diverse backgrounds, including with respect to gender and ethnicity, who have a variety of complementary experience, skills and relationships relevant to Ciena's business and industry. This diversity of background and experience includes ensuring that the Board includes individuals with experience or skills sufficient to meet the requirements of the various rules and regulations of The New York Stock Exchange and the Securities and Exchange Commission (the "SEC"), such as the requirements to have a majority of independent directors and an audit committee financial expert. As required by the Governance and Nominations Committee Charter, the Committee has developed and uses criteria for maintaining a balanced board of directors representing a diversity of characteristics and recommends criteria, establishes procedures for, and conducts an annual review of the Board and the diversity and other characteristics of individual directors and reports to the Board on the results of the review.

In nominating candidates to fill vacancies created by the expiration of the term of a director, the Governance and Nominations Committee determines whether the incumbent director is willing to stand for re-election. If so, the Governance and Nominations Committee evaluates his or her performance to determine suitability for continued service, taking into consideration, among other things, each director's contributions to the Board, the value of the continuity of his or her service, and the individual's familiarity with Ciena's markets, business and operations.

BOARD COMPOSITION AND DIVERSITY



Independence and Diversity



The above charts reflect information for all nominees and continuing directors. Each of the nominees has consented to serve if elected. However, if any of the persons nominated by the Board of Directors fails to stand for election, or declines to accept election, or is otherwise unavailable for election prior to our Annual Meeting, proxies solicited by our Board of Directors will be voted by the proxy holders for the election of any other person or persons as the Board of Directors may recommend, or our Board of Directors, at its option, may reduce the number of directors that constitute the entire Board of Directors.

Information Regarding Nominees and Continuing Directors

Information for each person nominated for election as a director at the Annual Meeting, including age, term of office and business experience, including directorships during the past five years, as well as for each director continuing service on our Board, is set forth below. In addition, for each person, we have included information regarding the business or other experience, qualifications, attributes or skills that factored into the determination by the Governance and Nominations Committee and by our Board of Directors that each such person should serve as a director on our Board.

DIRECTOR NOMINEES

Class II Director Nominees with Terms Expiring in 2023

Judith M. O'Brien



Director Since July 2000

- Compensation Committee (Chair)
- Governance and Nominations Committee

Age 69

Other Public Boards: 0

Professional Highlights

From November 2012 until her retirement in December 2019, Ms. O'Brien served as a partner and head or co-head of the Emerging Company Practice Group at the law firm of King & Spalding. Ms. O'Brien served as Executive Vice President and General Counsel of Obopay, Inc., a provider of mobile payment services, from November 2006 through December 2010. From February 2001 until October 2006, Ms. O'Brien served as a Managing Director at Incubic Venture Fund, a venture capital firm. From August 1980 until February 2001, Ms. O'Brien was a lawyer with Wilson Sonsini Goodrich & Rosati, where, from February 1984 to February 2001, she was a partner specializing in corporate finance, mergers and acquisitions, and general corporate matters.

Skills and Qualifications

- Experience working in a private law firm focused on technology companies
- Service as a venture capital professional and as in-house general counsel

- Important perspective with respect to the overall technology sector and in identifying and assessing legal and regulatory risks
- Expertise in assessing and structuring strategic transactions, including capital raising opportunities, intellectual property matters, acquisitions, joint ventures and strategic alliances
- Brings extensive knowledge and experience in the areas of executive compensation and corporate governance to her service as Chair of the Compensation Committee and her membership on the Governance and Nominations Committee

Other Current Board Experience

- MagicCube, Inc. (private)
- Teatro Labs, Inc. (private)

Previous Board Experience

- Adaptec, Inc.
- Inform, Inc.

Joanne B. Olsen



Director Since October 2018

- Compensation Committee
- Governance and Nominations Committee

Age 61

Other Public Boards: 2

Professional Highlights

Ms. Olsen previously served as Executive Vice President of Global Cloud Services and Support at Oracle from 2016 until her retirement in August 2017. In that role, she drove Oracle's cloud transformation services and support strategy, partnering with leaders across all business units. Ms. Olsen previously served as Senior Vice President and leader of Oracle's applications sales, alliances, and consulting organizations in North America from 2012 through 2016, and from 2010 through 2012 served in various general management positions at Oracle. Ms. Olsen began her career with IBM, where, between 1979 and 2010, she held a variety of executive management positions across sales, global financing and hardware.

Skills and Qualifications

- Significant industry experience and knowledge of cloud infrastructure applications
- Senior leadership experience with large, multinational technology companies
- International business experience and insight into doing business in key international markets
- Executive management experience across a range of sales, services and alliances
- Experience as a public company director

Current Board Experience

- Teradata Corporation (public)
- Keysight Technologies, Inc. (public)

Gary B. Smith



Director Since October 2000

Age 59

Other Public Boards: 1

Professional Highlights

Mr. Smith joined Ciena in 1997 and has served as President and Chief Executive Officer since May 2001. Prior to his current role, his positions with Ciena included Chief Operating Officer and Senior Vice President, Worldwide Sales. Mr. Smith previously served as Vice President of Sales and Marketing for INTELSAT and Cray Communications, Inc. Mr. Smith is a member of the President's National Security Telecommunications Advisory Committee, the Global Information Infrastructure Commission and the Center for Corporate Innovation (CCI).

Skills and Qualifications

- As Chief Executive Officer of Ciena, brings leadership skills, industry experience and comprehensive knowledge of Ciena's business, financial position, and operations to Board deliberations

- Has led Ciena for approximately 19 years, including through a transformative acquisition and complex integration
- Unique perspective on the strategic and operational challenges and opportunities faced by Ciena
- Almost 30 years of experience in the telecommunications industry, during which time he has lived and worked on four continents
- Global industry sales and marketing experience that provide the Board an important perspective into Ciena's markets and business and selling strategies

Other Current Board Experience

- CommVault Systems, Inc. (public)

Previous Board Experience

- Avaya, Inc.

Class I Director Nominee with Term Expiring in 2022

Devinder Kumar



Director Since August 2019

- Audit Committee

Age 63

Other Public Boards: 0

Professional Highlights

Mr. Kumar currently serves as Senior Vice President, Chief Financial Officer and Treasurer of Advanced Micro Devices, Inc., in which capacity he is responsible for the global finance organization as well as global corporate services and facilities. He was appointed Chief Financial Officer in January 2013 and Treasurer in April 2015.

Skills and Qualifications

- Strong financial background including as Chief Financial Officer of a public company
- Senior leadership experience managing a global finance organization, global corporate services and facilities
- International and global experience with a multinational organization, including time spent in Asia
- More than 35 years in the technology industry

CONTINUING DIRECTORS

Class III Directors with Terms Expiring in 2021

Bruce L. Claflin



Director Since August 2006

- Audit Committee
- Compensation Committee

Age 68

Other Public Boards: 1

Professional Highlights

Mr. Claflin served as President and Chief Executive Officer of 3Com Corporation from January 2001 until his retirement in February 2006. Mr. Claflin joined 3Com as President and Chief Operating Officer in August 1998. Prior to 3Com, Mr. Claflin served as Senior Vice President and General Manager, Sales and Marketing, for Digital Equipment Corporation. Mr. Claflin also worked for 22 years at IBM, where he held various sales, marketing and management positions, including general manager of IBM PC Company's worldwide research and development, product and brand management, as well as president of IBM PC Company Americas.

Skills and Qualifications

- Prior service as a Chief Executive Officer of a technology company in an adjacent industry provides the Board with a high level of expertise and experience in the operations of a global, high technology company

- Provides the Board with strategic insights across a range of corporate functions
- Previous management and oversight experience relating to sales, marketing, research and development, supply chain management and manufacturing
- Experience in international business transactions, risk management, executive compensation and a business-oriented approach to resolving operational challenges
- Service as a fellow on the National Association of Corporate Directors and as a director of a public technology company

Other Current Board Experience

- IDEXX Laboratories, Inc., Chair of the Nominating and Governance Committee (public)

Previous Board Experience

- Advanced Micro Devices (AMD)

T. Michael Nevens



Director Since February 2014

- Audit Committee

Age 70

Other Public Boards: 1

Professional Highlights

Since 2006, Mr. Nevens has served as senior adviser to Permira Advisers, LLC, an international private equity fund. From 1980 to 2002, Mr. Nevens held various leadership positions at McKinsey & Co., most recently as a director (senior partner) and as managing partner of the firm's Global Technology Practice. He also served on the board of the McKinsey Global Institute, which conducts research on economic and policy issues. Mr. Nevens has been an adjunct professor of Corporate Governance and Strategy at the Mendoza College of Business at the University of Notre Dame.

Skills and Qualifications

- Substantial experience with and exposure to a wide variety of companies and their corporate strategies, both as a private equity adviser and management consultant, provides the Board with expertise in the areas of strategic and long-term business planning and competitive strategy

- Provides the Board with insight on corporate governance changes affecting public companies
- Experience as a director of other global, high technology companies

Other Current Board Experience

- NetApp, Inc., Chairman (public)

Previous Board Experience

- Altera Corporation

Patrick T. Gallagher



Director Since May 2009

- Lead Independent Director
- Compensation Committee
- Governance and Nominations Committee (Chair)

Age 65

Other Public Boards: 1

Professional Highlights

Since October 2007, Mr. Gallagher has served as Chairman of Harmonic Inc., a global provider of high-performance video solutions to the broadcast, cable, telecommunications and managed service provider sectors. From March 2008 until April 2012, Mr. Gallagher was Chairman of Ubiquisys Ltd. From January 2008 until February 2009, Mr. Gallagher was Chairman of Macro 4 plc, and from May 2006 until March 2008, served as Vice Chairman of Golden Telecom Inc. From 2003 until 2006, Mr. Gallagher was Executive Vice Chairman and served as Chief Executive Officer of FLAG Telecom Group and, prior to that role, held various senior management positions at British Telecom.

Skills and Qualifications

- Extensive international business experience provides the Board with expertise and an important perspective regarding international transactions and markets

- Experience as a senior executive of major European telecommunications service providers offers the Board insight into carrier customer perspectives as well as industry opportunities, marketing and sales strategies and operational challenges outside of the United States
- Industry knowledge and prior management expertise provide the Board with significant industry knowledge and expertise in submarine and wireless network applications and strategic growth market opportunities for Ciena
- Experience as a public company director in both the U.S. and Europe provides strong background as lead independent director and Chair of the Governance and Nominations Committee

Other Current Board Experience

- Harmonic, Inc., Chairman (public)
- Intercloud SAS, Chairman (private)
- Mirabeau SAS, Chairman (private)

Previous Board Experience

- Sollers JSC

Class I Directors with Terms Expiring in 2022

Lawton W. Fitt



Director Since November 2000

- Audit Committee (Chair)

Age 66

Other Public Boards: 3

Professional Highlights

From October 2002 to March 2005, Ms. Fitt served as Director of the Royal Academy of Arts in London. From 1979 to October 2002, Ms. Fitt was an investment banker with Goldman Sachs & Co., where she was a partner from 1994 to October 2002.

Skills and Qualifications

- Substantial investment banking experience and expertise in structuring and negotiating acquisition and financing transactions
- Understanding of the capital markets
- Brings a strong financial background to her service as Chair of the Audit Committee

- Significant experience in the areas of raising capital, financial oversight and enterprise risk analysis
- Executive management experience
- Service as a director and member of the audit committee of other companies

Other Current Board Experience

- Carlyle Group Management L.L.C. (general partner of The Carlyle Group L.P., public)
- Micro Focus International PLC (public)
- The Progressive Corporation, Chairperson (public)

Previous Board Experience

- ARM Holdings PLC
- Thomson Reuters Corporation

Patrick H. Nettles, Ph.D.



Director Since April 1994

- Executive Chairman

Age 76

Other Public Boards: 1

Professional Highlights

Dr. Nettles has served as Executive Chairman of the Board of Directors since May 2001. From October 2000 to May 2001, Dr. Nettles was Chairman of the Board of Directors and Chief Executive Officer of Ciena, and he was President and Chief Executive Officer from April 1994 to October 2000.

Skills and Qualifications

- Founder and former Chief Executive Officer of Ciena
- Significant institutional and industry knowledge
- Provides key insight and advice in the Board's consideration and oversight of corporate strategy and management development
- Experience as a public company director

- Executive management experience with Ciena, along with operational management experience and technical expertise, provide the Board a unique perspective and enable him to make significant contributions to the Board

Other Current Board Experience

- The Progressive Corporation (public)
- Trustee for the California Institute of Technology

Previous Board Experience

- Axcelis Technologies, Inc., Independent Chairman of the board
- Apptrigger, Inc.
- Optiwind Corp.
- Trustee for the Georgia Tech Foundation, Inc.

Proposal No. 1 — Recommendation of the Board of Directors

The Board of Directors recommends that you vote
“FOR”
the election of the three Class II nominees and the Class I nominee listed above

CORPORATE GOVERNANCE AND THE BOARD OF DIRECTORS

Ciena has adopted a number of policies and practices that highlight our commitment to sound corporate governance principles and sustainability. We maintain a corporate governance page on our website that includes additional related information, as well as governance documents such as our bylaws, codes of conduct, principles of corporate governance, and the charters for each of the standing committees of the Board of Directors. This information and documentation can be found on the "Governance" page of the "Investors" section of our website at www.ciena.com.

Independent Directors

In accordance with the current listing standards of The New York Stock Exchange, the Board of Directors, on an annual basis, affirmatively determines the independence of each director or nominee for election as a director. The Board of Directors has determined that, with the exception of Dr. Nettles and Mr. Smith, both of whom are employees and executive officers of Ciena, all of its members during fiscal 2019 are or during their tenure were "independent directors," using the definition of that term in the listed company manual of The New York Stock Exchange. Also, as more fully described below, all members of the Board's standing Audit, Compensation and Governance and Nominations Committees are independent directors, and all members of the Board's standing Audit and Compensation Committees are independent directors in accordance with the additional listing standards applicable to those committees.

Communicating with the Board of Directors

The Board of Directors has adopted a procedure for receiving and addressing communications from all interested parties, including Ciena's stockholders. Interested parties may send written communications to the entire Board of Directors (or any committee thereof), Ciena's Lead Independent Director, or all of the independent directors serving on the Board, by addressing communications to:

Ciena Corporation
7035 Ridge Road
Hanover, Maryland 21076
Attention: Corporate Secretary

Please address any communication by e-mail to ir@ciena.com with "Attention: Corporate Secretary" in the subject line.

Our General Counsel serves as Corporate Secretary and determines, in his discretion, whether the nature of the communication is such that it should be brought to the attention of the Board of Directors or a committee thereof, the Lead Independent Director, or all of the independent directors. As a general matter, the Corporate Secretary does not forward spam, junk mail, mass mailings, job inquiries, surveys, business solicitations or advertisements, or offensive or inappropriate material.

Environmental, Social and Governance Practices

Our corporate social responsibility practices are designed to help position Ciena as a supplier of choice to our customers, an employer of choice to our existing and prospective employees, and a neighbor of choice in our communities around the globe. Though our practices are broad and frequently evolving, we continue to focus on effective stewardship of human capital, environmental sustainability, community outreach and support, and good corporate governance. Highlights of our current practices in these areas are described below.



Human Capital

Annually reviewed by our Board, our “people strategy” is designed to ensure that we continue to attract and retain the talent necessary to execute on our strategic imperatives and business plans, and that we have well-aligned programs, initiatives, rewards and recognition to promote these goals



Environmental & Sustainability

We believe sustainability is more than a corporate responsibility — it is a fundamental part of our strategy and key to achieving our goals and success in our markets



Community Outreach & Support

We believe it is important to give back and promote community outreach and support through corporate giving, charitable matching, and robust employee volunteerism in the communities in which we live and work



Corporate Governance

We believe that good corporate governance and high ethical standards are an obligation to our investors, customers and employees and essential to Ciena’s success



Human Capital

Support Physical, Emotional, Financial & Social Wellbeing

- Competitive, fair and transparent compensation programs that promote performance and growth of our employees
- Incentives tied to business and individual results
- Innovative and competitive benefit offerings
- Flexible working opportunities
- Parental, caregivers and adoption leave
- Flexible paid time off in the U.S. and Canada
- Available education and support for all aspects of personal wellbeing, including physical, emotional, financial and social wellbeing
- Life planning and retirement readiness
- Employee Stock Purchase Plan and access to equity compensation, which we have pushed deeper into the organization in fiscal 2019

Employee Recognition

- Annual Spirit of Ciena Awards to recognize employees who best exemplify Ciena’s core values
- “Applause” program and Spot Awards to provide recognition to employees throughout the year
- Patent Incentive & Distinguished Engineer Awards
- Ciena Cares Awards recognizing employees and teams who exemplify our commitment to communities and volunteerism
- Regular satisfaction survey (ESAT) program

Promote Inclusive and Diverse Workplace

- Recruiting outreach to extend diverse representation
- Internal networking and programming includes our Women @ Ciena group and our Black & African Heritage @ Ciena group
- Regular and ongoing assurance of gender pay fairness
- Mentoring programs

Create Opportunities to Grow and Develop

- “Inside First” initiatives look at opportunities to cultivate talent for new roles from within
- “Ciena Next” program for early in career employees and new graduate hiring
- Management & Leadership Development Programs offered to employees
- Employee learning and training initiatives
- Support for continuing education through tuition reimbursement

Recognition

- “Great Place to Work” certified in the U.S., India, and Canada
- Recognized as one of Fortune’s “Most Admired Companies” in 2017, 2018, 2019 and 2020



Environmental & Sustainability

Sustainability in Our Products and Suppliers

- Technology innovation reduces environmental impact of network infrastructures at a time of significant traffic and service expansion
 - Product portfolio design optimizes power utilization and reduces network elements
 - Efforts to improve the energy efficiency per gigabit of throughput in our high-performance networking solutions
 - Initiatives to improve space and cooling requirements
- Member of the Responsible Business Alliance (“RBA”)
 - We have adopted, and seek to ensure that our key direct suppliers adopt, the standards and principles set forth in the RBA Code of Conduct
- TL9000 certified product lifecycle management process
- Sustainability assessments with suppliers representing significant spend
- Supplier diversity program
- Engaged with key customers on sustainability opportunities in products and fulfillment, underpinning the circular economy

Pursue Opportunities to Reduce Our Carbon Footprint

- Participate in CDP climate change and water disclosures
- Rapid adoption of flexible and remote working and collaborative tools
- Pursuing opportunities to consolidate real estate footprint
- 5 locations LEED certified or certifiable

Reporting and Recognition

- RBA / Rocky Mountain Institute / TIA sustainability membership
- Published initial CSR Report in December 2018
- Advanced rating by Ecovadis
- AT&T Diversity Supplier Award
- Conflict Minerals Report
- Completed global Environment, Health and Safety Management System Certification



Community Outreach & Support

Encourage Opportunities to Volunteer Time

- Ciena Cares – a comprehensive, best-in-class community program
- Local “Ciena Cares Champions” across the globe promote engagement in our communities
- Flexible volunteering during work time
- Rewards for volunteer hours served provide further charity benefits
- Joint community projects with customers and business partners
- Opportunities for employees to volunteer in person or virtually

Charitable Donation Matching

- New online charitable giving portal to promote employee donation matching program
- New employee stipend to donate to their favorite charities
- Up to \$1,000 annual matching for employee donations

Support for Current and Potential Employees

- Disaster relief programs for employees, customers and natural disaster response
- Support for STEM education

We maintain a Corporate Social Responsibility Policy and an Environmental, Health and Safety Policy which, along with our CSR Report, can be found on the “Corporate Social Responsibility” page of the “About us” section of our website at www.ciena.com



Corporate Governance

Composition of Board of Directors

Refreshment

- Appointed a new independent director in each of 2017, 2018 and 2019
- Appointed a new Lead Independent Director and Chair of Governance and Nominations Committee in 2017
- Reduced average tenure of non-employee directors from 12.1 to 9.8 years from the end of fiscal 2016 to the end of fiscal 2019

Gender and Diversity

- Three female directors
- One Indian-American director

Compensation

- Maintain limits on annual compensation for non-employee directors

Commitment to Investors

Outreach and Engagement

- Communicated strategy and updated long-term financial targets to stockholders in December 2019
- Regular outreach to stockholders on business and financial performance and industry dynamics
- Outreach to stockholders on our environmental, social and governance practices, including executive compensation, in fiscal 2019

Return of Capital and Dilution

- \$500 million share repurchase program (fiscal 2019-2021)
- Repurchase and retire shares to satisfy tax withholding on vesting of employee equity awards

Adopted Proxy Access and Majority Vote in Uncontested Elections

Strong Governance Policies

Stock Ownership Guidelines

- Substantially increased minimum ownership requirements for directors and officers, including 5x base salary for CEO and 5x cash retainer for non-employee directors
- Added a holding requirement until the relevant minimum ownership level is achieved

Core Governance Vehicles

- Updated Code of Ethics for Directors
- Updated Principles of Corporate Governance
- Refreshed all Board Committee Charters

Issued first Corporate Social Responsibility Report in fiscal 2019

Principles of Corporate Governance, Bylaws and Other Governance Documents

The Board of Directors has adopted Principles of Corporate Governance and other corporate governance policies that supplement certain provisions of our bylaws and relate to the composition, structure, interaction and operation of the Board of Directors. Some of our key governance policies and practices are summarized below.

❖ Proxy Access

Our bylaws include a “proxy access” provision by which eligible stockholders may nominate director candidates for inclusion in our proxy statement and proxy card. Proxy access may be used by a stockholder or group of up to 20 stockholders who own at least 3% of our outstanding common stock continuously for a minimum of three years to nominate up to the greater of 20% of the Board of Directors or two directors, subject to certain limitations. The Board of Directors believes this provision reflects a balanced approach to proxy access that provides a meaningful proxy access right, mitigates the risk of abuse, and protects the interests of all of our stockholders. The full text of our proxy access bylaw can be found as in Exhibit 3.1 to the Current Report on Form 8-K filed by Ciena with the SEC on January 27, 2017.

❖ **Stock Ownership Requirements**

To align the interests of Ciena's executive officers and members of the Board of Directors with those of our stockholders, and to promote our commitment to sound corporate governance, we maintain stock ownership guidelines for our executive officers and non-employee directors. The guidelines require such persons to hold shares of Ciena common stock of a value equal to a multiple of their annual base salary or annual cash retainer, as applicable, as follows:

Position	Stock Ownership Requirement
CEO	5x base salary
Executive Chairman	5x base salary
Executive Officers	2x base salary
Non-Employee Directors	5x cash retainer

We also have a requirement that our executive officers and non-employee directors hold 50% of all shares of Ciena common stock acquired from Ciena equity awards (net of any shares withheld for taxes or payment of exercise price) until they achieve the applicable minimum ownership level.

Each executive officer and non-employee director is subject to these guidelines, provided he or she has five years to attain the requisite stock ownership from the date such individual first becomes subject to the guidelines. Shares that count toward satisfaction of the stock ownership guidelines include: (i) shares owned outright by the person or his or her immediate family members residing in the same household; (ii) shares held in trust for the benefit of the person or his or her family; (iii) shares held through our Deferred Compensation Plan; and (iv) shares purchased on the open market. Unexercised stock options, whether or not vested, unvested restricted stock units, and unearned and unvested performance stock units or market stock units, do not count toward the satisfaction of the guidelines. The guidelines may be waived, at the Compensation Committee's discretion, if compliance would create hardship or prevent compliance with a court order.

❖ **Majority Vote Standard in Director Elections**

Ciena's bylaws and Principles of Corporate Governance require that, in the case of an uncontested election, each director be elected by the vote of a majority of the votes cast by holders of shares present in person or represented by proxy at the Annual Meeting. For this purpose, "a majority of the votes cast" means that the number of votes cast "FOR" a director's election exceeds the number of votes cast "AGAINST" that director's election. In the case of a contested election (*i.e.*, an election in which the number of candidates exceeds the number of directors to be elected), however, directors will be elected by plurality vote.

As a condition of nomination, each director is required to submit to Ciena an irrevocable resignation that becomes effective if the nominee does not receive majority vote (in an uncontested election) and the Board of Directors accepts the resignation. If the director fails to receive the requisite votes, the Governance and Nominations Committee will promptly consider the resignation and recommend to the Board whether to accept or reject it, or whether other action should be taken. No later than 90 days following the date of the certification of the election results, the Board of Directors will disclose its decision by press release and a Form 8-K filed with the SEC. The Board of Directors will provide a full explanation of the process by which the decision was reached and, if applicable, the rationale for rejecting the resignation. If a resignation is accepted by the Board, the Governance and Nominations Committee will recommend to the Board whether to fill the vacancy or to reduce the size of the Board of Directors.

Any director whose resignation is being considered is not permitted to participate in the recommendation of the Governance and Nominations Committee or the decision of the Board as to his or her resignation. If the resignations of a majority of the members of the Governance and Nominations Committee were to become effective as a result of the voting, the remaining independent directors will appoint a special committee among themselves for the purpose of considering the resignations and recommending whether to accept or reject them.

❖ **Selection of Board Members; Vacancies**

For any director elected by the Board of Directors to fill a vacancy, Ciena's bylaws limit the term of office of such person to the period from election until the first annual meeting following election, at which time such person is required to stand for election by the stockholders to serve the remainder of the term of the class to which such person was elected.

❖ ***“Overboarding” and Service on Other Boards of Directors***

The Board of Directors believes a director who is not serving as an executive officer of a public company should not serve on the boards of more than three other public companies in addition to our Board of Directors, and that a director who is currently serving as an executive officer of a public company (including our CEO and Executive Chairman) should not serve on the board of more than one other public company in addition to the board of the company for which that director serves as an executive officer. In December 2019, we amended our Principles of Corporate Governance to reflect these stricter limitations. In the event that a director wishes to join the board of directors of another public company, our Board, in its sole discretion, will determine whether service on the additional board of directors is likely to interfere with the performance of the director’s duties to Ciena and complies with the limitation on other directorships, taking into account a number of factors. In addition, time constraints and demands of potential director nominees are reviewed and factored into the decisions of the Governance and Nominations Committee and the Board.

❖ ***Change in Principal Occupation of Director or Change Affecting Independence***

In some cases when a director changes his or her principal occupation, the change may affect his or her ability to continue to serve on the Board of Directors. As a result, when a director substantially changes his or her principal occupation, including by retirement, or there is a change in circumstances that causes an independent director to no longer be considered independent under New York Stock Exchange rules, that director is required to tender his or her resignation to the Board of Directors. In considering the notice of resignation, the Governance and Nominations Committee will weigh such factors as it deems relevant and recommend to the Board of Directors whether the resignation should be accepted, and the Board will act promptly on the matter, with any acceptance of such resignation to be promptly publicly disclosed.

❖ ***Term Limits and Mandatory Retirement Age***

The Board of Directors does not believe it should establish a maximum length of service or a mandatory retirement age for directors. The Board believes that the skill set and perspectives of its members should remain sufficiently current and broad in dealing with current and changing business dynamics, and therefore seeks to maintain a balance of directors with varying lengths of service and ages. While the Board recognizes that term limits and/or a mandatory retirement age could assist in this regard, they may have the unintended consequence of forcing the Board and the Company to lose the contribution of directors who over time have developed increased judgment, knowledge and valuable insight into the Company and its operations. The Board also believes that there are other, more effective means to address board refreshment, including through a robust annual self-assessment process.

❖ ***Prohibition Against Pledging Ciena Securities and Hedging Transactions***

In accordance with Ciena’s Insider Trading Policy, our employees (including executive officers) and members of the Board of Directors are prohibited from pledging Ciena securities and engaging in hedging transactions with respect to Ciena securities. Ciena specifically prohibits our employees (including executive officers) and non-employee directors from holding Ciena securities in any margin account for investment purposes or otherwise using Ciena securities as collateral for a loan. Such persons are also prohibited from purchasing certain instruments (including prepaid variable forward contracts, equity swaps and collars) and engaging in short sales of Ciena stock and other similar transactions that could be used to hedge or offset any decrease in the value of Ciena securities. No categories of hedging transactions are specifically permitted.

❖ ***Committee Responsibilities***

The Board of Directors has three standing committees: the Audit Committee, the Compensation Committee and the Governance and Nominations Committee. Each committee meets regularly and has a written charter that can be found on the “Governance” page of the “Investors” section of our website at www.ciena.com. At each regularly scheduled Board meeting, the Chair or a member of each committee reports on any significant matters addressed by the committee.

❖ ***Executive Sessions***

Our independent directors on the Board of Directors and the standing committees thereof meet regularly in executive session without employee-directors or other executive officers present. The Lead Independent Director, or the Chair of such committee, presides at these meetings.

❖ ***Outside Advisors***

The Board of Directors and each of its standing committees may retain outside advisors and consultants at its discretion and at Ciena’s expense. Management’s consent to retain outside advisors is not required.

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❖ **Annual Assessment of Board Effectiveness**

To ensure that our Board of Directors and its committees are performing effectively and in the best interests of Ciena and its stockholders, the Board performs an annual assessment, overseen by the Governance and Nominations Committee, of itself, its committees and its members. This assessment typically consists of the Chair of the Governance and Nominations Committee conducting a one-on-one interview with each director and presenting the results of those discussions to the full Board of Directors.

Copies of our Principles of Corporate Governance and bylaws can be found on the “Governance” page of the “Investors” section of our website at www.ciena.com.

Codes of Ethics

Code of Business Conduct and Ethics

We maintain a Code of Business Conduct and Ethics that sets standards of conduct for all of Ciena’s directors, officers and employees. The Code of Business Conduct and Ethics reflects Ciena’s policy of dealing with all persons, including our customers, employees, investors, and suppliers, with honesty and integrity. All new employees are required to complete training on our Code of Business Conduct and Ethics, and we conduct recurring employee affirmations with respect to our Code of Business Conduct and Ethics and periodic training and communication related to specific topics contained therein.

Code of Ethics for Directors

We maintain a Code of Ethics for Directors, which supplements the obligations of directors under the Code of Business Conduct and Ethics and sets additional standards of conduct for our directors. The Code of Ethics for Directors outlines responsibilities of our directors with respect to their fiduciary duties, conflicts of interest, treatment of confidential Ciena information, communications and other compliance matters.

Code of Ethics for Senior Financial Officers

In accordance with the Sarbanes-Oxley Act of 2002, we maintain a Code of Ethics for Senior Financial Officers that specifically applies to Ciena’s Chief Executive Officer, Chief Financial Officer and Controller. Its purpose is to deter wrongdoing and to promote honest and ethical conduct, and compliance with the law, particularly as it relates to the maintenance of Ciena’s financial records and the preparation of financial statements filed with the SEC.

Each of these documents can be found on the “Governance” page of the “Investors” section of our website at www.ciena.com. Copies of these documents may also be obtained without charge by writing to: Ciena Corporation, 7035 Ridge Road, Hanover, Maryland 21076, Attention: Corporate Secretary.

Board Leadership Structure

Lead Independent Director

Mr. Gallagher serves as Ciena’s Lead Independent Director. The Lead Independent Director is responsible for coordinating the activities of the other independent directors and has the authority to preside at all meetings of the Board of Directors at which the Executive Chairman is not present, including executive sessions of the independent directors. The Lead Independent Director serves as principal liaison on Board-wide issues between the independent directors and the Executive Chairman, approves meeting schedules and agendas and monitors the quality of information sent to the Board. The Lead Independent Director may also recommend the retention of outside advisors and consultants who report directly to the Board of Directors. If requested by stockholders and as appropriate, the Lead Independent Director will also be available, as the Board’s liaison, for consultation and direct communication. The Lead Independent Director also assists the Governance and Nominations Committee in guiding both the Board’s annual self-assessment and the CEO succession planning process.

Separation of Chairman and CEO Roles

Although the Board of Directors does not have a formal policy on separation of the roles of Chief Executive Officer and Chairman, Ciena has kept these positions separate since 2001. Separating the Executive Chairman and Chief Executive Officer roles allows us efficiently to develop and implement corporate strategy that is consistent with the Board’s oversight role, while facilitating strong day-to-day executive leadership. Mr. Smith currently serves as Chief Executive Officer and Dr. Nettles, who served as Chief Executive Officer until Mr. Smith assumed that role in 2001, serves as Executive Chairman.

The Board believes that its leadership structure is appropriate for Ciena. Through the role of the Lead Independent Director, the independence of the Board’s committees, and the regular use of executive sessions of the independent directors, the Board is able to maintain independent oversight of our business strategies, annual operating plan and other corporate activities. These

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features, together with the role and responsibilities of the Lead Independent Director described above, ensure a full and free discussion of issues that are important to Ciena and its stockholders. At the same time, the Board is able to take advantage of the unique blend of leadership, experience and knowledge of our industry and business that Dr. Nettles brings to the role of Executive Chairman.

Board Oversight of Strategy

The Board of Directors believes that it is important to be deeply involved in overseeing and reviewing Ciena's short and long-term strategy. The Board oversees and reviews Ciena's long-term strategic plan, annual operating plan, and strategy and approach toward environmental, social and governance matters. Because employee engagement, development and retention are a critical element of our strategy, our Board annually reviews our "people strategy," a comprehensive overview of compensation, benefits, support for employees, growth and development opportunities, inclusion and diversity. Strategy-related matters are discussed regularly at Board meetings, as well as at the Committee level when appropriate. Such matters include:

- ❖ Long-term financial targets
- ❖ Three-year strategic plan
- ❖ Annual financial and operating plan
- ❖ Key functional strategic initiatives
- ❖ Corporate development and strategic transactions
- ❖ Alignment of executive compensation with strategic and operating goals
- ❖ Human capital, talent management strategy and succession planning

Board Oversight of Risk

The Board of Directors believes that risk management is an important part of establishing, updating and executing Ciena's business strategy. The Board, as a whole and at the committee level, has oversight responsibility relating to risks that could affect the corporate strategy, business objectives, compliance, operations and the financial condition and performance of the company. The Board focuses its oversight on the most significant risks facing Ciena and on its processes to identify, prioritize, assess, manage and mitigate those risks.

Among other things, the Board annually reviews and considers Ciena's long-term strategic plan, its annual financial and operating plan, and its enterprise risk management program. The Board and its committees also receive regular reports from members of senior management on areas of material risk to the company, including strategic, operational, financial, legal and regulatory risks. While the Board has an oversight role, management is principally tasked with direct responsibility for management and assessment of risks and the implementation of processes and controls to mitigate their effects on the company.

The Board's leadership structure, with a Lead Independent Director, separate Executive Chairman and CEO, independent Board committees with strong Chairs, the active participation of committees in the oversight of risk, and open communication with management, supports the risk oversight function of the Board.

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Each standing committee of the Board has the following risk oversight responsibilities and provides regular reports to the Board on at least a quarterly basis:

Audit Committee	<p>Oversee management of financial risks associated with:</p> <ul style="list-style-type: none">❖ accounting matters❖ liquidity and credit risks❖ corporate tax positions❖ insurance coverage❖ cash investment strategy❖ financial results <p>Oversee financial and business process systems</p> <p>Oversee management of risks relating to the performance of the company's internal audit function and its independent registered public accounting firm</p> <p>Oversee whistleblower complaints and internal investigations</p> <p>Oversee the company's systems of internal controls and disclosure controls and procedures</p> <p>Oversee IT risk management, cybersecurity matters and data privacy</p>
Compensation Committee	<p>Oversee management of risks associated with:</p> <ul style="list-style-type: none">❖ executive compensation❖ overall compensation and benefit strategies❖ compensation and benefit plans and arrangements❖ compensation practices and policies❖ Board of Directors' compensation❖ human capital management
Governance and Nominations Committee	<p>Oversee management of risks associated with:</p> <ul style="list-style-type: none">❖ corporate governance practices and sustainability❖ compliance and ethics program❖ director independence❖ Board composition❖ Board performance❖ annual assessment of Board effectiveness <p>Review and assess allocation of responsibility for risk oversight among the Board and its standing committees</p>

Composition and Meetings of the Board of Directors and its Committees

The table below details the composition of Ciena’s standing Board committees as of the end of fiscal 2019 and the number of Board and committee meetings held during fiscal 2019. Mr. Smith and Dr. Nettles do not serve on standing committees of the Board of Directors.

Name	Principal Occupation	Independent	Committee Memberships			Other Current Public Boards
			AC	CC	GNC	
Judith M. O'Brien	Former Partner, King & Spalding LLP	Yes		Chair	◆	0
Joanne B. Olsen	Former EVP Global Cloud Services & Support, Oracle	Yes		◆	◆	2
Gary B. Smith	CEO, Ciena Corporation	No				1
Bruce L. Claffin	Former CEO, 3Com Corporation	Yes	◆	◆		1
Patrick T. Gallagher	Chairman, Harmonic, Inc.	Yes		◆	Chair	1
T. Michael Nevens	Senior Advisor, Permira Advisors, LLC	Yes	◆			1
Devinder Kumar	SVP, CFO and Treasurer, Advanced Micro Devices, Inc.	Yes	◆			0
Lawton W. Fitt	Chairperson, The Progressive Corporation	Yes		Chair		3
Patrick H. Nettles, Ph.D.	Executive Chairman, Ciena Corporation	No				1
Fiscal 2019 Meetings		Board	AC	CC	GNC	
		6	8	8	4	

Each of our directors attended at least 75% in the aggregate of the total number of meetings of the Board of Directors and the committees on which he or she served during fiscal 2019. Ciena encourages, but does not require, members of the Board of Directors to attend the Annual Meeting, and eight of Ciena’s then ten directors participated in the virtual Annual Meeting last year.

Audit Committee

The Audit Committee falls within the definition of “audit committee” under Section 3(a)(58)(A) of the Securities Exchange Act of 1934 (the “Exchange Act”). The Board of Directors has determined that each member of the Audit Committee meets both the independence criteria established by the SEC under Rule 10A-3 under the Exchange Act and qualifies under the independence standards of The New York Stock Exchange. The Board of Directors has determined that each member of the Audit Committee is financially literate, as interpreted by the Board in its business judgment. The Board has also determined that each of Ms. Fitt and Mr. Kumar is an “audit committee financial expert” as defined in Item 407(d)(5) of Regulation S-K of the Exchange Act and an “independent director” as independence for audit committee members is defined in The New York Stock Exchange listing standards.

Among its responsibilities, the Audit Committee appoints and establishes the compensation for Ciena’s independent registered public accounting firm, approves in advance all engagements with Ciena’s independent registered public accounting firm to perform audit and non-audit services, reviews and approves the procedures used by Ciena to prepare its periodic reports, reviews and approves Ciena’s critical accounting policies, discusses audit plans and reviews results of the audit engagement with Ciena’s independent registered public accounting firm, obtains and reviews a report of Ciena’s independent registered public accounting firm describing certain matters required by the listing standards of The New York Stock Exchange, reviews the independence of Ciena’s independent registered public accounting firm, oversees Ciena’s internal audit function and Ciena’s accounting processes, including the adequacy of its internal controls over financial reporting and, where it determines to do so, makes recommendations to the Board of Directors with respect to rotation of the lead partner or the independent registered public accounting firm. Ciena’s independent registered public accounting firm and internal audit department report directly to the Audit Committee. The Audit Committee also reviews and considers any related person transactions in accordance with our Policy on Related Person Transactions and applicable rules of The New York Stock Exchange.

The Audit Committee is also responsible for a variety of other functions, including oversight of Ciena’s financial and business process systems, including completion of the upgrade of Ciena’s corporate enterprise resource planning platform, and oversight of IT security matters and data privacy.

Governance and Nominations Committee

The Governance and Nominations Committee reviews, develops and makes recommendations regarding various matters related to the Board of Directors, including its size, composition, standing committees and practices. The Governance and Nominations Committee also reviews and implements corporate governance policies, practices and procedures. The Governance and Nominations Committee conducts an annual review of the performance and effectiveness of the Board of Directors, its standing committees, and its individual members. The Governance and Nominations Committee is also responsible for making recommendations to the Board of Directors regarding the composition and independence of its non-employee members. The members of the Governance and Nominations Committee are all independent directors under applicable rules of The New York Stock Exchange.

The Governance and Nominations Committee may also consider recommendations for nomination from other sources and interested parties, including Ciena's officers, directors and stockholders. In considering these recommendations, the Governance and Nominations Committee applies the same standards described in "Director Qualifications" above, and considers the current size and composition of the Board, and the needs of the Board and its committees. When appropriate, the Governance and Nominations Committee may retain executive recruitment firms to assist in identifying suitable candidates. Stockholders who wish to recommend potential nominees may address their recommendations in writing to Ciena Corporation, 7035 Ridge Road, Hanover, Maryland 21076, Attention: Corporate Secretary. For a description of the process by which stockholders may nominate directors in accordance with our bylaws, please see "Stockholder Proposals for 2020 Annual Meeting" below.

Compensation Committee

The Compensation Committee has responsibility, authority and oversight relating to the development of Ciena's overall compensation strategy and compensation programs. The Compensation Committee establishes our compensation philosophy and policies, and it oversees compensation plans for our executive officers and non-executive employees. The Committee also has oversight responsibility for the compensation program for Ciena's non-employee directors. The Compensation Committee seeks to ensure that our compensation policies and practices promote stockholder interests and support our compensation objectives and philosophy. Ciena's compensation program for our executive officers focuses on addressing the following principal objectives:

- attract and retain talented executives by offering competitive compensation packages;
- motivate our executive officers to achieve strategic and tactical objectives, including the profitable growth of Ciena's business;
- align executive compensation with stockholder interests;
- reward our executive officers for individual, functional and corporate performance; and
- promote a pay-for-performance culture.

In making compensation decisions, the Compensation Committee also seeks to promote teamwork among and high morale within our executive team.

The Compensation Committee determines the compensation of our executive officers. As part of this determination, the Committee annually evaluates the performance of our CEO and our Executive Chairman and considers evaluations by or recommendations from our CEO regarding our other executive officers. The Committee also receives information and advice from its compensation consultant, as described below. The Committee reviews and has final authority to approve and make decisions with respect to the compensation of our executive officers. Our executive officers, including our CEO, do not participate in the determination of their own compensation, and with the exception of our CEO, do not play any role in determining or recommending the amount of executive officer compensation. For detailed information regarding the Compensation Committee, its determination of the form and amount of compensation paid to our executive officers, including the Named Executive Officers ("NEOs"), and Mr. Smith's role in such determinations, see "Compensation Discussion and Analysis" below.

The members of the Compensation Committee qualify as "non-employee directors" within the meaning of Rule 16b-3 under the Exchange Act and are independent directors under The New York Stock Exchange listing standards for purposes of compensation committee service. The Compensation Committee's charter permits the Committee to delegate authority to our CEO to make equity awards in connection with new hires and promotions and other discretionary awards. The Board of Directors has delegated limited authority to Mr. Smith to make equity awards to employees who are not part of the executive leadership team, within certain parameters and guidelines related to the size, terms and conditions of such awards. The Compensation Committee regularly reviews quarterly and year-to-date grant activity pursuant to this delegated authority.

Compensation Consultant

To assist in carrying out its responsibilities, the Compensation Committee is authorized to retain the services of independent advisors. For purposes of advice and consultation with respect to the compensation of our executive officers during fiscal 2019, the Committee engaged Compensia, Inc., a national compensation consulting firm. Prior to engaging Compensia, the Committee considered and assessed Compensia's independence. To ensure Compensia's continued independence and to avoid any actual or apparent conflict of interest, the Committee does not permit Compensia to be engaged to perform any services for Ciena beyond those services provided to the Committee. The Committee has sole authority to retain or terminate Compensia as its executive compensation consultant and to approve its fees and other terms of engagement. The Committee regularly, but not less than annually, considers the independence of its compensation consultant and determines whether any related conflicts of interest require disclosure.

In establishing executive compensation for fiscal 2019, the Compensation Committee relied upon Compensia to:

- assist in the selection of a group of peer companies;
- provide information on compensation paid by such peer companies to their executive officers;
- analyze compensation survey data to supplement publicly available information on compensation paid by peer companies;
- advise on alternative structures or forms of compensation and allocation considerations;
- advise on appropriate levels of compensation for the NEOs and the other members of the executive team; and
- prepare "tally sheets" showing, for each executive officer, all elements of compensation received in previous fiscal years, equity grant detail, the projected value of vested and unvested equity awards outstanding, and a comparative analysis of compensation relative to the peer group.

In addition to its advisory work regarding executive compensation during fiscal 2019, Compensia was engaged by the Compensation Committee to provide assistance in evaluating the compensation of the non-employee directors as set forth below, to participate in and provide assistance with respect to the Committee's annual compensation risk assessment, to review Ciena's methodology for calculating its CEO pay ratio measure, and to review the "Compensation Discussion and Analysis" included in this proxy statement. Compensia was also engaged to provide data and analysis relating to the Committee's consideration of the terms and conditions of the change in control severance agreements described under "Potential Payments Upon Termination or Change in Control" below.

Compensation Committee Interlocks and Insider Participation

Mses. O'Brien and Olsen and Messrs. Clafin and Gallagher, who comprised the Compensation Committee as of the end of fiscal 2019, are independent directors and were not, at any time during fiscal 2019, or at any other time, officers or employees of Ciena. During fiscal 2019, no member of the Compensation Committee was an executive officer of another entity on whose compensation committee or board of directors an executive officer of Ciena served.

DIRECTOR COMPENSATION

Our director compensation program is designed both to attract and to fairly compensate highly qualified, non-employee directors to represent our stockholders on the Board of Directors and to act in the stockholders' best interests. The director compensation program for fiscal 2019 was recommended by the Compensation Committee and approved by our Board of Directors. Our executive officers do not play any role in determining or recommending the amount of non-employee director compensation, except that Mr. Smith and Dr. Nettles vote on the recommendations of the Compensation Committee in their capacities as members of the Board of Directors.

Our Board of Directors includes two Ciena executive officers: Dr. Nettles, who serves as our Executive Chairman of the Board, and Mr. Smith, who serves as our Chief Executive Officer. Dr. Nettles does not receive cash compensation for his service as a director, and Mr. Smith does not receive any compensation for his service as a director. Information regarding equity compensation to Dr. Nettles during fiscal 2019 can be found in the tabular disclosure below. Information regarding the determination of Mr. Smith's compensation can be found in the "Compensation Discussion and Analysis" and "Executive Compensation Tables" below.

Fiscal 2019 Board Compensation

For the purpose of determining non-employee director compensation for fiscal 2019, the Compensation Committee engaged Compensia to assist in evaluating the competitiveness of our director compensation program. The Compensation Committee considered an overview of the corporate governance environment, as well as recent trends and developments relating to director compensation. The Compensation Committee also specifically considered the amounts payable under and the various components of our director compensation program, as well as the aggregate director compensation cost, in comparison to the boards of directors of the same group of peer companies that the Compensation Committee used in determining executive compensation. After considering those factors and based on the recommendation of the Compensation Committee, in order to better align with the market median for certain compensation elements, for fiscal 2019 the Board of Directors increased the annual retainer for the lead independent director from \$20,000 to \$30,000 and increased the target delivered value of initial and annual director equity awards from \$200,000 to \$210,000.

Cash Compensation

Our cash compensation program for non-employee directors for fiscal 2019 was as follows:

Cash Compensation	Amount
Annual Retainer — Non-Employee Director	\$ 60,000
Additional Annual Retainer — Lead Independent Director	\$ 30,000
Additional Annual Retainer — Audit Committee	\$ 35,000 (Chair) \$ 15,000 (other members)
Additional Annual Retainer — Compensation Committee	\$ 25,000 (Chair) \$ 10,000 (other members)
Additional Annual Retainer — Governance and Nominations Committee	\$ 15,000 (Chair) \$ 6,000 (other members)

Under this program, our non-employee directors are not entitled to receive meeting attendance fees unless the Board, or any standing Board committee, is required to hold an unusually high number of meetings. In the event that the Board or a standing Board committee holds more than ten meetings in a fiscal year, each non-employee director (as applicable) will be entitled to receive an additional \$1,500 per meeting for the Chair, or an additional \$1,000 per meeting for other members. In the event that the Board, or a standing Board committee, creates a special committee or subcommittee that holds more than three meetings in a fiscal year, each non-employee director serving on that committee or subcommittee will be entitled to receive an additional \$1,000 per meeting. Directors are also reimbursed for reasonable out-of-pocket expenses incurred in connection with attendance at Board and committee meetings.

The retainer fees set forth above are paid in quarterly installments. Meeting attendance fees, when applicable, are generally paid promptly following the end of the fiscal year.

Equity Compensation

Our equity compensation program for non-employee directors and Dr. Nettles for fiscal 2019 was as follows:

Equity Compensation	Target Delivered Value (\$)
Initial RSU Award — Upon Director Election or Appointment	\$ 210,000
Annual RSU Award — Non-Employee Directors and Executive Chairman	\$ 210,000

In order to control for possible volatility in our stock price on any one particular trading day, the actual number of shares underlying restricted stock unit (“RSU”) awards granted to directors is determined based on the average closing price of Ciena’s common stock over the 30-day period immediately prior to the date of grant. Initial equity awards are made in connection with initial election or appointment to the Board of Directors, with the target delivered value prorated for the fiscal year based on the date of election or appointment. Initial equity awards vest on or about the one-year anniversary of the grant date. Annual equity awards are made on the date of each Annual Meeting of Stockholders and vest on or about the one-year anniversary of the grant date. Vesting of the RSU awards is subject to acceleration upon the director’s death, disability, retirement, or upon or in connection with a change in control of Ciena. Delivery of the shares upon vesting is subject to any applicable instruction provided by the director under the Deferred Compensation Plan described below.

Director Compensation Limits

Our 2017 Omnibus Incentive Plan (“2017 Plan”) imposes a \$500,000 limit on the compensation that can be awarded to a non-employee director in any given fiscal year, including the sum of (i) cash compensation and (ii) the grant date fair value of equity compensation under the 2017 Plan. This limitation, however, would not apply to the extent a non-employee director has been or becomes an employee of Ciena during such fiscal year. In addition, the Board retains discretion to provide further exceptions for one or more individual non-employee directors in extraordinary circumstances, such as service on a special transaction or litigation committee of the Board, provided that the director that is the subject of such exception may not participate in any decision with respect thereto.

Director Compensation Table

The following table and the accompanying footnotes describe the “total compensation” earned by our non-employee directors and Dr. Nettles during fiscal 2019:

Director Compensation Table

Name	Fees Earned or Paid in Cash \$(1)	Stock Awards \$(2)	All Other Compensation \$(3)	Total (\$)
Patrick H. Nettles, Ph.D.	—	\$ 195,878	\$ 177,907	\$ 373,785
Bruce L. Claffin	\$ 85,000	\$ 195,878	—	\$ 280,878
Lawton W. Fitt	\$ 95,000	\$ 195,878	—	\$ 290,878
Patrick T. Gallagher	\$ 115,000	\$ 195,878	—	\$ 310,878
Devinder Kumar	\$ 15,000	\$ 119,884	—	\$ 134,884
T. Michael Nevens	\$ 75,000	\$ 195,878	—	\$ 270,878
Judith M. O’Brien	\$ 91,000	\$ 195,878	—	\$ 286,878
Joanne B. Olsen	\$ 76,000	\$ 195,878	—	\$ 271,878
Michael J. Rowny (4)	\$ 18,750	\$ —	—	\$ 18,750

- (1) Reflects the aggregate dollar amount of all cash compensation earned for service as a director, including the retainers and meeting attendance fees described in “Cash Compensation” above.
- (2) The amounts set forth in the “Stock Awards” column represent the aggregate grant date fair value of RSU awards granted during fiscal 2019, computed in accordance with Financial Accounting Standards Board (“FASB”) Accounting Standards Codification (“ASC”) Topic 718. The aggregate grant date fair value is calculated using the closing price of Ciena common stock on the grant date as if all of the shares underlying these awards were vested and delivered on the grant date. For each director other than Mr. Kumar, the aggregate grant date fair value in the above table was calculated using the closing price of Ciena common stock on March 28, 2019, the grant date for each such director’s annual award. Each of these awards was granted under the 2017 Plan and vests on the one-year anniversary of the grant date. For Mr. Kumar, the aggregate grant

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date fair value in the above table was calculated using the closing price of Ciena common stock on September 1, 2019, the grant date for his initial equity award. This award was granted under the 2017 Plan and vests on September 20, 2020. The aggregate grant date fair values will likely vary from the actual amount ultimately realized by any director based on a number of factors, including the number of shares that ultimately vest, the effect of any deferral elections, the timing of any sale of shares, and the market price of Ciena common stock at the time of disposition.

- (3) Non-employee directors do not receive any perquisites or other personal benefits or property as part of their compensation. Dr. Nettles does not receive cash compensation for his service as a director; the amount reported as "All Other Compensation" for Dr. Nettles reflects (a) his annual base salary for service as an executive officer of Ciena during fiscal 2019, (b) Section 401(k) plan matching contributions paid by Ciena and available to all full-time U.S. employees on the same terms, (c) a one-time payout of accumulated vacation time resulting from a change in policy relating to vacation accrual for all employees in the U.S. and Canada in the amount of \$17,308, and (d) reimbursement of costs associated with financial planning and tax preparation services generally made available to all executive officers.
- (4) Mr. Rowny did not stand for re-election to the Board of Directors in fiscal 2019 and his term expired on March 28, 2019.

Outstanding Equity Awards for Directors at Fiscal Year-End

The following table sets forth, on an aggregate basis, information related to the outstanding unvested RSU awards held by each of the non-employee directors and Dr. Nettles as of the end of fiscal 2019. We have not granted stock options to our non-employee directors since fiscal 2006.

Outstanding Equity Awards at Fiscal Year-End

Name	Stock Awards
	Aggregate Number of Unvested Shares or Units (#)
Patrick H. Nettles, Ph.D.	5,284
Bruce L. Clafin	5,284
Lawton W. Fitt	5,284
Patrick T. Gallagher	5,284
Devinder Kumar	2,929
T. Michael Nevens	5,284
Judith M. O'Brien	5,284
Joanne B. Olsen	8,375
Michael J. Rowny (1)	—

- (1) Mr. Rowny did not stand for re-election to the Board of Directors in fiscal 2019 and his term expired on March 28, 2019.

Deferral of Director Compensation

We maintain the Ciena Corporation Deferred Compensation Plan, which allows our U.S.-based directors (as well as certain U.S.-based senior management employees) to defer elements of their annual compensation. Directors may defer up to 100% of their annual cash retainer and annual equity compensation.

Generally, deferral elections may only be made for awards to be granted in a subsequent calendar year. Directors can elect the amount deferred, the deferral period, and the form of distribution of their compensation. If a director elects to defer any portion of an RSU award, upon the vesting of that award, we credit a stock account with the amount deferred. All such accounts are distributed in shares of Ciena common stock. Distributions may be made in a lump sum or installments, as designated by the participating director, subject to early distribution of vested awards in a lump sum in the event of the participant's death or termination of service, a change in control of Ciena or termination of the plan.

PROPOSAL NO. 2

Amendment of Ciena's 2017 Omnibus Incentive Plan

Overview

We are requesting that our stockholders vote in favor of the proposed amendment of our 2017 Omnibus Incentive Plan, which we sometimes refer to in this proposal as the "2017 Plan." On December 11, 2019, the Board of Directors approved an amendment of the 2017 Plan to increase, by 12.2 million shares, the number of shares of Ciena common stock available for issuance under the 2017 Plan, subject to stockholder approval at the Annual Meeting. A copy of the proposed amendment of the 2017 Plan is attached as *Annex A* to this proxy statement.

Our 2017 Plan is the only equity incentive compensation plan under which we currently grant equity incentive awards to directors, officers and employees. We endeavor to seek approval from our stockholders to increase the number of shares available for our equity awards only on an infrequent basis and when absolutely necessary. Indeed, we last sought stockholder approval for an increase in available shares three years ago with the introduction of the 2017 Plan. In addition, during fiscal 2019, as part of our efforts to invest in our employees, we made the decision to grant equity awards deeper into the organization and to more employees, particularly in engineering and other technical functions. As of January 6, 2020, 2.9 million shares remained available for issuance under the 2017 Plan. We believe that this remaining amount is insufficient to meet our equity compensation requirements in fiscal 2020 and beyond.

Why You Should Vote for the 2017 Plan Amendment

We believe that the 2017 Plan is important to our continued growth and success. The purpose of the 2017 Plan is to attract, motivate and retain highly qualified officers, directors, key employees and other key individuals. We believe that providing these individuals an opportunity to acquire a direct proprietary interest in the operations and future success of Ciena will motivate them to serve Ciena and to expend maximum effort to improve our business and results of operations. We believe that equity awards under the 2017 Plan are a valuable incentive to participants and benefit stockholders by aligning more closely the interests of participants in the 2017 Plan with those of our stockholders.

We believe that our usage of the 2017 Plan illustrates our commitment to best practices in equity compensation, prudent use of limited resources and the promotion of a strong alignment with stockholder interest, as exhibited by our awards and plan design. We ask stockholders to vote for the proposed amendment of the 2017 Plan for the following reasons:

❖ **We manage our use of equity incentive awards carefully and maintain a reasonable "burn rate."**

The Compensation Committee carefully monitors our total dilution, burn rate and equity expense to ensure that we maximize stockholder value and exercise prudence by granting only such number of equity awards as we deem necessary to attract, reward and retain our employees. Burn rate is defined as the number of shares subject to equity awards issued in a fiscal year as a percentage of Ciena's weighted average shares outstanding. Ciena's three-year average burn rate of 1.65%, or 4.13% taking into account adjusted value full shares, is considerably lower than the 6.95% burn rate used by Institutional Shareholder Services ("ISS") to assess companies in our industry.

❖ **We mitigate the dilutive effect of our equity awards.**

In fiscal 2018 we began repurchasing and retiring shares of common stock to satisfy employee tax withholding obligations due upon vesting of stock unit awards, instead of satisfying these obligations through directed open market sales. During fiscal 2019, we repurchased approximately \$29 million in shares of common stock in satisfaction of such tax withholding obligations. In addition, since December 2017, we have maintained a stock repurchase program that mitigates dilution to our stockholders from our equity grants under the 2017 Plan. During fiscal 2019, we repurchased over 3.8 million shares of our common stock as part of this program. These practices have resulted in a significant reduction in the dilutive effect of our equity awards.

❖ **Ciena's equity "overhang" is reasonable compared to peers.**

Overhang is defined as stock awards and option awards outstanding, plus shares remaining available for grant under the 2017 Plan. The Compensation Committee carefully monitors our equity overhang and considers Ciena's overhang as compared to its peers. In addition, Ciena's equity overhang at January 6, 2020 includes approximately 0.2 million shares underlying stock options. Ciena has not granted stock options broadly in many years and the weighted average remaining term of our outstanding options is 3.17 years. Approximately 56% of our stock options outstanding at January 6, 2020 were "out of the money" (i.e., having an exercise price above the current trading price).

❖ **Equity awards made to our executive team in recent years have included a sizable at-risk performance based component.**

In recent years, our Compensation Committee has allocated a significant percentage (60% for our CEO and 50% for our other executive officers) of its targeted equity compensation to our executive team in the form of at-risk, performance-based stock units, reflecting our commitment to using equity awards as a significant part of our approach to performance-based compensation.

❖ **Equity incentive awards are an important part of our overall compensation philosophy.**

As discussed in the “Compensation Discussion and Analysis” section of this proxy statement, equity incentive awards are a critically important component of our compensation program. As part of our efforts to support our workforce, in fiscal 2019 we took steps to deliver equity awards deeper into the organization and to more employees, particularly in engineering and other technical functions. Even with this change, which we intend to continue going forward, we still maintained reasonable burn rate and overhang metrics. Our Compensation Committee believes that our ability to grant equity incentive awards to employees is an important factor in our ability to attract, retain and motivate key employees. Our Compensation Committee believes that equity compensation provides a strong incentive for employees to work to grow the business and build stockholder value.

❖ **As part of our human capital and talent management strategy, we recently expanded the number of employees eligible to receive annual equity awards.**

In December 2019, as part of our ongoing strategy to attract and retain talented personnel at all levels, we began granting annual equity awards deeper within the organization and to more employees, particularly in engineering and other technical functions. As a result of this expansion, which was driven in part by the intense competitive dynamics in the labor markets in which we compete, the overall target delivered value of annual equity awards to non-executive employees increased by 33% and the number of employees who received annual equity awards increased by over 50%. We expect to continue this practice going forward.

❖ **Limited share availability or share exhaustion under the 2017 Plan would harm the competitiveness of our compensation program.**

Our Compensation Committee believes that equity-based awards are a particularly effective compensation vehicle, as compared to cash compensation, for a growth-oriented company like Ciena, because such awards align employee and stockholder interests while having a smaller impact on current income and cash flow. Limited shares remaining available for issuance under the 2017 Plan could restrict our ability to grant equity awards that align with our compensation philosophy and negatively impact our ability to offer competitive equity compensation. We believe that our inability to award meaningful equity compensation could result in difficulty attracting, retaining and motivating our employees.

❖ **2017 Plan Design Highlights Ciena's Commitment to Compensation Best Practices.**

The 2017 Plan includes a number of key features described below that are designed to protect our stockholders' interests and that reflect Ciena's commitment to best practices and effective management of equity compensation:

• *Plan Limits and Additional Shares*

The 2017 Plan authorizes a fixed number of shares and requires stockholder approval to increase the maximum number of securities that may be issued thereunder. The 2017 Plan does not contain an evergreen provision or other features which periodically add new shares for grant thereunder.

• *Compensation Limits*

The 2017 Plan contains limitations on the maximum number of shares that may be awarded to, and the maximum amount that may be earned by, any individual under the 2017 Plan in any 12-month period, as well as a limitation on the compensation that may be awarded to a non-employee director in any fiscal year.

• *Application of Fungible Share Ratio for Counting Full Value Awards*

Under the 2017 Plan, every share underlying RSUs, MSUs, PSUs, and other full value awards is subject to a fungible share ratio that reduces the number of shares remaining available for issuance under the plan by a factor greater than one. The fungible share ratio is 1.31 shares for each full value share awarded.

• *Reasonable Share Counting; No Liberal Share Recycling*

In general, when awards granted under the 2017 Plan are forfeited, expire or are canceled without having been fully exercised, or are settled in cash, the shares reserved for those awards will be returned to the share reserve and will

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be available for future awards. However, shares of common stock that are delivered to the grantee or withheld by Ciena as payment of the exercise price in connection with the exercise of a stock option or payment of a tax withholding obligation in connection with any award, or are purchased by Ciena with proceeds from option exercises, are not returned to the share reserve.

- *Minimum Vesting Period*

The 2017 Plan provides that awards granted under the plan may not vest in full in less than one year from the date of grant. This minimum vesting period is subject to exception solely where vesting has occurred due to (i) a grantee's death or disability, or (ii) a change in control of Ciena. Only a limited number of shares, equal to five percent (5%) of the shares authorized under the 2017 Plan, may be granted with (or subsequently modified to contain) terms that do not meet the minimum vesting period restrictions above. In administering the 2017 Plan, Ciena's Compensation Committee has determined and agreed to adhere to an interpretation of this provision such that ratable vesting within one year is not permissible under this minimum vesting provision except as set forth in (i) and (ii) above. The additional shares authorized by this amendment will be subject to these same minimum vesting requirements.

- *No Discount Stock Options or Stock Appreciation Rights (SARs)*

All stock options and stock appreciation rights will have an exercise price equal to or greater than the fair market value of our common stock on the date the stock option or stock appreciation right is granted.

- *No Repricing*

Under the 2017 Plan, repricing of stock options and SARs (including reduction in the exercise price of stock options or replacement of an award with cash or another award type) is prohibited without stockholder approval.

- *Change in Control Definition and Clawback Mechanism*

The 2017 Plan has a definition of change in control (referred to as a "corporate transaction" in the 2017 Plan) that we believe would not be considered a liberal change in control vesting risk by ISS.

The 2017 Plan includes a mechanism that allows Ciena to recoup or "claw back" certain equity compensation in situations requiring forfeiture under the Sarbanes-Oxley Act of 2002 and circumstances where the grantee engaged in certain misconduct. The 2017 Plan also includes a comprehensive clawback provision that subjects awards to mandatory repayment by the grantee in accordance with an award agreement, any Ciena recoupment policy, or applicable law.

- *No Dividends on Unvested Equity*

Under the 2017 Plan, while Ciena may grant restricted stock awards that include the right to dividends and RSUs, MSUs and PSUs that include dividend equivalent rights, no dividends or dividend equivalent rights will become payable until the corresponding restricted stock award, RSU, MSU or PSU vests.

- *Stockholder Approval Required for Certain Amendments*

Amendments that materially increase the benefits under the 2017 Plan (including changing the vesting restrictions described above), that materially increase the aggregate number of shares that may be issued under the plan, or that materially modify the requirements for participation in the plan are prohibited without stockholder approval.

Equity Awards Outstanding and Available

The table below includes information as of January 6, 2020 with respect to our (i) equity incentive compensation awards outstanding and (ii) shares remaining available for grant under our 2017 Plan:

Equity Awards Outstanding and Available Summary

Stock options outstanding (1)	210,267
Restricted stock units ("RSUs") outstanding	4,325,019
Performance-based stock units ("PSUs") outstanding	248,677
Market stock units ("MSUs") outstanding	374,392
Shares remaining available for grant under 2017 Plan (2)	2,900,210
Weighted average exercise price of outstanding options	\$ 35.96
Weighted average exercise price of exercisable options	\$ 35.96
Weighted average remaining term of outstanding options	3.17 years

(1) Ciena has not granted stock options broadly in many years. All of the stock options outstanding were granted under legacy or acquired equity plans prior to the adoption of the 2017 Plan. Of the stock options outstanding, approximately 56% were "out of the money" (i.e., having an exercise price above the current trading price).

(2) Equivalent to 2,213,901 shares available for future stock awards given the applicable fungible share ratio under the 2017 Plan.

As of January 6, 2020, the market value of a share of our common stock was \$41.89, which was the closing price of our common stock on that date on the New York Stock Exchange.

The amendment of the 2017 Plan will not be effective unless and until approved by stockholders. Participation and the types of awards under the 2017 Plan are subject to the discretion of the Compensation Committee and, as a result, the benefits or amounts that will be received by any participant or groups of participants if the amendment of the 2017 Plan is approved are not currently determinable. On the record date, there were nine executive officers, seven non-employee directors and approximately 6,500 employees who were eligible to participate in the 2017 Plan.

Summary Description of the 2017 Plan

A description of the provisions of the 2017 Plan is set forth below. This summary is subject to the complete provisions of the 2017 Plan, a copy of which is incorporated by reference as an exhibit to Ciena's Annual Report on Form 10-K for fiscal 2019. We encourage you to read the 2017 Plan for additional information.

Administration. The 2017 Plan is administered by the Compensation Committee of the Board of Directors. The members of the Compensation Committee qualify as "non-employee directors" for purposes of Rule 16b-3 of the Exchange Act, and comply with the independence requirements of The New York Stock Exchange. Subject to the terms of the 2017 Plan, the Compensation Committee may select grantees to receive awards, determine the types of awards and terms and conditions of awards, prescribe the form of each award agreement evidencing an award, amend, modify or supplement the terms of any outstanding award, and interpret provisions of the 2017 Plan. Members of the Compensation Committee serve at the pleasure of the Board of Directors. The Board of Directors may also appoint one or more separate committees, composed of one or more directors who need not satisfy the independence requirements described above, that may administer the 2017 Plan with respect to grantees, provided such grantees are not Ciena executive officers or directors. The Compensation Committee may delegate its authority under the Plan to the extent permitted by applicable law.

Common Stock Reserved for Issuance under the Plan. If stockholders approve this proposal and the 2017 Plan is amended, the shares remaining available for issuance under the 2017 Plan will increase by 12.2 million shares. The number of shares available under the 2017 Plan will also be increased from time to time by: (i) the number of shares subject to outstanding awards granted under our prior equity compensation plans that are forfeited, expire or are canceled without delivery of common stock following the effective date of the 2017 Plan, and (ii) the number of shares subject to awards assumed or substituted in connection with the acquisition of another company. The common stock issued or to be issued under the 2017 Plan consists of authorized but unissued shares or, to the extent permitted by applicable law, issued shares that have been reacquired by Ciena.

The number of shares of common stock available for issuance under the 2017 Plan will not be increased by any shares tendered or awards surrendered in connection with the purchase of shares of common stock upon exercise of a stock option, any shares of common stock deducted or forfeited from an award in connection with Ciena's tax withholding obligations, or any shares of common stock purchased by Ciena with proceeds from option exercises.

Eligibility. Awards may be made under the 2017 Plan to officers, employees, directors, advisors and consultants of Ciena or its affiliates, and any other individual whose participation in the plan is determined to be in the best interests of Ciena by the Compensation Committee. On the record date, there were nine executive officers, seven non-employee directors and approximately 6,500 employees eligible to participate in the plan.

Effective Date; Term; Amendment or Termination of the Plan. The effective date of the 2017 Plan is March 23, 2017, and the 2017 Plan will terminate ten years after its effective date. The Board of Directors may terminate the 2017 Plan at any time and for any reason. The Board of Directors may also amend the 2017 Plan, provided that amendments will be submitted for stockholder approval to the extent required by the Internal Revenue Code or other applicable laws, rules or regulations. In addition, amendments that materially increase the benefits under the plan (including changing the vesting restrictions described above), that materially increase the aggregate number of shares that may be issued under the plan, or that materially modify the requirements for participation in the plan must be submitted for stockholder approval.

Stock Options. The 2017 Plan permits the granting of options to purchase shares of our common stock intended to qualify as incentive stock options under the Internal Revenue Code as well as stock options that do not qualify as incentive stock options.

The exercise price of a stock option may not be less than 100% of the fair market value of our common stock on the date of grant. The fair market value is generally determined as the closing price of the common stock on the date of grant. In the case of 10% stockholders who receive incentive stock options, the exercise price may not be less than 110% of the fair market value of our common stock on the date of grant. An exception to these requirements is made for stock options that we grant in substitution for options held by employees of companies that we acquire. In such a case the exercise price is adjusted to preserve the economic value of the employee's stock option from his or her former employer.

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The term of each stock option is fixed by the Compensation Committee and may not exceed ten years from the date of grant. If the grantee is a 10% stockholder, the term of an option intended to be an incentive stock option may not exceed five years from the date of grant. Subject to the minimum vesting periods described above, the Compensation Committee determines at what time or times each option may be exercised and the period of time, if any, after retirement, death, disability or termination of employment during which options may be exercised. Options may be made exercisable in installments. The ability to exercise options may be accelerated by the Compensation Committee, subject to compliance with the 2017 Plan.

In general, a grantee may pay the exercise price of a stock option by cash, certified check, or other cash equivalent or, with Ciena's consent, by tendering shares of our common stock or by means of a broker-assisted cashless exercise.

No amendment or modification may be made to an outstanding stock option or stock appreciation right if that amendment or modification would be treated as a repricing under the rules of the stock exchange on which the shares of our common stock are listed (currently The New York Stock Exchange), including replacement with cash or another award type, without the approval of Ciena's stockholders.

Stock options and stock appreciation rights granted under the 2017 Plan may not be sold, transferred, pledged or assigned, other than by will or under applicable laws of descent and distribution. However, the 2017 Plan provides flexibility should we determine to permit limited transfers of non-qualified stock options for the benefit of immediate family members of grantees to help with estate planning concerns.

Other Awards. The Compensation Committee may also award:

- *Unrestricted Stock*, which are shares of common stock at no cost or for a purchase price determined by the Compensation Committee that are free from any restrictions under the 2017 Plan. Unrestricted shares of common stock may be issued to participants in recognition of past services or other valid consideration, and may be issued in lieu of cash compensation to be paid to participants. All grants of unrestricted stock are subject to the five percent (5%) limit on the number of shares that may be granted with terms that do not meet the minimum vesting period restrictions described above.
- *Restricted Stock*, which are shares of common stock subject to restrictions.
- *Restricted Stock Units*, which are rights to receive shares of common stock subject to restrictions.
- *Stock Appreciation Rights*, which are rights to receive a number of shares or, in the discretion of the Compensation Committee, an amount in cash or a combination of shares and cash, based on the increase in the fair market value of the shares underlying the right during a stated period specified by the Compensation Committee.
- *Performance and Cash Incentive Awards*, which are awards that are ultimately payable in common stock or cash, as determined by the Compensation Committee. The Compensation Committee may grant multi-year, annual, semi-annual or quarterly incentive awards subject to achievement of specified goals tied to business criteria (described below). The Compensation Committee may specify the amount of the incentive award earned based on the percentage achievement of these business criteria, the percentage achievement in excess of a threshold objective or as another amount which need not bear a strictly mathematical relationship to these business criteria.

Effect of Certain Corporate Transactions. Certain change in control transactions, such as a sale of Ciena, may cause awards granted under the 2017 Plan to vest, unless the awards are continued or substituted for in connection with the change in control.

Adjustments for Stock Splits, Stock Dividends and Similar Events. The Compensation Committee will make appropriate adjustments in outstanding awards and the number of shares available for issuance under the 2017 Plan, including the individual limitations on awards, to reflect stock splits and other similar events.

Individual Limits. The maximum number of shares of common stock subject to stock options or stock appreciation rights that can be awarded under the 2017 Plan to any person, other than a non-employee director, is one million per year. The maximum number of shares of common stock that can be awarded under the 2017 Plan to any person, other than a non-employee director, other than pursuant to options or stock appreciation right, is one million per year. The maximum amount that may be earned as an annual incentive award or other cash award in any fiscal year by any one person is \$5 million and the maximum amount that may be earned as a performance award or other cash award in respect of a performance period greater than 12 months by any one person is \$25 million.

Limits on Director Compensation

Under the 2017 Plan, the maximum amount of compensation that can be awarded to a non-employee director in any given fiscal year is \$500,000 in the aggregate, including (i) cash compensation and (ii) the grant date fair value of equity compensation under the 2017 Plan. This limitation, however, would not apply to the extent a non-employee director has been or becomes an employee of Ciena during such fiscal year and certain limited exceptions in extraordinary circumstances.

Plan Benefits

The amounts that may be received under the 2017 Plan in the future are not determinable, as the amendment to the 2017 Plan will not be effective unless and until approved by stockholders, and such amounts will depend on actions of the Compensation Committee, the performance of Ciena and the value of our common stock. For details on grants of RSUs, MSUs and PSUs made to our NEOs under the 2017 Plan in fiscal 2019, see the table below entitled "Grants of Plan-Based Awards," and for more details on grants of RSUs made to our non-employee directors in fiscal 2019, see the table above entitled "Director Compensation Table."

Federal Income Tax Consequences

Incentive Stock Options. The grant of an option will not be a taxable event for the grantee or for Ciena. A grantee will not recognize taxable income upon exercise of an incentive stock option (except that the alternative minimum tax may apply), and any gain realized upon a disposition of our common stock received pursuant to the exercise of an incentive stock option will be taxed as long-term capital gain if the grantee holds the shares of common stock for at least two years after the date of grant and for one year after the date of exercise (the "holding period requirement"). Ciena will not be entitled to any business expense deduction with respect to the exercise of an incentive stock option, except as discussed below.

For the exercise of an option to qualify for the foregoing tax treatment, the grantee generally must be our employee or an employee of one of our subsidiaries from the date the option is granted through a date within three months before the date of exercise of the option.

If all of the foregoing requirements are met except the holding period requirement mentioned above, the grantee will recognize ordinary income upon the disposition of the common stock in an amount generally equal to the excess of the fair market value of the common stock at the time the option was exercised over the option exercise price (but not in excess of the gain realized on the sale). The balance of the realized gain, if any, will be capital gain.

Non-Qualified Stock Options. The grant of an option will not be a taxable event for the grantee or Ciena. Upon exercising a non-qualified stock option, a grantee will recognize ordinary income in an amount equal to the difference between the exercise price and the fair market value of the common stock on the date of exercise. Upon a subsequent sale or exchange of shares acquired pursuant to the exercise of a non-qualified stock option, the grantee will have taxable capital gain or loss, measured by the difference between the amount realized on the disposition and the tax basis of the shares of common stock (generally, the amount paid for the shares plus the amount treated as ordinary income at the time the option was exercised).

A grantee who has transferred a non-qualified stock option to a family member by gift will realize taxable income at the time the non-qualified stock option is exercised by the family member. The grantee will be subject to withholding of income and employment taxes at that time. The family member's tax basis in the shares of common stock will be the fair market value of the shares of common stock on the date the option is exercised. The transfer of vested non-qualified stock options will be treated as a completed gift for gift and estate tax purposes. Once the gift is completed, neither the transferred options nor the shares acquired on exercise of the transferred options will be includable in the grantee's estate for estate tax purposes.

In the event a grantee transfers a non-qualified stock option to his or her ex-spouse incident to the grantee's divorce, neither the grantee nor the ex-spouse will recognize any taxable income at the time of the transfer. In general, a transfer is made "incident to divorce" if the transfer occurs within one year after the marriage ends or if it is related to the end of the marriage (for example, if the transfer is made pursuant to a divorce order or settlement agreement). Upon the subsequent exercise of such option by the ex-spouse, the ex-spouse will recognize taxable income in an amount equal to the difference between the exercise price and the fair market value of the shares of common stock at the time of exercise. Any distribution to the ex-spouse as a result of the exercise of the option will be subject to employment and income tax withholding at this time.

Restricted Stock. A grantee who is awarded restricted stock will not recognize any taxable income for federal income tax purposes in the year of the award, provided that the shares of common stock are subject to restrictions (that is, the restricted stock is nontransferable and subject to a substantial risk of forfeiture). However, the grantee may elect under Section 83(b) of the Internal Revenue Code to recognize compensation income in the year of the award in an amount equal to the fair market value of our common stock on the date of the award (less the purchase price, if any), determined without regard to the restrictions. If the grantee does not make such a Section 83(b) election, the fair market value of our common stock on the date the restrictions lapse (less the purchase price, if any) will be treated as compensation income to the grantee and will be taxable in the year the restrictions lapse and dividends paid while the common stock is subject to restrictions will be subject to withholding taxes.

Restricted Stock Units. There are no immediate tax consequences of receiving an award of RSUs under the 2017 Plan. A grantee who is awarded RSUs will be required to recognize ordinary income in an amount equal to the fair market value of the shares of our common stock issued to such grantee at the end of the restriction period or, if later, the payment date.

Stock Appreciation Rights. There are no immediate tax consequences of receiving an award of stock appreciation rights under the 2017 Plan. Upon exercising a stock appreciation right, a grantee will recognize ordinary income in an amount equal to the difference between the exercise price and the fair market value of our common stock on the date of exercise.

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Performance and Cash Incentive Awards. The award of a performance or cash incentive award will have no federal income tax consequences for Ciena or for the grantee. The payment of the award is taxable to a grantee as ordinary income.

Unrestricted Common Stock. Participants who are awarded unrestricted common stock will be required to recognize ordinary income in an amount equal to the fair market value of the shares of our common stock on the date of the award, reduced by the amount, if any, paid for such shares.

Deductibility. For each of the foregoing award types, Ciena will generally be allowed a business expense deduction to the extent the grantee recognizes ordinary income, subject to the limits of Section 162(m) of the Internal Revenue Code and to certain reporting requirements.

Section 280G. Certain payments made to employees and other service providers in connection with a change in control may constitute “parachute payments” subject to tax penalties imposed on both Ciena and the recipient under Sections 280G and 4999 of the Internal Revenue Code. In general, when the value of parachute payments equals or exceeds three times the employee’s “base amount,” the employee is subject to a 20% nondeductible excise tax on the excess over the base amount and Ciena is denied a tax deduction for the payments. The base amount is generally defined as the employee’s average compensation for the five calendar years prior to the date of the change in control. The value of accelerated vesting of equity awards in connection with a change in control can constitute a parachute payment. The 2017 Plan contains a modified form of a “safe harbor cap,” which limits the amount of potential parachute payments that a recipient may receive to no more than 299% of the recipient’s base amount, but only if such cutback results in larger after-tax payments to the recipient.

Section 409A. Ciena intends for awards granted under the 2017 Plan to comply with Section 409A of the Internal Revenue Code. To the extent a grantee would be subject to the additional 20% excise tax imposed on certain nonqualified deferred compensation plans as a result of a provision of an award under the plan, the provision will be deemed amended to the minimum extent necessary to avoid application of the 20% excise tax.

Proposal No. 2 — Recommendation of the Board of Directors

The Board of Directors recommends that you vote
“FOR”
the amendment of the 2017 Omnibus Incentive Plan

PROPOSAL NO. 3

Ratification of Appointment of Independent Registered Public Accounting Firm

The Audit Committee of the Board of Directors has appointed PricewaterhouseCoopers LLP (“PwC”) as our independent registered public accounting firm to audit Ciena’s consolidated financial statements for the fiscal year ending October 31, 2020, and is asking stockholders to ratify this appointment at the Annual Meeting.

PwC has audited our consolidated financial statements annually since Ciena’s incorporation in 1992. A representative of PwC is expected to attend this year’s Annual Meeting. He or she will have the opportunity to make a statement, if desired, and will be available to respond to appropriate questions. In making its recommendation to the Board of Directors to select PwC as Ciena’s independent registered public accounting firm for fiscal 2020, the Audit Committee considered whether the non-audit services provided by PwC are compatible with maintaining the independence of PwC, and determined that retention of PwC is in the best interests of Ciena and its stockholders. Information regarding fees billed by PwC for our 2018 and 2019 fiscal years is set forth under “Relationship with Independent Registered Public Accounting Firm” below.

Our bylaws do not require that stockholders ratify the appointment of our independent registered public accounting firm. We are seeking ratification because we believe it is a matter of good corporate governance. In the event that stockholders fail to ratify the appointment, the Audit Committee will reconsider whether to retain PwC, but may ultimately determine to retain PwC as our independent registered public accounting firm. Even if the appointment is ratified, the Audit Committee, in its sole discretion, may direct the appointment of a different independent registered public accounting firm at any time during the year if it determines that it is advisable to do so.

Proposal No. 3 — Recommendation of the Board of Directors

The Board of Directors recommends that you vote
“FOR”
the ratification of the appointment of PwC as our independent registered public accounting firm for fiscal 2020

RELATIONSHIP WITH INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

The following table shows the fees that PwC billed to Ciena for professional services rendered for fiscal years 2018 and 2019.

Fee Category	Fiscal 2018	Fiscal 2019
Audit Fees	\$ 3,905,000	\$ 3,800,000
Audit-Related Fees	627,425	200,000
Tax Fees	108,560	121,650
All Other Fees	—	—
Total Fees	\$ 4,640,985	\$ 4,121,650

Audit Fees. This category of the table above includes fees for the integrated audit of our annual financial statements, review of financial statements included in our quarterly reports on Form 10-Q, and services that are normally provided by PwC in connection with statutory and regulatory filings or engagements. The preparation of Ciena's audited financial statements includes compliance with Section 404 of the Sarbanes-Oxley Act of 2002 and the preparation by PwC of a report expressing its opinion regarding the effectiveness of our internal control over financial reporting. Audit fees reflect PwC's integrated audits of financial statements for Ciena Corporation.

Audit-Related Fees. This category of the table above includes fees for assurance and related services that are reasonably related to the performance of the audit or review of our financial statements and are not included above under "Audit Fees." The audit-related fees in fiscal 2018 reflect fees related to our acquisition of DonRiver Holdings, LLC on October 1, 2018 and our compliance with the new Accounting Standards Codification 606 - Revenue from Contracts with Customers. The audit-related fees in fiscal 2019 reflect fees related to our compliance with the new Accounting Standards Codification 842 - Leases.

Tax Fees. This category of the table above includes fees for tax compliance, tax advice, and tax planning. Fees for fiscal 2018 and fiscal 2019 include fees related to our compliance with the U.S. Tax Cuts and Job Act.

All Other Fees. This category of the table above includes fees for services provided by PwC that are not included in the other fee categories reported above. There were no other fees in fiscal 2018 or fiscal 2019.

Pre-Approval of Services

The Audit Committee pre-approves all services provided by our independent registered public accounting firm, including audit services (such as statutory audit engagements as required under local law of foreign jurisdictions) and non-audit services. For audit services with respect to Ciena Corporation, each year our independent registered public accounting firm provides the Audit Committee with an engagement letter outlining the scope of the audit services proposed to be performed during the year, which must be accepted by the Audit Committee before the audit commences. Our independent registered public accounting firm also submits an audit services fee proposal, which must be approved by the Audit Committee before the audit commences.

Each year, management also submits to the Audit Committee certain non-audit services for which it recommends the independent registered public accounting firm be engaged to provide, and an estimate of the fees to be paid for each. Management and the independent registered public accounting firm must each confirm to the Audit Committee that the performance of the non-audit services on the list would not compromise the independence of our registered public accounting firm and would be permissible under applicable legal requirements. The Audit Committee must approve both the list of non-audit services and the budget for each such service before commencement of the work. Our management and our independent registered public accounting firm report to the Audit Committee at each of its regular meetings as to the non-audit services actually provided by the independent registered public accounting firm and the approximate fees incurred by Ciena for those services.

To ensure prompt handling of unexpected matters, the Audit Committee has authorized its Chair to amend or modify the list of approved permissible non-audit services and fees. If the Chair exercises this delegation of authority, she reports the action taken to the Audit Committee at its next regular meeting.

In compliance with the Audit Committee's internal policy and auditor independence rules of the SEC, all audit and permissible non-audit services provided by PwC to Ciena for the fiscal years 2018 and 2019 were pre-approved by the Audit Committee.

AUDIT COMMITTEE REPORT

The information contained in this report shall not be deemed to be “soliciting material” or “filed” or incorporated by reference in future filings with the SEC, or subject to the liabilities of Section 18 of the Exchange Act, except to the extent that Ciena specifically incorporates it by reference into a document filed under the Securities Act of 1933 or the Exchange Act.

The Audit Committee is composed entirely of non-management directors. The members of the Audit Committee meet the independence and financial literacy requirements of the NYSE and additional, heightened independence criteria applicable to members of the Audit Committee under SEC and NYSE rules. The Audit Committee assists the Board in fulfilling its oversight responsibilities, including by assessing and monitoring the quality and integrity of Ciena’s accounting systems and practices, financial information and financial reporting practices, potential financial, legal and regulatory exposures, systems of internal controls, internal audit function and the independent audit process. Ciena’s management is responsible for Ciena’s financial statements, and its independent registered public accounting firm is responsible for planning and conducting an audit to obtain reasonable assurance about whether the financial statements are free of material misstatement. The Audit Committee operates under a written charter that describes the scope of its responsibilities, and which is available on the “Governance” page of the “Investors” section at www.ciena.com.

During fiscal 2019, the Audit Committee discussed with PricewaterhouseCoopers LLP (“PwC”), Ciena’s independent registered public accounting firm, the overall scope and plans for the audit. The Audit Committee met regularly with PwC, with and, at times, without management present, to discuss the results of PwC’s examinations, evaluations of Ciena’s internal controls over financial reporting and the overall quality of Ciena’s financial reporting practices. The Audit Committee also met with Ciena’s management during fiscal 2019 to consider Ciena’s internal controls over financial reporting and Ciena’s disclosure controls and procedures.

In this context, the Audit Committee hereby reports as follows:

1. The Audit Committee has reviewed and discussed Ciena’s audited financial statements for fiscal 2019 with management and with PwC.
2. The Audit Committee has discussed with PwC the matters required to be discussed under the rules adopted by the Public Company Accounting Oversight Board (“PCAOB”).
3. The Audit Committee has received from PwC the written disclosures and the letter required by applicable requirements of the PCAOB regarding PwC’s communications with the Audit Committee concerning independence, and has discussed with PwC its independence.
4. Based on its review and discussions described in this report, the Audit Committee recommended to the Board of Directors that the audited financial statements for fiscal 2019 be included in Ciena’s Annual Report on Form 10-K for fiscal 2019, for filing with the SEC.

Submitted by the members of the Audit Committee:

Lawton W. Fitt (Chair)
Bruce L. Claffin
Devinder Kumar
T. Michael Nevens

OWNERSHIP OF SECURITIES

The following table sets forth, as of February 4, 2020, the beneficial ownership of Ciena's common stock for the following persons:

- each stockholder (including any group as such term is used in Section 13(d)(3) of the Exchange Act) known by us to beneficially own more than 5% of our common stock;
- our Chief Executive Officer and each other Named Executive Officer (as that term is defined in the "Executive Compensation Tables" below);
- each of our directors and director nominees; and
- all of our directors and executive officers as a group.

Certain information in the table concerning beneficial owners other than our directors and executive officers is based on information contained in filings made by such beneficial owners with the SEC.

Under SEC rules, beneficial ownership of a class of capital stock includes any shares of such class as to which a person, directly or indirectly, has or shares voting power or investment power and also any shares as to which a person has the right to acquire such voting or investment power within 60 days through the exercise or conversion of any stock option, stock award, or other similar right. If two or more persons share voting power or investment power with respect to specific securities, each such person is deemed to be the beneficial owner of such securities. In computing the percentage ownership of any person, the amount of shares outstanding is deemed to include the amount of shares beneficially owned by such person (and only such person) by reason of such acquisition rights. As a result, the percentage of outstanding shares held by any person in the table below does not necessarily reflect the person's actual voting power. As of February 4, 2020, there were 153,911,399 shares of Ciena common stock outstanding.

Name of Beneficial Owner	Number of Shares Owned (1)	Right to Acquire (2)	Beneficial Ownership Total (3)	Percent of Outstanding Shares (%)
More than 5% Stockholders				
BlackRock, Inc. (4)	15,698,042	—	15,698,042	10.20%
The Vanguard Group, Inc. (5)	13,338,962	—	13,338,962	8.67%
Directors & Named Executive Officers				
Patrick H. Nettles, Ph.D. (6)	334,643	11,784	346,427	*
Gary B. Smith	213,296	24,449	237,745	*
James E. Moylan, Jr.	246,106	11,716	257,822	*
Scott A. McFeely	40,796	5,328	46,124	*
Jason M. Phipps	14,706	5,665	20,371	*
David M. Rothenstein	218,173	5,808	223,981	*
Bruce L. Claffin	59,495	24,215	83,710	*
Lawton W. Fitt	3,928	93,603	97,531	*
Patrick T. Gallagher	49,727	5,284	55,011	*
Devinder Kumar	—	—	—	*
T. Michael Nevens	19,391	5,284	24,675	*
Judith M. O'Brien (6)	1	62,947	62,948	*
Joanne B. Olsen	3,091	5,284	8,375	*
All executive officers and directors (13 persons)	1,203,353	261,367	1,464,720	0.95%

* Represents less than 1% of outstanding shares.

(1) Excludes shares that may be acquired through the exercise of stock options, the vesting of restricted stock units or other convertible equity incentive awards.

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- (2) Except as otherwise set forth in the footnotes below, for our executive officers, represents shares of common stock that can be acquired upon the vesting of restricted stock units within 60 days of the date of this table. For our executive officers and directors, amounts reported also include shares underlying vested restricted stock units deferred pursuant to our Deferred Compensation Plan.
- (3) Except as indicated in the footnotes to this table or as set forth in the SEC reports identified below, we believe the persons named in this table, based on information they have furnished to us or the SEC, have sole voting and investment power with respect to all shares of common stock reported as beneficially owned by them, subject to community property laws where applicable.
- (4) Stockholder's address is 55 East 52nd Street, New York, NY 10055. Ownership information is based solely on a Schedule 13G/A filed by stockholder with the SEC on February 4, 2020 and reflects beneficial ownership by stockholder in its capacity as a parent holding company and with respect to certain of its subsidiaries. Stockholder has sole voting power with respect to 14,896,245 shares and sole dispositive power with respect to 15,698,042 shares.
- (5) Stockholder's address is 100 Vanguard Blvd, Malvern, PA 19355. Ownership information is based solely on a Schedule 13G/A filed by stockholder with the SEC on February 11, 2019 and reflects beneficial ownership by stockholder in its capacity as investment advisor and with respect to certain of its subsidiaries. Stockholder has sole voting power with respect to 140,572 shares, shared voting power with respect to 27,900 shares, sole dispositive power with respect to 13,184,045 shares and shared dispositive power with respect to 154,917 shares.
- (6) Voting and investment power is shared with spouse.

RISK ASSESSMENT OF COMPENSATION PRACTICES

During fiscal 2019, at the request and direction of the Compensation Committee, management conducted an assessment of the risks associated with Ciena's compensation policies and practices, including the following.

ELEMENTS OF ASSESSMENT

- ❖ review of plans, policies and procedures relating to the components of our various compensation programs
- ❖ review of incentive-based cash and equity compensation features
- ❖ identification of any regional or functional distinctions in our compensation programs
- ❖ identification of compensation design features that could potentially encourage excessive or imprudent risk taking, and identification of business risks that these features could potentially encourage
- ❖ consideration of the presence or absence of appropriate controls, oversight or other factors that mitigate potential risks
- ❖ consideration of risks related to our compensation policies and practices and the potential for such risks to result in a material adverse effect on Ciena as a whole

Although the Compensation Committee considered all elements of our compensation programs, it paid particular attention in fiscal 2019 to any additions, modifications or revisions to such programs during the current and preceding fiscal years, and how these changes affected the strengths, weaknesses or controls related to such programs. Year-over-year changes included the addition of revenue as a second financial objective under the annual cash incentive bonus plan, the replacement of the free cash flow metric with an adjusted earnings per share metric as one performance element for the PSUs, and the addition of unique corporate objectives for the Blue Planet team under the annual cash incentive bonus plan. The Compensation Committee also focused its assessment on performance-based incentive compensation programs involving variable payouts and compensation programs impacting our executive team. In substantially all cases, compensation programs were found to be centrally designed and administered and, excluding sales incentive compensation, substantially identical across function and geography. And, the objectives used to determine incentive compensation were found to be based primarily on Ciena's reported financial results and other performance-based corporate performance goals used to manage the business or derived from Ciena's annual operating plan approved by the Board of Directors.

In addition, the assessment identified significant controls and other mitigating factors that serve to offset elements of Ciena's compensation policies and practices that may introduce risk, including the following:

CONTROLS AND MITIGATING FACTORS

- ❖ oversight of major incentive compensation programs and decision-making by the Compensation Committee, which, in most cases, retains the ability to adjust elements of incentive compensation in its discretion
- ❖ robust internal controls over financial reporting and compensation practices regularly reviewed and/or tested by internal auditors and subject to testing as part of the annual independent integrated audit by our external auditors
- ❖ appropriate segregation of duties
- ❖ Audit Committee oversight and review of financial results and non-GAAP adjustments used in certain components of incentive compensation
- ❖ presence of and training relating to corporate standards of business conduct and ethics
- ❖ substantial alignment of compensation and benefits for executive and non-executive salaried employees
- ❖ a recoupment or "clawback" feature for incentive compensation awarded under Ciena's 2017 Plan that, in addition to being applicable to those executive officers covered by the requirements of the Sarbanes-Oxley Act of 2002, is applicable to any award recipient who knowingly, or through gross negligence, engages in or fails to prevent misconduct resulting in material non-compliance with financial reporting requirements under the securities laws

Based on the assessment and factors described above, the Compensation Committee determined that the risks associated with Ciena's compensation policies and practices are not reasonably likely to result in a material adverse effect on Ciena.

COMPENSATION DISCUSSION AND ANALYSIS

The following “Compensation Discussion and Analysis” describes our executive compensation program and the compensation-related decisions for fiscal 2019 made by the Compensation Committee of the Board of Directors (the “Committee”) for the Named Executive Officers (the “NEOs”) who are set forth below:



Gary B. Smith

President and Chief Executive Officer (CEO)

Mr. Smith joined Ciena in 1997 and has served as CEO since May 2001.



James E. Moylan, Jr.

Senior Vice President and Chief Financial Officer (CFO)

Mr. Moylan joined Ciena as CFO in December 2007.



Scott A. McFeely

Senior Vice President, Global Products and Services

Mr. McFeely joined Ciena in 2010 and has served in his current role since November 2015.



Jason M. Phipps

Senior Vice President, Global Sales and Marketing

Mr. Phipps joined Ciena in 2002 and has served in his current role since February 2017.



David M. Rothenstein

Senior Vice President, General Counsel and Secretary

Mr. Rothenstein joined Ciena in 2001 and has served as General Counsel since November 2008.

Also included as a NEO for fiscal 2019 is James A. Frodsham, our former Senior Vice President and Chief Strategy Officer. Mr. Frodsham passed away on June 23, 2019 and, in connection with his death, the Committee modified the treatment of certain of his outstanding performance-based incentive compensation awards. For additional information, see “Incentive Compensation for James Frodsham” below.

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Executive Summary

Contained below and elsewhere in this proxy statement are certain non-GAAP measures of Ciena's financial performance for fiscal 2018 and 2019. These measures, along with their corresponding GAAP measures and reconciliations thereto, have been previously disclosed in exhibits to Ciena's Current Reports on Form 8-K furnished with the SEC on December 13, 2018 and December 12, 2019. Also see "Non-GAAP Measures" below for more information on the use of these measures.

Fiscal 2019 Executive Compensation

- ❖ 77% of CEO target total direct compensation was in the form of equity awards and 59% was performance-based
- ❖ Increased the base salary of the CEO and certain other NEOs, three of whom had not received increases in three years, in order to better align with the market median for their positions and to reflect their and Ciena's strong recent performance
- ❖ Delivered annual equity awards for the CEO and the other NEOs that represented reasonable year-over-year increases in target value in order to keep pace and ensure alignment with the market and to reflect their and Ciena's strong recent performance
- ❖ Continued to allocate a component of performance-based equity to market stock units ("MSUs"), based on a relative TSR goal measured over a three-year performance period
- ❖ Based on outstanding performance against fiscal 2019 objectives, NEOs received annual cash incentive payments at 165% of target and earned performance stock units ("PSUs") at 126% of target

Strong Pay Practices

- ❖ Core governance principles and practices are employed to align executive compensation with stockholder interests
- ❖ Annual cash incentive bonuses are based on combination of corporate financial and operating objectives
- ❖ Equity awards make up a significant portion of overall executive compensation, are largely performance-based and are tied to different performance objectives than annual cash incentive bonuses

Fiscal 2019 Company Performance

- ❖ Achieved outstanding financial results with significant year-over-year increases in annual revenue growth (>15%), adjusted operating margin (>20%), adjusted EBITDA (>30%) and adjusted earnings per share (>50%)
- ❖ Strengthened the balance sheet, including repurchasing 3.8 million shares for \$150 million and generating over \$350 million in free cash flow
- ❖ Pushed the pace of technical innovation by extending the WaveLogic roadmap, developing Adaptive IP capabilities, and strengthening Blue Planet Software's closed-loop automation portfolio
- ❖ Successfully diversified the business, with increased revenue contributions from different customer segments (service provider, Webscale provider, cable/MSO), market verticals and geographies
- ❖ Generated total stockholder return ("TSR") of 19%

Why you should vote FOR our "Say-on-Pay" Proposal

- ❖ At our 2019 Annual Meeting of Stockholders, 93% of stockholder votes cast were in favor of our executive compensation program
- ❖ Key elements of our executive compensation program remain essentially unchanged
- ❖ Our overall fiscal 2019 executive compensation was reasonable and appropriate in light of Ciena's business and financial performance
- ❖ Our outreach to our top 30 stockholders during fiscal 2019 included a discussion of our executive compensation philosophy and approach
- ❖ See Proposal No. 4 for additional information on our annual advisory "Say-on-Pay" vote

Overview

Fiscal 2019 Executive Compensation

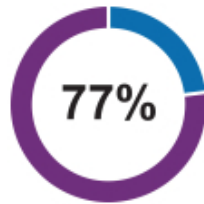
Highlights of our executive compensation program for fiscal 2019 include:

Base Salaries	Increased the base salary of the CEO and certain other NEOs, three of whom had not received increases in three years, in order to better align with the market median for their positions and to reflect their and Ciena's strong recent performance
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Target Cash Incentives	<p>Did not increase the target cash incentive opportunity for the CEO</p> <p>Increased the target cash incentive opportunity for two NEOs to better align with the market median and due to the size, scope and criticality of their roles</p>
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Equity Award Values	Delivered annual equity awards for the CEO and the other NEOs that represented reasonable year-over-year increases in target value in order to keep pace and ensure alignment with the market and to reflect their and Ciena's strong recent performance
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Equity Award Structure	<p>Structured equity awards so that 60% of the target award value for the CEO, and 50% of the target award value for the other NEOs, was allocated to at-risk, performance-based equity</p> <p>Continued to allocate a component of performance-based equity to MSUs, based on a relative TSR goal measured over a three-year performance period</p>
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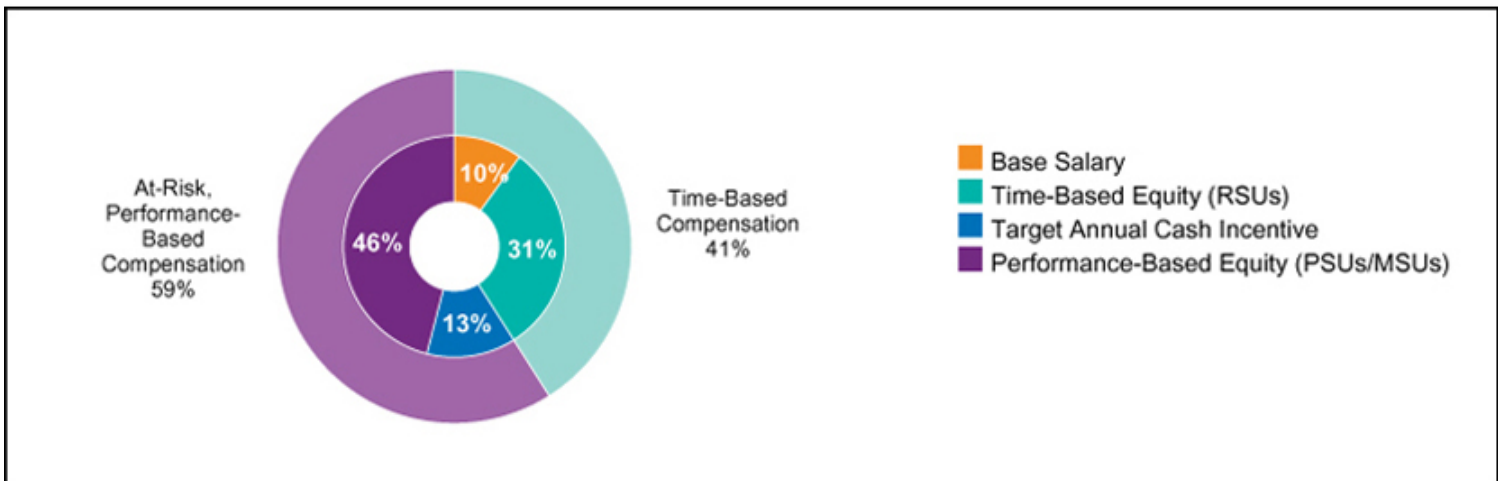


of our CEO's target total direct compensation was in the form of equity awards



of our CEO's target total direct compensation was completely "at-risk" based on our performance against measurable objectives

CEO FY 2019 Target Total Direct Compensation Mix



A detailed discussion relating to each element of executive compensation and the decisions summarized above is included in "Elements of Compensation" below.

The following discussion provides additional detail and analysis regarding the Committee's specific decisions relating to compensation of our NEOs for fiscal 2019, including the background, considerations and other factors that influenced such decisions.

Executive Compensation Best Practices

The Committee's fiscal 2019 compensation decision-making reflects the following core governance principles and practices that we employ to align executive compensation with stockholder interests. Also listed below are certain compensation practices that we do not employ because we believe they would not serve our stockholders' long-term interests.

WHAT WE DO	WHAT WE DON'T DO
<input checked="" type="checkbox"/> Ensure independence in establishing our executive compensation program	<input checked="" type="checkbox"/> Offer income tax gross-ups
<input checked="" type="checkbox"/> Align pay with performance	<input checked="" type="checkbox"/> Permit "single trigger" change in control benefits
<input checked="" type="checkbox"/> Align compensation with stockholder interests	<input checked="" type="checkbox"/> Provide excise tax gross-ups
<input checked="" type="checkbox"/> Maintain stock ownership requirements	<input checked="" type="checkbox"/> Allow for hedging or pledging of company securities
<input checked="" type="checkbox"/> Use rigorous performance goals	
<input checked="" type="checkbox"/> Maintain a compensation recovery ("clawback") policy	
<input checked="" type="checkbox"/> Assess risks relating to our executive compensation program	
<input checked="" type="checkbox"/> Provide only a limited set of executive perquisites	

Participants, Comparative Framework and Qualitative Factors

Participants in Compensation-Setting Process

Compensation Committee. The Committee oversees Ciena's compensation programs and has final authority to approve and make decisions with respect to the compensation of Ciena's executive officers. For a discussion regarding the Committee's compensation philosophy and the principal objectives of our compensation programs, see "Governance and the Board of Directors – Composition and Meetings of the Board of Directors and its Committees – Compensation Committee" above.

Independent Compensation Consultant. In its annual review and determination of executive compensation, the Committee is assisted by Compensia, Inc., a national compensation consulting firm. Compensia is engaged by the Committee and, in order to maintain its independence, does not perform additional consulting or other services for Ciena or its management. The Committee assesses the independence of its compensation advisor on an annual basis. For a discussion regarding Compensia, the scope of its engagement by the Committee and its involvement in our compensation-setting process, see "Governance and the Board of Directors – Composition and Meetings of the Board of Directors and its Committees – Compensation Committee" above.

Chief Executive Officer. Our executive officers, including our CEO, do not participate in the determination of their own compensation. Our CEO works with the Chair of the Compensation Committee to develop proposed compensation packages for our other executive officers, including the other NEOs. Based on his review and assessment of each executive officer's overall performance, success in executing against corporate and functional goals, criticality of function, experience, expertise, retention concerns, existing equity holdings, and compensation relative to other executive officers, as well as the Market Data (as defined below), our CEO provides recommendations to the Committee with respect to the base salary, target bonus percentage, and annual equity award for each executive officer. Because our CEO works most closely with and supervises our executive team, the Committee believes that his input provides critical insight in evaluating their performance. Our CEO also provides the Committee with additional information regarding the effect of market or competitive forces, changes in strategy or priorities upon an individual's performance, and any other specific challenges faced or overcome by each person or the function that they lead during the prior fiscal year.

Comparative Framework

Peer Group. To assist in the selection of a group of peer companies against which to compare existing and proposed executive compensation levels for fiscal 2019, at the request of the Committee, Compensia screened all U.S.-based publicly traded companies in the technology industry using several quantitative and qualitative criteria, including those listed below. Compensia noted that the combination of Ciena's lower market cap-to-revenue multiple and the limited number of similarly sized business competitors (due to industry consolidation) had forced peer group alignment in recent years above the revenue median and below the market cap 25th percentile. Consequently, Compensia recommended, and the Committee agreed, to use a wider range for the market capitalization screen (0.25x to 4.0x of Ciena's 30-day average market capitalization immediately prior to the Committee's assessment in June 2019), which also aligned with the market cap range used by ISS.

Following Compensia's analysis, the Committee:

- ❖ Removed two companies from the existing peer group: *Viavi Solutions* because its revenue and headcount were now below the target ranges and had negative one- and three-year revenue growth; and *Xilinx* because its market capitalization now exceeded the target range and its industry fit was becoming less relevant for comparison periods.
- ❖ Added two new companies – *Symantec* and *Zebra Technologies* – because each met several of the applicable criteria and together, given their larger revenues and the presence in the existing peer group of several companies with smaller revenues than Ciena, would position Ciena closer to the peer group market median for revenue.

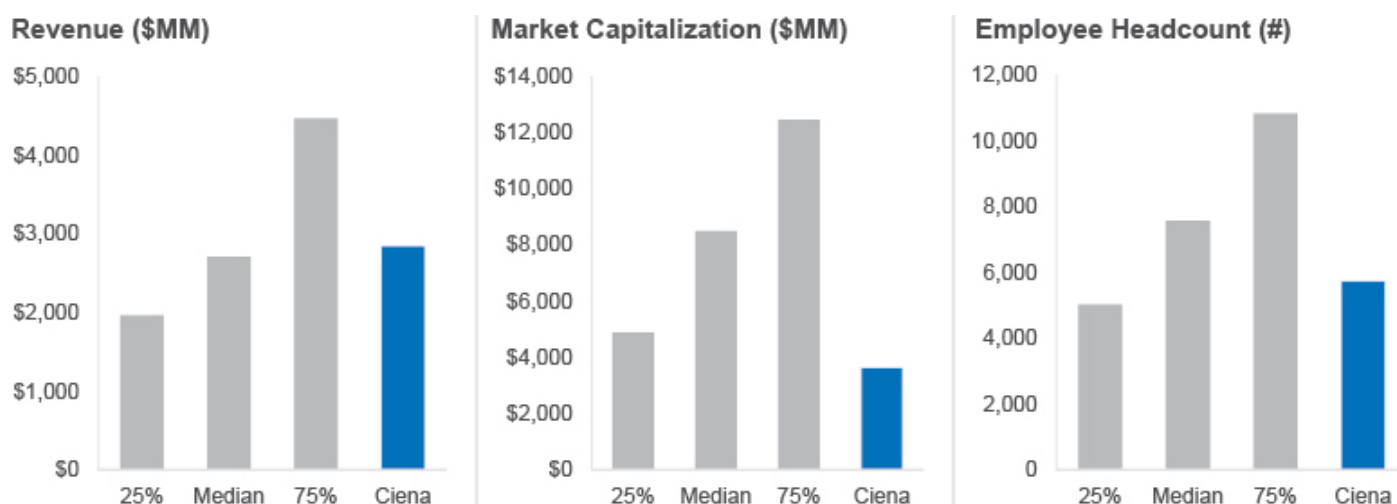
Based on this analysis and the selection process set forth below, the Committee determined that the following peer group constituted an appropriate comparative reference for determining executive compensation in fiscal 2019 (the "Peer Group"):



Akamai Technologies ARRIS Group CA Cadence Design Systems Citrix Systems CommScope Holding EchoStar F5 Networks Finisar Juniper Networks NETGEAR ViaSat Viavi Solutions Xilinx	Revenue ~0.5x to ~2.0x Ciena's last four quarters revenue Market capitalization ~0.25x to ~4.0x Ciena's 30-day average market cap Industry Communications Equipment Systems Software Application Software Internet Software & Services	Key business and/or executive labor market competitor Employee headcount Peers of current and suggested peers Companies listed as peers by ISS	Akamai Technologies ARRIS Group CA Cadence Design Systems Citrix Systems CommScope Holding EchoStar F5 Networks Finisar Juniper Networks NETGEAR Symantec ViaSat Zebra Technologies
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The following charts illustrate a comparison of Ciena to the Peer Group based on the assessment criteria of revenue, market capitalization and employee headcount, measured as of the date of the Committee's assessment in June 2019, with the revenue comparison based on revenue over the four fiscal quarters preceding the assessment.

Peer Group Comparison



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The Committee noted that Ciena was slightly above the median of the Peer Group for the revenue criterion (54%), significantly below the median of the Peer Group for the market capitalization criterion (15%), and below the median of the Peer Group for the headcount criterion (27%). The Committee believed that this represented a reasonable and appropriate balance among the key quantitative criteria, particularly given its view that revenue has the highest relevance in selecting peer companies for purposes of comparing compensation.

Market Data. As a comparative framework in establishing executive compensation for our NEOs, Compensia uses compensation data from public filings, compensation surveys such as the Radford High Technology Executive Compensation Survey and the IPAS Global High Technology Survey, and other published market data relating to comparable executive positions in the Peer Group (collectively, the “Market Data”). In considering the Market Data, the Committee recognizes that executive officers in different companies can play different roles, with different responsibilities and scopes of work, even though they may hold similar titles or nominal positions. Moreover, qualitative factors that influence compensation, such as each executive officer’s performance during the period under consideration or their perceived importance to their respective companies’ business, strategy and objectives are not easily discernible from the Market Data. Accordingly, the Market Data is just one of a number of factors used by the Committee in determining executive compensation and it serves as a frame of reference for compensation.

Qualitative Factors

In any given year, and for any particular NEO, the Committee may consider a range of subjective or qualitative factors in setting his or her compensation, including:

- ❖ the role the executive plays and the importance of such individual to Ciena’s business strategy and objectives;
- ❖ differences in each executive’s tenure and experience;
- ❖ the responsibilities and particular nature of the functions performed or managed by the executive;
- ❖ our CEO’s recommendations and his assessment of the executive’s performance;
- ❖ the risk that such individual would leave Ciena if not appropriately compensated and motivated; and
- ❖ the likely cost and difficulty that would be encountered in recruiting a replacement.

The Committee’s consideration of any particular factor may range from inapplicable to significant, depending upon the individual and period under consideration. The Committee does not assign relative weights or rankings to such factors. Rather, the Committee relies upon its members’ knowledge and judgment in assessing the various qualitative and quantitative inputs it receives as to each individual and makes compensation decisions accordingly.

In determining fiscal 2019 executive compensation, and in addition to the assessment of the Market Data and other specific factors described in the below discussion of the individual elements of compensation, the Committee broadly considered the following qualitative factors in making its compensation decisions for each NEO. Given their tenure, track record and experience, the Committee considered the NEOs to be highly desirable executives and thus potential candidates for recruitment by other companies.

- ❖ **Gary B. Smith**
 - Has successfully served as our CEO for over 18 years
 - One of the longest-tenured CEOs in the telecommunications industry
 - Continued to demonstrate outstanding strategic leadership of and direction for Ciena, including strong leadership of our executive team and our company
 - Focused the organization on executing against a proven strategy of delivering industry-leading technology innovation, diversifying the business across market segments and geographies, and leveraging global scale
 - Presided over Ciena’s delivery of another year of outstanding financial results in fiscal 2019
- ❖ **James E. Moylan, Jr.**
 - Maintained excellent relationships with the financial community and our stockholders
 - Provided effective management and leadership over the finance and accounting, global business operations, information technology, internal audit, investor relations, tax and treasury organizations
 - Supervised the ongoing strengthening of our balance sheet, including continued share repurchases, increased cash generation and improvements in our debt-to-EBITDA leverage ratio
 - Served as the executive sponsor of an internal cross-functional project to enable integrated business processes
 - Facilitated the updating and communication of our longer-term financial targets

❖ **Scott A. McFeely**

- Exhibited strong leadership of the Global Products & Services organization
- Oversaw industry-leading technology innovation from the engineering organization
- Ensured that the PLM and supply chain organizations continued to drive meaningful product design and transformation cost reductions
- Successfully focused on developing features and growing orders and revenue for the packet networking portfolio
- Supervised a series of transformation initiatives in the global services business to increase efficiencies, reduce costs and improve customer satisfaction

❖ **Jason M. Phipps**

- Led the Global Sales & Marketing organization to deliver significant year-over-year increases in sales orders, revenue and gross margin and gain 3% global optical market share
- Achieved these positively differentiated results during a continued period of variable customer spending and intense competition within our industry sector
- Generated over 40% year-over-growth in direct sales to web-scale customers
- Reallocated internal resources toward higher-growth market segments and geographies
- Supported an effort to enhance our internal sales tools and processes while improving the customer experience

❖ **David M. Rothenstein**

- Demonstrated strong performance as General Counsel and Secretary, including the assumption of interim responsibility for the Strategy and Corporate Development organization
- Prepared for and implemented our first corporate governance and ESG “roadshow” with top stockholders
- Supervised the structuring, negotiation and integration of the acquisition of Centina Systems
- Implemented the first phase of consolidating our corporate headquarters in Maryland
- Continued to serve as the Chair of our Disclosure Committee and our Corporate Compliance Committee, and as executive sponsor of our enterprise risk management (ERM) and corporate social responsibility (CSR) programs

Internal Equity. The Committee seeks to promote strong teamwork and high morale within our executive team. While the Committee does not use any quantitative formula or multiple for comparing or establishing compensation among the executive officers, it is mindful of internal pay equity considerations, and assesses the relationship of the compensation of each executive officer to other members of the executive team. Each fiscal year, the Committee also considers, on a relative basis, the aggregate portion of equity awards, in terms of economic value and allocation of shares, made to the executive team, in comparison to other eligible employees.

Say on Pay Vote

We provide stockholders with the opportunity to cast an annual advisory vote on the compensation of our named executive officers. From time to time, we seek input from our stockholders relating to executive compensation matters and expect to continue to consider input from stockholders, as well as the outcome of our annual say-on-pay votes when making future executive compensation decisions. In particular, our outreach to our top 30 stockholders during fiscal 2019 included a discussion of our executive compensation philosophy and approach. See “Proposal No. 4” below for this year’s “say-on-pay” proposal. Last year, approximately 93% of the stockholder votes cast on this proposal were voted in favor of the proposal. The Committee believes that this substantial majority of votes cast affirms stockholders’ support for our approach to executive compensation and, as a result, did not set or change fiscal 2019 executive compensation as a direct result of last year’s stockholder vote.

Elements and Mix of Compensation

Principal Elements of Compensation

The principal elements of compensation of our executive officers, including our NEOs, include:

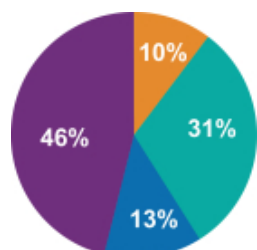
Element	Type	Form	Key Characteristics	Purpose
Base Salary	Fixed	Cash	Annual adjustments based on individual performance, relative to market pay level and internal pay equity	Attracts, retains and rewards NEOs by providing a competitive fixed amount of compensation for service that reflects skill, responsibility and experience
Annual Cash Incentive	At-Risk	Cash	Variable cash compensation, based on pre-established financial, strategic and operational goals and individual performance	Focuses NEOs on achievement of our short-term financial and operational goals Aligns interests of NEOs with stockholders by promoting strong revenue and operating income growth and achievement of other key corporate objectives
Long-Term Equity Incentive	At-Risk	Restricted Stock Units	RSU equity awards based on continued service vest in quarterly increments over a four-year period	Retains NEOs through multi-year vesting of equity awards Motivates and rewards NEOs for the achievement of long-term corporate performance Aligns NEO and stockholder interests
		Performance Stock Units	PSU equity awards based on pre-determined financial, strategic and/or operational goals have a one-year performance period and vest in equal increments over two years	
		Market Stock Units	MSU equity awards based on TSR relative to a comparison index over a three-year period, and vest in full at end of period	

We also provide severance and change in control related benefits for our NEOs, and other benefits such as a 401(k) plan, health and wellness benefits including an annual physical examination, and financial planning and tax preparation services. In addition, our NEOs participate in the Deferred Compensation Plan available to other senior management employees and standard employee benefit plans and programs available to our other employees.

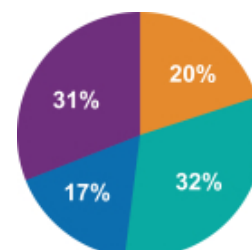
Pay Mix

In determining the mix of compensation among these elements, the Committee does not assign specific ratios or other relative measures that dictate the total compensation mix to be awarded or targeted to the executive team, or the portion that is either at-risk or otherwise subject to performance. Nevertheless, as illustrated by the charts below, the Committee continued to structure executive compensation in fiscal 2019 so that a significant portion of the target total direct compensation of our CEO and the other NEOs was “at-risk” or performance-based, with the actual value realized subject to the achievement of short-term or long-term corporate and financial performance goals. Approximately 60% of our CEO’s target total direct compensation for fiscal 2019 was structured as “at-risk” performance-based. By linking a significant portion of our executives’ compensation to performance, the Committee emphasized incentive-based variable pay, which is consistent with our pay-for-performance philosophy and creates a strong alignment with long-term stockholder value.

**CEO FY 2019 Target
Total Direct Compensation Mix**



**NEO FY 2019 Target
Total Direct Compensation Mix**



■ Base Salary
■ Time-Based Equity (RSUs)
■ Target Annual Cash Incentive
■ Performance-Based Equity (PSU/MSUs)

* Target Total Direct Compensation reflects annual base salary, annual cash incentive opportunity and grant date fair value of fiscal 2019 equity awards.

Cash Compensation

Base Salary

In determining base salaries for fiscal 2019, the Committee considered that the Market Data showed that the base salaries for several of the NEOs were significantly below the market median of equivalent positions at the time, with Messrs. Smith, Moylan and Phipps each at the 30th percentile of the market and Mr. Rothenstein at the 40th percentile of the market. The Committee also recognized that Messrs. Smith, Moylan and Rothenstein had not received an increase in base salary since fiscal 2016. Based on those factors, together with Ciena’s outstanding business and financial performance and the factors for each individual executive described in the “Qualitative Factors” described above, the Committee determined to increase the fiscal 2019 base salaries of several of the NEOs in order to better align with the approximate median of the Market Data for their positions, as set forth below.

Annual Base Salary

Name	Annual Base Salary (\$)		
	Fiscal 2018	Fiscal 2019	Percentage Increase
Gary B. Smith	\$ 900,000	\$ 950,000	5.6%
James E. Moylan, Jr.	\$ 525,000	\$ 560,000	6.7%
James A. Frodsham	\$ 430,000	\$ 430,000	0.0%
Scott A. McFeely	\$ 440,000	\$ 440,000	0.0%
Jason M. Phipps	\$ 400,000	\$ 440,000	10.0%
David M. Rothenstein	\$ 450,000	\$ 485,000	7.8%

The above salary increases were made effective as of Ciena’s second quarter of fiscal 2019, in order to coincide with the timing of Ciena’s broad-based merit increase for non-executive employees.

Annual Cash Incentive Opportunity

The annual incentive cash opportunity for our employees, including the NEOs, is expressed as a percentage of base salary. Because of this correlation, the Committee typically looks at base salary and annual cash incentive compensation in combination,

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and considers the effect modifications to either such element have on the “target total cash compensation” for each individual. The Committee considers potential incentive payments to each NEO at the “target” level (as reflected in “Annual Cash Incentive Bonus Plan” below), together with base salary, in determining the “target total cash compensation” payable to each executive.

The Committee considered that the Market Data showed that, if fully paid at the target level and after application of the base salary increases referenced above, the overall target total cash compensation of Messrs. Smith, Moylan, Frodsham and Rothenstein was at or slightly above the median of their equivalent positions in the market. Accordingly, the Committee agreed that their target cash incentive opportunities were reasonable and appropriate and decided not to increase the same for fiscal 2019. With respect to Messrs. McFeely and Phipps, the Committee considered the recent increases in the size, scope and criticality of their roles within Ciena and that their overall target total cash compensation was below the median of their equivalent positions in the market. Accordingly, the Committee decided to increase the target cash incentive opportunities for Messrs. McFeely and Phipps, as set forth below.

Annual Cash Incentive Opportunity

Name	Target Cash Incentive Compensation (as a percentage of base salary)		
	Fiscal 2018	Fiscal 2019	Percentage Increase
Gary B. Smith	125%	125%	0%
James E. Moylan, Jr.	85%	85%	0%
James A. Frodsham	75%	75%	0%
Scott A. McFeely	75%	85%	13%
Jason M. Phipps	75%	100%	33%
David M. Rothenstein	75%	75%	0%

Target Total Cash Compensation

The Committee’s decisions with respect to annual base salaries and annual cash incentive bonus opportunities for fiscal 2019 resulted in target total cash compensation for the NEOs as set forth below.

Target Total Cash Compensation

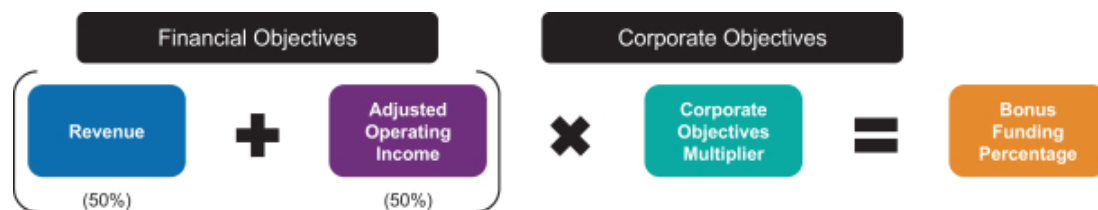
Name	Target Total Cash Compensation (\$)		
	Fiscal 2018	Fiscal 2019	Percentage Increase
Gary B. Smith	\$ 2,025,000	\$ 2,137,500	5.6%
James E. Moylan, Jr.	\$ 971,250	\$ 1,036,000	6.7%
James A. Frodsham	\$ 752,500	\$ 752,500	0.0%
Scott A. McFeely	\$ 770,000	\$ 814,000	5.7%
Jason M. Phipps	\$ 700,000	\$ 880,000	25.7%
David M. Rothenstein	\$ 787,500	\$ 848,750	7.8%

The amounts in the table above represent target total cash compensation for fiscal 2018 and fiscal 2019. For amounts actually earned or received by our NEOs during fiscal 2019, see “Summary Compensation Table” in the “Executive Compensation Tables” below.

Annual Cash Incentive Bonus Plan

Full-time employees, excluding our employees who receive sales commissions, generally are eligible to participate in our annual cash incentive bonus plan, which pays out a bonus upon the achievement of performance objectives established by the Committee. This plan is the mechanism for delivering the annual cash incentive opportunity discussed above. The bonus plan, which is more fully described in the “Grants of Plan-Based Awards” section of the “Executive Compensation Tables,” provides the Committee with the flexibility to establish corporate, departmental or individual performance objectives upon which bonus payments are contingent.

The bonus plan is structured to focus and incent our executive officers on the achievement of a defined set of short-term financial and corporate performance objectives. The payout percentage under the bonus plan is determined by multiplying the average payout based on levels of achievement of the financial objectives by a multiplier based on the level of achievement of the corporate objectives.



Fiscal 2019 Structure. For the past several years, the incentive bonus plan incorporated a single financial objective – adjusted operating income – and a set of defined corporate objectives to determine the applicable bonus funding percentage. In designing the fiscal 2019 bonus plan, the Committee decided to retain most of the existing structure but to add annual revenue as a second financial objective. Specifically, the two financial objectives would be weighted equally and their performance would be averaged to determine the total financial funding percentage against which to factor the corporate objectives multiplier. The Committee considered that inclusion of revenue would serve to better align the design of the incentive bonus plan with current market practice, reduce the plan’s dependency on a single financial objective, and most importantly reflect Ciena’s overall emphasis on balancing both top-line revenue growth and bottom-line profitability. The Committee also considered that, based on Ciena’s historical performance against the financial targets in its annual operating plan, the likely range of outcomes on the financial objectives would result in a fiscal 2019 bonus payout representing a percentage of Ciena’s profit that was reasonably consistent with that in recent years.

Based on this change, the applicable bonus funding percentage is calculated as set forth below, with the maximum amount that could be paid under the bonus plan equaling 216% of the target bonus $((200\% + 160\%)/2) \times 1.2$. The Committee elected to use the same objectives for all eligible employees, including our NEOs, in order to align the interests of our employee base and to promote teamwork and morale. Overall, the fiscal 2019 bonus plan was designed to balance and align the interests of our employees and stockholders, while incentivizing the company’s workforce to drive toward improved profitability and stockholder return.

Fiscal 2019 Revenue		+	Fiscal 2019 Adjusted Operating Income		×	Corporate Objectives Multiplier	
Performance Against Target (%)	Total Target Bonus Earned (%)		Performance Against Target (%)	Total Target Bonus Earned (%)		Objectives Achieved (#)	Multiplier
< 90%	0%		< 70%	0%		< 4	0.0x
90%	50%		70%	70%		4	0.8x
95%	75%		80%	80%		5	0.9x
100%	100%		90%	90%		6	1.0x
105%	150%		100%	100%		7	1.1x *
³ 110%	200%		110%	120%		8	1.2x *
			120%	140%			
			³ 130%	160%			

* Only applies if achieve ³80% aggregate performance of Financial Objectives; otherwise reverts to 1.0x

Bonus payments are interpolated for performance results falling between the designated levels set forth above. For illustrative purposes only and by way of example, if Ciena had achieved 98% of the revenue target, 80% of the adjusted operating income target and seven of its eight corporate objectives, the applicable annual cash incentive award would have been 94% $((90\% + 80\%)/2) \times 1.1$ of the target bonus opportunity.

Financial Objectives. As noted above, the Committee believed that the use of two financial performance-based metrics – revenue and adjusted operating income – would provide the most comprehensive and effective indicator of Ciena’s overall operating performance, reduce dependency on a single financial objective, and balance emphasis on top-line and bottom-line performance. The Committee recognized that those measures were two of the most important and frequently reviewed metrics used by our CEO and executive team in managing Ciena’s business. In calculating adjusted operating income, the Committee gives effect to certain adjustments to our GAAP results generally consistent with those reported in our quarterly earnings releases, as well as the cost of the annual incentive bonus plan and any sales incentive compensation paid to our global field organization in excess of that budgeted in our annual operating plan.

- ◆ The fiscal 2019 revenue target was \$3,400 million.
- ◆ The fiscal 2019 adjusted operating income target was \$480 million in the aggregate, after taking into account the above adjustments.

Each of the above targets was taken directly from our fiscal 2019 operating plan approved by the Board of Directors.

Corporate Objectives. The fiscal 2019 corporate objectives were aligned with Ciena's execution imperatives for the fiscal year, as follows:

EXECUTION IMPERATIVES	OPTICAL LEADERSHIP	1. Deliver at least two of three defined Packet-Optical product releases or feature content
	PACKET NETWORKING GROWTH 5G NETWORKING MSO FIBER DEEP	2. Generate \$330M in revenue from Packet Networking products 3. Deliver at least three of four defined Packet Networking product releases or feature content
	BLUE PLANET SOFTWARE	4. Generate \$100M in orders for Blue Planet Software and Services portfolio
	ONE CONTROL / MCP MIGRATION	5. Deliver defined MCP software release and ensure that it is in production in the networks of 25 customers, including three of six defined lead customers
	WEBSCALE EXPANSION	6. Generate \$560M in revenue directly from Webscale customers
	SERVICES TRANSFORMATION	7. Achieve \$115M in aggregate cost reductions across both Supply Chain and Attached Services 8. Maintain and improve customer experience by attaining defined levels of product delivery by original promise date and deployment project completion on-time

Attainment of Fiscal 2019 Cash Incentive Bonus

In fiscal 2019 Ciena generated \$3,572.1 million in revenue and, after giving effect to the adjustments described above, \$596.8 million in adjusted operating income. Based on the payout-for-performance structure described above, this resulted in a bonus earned at 150% of target. Separately, Ciena achieved seven of the eight corporate performance objectives for fiscal 2019, after falling short on the Blue Planet Software orders objective, which resulted in application of a 1.1x multiplier. As a result, the NEOs earned and were awarded a bonus equal to 165% of the annual target bonus opportunity (150% x 1.1), which resulted in the cash incentive bonus payments as set forth below.

Attainment of Fiscal 2019 Cash Incentive Bonus

Name	Fiscal 2019 Cash Incentive Bonus
Gary B. Smith	\$ 1,959,375
James E. Moylan, Jr.	\$ 785,400
James A. Frodsham	\$ 532,125
Scott A. McFeely	\$ 617,100
Jason M. Phipps	\$ 726,000
David M. Rothenstein	\$ 600,188

Equity Compensation

Factors and Process in Determining Fiscal 2019 Equity Awards

In determining equity compensation for fiscal 2019, the Committee considered that the Market Data showed that the overall average equity value for the executive officers increased year-over-year, from the 40th percentile of the market the previous year to the 50th percentile of the market at the time of the Committee's assessment. Compensia's analysis indicated that the annual equity values in the market had increased slightly year-over-year, with an overall average 10% increase in value from the previous year, as compared to the somewhat larger average increases in equity values provided to Ciena's executive officers.

At the same time, however, the Committee recognized that the overall average equity value for the executive officers was now only at the bottom of its target range of between the 50th and 75th market percentiles for the value delivered to similar executives. As previously disclosed, Ciena primarily competes with and hires executives from companies that are substantially larger in all relevant comparator metrics, and therefore are not appropriate to include in the Peer Group. This dynamic requires the Committee to develop a peer group of industry-related companies with whom the Company does not directly compete but who represent an aggregate financial profile that places Ciena at or about the market median, with revenue as the most relevant criterion. As a result, in order to better reflect market dynamics and Ciena's resulting challenge in attracting and retaining top executives, the Committee believes that it is appropriate to establish equity values for the executive officers using a target range at or significantly above median for the values delivered to similar executives.

Based on Compensia's analysis, as well as Ciena's strong business and financial performance and the factors for each individual executive described in "Qualitative Factors" above, our CEO prepared recommendations for target equity values for each of the NEOs (other than himself) for the Committee's consideration.

In determining fiscal 2019 equity compensation, and in addition to the qualitative factors described above, the Committee considered, among other things, the following:

- ❖ our CEO's assessment of the overall responsibilities, performance, experience, expertise and value to Ciena of each individual, as well as the criticality of each position and any concerns with respect to retaining the individual;
- ❖ the existing, unvested equity holdings of each individual and assumptions relating to future values;
- ❖ the potential impact of awards at the target equity values on key compensation governance metrics, including current and three-year average burn rate, equity overhang levels, and equity grant expense as a percentage of market capitalization;
- ❖ the specific number of shares resulting from the proposed target equity values using a range of possible grant date Ciena stock prices; and
- ❖ the number of shares remaining available for issuance under the 2017 Plan.

The Committee made its own evaluation for our CEO, based upon its assessment of his responsibilities, performance, experience and value to Ciena, as well as consideration of the above additional factors.

Equity Award Values

As described above, based on the Market Data, the overall average equity value for our executives was at the bottom of the Committee's target range for the value delivered to similar executives, with variation by executive. The Committee agreed that, after taking steps to align executive equity compensation with the Peer Group and with Ciena's strong business and financial performance in recent years, it was important to ensure that equity compensation for our executives kept pace with the market and that of similarly situated executives in the Peer Group. Accordingly, the Committee established values for the fiscal 2019 equity awards to Mr. Smith and the other NEOs that represented reasonable year-over-year increases in grant date value, with variance by individual executive based on market benchmarking for the applicable position, in order to maintain alignment with the market.

By way of example, the Committee noted that Mr. Smith's equity value only approximated the market median of equity values awarded to chief executive officers in the Peer Group. Consequently, the Committee granted him a fiscal 2019 equity award with a grant date value representing a 7.5% year-over-year increase. Given the continued overall market increase in CEO equity values, however, this award still only served to position Mr. Smith's equity value slightly above the market median and at the lowest end of the Committee's target range.

Similarly, the grant date values of the fiscal 2019 equity awards to the other NEOs (except for Mr. Phipps) represented 13-16% year-over-year increases and maintained their existing market positioning at approximately at or slightly above the

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median of equity values awarded to similar executives. The grant date value of the equity award to Mr. Phipps represented a 40% year-over-year increase in order to align with market median, given that his existing equity value was below the 25th percentile of equity values delivered to similar executives, and due to the increase in the size, scope and criticality of his role.

Overall, the Committee believed that the values of the equity awards to the NEOs were reasonable and appropriate under the circumstances. Based on the trailing 30-day average of Ciena's closing stock price prior to the grant date, the individual equity values established by the Committee were calculated into a specific number of shares of Ciena's common stock underlying each equity award. The table below sets forth the specific number of shares underlying the equity awards and the grant date delivered value of such awards based on Ciena's closing stock price of \$33.18 on the grant date (December 18, 2018). The grant date delivered values set forth below reasonably reflect the Committee's intent and practice in establishing the target equity award values and resulting equity awards for the NEOs. Please refer to the Summary Compensation Table below and its accompanying footnotes for more information on the grant date fair value calculated in accordance with FASB ASC Topic 718.

Fiscal 2019 Annual Equity Awards

Name	Total Shares Underlying Award (#)	Grant Date Delivered Value (\$)
Gary B. Smith	217,325	\$ 7,210,844
James E. Moylan, Jr.	52,780	\$ 1,751,240
James A. Frodsham	43,466	\$ 1,442,202
Scott A. McFeely	43,466	\$ 1,442,202
Jason M. Phipps	43,466	\$ 1,442,202
David M. Rothenstein	43,466	\$ 1,442,202

Equity Award Allocation and Structure

In order to ensure continued alignment between the compensation of our executives and Ciena's business and financial performance relative to the applicable market, the Committee decided to use the same equity allocation as in fiscal 2018. Specifically, the fiscal 2019 equity awards for the executive officers included a combination of restricted stock units (RSUs), performance stock units (PSUs) and market stock units (MSUs), the key elements of which are set forth below.

Equity Vehicle	Weighting (CEO)	Weighting (Other NEOs)	Metric(s)	Performance Period	Vesting
Restricted Stock Units	40%	50%	None	N/A	Quarterly (1/16 th) over four years
Performance Stock Units	36%	30%	Sales Orders and Adjusted EPS	One Year (Fiscal 2019)	50% after first year and 50% after second year
Market Stock Units	24%	20%	Relative TSR	Three Years (Fiscal 2019 – 2021)	100% after third year

The following table indicates the specific number of shares underlying both the RSU awards and the PSU and MSU awards at target level based on achievement of the goals described below.

Allocation of Fiscal 2019 Annual Equity Awards

Name	RSUs (#)	Target PSUs (#)	Target MSUs (#)
Gary B. Smith	86,930	78,237	52,158
James E. Moylan, Jr.	26,390	15,834	10,556
James A. Frodsham	21,733	13,040	8,693
Scott A. McFeely	21,733	13,040	8,693
Jason M. Phipps	21,733	13,040	8,693
David M. Rothenstein	21,733	13,040	8,693

RSUs. The Committee used its standard four-year vesting period for the RSUs – one-sixteenth of the grant amount vesting each calendar quarter over a four-year period – in order to promote long-term alignment with stockholders and longer-term decision making that provides an effective balance to the shorter-term incentive measures used in setting cash incentive bonus awards.

PSUs. The Committee structured the PSUs with a fiscal 2019 performance period. In selecting a one-year period, the Committee sought to achieve a balance between the desire to incorporate a specific performance-based component in the long-term incentive compensation for the executive officers with an acknowledgment of the difficulties inherent in establishing long-term performance goals in an uncertain macroeconomic environment and a volatile sector of the telecommunications industry. Although the Committee carefully considered the implications of using a one-year performance period instead of a longer period for its long-term incentive compensation, it ultimately determined that any related issues were outweighed by the desire to avoid any unintended consequences of motivating the wrong behavior or limiting Ciena’s flexibility as a result of outdated or inapplicable long-term goals in future years. In recognition of the one-year performance period, the Committee incorporated an additional retention element to the performance equity compensation, whereby any PSU shares that were earned during the fiscal 2019 performance period would be subject to a staggered vesting and delivery schedule in two equal installments over the 12 months following the fiscal 2019 performance period, subject to the individual executive’s continued service with Ciena. In establishing this performance equity structure, the Committee was significantly influenced by the fact that it had been using a similar structure for the past several years and that the structure successfully achieved the Committee’s desired objectives for both company performance and long-term incentive compensation for our executives. The Committee also considered this structure to be reasonable and appropriate in light of the use of longer-term MSUs as part of the overall equity allocation for the executives.

In establishing goals for the PSUs, the Committee sought to align the interests of the executive officers with Ciena’s stockholders by focusing their efforts on ensuring the longer-term growth of our business while achieving growing profitability. The Committee also sought to avoid any overlap between the goals for the annual cash incentive bonus plan and the long-term equity compensation for the executive officers. Accordingly, the PSUs were based on two goals for fiscal 2019: the aggregate sales orders target of \$3,650 million and the adjusted earnings per share target of \$1.82. Each of these goals was derived directly from the targets set forth in our fiscal 2019 operating plan, which was reviewed and approved by the Board of Directors. The PSUs were allocated equally between the two goals, and the Committee considered the prospects for attainment and non-attainment of the PSU performance goals to be equally likely.

Any portion of the PSUs not earned by the end of the performance period would be forfeited. The PSUs were designed such that 100% of the shares underlying the award would be earned upon the achievement of 100% of both the sales orders target and the adjusted EPS target. Consistent with our pay-for-performance philosophy, and to closely align the interests of the executive officers with our stockholders and to further incentivize them to overachieve against our fiscal 2019 operating plan, the Committee incorporated upside earning potential to the PSUs for extraordinary performance and downside risk for under-performance against each of the two goals. Specifically, the Committee established the following minimum performance thresholds and maximum number of additional PSUs that could be earned for achievement against the sales orders and adjusted earnings per share targets, as set forth below:

Aggregate Sales Orders (50%)		Adjusted Earnings Per Share (50%)	
Aggregate Sales Orders (\$MM)	Total Target PSUs Earned (%)	Adjusted EPS (\$)	Total Target Bonus Earned (%)
< \$ 3,285	0%	< \$ 1.46	0%
\$ 3,285	50%	\$ 1.46	80%
\$ 3,650	100%	\$ 1.82	100%
³ \$ 4,015	200%	³ \$ 2.55	200%

The percentages of target PSUs earned are interpolated on a straight-line basis for results falling between the designated levels set forth above. Based on the above table, the maximum amount of PSUs that could be earned was 200% of the target number of shares underlying the PSU award.

MSUs. For the second consecutive year, the Committee incorporated a relative performance goal as part of the annual equity awards for the executive officers. The MSUs are based on Ciena’s total stockholder return (“TSR”) – i.e., its stock price appreciation – as compared to the total reported return (the “Return”) of the S&P North American Technology-Multimedia Networking Index (the “S&P Networking Index”) over a three-year measurement period covering Ciena’s fiscal 2019 through fiscal 2021 (the “Measurement Period”). The Committee selected the S&P Networking Index as the appropriate comparator index both because it is directly relevant to our business, consisting of several companies in our sector and including Ciena as a constituent, and because its overall performance has been closely correlated to that of Ciena in recent years. For purposes of determining the TSR for Ciena and the Return for the S&P Networking Index, and in order to mitigate the potential impact of stock price volatility,

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the beginning and ending values for each measure will be determined on an average basis over a period of 90 calendar days prior to both the beginning and the end of the Measurement Period. For the same reasons as with the PSUs, the Committee incorporated upside earning potential to the MSUs for outperformance against the S&P Networking Index and downside risk for underperformance against the S&P Networking Index. Specifically, the applicable percentage of the target number of MSUs earned will be determined based on the absolute percentage point difference between Ciena's TSR as compared to the Return for the S&P Networking Index during the Measurement Period, as set forth below:

Fiscal 2019 MSU Performance Goal

Fiscal 2019-2021 Relative TSR (absolute percentage point difference)	Target MSUs Earned (%)
(50)%	0%
(40)%	20%
(30)%	40%
(20)%	60%
(10)%	80%
Equal	100%
10%	120%
20%	140%
30%	160%
40%	180%
³ 50%	200%

The percentage of target MSUs earned is interpolated on a straight-line basis for results falling between the designated levels set forth above. Based on the above table, the maximum amount of MSUs that can be earned is 200% of the target number of shares underlying the MSU award. However, if Ciena's TSR during the Measurement Period is negative (as a result of a decline in our stock price during such period), then the awardee will earn less than 100% of the target number of shares underlying the MSU award. To the extent earned, the MSUs will vest in full in December 2021 following the end of the Measurement Period, subject to the individual executive's continued service with Ciena through the vesting date. Any portion of the MSUs not earned at the end of the Measurement Period will be forfeited.

Overall, the Committee believed that nearer-term goals focused on top-line growth and bottom-line cash generation (via the PSU goals of sales orders and adjusted earnings per share), complemented by a longer-term goal focused on relative TSR, is an effective combination that will closely align the interests of the executive officers with those of shareholders and thereby enhance stockholder value.

Attainment of Fiscal 2019 PSUs

As noted above, Ciena had an outstanding year of business and financial performance in fiscal 2019. Ciena generated the following aggregate sales orders and adjusted earnings per share in fiscal 2019:

Aggregate Sales Orders (50%)		
Target (\$MM)	Actual (\$MM)	% PSUs earned
\$ 3,650	\$ 3,693	112%

Adjusted Earnings Per Share (50%)		
Target (\$)	Actual (\$)	% PSUs earned
\$ 1.82	\$ 2.11	140%

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Based on the equal weighting of the two goals, approximately 126% of the total PSUs were earned as set forth below.

Fiscal 2019 PSU Awards Earned

Name	PSUs Earned (#)
Gary B. Smith	98,577
James E. Moylan, Jr.	19,951
James A. Frodsham	16,430
Scott A. McFeely	16,430
Jason M. Phipps	16,430
David M. Rothenstein	16,430

One-half of the PSUs earned during fiscal 2019 vested in December 2019, and the remaining one-half of the PSUs earned will vest in December 2020, subject to continued service.

Equity Grant Practices

We apply a consistent approach in our equity award practices by granting annual equity awards to our executive officers and directors at or around the same time each year. Annual equity awards to our NEOs are made by the Committee, and the grant date of these awards is the same day that the Committee meets to approve the awards. The Committee generally meets, approves and grants annual equity awards to the executive officers promptly following Ciena's release of earnings for the fourth quarter and fiscal year. This practice began in fiscal 2007 and continued for annual equity awards in fiscal 2019, with the fourth quarter earnings release on December 13, 2018 and executive and non-executive awards granted on December 18, 2018.

Incentive Compensation for James Frodsham

On June 23, 2019, James Frodsham, our Senior Vice President and Chief Strategy Officer, passed away unexpectedly. In connection with Mr. Frodsham's death, and pursuant to the existing terms of his RSU and PSU award agreements under our 2017 Omnibus Incentive Plan, we accelerated the vesting of (i) an additional 12 months of his outstanding RSU awards (representing 20,841 total shares) and (ii) the remainder of his earned but unvested PSU awards that were granted in December 2016 and December 2017 (representing 16,943 total shares). Separately, the Committee considered the most appropriate manner in which to treat Mr. Frodsham's other outstanding performance-based incentive compensation awards, taking into account not only the terms of the applicable incentive plans but also Mr. Frodsham's significant role in and contribution toward setting Ciena's overall strategic direction and enabling our outstanding business and financial performance in fiscal 2019. Specifically, and among other things, Mr. Frodsham was a key driver of our strategic planning process and the principal author of our three-year strategic plan, he played an important role in establishing and assessing progress against the execution imperatives underpinning our annual operating plan, he served as the executive sponsor for certain of our major customer accounts, and he was responsible for identifying and integrating the acquisitions of Packet Design and DonRiver to build out our Blue Planet Software closed loop automation portfolio. Accordingly, based on the recommendation of management, the Committee exercised its discretion under the terms of the applicable incentive plans to modify the treatment of Mr. Frodsham's outstanding incentive compensation awards, such that Mr. Frodsham's estate either has received or will receive the following:

- ❖ \$532,135 of his cash incentive bonus payment for fiscal 2019, representing 165% of his annual target bonus – the amount that he would have received had he served for the entire fiscal year and based on Ciena's performance against the applicable financial and corporate objectives under the cash incentive bonus plan;
- ❖ 16,430 shares of his PSU award for fiscal 2019, representing 126% of his target PSUs – the number of shares that he would have earned had he served for the entire fiscal year and based on Ciena's performance against the applicable PSU performance goals; and
- ❖ 10,203 shares of his MSU award that was granted in December 2017 and 4,829 shares of his MSU award that was granted in December 2018, in each case representing the target number of shares of the award pro-rated for his date of death within the applicable performance period, plus an additional 12 months of vesting.

For amounts actually earned or received by Mr. Frodsham and/or his estate during fiscal 2019, see "Summary Compensation Table" in the "Executive Compensation Tables" below.

Other Elements of Executive Compensation Program

U.S. Executive Severance Benefit Plan

We maintain a U.S. Executive Severance Benefit Plan as part of our efforts to continue to attract and retain top executive talent. This plan, which is governed by the Employee Retirement Income Security Act of 1974, as amended, provides certain U.S.-based employees, including the NEOs and employees of the rank of vice president or above, with certain severance payments and benefits in the event of an involuntary separation of service by Ciena without “cause.” For additional information about the severance payments and benefits payable under this plan, as well as the estimated value of these payments and benefits, see “Payments Upon Involuntary Separation of Service for Other than Cause” below.

“Double Trigger” Change in Control Severance Agreements

Each of the NEOs has a change in control severance agreement with Ciena. We have entered into these agreements upon the initial hiring of senior employees, upon promotion of existing employees to senior executive roles, and when the Compensation Committee determines it to be important for the retention of other key employees. As the existing agreements were due to expire in accordance with their terms, in November 2019 each of the NEOs entered into a new change in control severance agreement with Ciena, which agreements are effective through November 30, 2022, unless earlier terminated. We believe that these severance arrangements are important for retention of key employees and necessary to attract qualified executive officers, who may otherwise be deterred from taking a position with us by the possibility of being dismissed following a change in control, particularly given the level of acquisition activity in our industry.

Except for the conversion of certain performance-based equity into time-based awards, (i) the CEO receives no benefits under this agreement unless his employment is terminated without cause, or by him for good reason, within 90 days prior to or 18 months following the effective date of a change in control transaction, and (ii) the other NEOs receive no benefits under these agreements unless their employment is terminated without cause, or by the executive for good reason, within 90 days prior to or 12 months following the effective date of a change in control transaction. We believe this so-called “double trigger” structure strikes an appropriate balance between the potential compensation payable to executive officers and the corporate objectives described above. We also believe that were Ciena to engage in discussions or negotiations relating to a corporate transaction that our Board of Directors deems in the interest of stockholders, these agreements would serve as an important tool in ensuring that our executive team remains focused on the consummation of the transaction, without significant distraction or concern relating to personal circumstances such as continued employment. Should any severance payment or benefit be subject to excise tax imposed under federal law, or any related interest or penalties, such severance payments or benefits shall be either (a) paid in full by us or (b) paid in a lesser amount such that no portion of the payments would be subject to the excise tax, whichever results in receipt by the executive of a greater amount. Under this “best choice” mechanism, Ciena would not pay any excise taxes or make any gross-up or similar reimbursement payments related to excise taxes resulting from any severance payment or benefit.

For additional information about the payments and benefits payable under these agreements, as well as the estimated value of these payments and benefits, see “Potential Payments Upon Termination or Change in Control” below.

Compensation Recovery (“Clawback”) Policy

We maintain a recoupment or “clawback” policy that applies to equity incentive awards under our 2017 Plan, annual cash incentive plan awards, and sales incentive compensation. This policy, which is broader than currently required by applicable law, provides for recoupment of certain benefits in the event that Ciena is required to prepare an accounting restatement due to material noncompliance, as a result of misconduct, with any financial reporting requirement under applicable securities laws. Specifically, those executive officers subject to automatic forfeiture under Section 304 of the Sarbanes-Oxley Act of 2002, and any other recipient of covered incentive compensation who knowingly engaged in such misconduct, was grossly negligent in engaging in the misconduct, knowingly failed to prevent the misconduct or was grossly negligent in failing to prevent the misconduct, is required to reimburse Ciena the amount of any payment in settlement of such award earned or accrued during the 12-month period following the first public issuance or filing with the SEC (whichever first occurred) of the financial document that contained such material noncompliance.

Perquisites Policy

We maintain a Perquisites Policy pursuant to which our NEOs are eligible for the same benefits as salaried employees and to receive only limited perquisites, generally consisting of annual physical examinations as well as tax preparation and financial planning services, both of which are made available to other senior employees.

Required Reimbursement for Personal Use of Corporate Memberships or Tickets

We maintain a policy requiring the NEOs to reimburse certain costs associated with any personal use of items such as corporate tickets to sporting or cultural events and personal use of any corporate membership at a golf or similar club.

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Specifically, any executive officer who makes personal use of such tickets is required to reimburse Ciena for the face value of the tickets used. Any executive who makes personal use of a club in which Ciena has a corporate membership must reimburse Ciena for the cost of any meals, merchandise, greens fees, lessons and other charges associated with his or her use and, in addition, reimburse Ciena for a pro-rata share of the annual membership dues for each day on which he or she makes personal use of the facilities. To date, any personal usage has been extremely limited as corporate memberships are maintained predominately in order to use these facilities for business-related functions. The annual dues for each of the three executive officers named individually on club memberships used by Ciena generally range from \$8,000 to \$19,900.

Stock Ownership Guidelines

To align the interests of our executive officers and directors with those of our stockholders, and to promote our commitment to sound corporate governance, the Board has established stock ownership guidelines for the NEOs as set forth in “Principles of Corporate Governance, Bylaws and Other Governance Documents” above.

Deferred Compensation Plan

We maintain the Ciena Corporation Deferred Compensation Plan, which allows a select group of management employees in the United States (including our NEOs) to defer up to 75% of base salary and up to 100% of other compensation, including cash incentive bonuses, commissions and RSU awards. The plan also allows non-employee directors to defer up to 100% of their annual cash retainer and annual RSU awards. The plan does not provide for any matching or discretionary contributions to participants except for restorative matching payments of foregone matching contributions that a participant would have received under the terms of our 401(k) Plan but for the participant's deferrals into the plan.

Prohibition Against Pledging and Hedging Transactions

In accordance with our Insider Trading Policy, and as set forth in “Principles of Corporate Governance, Bylaws and Other Governance Documents” above, our employees (including executive officers) and directors are prohibited from pledging Ciena securities and engaging in hedging transactions with respect to Ciena securities.

COMPENSATION COMMITTEE REPORT

The Compensation Committee has reviewed and discussed the “Compensation Discussion and Analysis” with management, and, based on this review and discussion, has recommended to the Board of Directors that the “Compensation Discussion and Analysis” be included in this proxy statement and incorporated into Ciena's Annual Report on Form 10-K for fiscal 2019 by reference from this proxy statement.

Submitted by the members of the Compensation Committee:

Judith M. O'Brien (Chair)
Bruce L. Claffin
Patrick T. Gallagher
Joanne B. Olsen

EXECUTIVE COMPENSATION TABLES

The following tabular information, accompanying narrative disclosure and footnoted detail provide compensation-related information for our NEOs as of the end of fiscal 2019. These executive compensation tables include all compensation awarded to or earned by each NEO for the fiscal years indicated below in which they served as an executive officer.

Summary Compensation Table

The Summary Compensation Table below presents compensation earned by our Named Executive Officers for each of the last three fiscal years during which they served as executive officers in accordance with SEC rules.

Summary Compensation Table

Name and Principal Position	Year	Salary \$(1)(2)	Bonus (\$)	Stock Awards \$(3)(4)	Non-Equity Incentive Plan Compensation \$(5)	All Other Compensation \$(6)(7)	Total (\$)
Gary B. Smith <i>President and CEO</i>	2019	\$ 1,010,344	—	\$ 8,030,246	\$ 1,959,375	\$ 16,400	\$ 11,016,365
	2018	\$ 917,307	—	\$ 6,797,777	\$ 1,406,250	\$ 8,250	\$ 9,129,584
	2017	\$ 900,000	—	\$ 5,592,261	\$ 1,125,000	\$ 17,950	\$ 7,635,211
James E. Moylan, Jr. <i>SVP and CFO</i>	2019	\$ 597,270	—	\$ 1,917,075	\$ 785,400	\$ 15,907	\$ 3,315,652
	2018	\$ 535,096	—	\$ 1,565,279	\$ 557,813	\$ 12,597	\$ 2,670,785
	2017	\$ 525,000	—	\$ 1,491,522	\$ 446,250	\$ 12,975	\$ 2,475,747
James A. Frodsham <i>Former SVP and Chief Strategy Officer</i>	2019	\$ 322,500	—	\$ 2,091,815	\$ 532,125	\$ 14,898	\$ 2,961,338
Scott A. McFeely <i>SVP, Global Products and Services</i>	2019	\$ 490,769	—	\$ 1,578,769	\$ 617,100	\$ 49,564	\$ 2,736,202
	2018	\$ 438,462	—	\$ 1,252,250	\$ 412,500	\$ 13,415	\$ 2,116,627
	2017	\$ 394,760	—	\$ 511,230	\$ 300,000	\$ 17,298	\$ 1,223,288
Jason M. Phipps <i>SVP, Global Sales and Marketing</i>	2019	\$ 473,846	—	\$ 1,578,769	\$ 726,000	\$ 16,369	\$ 2,794,984
David M. Rothenstein <i>SVP, General Counsel and Secretary</i>	2019	\$ 528,846	—	\$ 1,578,769	\$ 600,188	\$ 8,400	\$ 2,716,203
	2018	\$ 458,654	—	\$ 1,252,250	\$ 421,875	\$ 8,250	\$ 2,141,029
	2017	\$ 450,000	—	\$ 1,065,102	\$ 337,500	\$ 7,950	\$ 1,860,552

- (1) Ciena has a 52 or 53-week fiscal year, which ends on the Saturday nearest to the last day of October in each year. Ciena's fiscal 2019 and fiscal 2017 consisted of a 52-week period. Ciena's fiscal 2018 consisted of a 53-week period.
- (2) For fiscal 2019, includes for each Named Executive Officer a one-time payout of accumulated vacation time resulting from a change in policy relating to vacation accrual for all employees in the U.S. and Canada as follows: for Mr. Smith, \$71,883, for Mr. Moylan, \$45,347, for Mr. Frodsham, \$49,615, for Mr. McFeely, \$50,769, for Mr. Phipps, \$43,077, and for Mr. Rothenstein, \$51,923.
- (3) The amounts set forth in the "Stock Awards" column represent the aggregate grant date fair value of RSU, PSU and MSU awards granted during the fiscal years noted above and, for Mr. Frodsham, the incremental fair value on the modification date of his modified awards, computed in accordance with FASB ASC Topic 718. Aggregate grant date fair values reported above do not reflect sale or forfeiture of shares to fund tax withholding in accordance with the terms of the award agreement and will likely vary from the actual amount ultimately realized by any NEO based on a number of factors, including the number of shares that are earned and ultimately vest, the timing of vesting, the timing of any sale of shares and the market price of Ciena common stock at that time. For RSUs, we calculate grant date fair value by multiplying the number of shares underlying the award by the closing price per share of Ciena common stock on the grant date. Assumptions used in determining the grant date fair value of PSUs and MSUs are set forth in Note 22 to our consolidated financial statements included in our Annual Report on Form 10-K for fiscal 2019. In particular, the grant date fair value of the MSUs is calculated using a Monte Carlo simulation valuation model, which relies upon assumptions including the historical and expected volatility of Ciena's stock price and the relevant comparator index, correlation coefficients and interest rates. This calculation resulted in a grant date fair value of the fiscal 2019 MSUs that was 47% higher than their delivered value on the grant date and a grant date fair value of the fiscal 2018 MSUs that was 5% higher than their delivered value on the grant date. Please see "Compensation Disclosure and Analysis — Equity Compensation" for more information relating to the Compensation Committee's determination of target equity values and grant date delivered value. Assuming the maximum future payout under the PSUs and MSUs, the aggregate grant date fair value in the "Stock Awards" column above for fiscal 2019 would have been as follows: \$13,176,154 for Mr. Smith, \$2,958,530 for Mr. Moylan, and \$2,436,437 for each of Messrs. McFeely, Phipps, Rothenstein, and Frodsham. See the "Grants of Plan-Based Awards" table below for information relating to RSU, PSU and MSU awards granted during fiscal 2019 under our 2017 Plan.

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- (4) As discussed in more detail above, the treatment of certain of Mr. Frodsham's outstanding performance-based incentive compensation awards was modified following his death in June 2019. The SEC reporting requirements and interpretations require us to include in the "Stock Awards" column for Mr. Frodsham for fiscal year 2019 (i) the fair value of the stock awards granted to him in fiscal 2019 on the original grant date, plus the incremental fair value of any of those same awards that were modified on the modification date, and (ii) the incremental fair value of the modified stock awards that were granted to him in fiscal 2018 on the modification date. As a result, the amount in the "Stock Awards" column is higher than the compensation actually received by Mr. Frodsham in fiscal 2019, and is higher than the actual value that will be realized by Mr. Frodsham's estate upon the vesting of such awards.
- (5) Non-Equity Incentive Plan Compensation reflects amounts earned by each Named Executive Officer under Ciena's annual cash incentive bonus plan for fiscal 2019. See the "Grants of Plan-Based Awards" table below for information relating to cash incentive awards granted during fiscal 2019 under our annual cash incentive bonus plan.
- (6) All other compensation includes the following for each Named Executive Officer (as applicable) during fiscal 2019:
- For each Named Executive Officer, Section 401(k) plan matching contributions paid by us and generally available to all full-time U.S. employees.
 - For Messrs. Smith, Moylan, McFeely, Phipps and Frodsham, reimbursement of costs associated with financial planning and tax preparation services generally made available to all executive officers, subject to a \$10,000 annual limit per tax year on such services.
- (7) All other compensation for Mr. Frodsham does not include a company-funded condolence benefit of \$215,000 that was paid to a designated beneficiary of Mr. Frodsham in connection with his death.

Grants of Plan-Based Awards

Non-Equity Incentive Plan Awards. Non-equity incentive plan awards for fiscal 2019, which are identified as "Incentive Cash" in the "Grant of Plan-Based Awards" table below, represent the estimated range of potential payouts possible under our annual cash incentive bonus plan at the time of award. The actual cash incentive bonus earned by the NEOs during fiscal 2019 is set forth in the "Non-Equity Incentive Compensation" column of the "Summary Compensation Table" above. The design of the plan for fiscal 2019, including the use of a combination of (i) financial objectives consisting of our fiscal 2019 revenue target and our fiscal 2019 adjusted operating income target and (ii) corporate objectives consisting of eight corporate performance goals, to derive the total bonus payout percentage, is set forth in the table below and more fully described in "Compensation Discussion and Analysis" above.

Financial Objectives

Revenue
(50%)

+

Adjusted Operating Income
(50%)

Corporate Objectives

×

Corporate Objectives Multiplier

=

Bonus Funding Percentage

Fiscal 2019 Revenue	
Performance Against Target (%)	Total Target Bonus Earned (%)
< 90%	0%
90%	50%
95%	75%
100%	100%
105%	150%
³ 110%	200%

+

Fiscal 2019 Adjusted Operating Income	
Performance Against Target (%)	Total Target Bonus Earned (%)
< 70%	0%
70%	70%
80%	80%
90%	90%
100%	100%
110%	120%
120%	140%
³ 130%	160%

×

Corporate Objectives Multiplier	
Objectives Achieved (#)	Multiplier
< 4	0.0x
4	0.8x
5	0.9x
6	1.0x
7	1.1x *
8	1.2x *

* Only applies if achieve ³80% aggregate performance of Financial Objectives; otherwise reverts to 1.0x

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Based on the level of achievement of the fiscal 2019 financial objectives and corporate objectives, bonuses under the cash incentive bonus plan would have been payable at each of the “threshold,” “target” and “maximum” levels as set forth below, with payments interpolated for results falling between the designated levels:

	Fiscal 2019 Cash Incentive Bonus Plan			
	Revenue Objective Achieved	Adjusted Operating Income Objective Achieved	Corporate Objectives Achieved	Target Bonus Payable
“Threshold”	90%	< 70%	4	20%
“Target”	100%	100%	6	100%
Maximum	³ 110%	³ 130%	8	216%

Equity Awards. Equity awards during fiscal 2019 consisted of RSU, PSU and MSU awards. Each such stock award represents a contractual right to receive one share of our common stock. RSU awards granted to the NEOs in fiscal 2019 vest over a four-year term, with one-sixteenth of the grant amount vesting quarterly.

PSU awards granted to the NEOs in fiscal 2019 were structured such that 100% of the shares underlying the award would be earned upon the achievement of 100% of both the sales orders target and the adjusted earnings per share target, as more fully described in “Compensation Discussion and Analysis — Equity Award Allocation and Structure — PSUs” above. The PSU awards incorporate upside earning potential to the PSUs for extraordinary performance and downside risk for under-performance against each of the two goals. Specifically, the PSU awards are subject to the following minimum performance thresholds and maximum number of additional PSUs that could be earned for achievement against the sales orders and adjusted earnings per share targets, as set forth below:

Fiscal 2019 PSU Performance Goals

Aggregate Sales Orders (50%)	
Aggregate Sales Orders (\$MM)	Total Target PSUs Earned (%)
< \$ 3,285	0%
\$ 3,285	50%
\$ 3,650	100%
³ \$ 4,015	200%

Adjusted Earnings Per Share (50%)	
Adjusted EPS (\$)	Total Target Bonus Earned (%)
< \$ 1.46	0%
\$ 1.46	80%
\$ 1.82	100%
³ \$ 2.55	200%

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MSU awards granted to the NEOs in fiscal 2019 were based on Ciena's TSR — i.e., its stock price appreciation — as compared to the total reported return (the "Return") of the S&P Networking Index over a three-year measurement period covering Ciena's fiscal 2019 through fiscal 2021 (the "Measurement Period"). For purposes of determining the TSR for Ciena and the Return for the S&P Networking Index, the beginning and ending values for each measure will be determined on an average basis over a period of 90 calendar days prior to both the beginning and the end of the Measurement Period. The MSU awards incorporate upside earning potential to the MSUs for outperformance against the S&P Networking Index and downside risk for underperformance against the S&P Networking Index. Specifically, the applicable percentage of the target number of MSUs earned will be determined based on the absolute percentage point difference between Ciena's TSR as compared to the Return for the S&P Networking Index during the Measurement Period, as set forth below:

Fiscal 2019 MSU Performance Goal

Fiscal 2019-2021 Relative TSR (absolute percentage point difference)	Target MSUs Earned (%)
(50)%	0%
(40)%	20%
(30)%	40%
(20)%	60%
(10)%	80%
Equal	100%
10%	120%
20%	140%
30%	160%
40%	180%
³ 50%	200%

The percentage of target MSUs earned is interpolated on a straight-line basis for results falling between the designated levels set forth above. Based on the above table, the maximum amount of MSUs that can be earned is 200% of the target number of shares underlying the MSU award. However, if Ciena's TSR during the Measurement Period is negative (as a result of a decline in our stock price during such period), then the maximum number of shares that can be earned is 100% of the target number of shares underlying the MSU award. To the extent earned, the MSUs will vest in full in December 2021 following the end of the Measurement Period, subject to the individual executive's continued service with Ciena through the vesting date. Any portion of the MSUs not earned at the end of the Measurement Period will be forfeited.

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The following table sets forth information regarding non-equity incentive awards and equity awards granted to each of the NEOs during fiscal 2019. For information regarding the performance criteria applicable to PSUs and MSUs granted in fiscal 2019, see “Compensation Discussion and Analysis” above. For each equity award made to our NEOs during fiscal 2019, the date that the award was approved by our Compensation Committee was the same as the grant date.

Grants of Plan-Based Awards

Name	Type of Award	Grant Date	Estimated Possible Payouts Under Non-Equity Incentive Plan Awards (1)			Estimated Future Payouts Under Equity Incentive Plan Awards			All Other Stock Awards: Number of Shares of Stock or Stock Units (#)	Full Grant Date Fair Value (3) (\$)
			Threshold (\$)	Target (\$)	Maximum (\$)	Threshold (#)(2)	Target (#)	Maximum (#)		
Gary B. Smith	PSU	12/18/2018				19,559	78,237	156,474		\$ 2,595,904
	RSU	12/18/2018							86,930	\$ 2,884,337
	MSU	12/18/2018						52,158	104,316	\$ 2,550,005
	Incentive Cash	10/30/2018	\$ 237,500	\$ 1,187,500	\$ 2,565,000					
James E. Moylan, Jr.	PSU	12/18/2018				3,959	15,834	31,668		\$ 525,372
	RSU	12/18/2018							26,390	\$ 875,620
	MSU	12/18/2018					10,556	21,112		\$ 516,083
	Incentive Cash	10/30/2018	\$ 95,200	\$ 476,000	\$ 1,028,160					
James A. Frodsham	PSU	12/18/2018				3,260	13,040	26,080		\$ 432,667
	RSU	12/18/2018							21,733	\$ 721,101
	MSU	12/18/2018					8,693	17,386		\$ 425,001
	Incentive Cash	10/30/2018	\$ 64,500	\$ 322,500	\$ 696,600					
Scott A. McFeely	PSU	12/18/2018				3,260	13,040	26,080		\$ 432,667
	RSU	12/18/2018							21,733	\$ 721,101
	MSU	12/18/2018					8,693	17,386		\$ 425,001
	Incentive Cash	10/30/2018	\$ 74,800	\$ 374,000	\$ 807,840					
Jason M. Phipps	PSU	12/18/2018				3,260	13,040	26,080		\$ 432,667
	RSU	12/18/2018							21,733	\$ 721,101
	MSU	12/18/2018					8,693	17,386		\$ 425,001
	Incentive Cash	10/30/2018	\$ 88,000	\$ 440,000	\$ 950,400					
David M. Rothenstein	PSU	12/18/2018				3,260	13,040	26,080		\$ 432,667
	RSU	12/18/2018							21,733	\$ 721,101
	MSU	12/18/2018					8,693	17,386		\$ 425,001
	Incentive Cash	10/30/2018	\$ 72,750	\$ 363,750	\$ 785,700					

- (1) Estimated possible payouts under non-equity incentive plan awards reflect the cash incentive opportunity reported at the “threshold,” “target” and “maximum” levels has been calculated in accordance with the plan design described in “Non-Equity Incentive Plan Awards” above and more fully described in “Compensation Discussion and Analysis — Annual Cash Incentive Bonus Plan.”
- (2) There is no threshold amount for MSUs granted in fiscal 2019.
- (3) Grant Date Fair Value reported in the table above, computed in accordance with FASB ASC Topic 718, will likely vary from the amount actually realized by any NEO based on a number of factors, including the number of shares that are earned and ultimately vest, the timing of vesting, the timing of any sale of shares, and the market price of Ciena common stock at that time. For RSUs, we calculate grant date fair value by multiplying the number of shares granted by the closing market price per share of Ciena common stock on the grant date. Assumptions used in determining the grant date fair value of PSUs and MSUs are set forth in Note 22 to our consolidated financial statements included in our Annual Report on Form 10-K for fiscal 2019.

Outstanding Equity Awards at Fiscal Year-End

The following table sets forth, on an award-by-award basis, information related to unvested stock awards held by each Named Executive Officer as of the end of fiscal 2019. The vesting conditions for each award, including the identification of those awards that are subject to performance-based vesting conditions, are set forth in the footnotes below the table. The market value of equity awards that have not vested is calculated by multiplying the number of shares by \$36.43, the closing market price per share of our common stock on The New York Stock Exchange on the last trading day of fiscal 2019.

Outstanding Equity Awards at Fiscal Year-End

Name	Grant Date	Stock Awards	
		Number of Shares or Units of Stock That Have Not Vested (#)	Market Value of Shares or Units of Stock That Have Not Vested (\$)
Gary B. Smith	12/18/2018	98,577 (1)	\$ 3,591,160
	12/18/2018	70,631 (2)	\$ 2,573,087
	12/18/2018	52,158 (3)	\$ 1,900,116
	12/12/2017	66,305 (4)	\$ 2,415,491
	12/12/2017	69,944 (5)	\$ 2,548,060
	12/12/2017	74,605 (6)	\$ 2,717,860
	12/14/2016	42,492 (7)	\$ 1,547,984
	12/14/2016	29,507 (8)	\$ 1,074,940
	12/15/2015	5,487 (9)	\$ 199,891
James E. Moylan, Jr.	12/18/2018	19,951 (1)	\$ 726,815
	12/18/2018	21,443 (2)	\$ 781,168
	12/18/2018	10,556 (3)	\$ 384,555
	12/12/2017	12,750 (4)	\$ 464,483
	12/12/2017	20,176 (5)	\$ 735,012
	12/12/2017	14,347 (6)	\$ 522,661
	12/14/2016	9,443 (7)	\$ 344,008
	12/14/2016	9,838 (8)	\$ 358,398
	12/15/2015	1,830 (9)	\$ 66,667
Scott A. McFeely	12/18/2018	16,430 (1)	\$ 598,545
	12/18/2018	17,659 (2)	\$ 643,317
	12/18/2018	8,693 (3)	\$ 316,686
	12/12/2017	10,200 (4)	\$ 371,586
	12/12/2017	16,142 (5)	\$ 588,053
	12/12/2017	11,478 (6)	\$ 418,144
	12/14/2016	3,238 (7)	\$ 117,960
	12/14/2016	3,373 (8)	\$ 122,878
	12/15/2015	549 (9)	\$ 20,000
Jason M. Phipps	12/18/2018	16,430 (1)	\$ 598,545
	12/18/2018	17,659 (2)	\$ 643,317
	12/18/2018	8,693 (3)	\$ 316,686
	12/12/2017	8,499 (4)	\$ 309,619
	12/12/2017	13,451 (5)	\$ 490,020
	12/12/2017	9,565 (6)	\$ 348,453
	03/01/2017	4,484 (10)	\$ 163,352
	12/14/2016	2,810 (8)	\$ 102,368
	12/15/2015	523 (9)	\$ 19,053
David M. Rothenstein	12/18/2018	16,430 (1)	\$ 598,545
	12/18/2018	17,659 (2)	\$ 643,317
	12/18/2018	8,693 (3)	\$ 316,686
	12/12/2017	10,200 (4)	\$ 371,586
	12/12/2017	16,142 (5)	\$ 588,053
	12/12/2017	11,478 (6)	\$ 418,144
	12/14/2016	6,743 (7)	\$ 245,647
	12/14/2016	7,025 (8)	\$ 255,921
	12/15/2015	1,307 (9)	\$ 47,614

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- (1) PSU awards granted on December 18, 2018 were subject to achievement of the goals described above in “Grants of Plan-Based Awards” and “Compensation Discussion and Analysis” for the fiscal 2019 performance period. In December 2019, such goals were determined by the Compensation Committee to have been satisfied in part, and approximately 126.0% of the total PSUs were earned. See “Compensation Discussion and Analysis” above. Amounts reported above reflect the actual amount earned with respect to such PSU awards in December 2019. The amounts earned thereunder vest in equal installments on December 20, 2019 and 2020.
- (2) Remaining unvested RSUs granted on December 18, 2018 shall vest as to one-sixteenth of the grant amount on March 20, June 20, September 20 and December 20 of each year through December 20, 2022.
- (3) MSU awards granted on December 18, 2018 are subject to achievement of the goals described above in in “Grants of Plan-Based Awards” and “Compensation Discussion and Analysis” above.
- (4) Remaining amounts earned with respect to PSUs granted on December 12, 2017 vested on December 20, 2019.
- (5) Remaining unvested RSUs granted on December 12, 2017 shall vest as to one-sixteenth of the grant amount on March 20, June 20, September 20 and December 20 of each year through December 20, 2021.
- (6) MSU awards granted on December 12, 2017 are subject to achievement of the goals described above in in “Grants of Plan-Based Awards” and “Compensation Discussion and Analysis” above.
- (7) Remaining amounts earned with respect to PSUs granted on December 14, 2016 vested on December 20, 2019.
- (8) Remaining unvested RSUs granted on December 14, 2016 shall vest as to one-sixteenth of the grant amount on March 20, June 20, September 20 and December 20 of each year through December 20, 2020.
- (9) Remaining unvested RSUs granted on December 15, 2015 vested on December 20, 2019.
- (10) Remaining unvested RSUs granted on March 1, 2017 shall vest as to one-sixteenth of the grant amount on March 20, June 20, September 20 and December 20 of each year through March 20, 2021.

Stock Vested

The following table sets forth on an aggregated basis, as to each NEO, information related to stock awards that vested during fiscal 2019. The value realized upon vesting of stock awards is a pre-tax amount determined by multiplying the aggregate number of shares of stock vested for each NEO during fiscal 2019 by the closing market price per share on the corresponding vesting date for that award. Information as to value realized does not take into account reductions related to withholding and other tax-related items, brokerage commissions or fees, or forfeiture or other disposition of shares to cover these amounts.

Stock Vested

Name	Stock Awards	
	Number of Shares Acquired on Vesting (#)	Value Realized on Vesting (\$)
Gary B. Smith	258,209	\$ 9,065,733
James E. Moylan, Jr.	50,889	\$ 1,762,467
James A. Frodsham	80,424	\$ 3,166,275
Scott A. McFeely	37,020	\$ 1,338,295
Jason M. Phipps	26,895	\$ 993,320
David M. Rothenstein	48,503	\$ 1,731,680

Nonqualified Deferred Compensation

The following table shows the executive contributions, earnings and account balances for fiscal 2019 for each NEO participating in the Ciena Corporation Deferred Compensation Plan. This plan allows a select group of senior management employees in the United States (including our NEOs) to defer up to 75% of annual base salary and up to 100% of other compensation, including cash incentive bonuses, commissions and RSU awards. The plan does not provide for any matching or discretionary contributions to participants except for restorative matching payments of foregone matching contributions that a participant would have received under the terms of our 401(k) Plan but for the participant's deferrals into the plan.

Nonqualified Deferred Compensation

Name	Executive Contributions in Fiscal 2019 (\$)	Registrant Contributions in Fiscal 2019 (\$)	Aggregate Earnings in Fiscal 2019 (\$)	Aggregate Withdrawals/Distributions (\$)	Aggregate Balance at October 31, 2019 (\$)
Gary B. Smith	—	—	—	—	—
James E. Moylan, Jr.	\$ 1,101,982	—	\$ 113,642	—	\$ 2,257,877
James A. Frodsham	—	—	—	—	—
Scott A. McFeely	—	—	—	—	—
Jason M. Phipps	—	—	—	—	—
David M. Rothenstein	\$ 210,938	—	\$ 48,905	—	\$ 419,876

POTENTIAL PAYMENTS UPON TERMINATION OR CHANGE IN CONTROL

Overview

This section describes and quantifies the estimated compensation payments and benefits that would be paid to our NEOs in each of the following situations:

- upon death or disability;
- upon an involuntary separation of service for other than cause;
- upon a change in control of Ciena; and
- upon a termination of employment following a change in control of Ciena.

We do not maintain employment agreements with our executive officers, including the NEOs. The information below describes those instances in which our NEOs would be entitled to payments following a termination of employment and/or upon a change in control of Ciena. Our NEOs are "at will" employees and, except as otherwise described below, they are only entitled to payment of accrued salary and vacation time, on the same terms as provided to our other employees, upon any resignation, retirement or termination of employment, with or without cause. Except as otherwise noted below, the calculations below do not include any estimated payments for those benefits that we generally make available on the same terms to our full-time, non-executive employees.

The estimated payments below are calculated based on compensation arrangements in effect as of the last day of our fiscal 2019 and assume that the triggering event occurred on such date. The estimated payment amounts are based on a Ciena common stock price of \$36.43, which was the closing market price per share of our common stock on The New York Stock Exchange on the last trading day of our fiscal 2019. Our estimates of potential payments are further based on the additional assumptions specifically set forth in the tables below. Although these calculations are intended to provide reasonable estimates of potential compensation benefits payable, the estimated payment amounts may differ from the actual amount that any individual would receive upon termination or the costs to Ciena associated with continuing certain benefits following termination of employment.

Payments Upon Death or Disability

Stock awards granted under our 2017 Plan and our 2008 Plan provide for the acceleration of vesting of awards following a termination of service resulting from the holder's death or disability. Acceleration of vesting upon death or disability applies to all awards granted under these plans, including awards to both executive and non-executive employees, as well as awards to our NEOs. In the case of RSUs, acceleration of vesting applies to such number of shares that would otherwise vest in the 12 months following a termination of service resulting from the holder's death or disability. In the case of PSUs and MSUs, acceleration of vesting applies to such number of shares that have been earned, but not yet vested, under the award. In the case of PSUs or MSUs not yet earned or unearned, such awards are considered to have been forfeited and are not subject to any acceleration of vesting upon death or disability under the award agreement.

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For purposes of the foregoing, a disability is defined as inability to perform each of the essential duties of the applicable person's position by reason of a medically determinable physical or mental impairment which is potentially permanent in character or which can be expected to last for a continuous period of not less than 12 months. With the exception of Mr. Frodsham, for each NEO, the amount in the table below reflects the value of the NEO's stock awards that are subject to acceleration of vesting upon death or disability multiplied by \$36.43 per share, the closing market price per share of Ciena common stock on The New York Stock Exchange on the last trading day of our fiscal 2019.

Acceleration of Vesting of Stock Awards Upon Termination Due to Death or Disability

Name	Value Realized Upon Acceleration (\$)
Gary B. Smith	\$ 6,947,456
James E. Moylan, Jr.	\$ 1,540,907
Scott A. McFeely	\$ 1,067,089
Jason M. Phipps	\$ 935,149
David M. Rothenstein	\$ 1,328,857

As discussed above, Mr. Frodsham passed away in June 2019. The value of the modified stock awards and stock awards that were accelerated pursuant to their existing terms received by Mr. Frodsham's estate in connection with his death was \$3,000,326. In addition, Mr. Frodsham's designated beneficiary received a condolence benefit of \$215,000. See "Compensation Discussion and Analysis – Incentive Compensation for James Frodsham" for additional information.

Payments Upon Involuntary Separation of Service for Other than Cause

Ciena's U.S. Executive Severance Benefit Plan ("Severance Plan") provides certain U.S.-based employees of Ciena Corporation and its affiliates, including our executive officers and non-executive employees of the rank of vice president or above, with certain severance benefits in the event of an involuntary separation of service by Ciena without "cause" (as such term is defined in the plan and described below). Under the Severance Plan, benefits payable to participants upon an involuntary separation of service without cause consist of the following:

- **Cash Severance Payment.** Our CEO will be entitled to severance equal to two times his annual base salary and annual target incentive bonus, while our other executive officers will be entitled to severance equal to their annual base salary and annual target incentive bonus or commission. Non-executives entitled to severance may receive four weeks of base salary for each year of service, with a minimum of 26 weeks and a maximum of 52 weeks. The base salary and, where applicable, bonus payments above would be determined based on the salary rate and incentive compensation program in effect immediately prior to the date of termination. Bonus amounts are to be paid at the "target" level.
- **Benefits Continuation.** For a period of 18 months in the case of our CEO, 12 months for our Senior Vice Presidents, and the severance period calculated above for non-executive participants, the participant and his or her family will be eligible to continue to participate in our group medical, dental and vision plans. If we cannot continue benefits coverage, we will provide equivalent coverage for the applicable coverage period at our expense.
- **Outplacement Assistance.** For a period of 12 months in the case of our CEO and other executive officers, and six months for all other participants, Ciena will provide executive outplacement assistance, at its expense, through its then-current agency.

As a condition of receiving benefits under the Severance Plan, each participant agrees to deliver a release of claims, comply with certain non-competition and non-solicitation obligations for a 12 month period, and comply with certain continuing obligations with respect to Ciena's confidential and proprietary information and inventions. Failure to comply with these and other conditions set forth in the Severance Plan requires the repayment of severance benefits in full. In addition, severance payments are subject to recoupment in accordance with applicable law and any future "clawback" policy adopted by Ciena. Should any payment of severance benefits be subject to excise tax imposed under federal law, or any related interest or penalties, severance benefits shall be either (a) paid in full by us, or (b) paid in a lesser amount such that no portion of the payments would be subject to the excise tax, whichever results in receipt by the executive of a greater amount. This "best choice" mechanism above does not require Ciena to pay any excise taxes or to make any gross-up payments related to excise taxes resulting from any payment of severance benefits.

Under the Severance Plan, a "separation of service" includes a termination of employment by the participant where Ciena and the participant anticipate that the participant will perform no further services for Ciena, or where the level of services to be

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performed will permanently decrease to no more than 20% of the average level of services performed over the immediately preceding 36-month period. In addition, under the Severance Plan, "cause" means the occurrence of any one or more of the following:

- the participant's willful and continued failure substantially to perform his or her duties (other than as a result of disability), provided that in the case of the CEO or a senior vice president of Ciena, such failure shall be determined by the Governance and Nominations Committee following written notice to the participant and an opportunity to be heard;
- any willful act or omission by the participant in connection with his or her responsibilities as an employee constituting dishonesty, fraud or other malfeasance, immoral conduct or gross misconduct;
- any willful material violation by the participant of Ciena's Code of Business Conduct and Ethics or a Proprietary Information, Inventions and Non-Solicitation Agreement entered into by Ciena and the participant; or
- the participant's conviction of, or plea of nolo contendere to, a felony or a crime of moral turpitude under the laws of the United States or any state thereof or any other jurisdiction in which Ciena conducts business.

For purposes of the definition of "cause," no act or failure to act by the participant shall be deemed "willful" unless effected by the participant not in good faith and without a reasonable belief that such act or failure to act was in, or not opposed to, Ciena's best interests. The Severance Plan provides that the applicable benefits to which a participant is entitled under the Severance Plan will be reduced by amounts paid under other Ciena severance plans, policies, programs or practice.

For each NEO, the amount in the table below reflects the value of the payments assuming an involuntary separation of service for other than cause effective as of the last day of our fiscal 2019.

Payments Upon Involuntary Separation of Service for Other than Cause

Name	Salary and Bonus Payment (\$)	Continuation of Benefits Coverage and Outplacement (\$)	Total (\$)
Gary B. Smith	\$ 4,275,000	\$ 37,291	\$ 4,312,291
James E. Moylan, Jr.	\$ 1,036,000	\$ 18,852	\$ 1,054,852
Scott A. McFeely	\$ 814,000	\$ 18,852	\$ 832,852
Jason M. Phipps	\$ 880,000	\$ 24,981	\$ 904,981
David M. Rothenstein	\$ 848,750	\$ 24,981	\$ 873,731

Payments Upon Change in Control

Each of our executive officers, including the NEOs, is party to a change in control severance agreement. As the agreements in place were due to expire in accordance with their terms, in November 2019, each of our executive officers, including the NEOs, entered into a new form of change in control severance agreement, each of which is effective through November 30, 2022, unless earlier terminated (provided that in the event that Ciena is in active negotiations regarding or has entered into a definitive agreement with respect to a change in control transaction, or has effected such a transaction, the term is subject to an automatic extension until the earlier of negotiations or the agreement being terminated or 12 months following the effective date of the transaction). As described in "Payments Upon Termination of Employment Following Change in Control" below, the change in control severance agreements provide our executive officers with certain severance benefits in the event that such officer's employment is terminated by us or any successor entity without "cause," or by the officer for "good reason," within 90 days prior to or one year (or in the case of our CEO, 18 months) following a "change in control," as such terms are defined in the agreements. In addition, the agreements provide that upon a "change in control," any performance-based equity awards for which the applicable performance period has not yet expired will be converted into awards with time-based vesting conditions. Conversion of performance-based stock awards upon a change in control does not require termination of employment. For these converted awards, the unvested portion will be deemed to have commenced time-based vesting on the grant date, and will vest over the shorter of (i) four years, with one-sixteenth of the grant amount vesting each March 20, June 20, September 20, and December 20 following the grant date or (ii) the period between the date of grant and the original final vesting date of the award, with the award vesting proportionately over the period on each March 20, June 20, September 20 and December 20 following the grant date. Because conversion of the awards will cause certain unvested stock awards to vest upon a change in control, we have included in the table below calculations with respect to the corresponding value of the vesting of such affected performance-based awards. For purposes of these calculations, we have used the actual share amount earned, in the case of PSU or MSU awards that have been earned, or, alternatively, the "target" number of shares for such PSU or MSU, in the case of awards that have a current performance period or otherwise remain to be earned, as applicable.

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The following table shows the estimated earned value of the conversion of performance-based equity awards for which the applicable performance period has not yet expired, and the resulting acceleration of vesting of these awards, for each NEO assuming that there was a change in control of Ciena on the last day of our fiscal 2019 and that the acquiror assumed or provided substitute awards for our outstanding equity awards (see also the "Acceleration of Vesting of Equity Awards Resulting from Change in Control Where Equity Awards are not Assumed or Replaced by Acquiror" table below). The value of stock awards is determined based on the number of shares subject to acceleration of vesting, multiplied by \$36.43 per share, the closing market price per share of Ciena common stock on The New York Stock Exchange on the last trading day of our fiscal 2019.

Acceleration of Vesting of Equity Awards Upon Change in Control

Name	Conversion of Performance-Based Stock Awards Upon Change in Control		
	Shares Subject to Conversion (#)	Shares Subject to Accelerated Vesting Upon Conversion (#)	Value Realized Upon Acceleration (\$)
Gary B. Smith	205,000	85,899	\$ 3,129,301
James E. Moylan, Jr.	40,737	16,946	\$ 617,343
Scott A. McFeely	33,211	13,759	\$ 501,240
Jason M. Phipps	31,298	12,643	\$ 460,584
David M. Rothenstein	33,211	13,759	\$ 501,240

Payments Upon Change in Control Where Equity Awards Are Not Assumed or Substituted

Upon a change in control where the acquiror does not assume Ciena's outstanding unvested awards or replace such awards with substitute awards, our current and legacy equity compensation plans provide for acceleration of vesting or defer the determination regarding acceleration of vesting to the discretion of our Compensation Committee. This mechanism, which is typical in equity plans, is intended to protect the interests of both executive and non-executive employees. Moreover, we consider the likelihood of such treatment of equity awards by an acquiror in a change in control transaction to be remote. In the table below, however, for illustrative purposes, we have calculated the estimated payments assuming the full acceleration of outstanding awards upon a change in control where the acquiror neither assumes outstanding awards nor provides substitute awards.

For purposes of the calculations in the table below, stock awards subject to accelerated vesting have been valued at \$36.43 per share, the closing market price per share of our common stock on The New York Stock Exchange on the last trading day of our fiscal 2019. Calculations in the table below with respect to PSUs and MSUs that have not yet been earned reflect estimated values based upon the "target" level of achievement during the relevant performance period.

Acceleration of Vesting of Equity Awards Upon Change in Control Where Equity Awards are not Assumed or Replaced by Acquiror

Name	Value Realized Upon Stock Award Acceleration (\$)
Gary B. Smith	\$ 17,827,603
James E. Moylan, Jr.	\$ 4,233,785
Scott A. McFeely	\$ 3,073,672
Jason M. Phipps	\$ 2,867,915
David M. Rothenstein	\$ 3,362,015

Payments Upon Termination of Employment Following Change in Control

Under the change in control severance agreements, our executive officers, including the NEOs, are entitled to certain severance benefits in the event that the officer's employment is terminated by us or any successor entity without "cause," or, by the officer for "good reason," within a 90-day period prior to, or a 12-month period (or in the case of our CEO, eighteen months)

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following, the effective date of a “change in control” of Ciena. We refer to this double trigger event, which requires both a change in control of Ciena and a subsequent termination of the executive’s employment, as a “covered termination.”

Payment of any severance benefits pursuant to the change in control severance agreements (to the extent permissible under applicable law) is conditioned upon the officer agreeing to be bound by provisions restricting his or her ability to compete with us, and to solicit our employees or business, for one year after termination (or 18 months for our CEO), as well as the officer’s delivery to us of a general release and waiver of claims. In the event of a breach of these provisions, the officer must reimburse all severance benefits paid. The severance benefits described below are to be paid by us or our successor upon a covered termination.

- **Salary and Bonus Payment.** Upon a covered termination, our CEO would be entitled to receive a lump sum payment equal to 2.5 times his annual base salary and annual target incentive bonus. Each other NEO would be entitled to receive a lump sum payment equal to 1.5 times his or her annual base salary and annual target incentive bonus, respectively. The base salary and bonus payments in both instances above would be determined based on the salary rate and incentive compensation program in effect immediately prior to either the date of termination or the effective date of the change in control, whichever is higher. Bonus amounts are to be paid at the “target” level.
- **Continuation of Benefits.** Upon a covered termination, each NEO and his or her family would be eligible to continue to participate in our group medical, dental and vision plans until the earlier of the 18 months from the covered termination or the date of such officer’s commencement of alternate employment. If we cannot continue benefits coverage, we are obligated to pay for or provide equivalent coverage at our expense. The agreements continue to require Ciena to maintain director and officer insurance coverage for the NEOs as well as any indemnification agreement we have entered into with them.
- **Acceleration of Vesting and Conversion of Equity Awards.** Upon a change in control, all performance-based awards for which the applicable performance period has not yet expired shall be automatically converted into time-based restricted stock awards, and upon a subsequent covered termination, all unvested options and stock awards (including any converted RSUs, MSUs and PSUs) held by each NEO would immediately vest and become exercisable.
- **Reduction of Benefits if Risk of Excise Tax Applicability.** Should any payment of severance benefits to our NEOs pursuant to the change in control severance agreements be subject to excise tax imposed under federal law, or any related interest or penalties, the change in control severance agreements provide that the payments would be either (a) paid in full by us, or (b) paid in a lesser amount such that no portion of the payments would be subject to the excise tax, whichever results in receipt of a greater amount by the NEO. This “best choice” mechanism above does not require Ciena to pay any excise taxes, or to make any gross-up payments related to excise taxes, resulting from any payment of severance benefits. Under the change in control severance agreements, responsibility for any excise taxes remains with the employee.

See “Applicable Definitions” below to better understand the meaning of the terms “change in control,” “cause” and “good reason” under our change in control severance agreements.

The following table shows the estimated value of the aggregate payments that would be paid to each NEO pursuant to the change in control severance agreements upon a covered termination. Accordingly, the total amount below also includes the value realized upon a change in control and reported in the table above in “Payments Upon Change in Control.”

Potential Payments Upon “Covered Termination”

Name	Salary and Bonus Payment (\$)(1)	Continuation of Benefits Coverage (\$)(2)	Value Realized Upon Equity Acceleration (\$)(3)	Total (\$)
Gary B. Smith	\$ 5,343,750	\$ 37,291	\$ 17,827,603	\$ 23,208,644
James E. Moylan, Jr.	\$ 1,554,000	\$ 25,552	\$ 4,233,785	\$ 5,813,337
Scott A. McFeely	\$ 1,221,000	\$ 25,552	\$ 3,073,672	\$ 4,320,224
Jason M. Phipps	\$ 1,320,000	\$ 34,747	\$ 2,867,915	\$ 4,222,662
David M. Rothenstein	\$ 1,273,125	\$ 34,747	\$ 3,362,015	\$ 4,669,887

(1) Reflects pre-tax severance payments to each NEO based upon: (a) annual salary in effect as of the end of fiscal 2019, and (b) annual cash incentive compensation payable during fiscal 2019 at the target level.

(2) Includes aggregate incremental costs for continuation of medical and dental benefits as used for financial statement reporting purposes, assuming we are able to continue such existing coverage and continuation costs are commensurate with costs incurred for such coverage during fiscal 2019 despite the NEO’s non-employee status.

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- (3) Reflects the conversion of performance-based and market stock unit awards upon change in control and value associated with the resulting acceleration of vesting as described in "Payments Upon Change in Control" above, together with the acceleration of stock awards upon a covered termination. Amounts reported reflect estimates with respect to acceleration of stock awards only. Calculations in the table below with respect to PSUs and MSUs that have not yet been earned reflect estimated values based upon the "target" level of achievement.

Applicable Definitions. For purposes of determining whether a change in control or covered termination has occurred under the change in control severance agreements, the following terms generally have the following meanings:

"Cause" means:

- the officer's willful and continued failure substantially to perform the duties of his position, as determined by the Board of Directors following written notice to the officer;
- any willful act or omission constituting dishonesty, fraud or other malfeasance;
- any willful act or omission constituting immoral conduct or gross misconduct;
- any willful material violation of our Code of Business Conduct and Ethics or Proprietary Information, Inventions and Non-Solicitation Agreement; or
- the officer's conviction of, or plea of nolo contendere to, a felony or crime of moral turpitude under federal or state law or the laws of any other jurisdiction in which Ciena conducts business.

"Good reason" means:

- removal from, or failure to be reappointed or reelected to, the officer's principal position held immediately prior to the change in control;
- material diminution in the officer's position, duties or responsibilities, or the assignment of duties that are inconsistent, in any material respect, with those held immediately prior to the change in control;
- material reduction in base salary, incentive compensation opportunity or participation in other long-term incentive or benefit plans as in effect immediately before the change in control;
- relocation of principal workplace, without the officer's consent, by more than 50 miles; or
- the failure to obtain the assumption of the change in control severance agreement by any successor company;

provided, in each case, that (a) the officer notifies Ciena of the foregoing conditions within 90 days of the initial existence of the condition, (b) Ciena has been given at least 30 days following notice to cure such condition, and (c) the officer actually terminates employment within one year following the initial existence of the condition.

"Change in control" means:

- the direct or indirect sale or exchange by our stockholders of all or substantially all of our outstanding stock, or a merger or consolidation, transaction, in each case, where the stockholders before such transaction do not retain at least a majority voting interest in the acquiring corporation after such transaction;
- the sale, exchange or transfer of all or substantially all of our assets;
- a change in the composition of the Board within a two-year period, as a result of which less than a majority of the directors are incumbent directors (as defined in the agreement);
- our liquidation or dissolution; or
- any other event determined to be a change in control by our Board of Directors.

In each case, the determination of whether a "change in control" has occurred shall be made without regard to whether such events were hostile or against the position of the Board or were approved or concurred with by the Board.

CEO PAY RATIO DISCLOSURE

Overview

As required by Section 953(b) of the Dodd-Frank Wall Street Reform and Consumer Protection Act, and Item 402(u) of Regulation S-K, we are providing the following information about the relationship of the annual total compensation of our median employee and the annual total compensation of our CEO.

Ciena had an outstanding year of business and financial performance in fiscal 2019, which resulted in higher than historical payouts of cash bonuses and PSU awards. Both the CEO and the median employee were awarded an annual cash incentive payment equal to 165% of their respective annual targets, and the CEO earned approximately 126% of his total awarded PSUs. As our financial performance can fluctuate from year to year, we do not expect that these amounts will be indicative of bonuses or PSUs earned in future periods.

CEO Pay Ratio	
CEO Annual Total Compensation*	\$ 11,016,365
Median Employee Annual Total Compensation	\$ 113,412
CEO to Median Employee Pay Ratio	97:1

* Represents amount of total compensation from Summary Compensation Table

Methodology

Our CEO pay ratio is an estimate calculated in a manner consistent with SEC rules and based upon our reasonable judgment and assumptions. As permitted by SEC rules, we used the same median employee selected for fiscal 2018 because we believe there has been no change in our employee population or compensation arrangements that would result in a significant change to our pay ratio disclosure.

Upon determining that we would use the same median employee selected for fiscal 2018, we calculated our median employee's annual total compensation for fiscal 2019 according to the SEC's instructions for preparing the Summary Compensation Table. We applied an exchange rate of 1 CAD to 0.766019 USD as of October 31, 2019, to convert international currencies into U.S. dollars. We then calculated our CEO's annual total compensation according to the SEC's instructions for preparing the Summary Compensation Table and calculated the ratio between the two numbers.

The disclosure presented above is a reasonable estimate. Because the SEC rules for identifying the median employee and calculating the pay ratio allow companies to use different methodologies, exemptions, estimates and assumptions, this disclosure may not be comparable to the pay ratio reported by other companies.

PROPOSAL NO. 4

Annual Advisory “Say-on-Pay” Vote to Approve Our Named Executive Officer Compensation

We are required by Section 14A of the Exchange Act to conduct a non-binding advisory vote of our stockholders to approve the compensation paid to our NEOs as disclosed in this proxy statement. We encourage stockholders to read the “Compensation Discussion and Analysis” and “Executive Compensation Tables” in this proxy statement for a more detailed discussion of our compensation programs and policies, the compensation governance measures undertaken and implemented by our Board of Directors, and the compensation awarded to our NEOs during fiscal 2019.

We actively review and assess our executive compensation program in light of the dynamic industry in which we operate, the evolving marketplace in which we compete for executive talent, and changes in compensation governance best practices. We are focused on compensating our executive officers fairly and in a manner that promotes our compensation philosophy.

COMPENSATION OBJECTIVES

- ❖ Attract and retain talented executives by offering competitive compensation packages
- ❖ Motivate executives to achieve strategic and tactical corporate objectives, including the profitable growth of Ciena's business
- ❖ Align executive compensation with stockholder interests
- ❖ Reward executives for individual, functional and corporate performance
- ❖ Promote a pay-for-performance culture

Our Board of Directors believes that our executive compensation program has been designed and executed to satisfy these objectives, and that our compensation program is worthy of stockholder support. In considering our executive compensation program for fiscal 2019, we believe it is important to view the Compensation Committee's decision-making against the backdrop of our overall corporate governance, our fiscal 2019 business and financial performance and the pay practices of the companies with whom we compete for talent.

With respect to corporate governance, we have deliberately structured our core governance principles and practices to align executive compensation with the interests of our stockholders and to avoid certain compensation practices that do not serve our stockholders' interests. We continue to evaluate and modify these principles and practices as necessary in order to achieve these objectives. In this regard, we believe that stockholders should consider the “Compensation Discussion and Analysis” above, and in particular the “Executive Compensation Best Practices” therein.

With respect to our fiscal 2019 performance, as a result of successful execution against our long-term strategy, we had a very strong year of business and financial results. Fiscal 2019 performance and business highlights are described more fully in our Proxy Statement Summary above.

The Board recommends that stockholders vote in favor of the following resolution:

“RESOLVED, that the stockholders approve, on an advisory basis, the compensation of Ciena's Named Executive Officers, as disclosed in Ciena's proxy statement for its 2020 Annual Meeting of Stockholders pursuant to the rules of the Securities and Exchange Commission (including in the Compensation Discussion and Analysis, the compensation tables and related footnotes and narrative disclosures under the heading “Executive Compensation Tables”).”

Although this vote is advisory and is not binding on the Compensation Committee or the Board, the Compensation Committee and the Board value the input and views of our stockholders. The Board and the Compensation Committee will review the results of the vote and take them into consideration when considering future executive compensation policies and decisions. Following this vote, the next say-on-pay vote will occur at our 2021 Annual Meeting.

Proposal No. 4 — Recommendation of the Board of Directors

The Board of Directors recommends that you vote
“FOR”
the advisory approval of our named executive officer compensation

POLICY FOR RELATED PERSON TRANSACTIONS

Ciena did not engage in any related person transactions during fiscal 2019 within the meaning of applicable SEC rules. The Board of Directors has adopted a written Policy for Related Person Transactions. The purpose of the policy is to describe the procedures used to identify, review, approve and disclose, if necessary, any related person transaction or series of transactions in which: (i) Ciena was, is or will be a participant; (ii) the amount involved exceeds \$120,000; and (iii) a related person had, has or will have a direct or indirect material interest.

For purposes of the policy, a related person is one of the following:

- any Ciena director, nominee for director or executive officer (as such terms are used in Section 16 of the Exchange Act and the regulations promulgated thereunder);
- any immediate family member of a Ciena director, nominee for director or executive officer;
- any person (including any “group” as such term is used in Section 13(d) of the Exchange Act) who is known to Ciena as a beneficial owner of more than 5% of its voting common stock (a “significant stockholder”); or
- any immediate family member of a significant stockholder.

Under the policy, all related person transactions above a de minimis threshold are required to be approved or ratified by the Audit Committee, or another committee consisting solely of independent directors. As a general rule, any director who has a direct or indirect material interest in the related person transaction should not participate in the consideration of whether to approve or ratify the transaction. Prior to entering into a related person transaction, the material facts regarding the transaction, including the interest of the related person, must be presented to the Audit Committee for review. The Committee will consider whether the related person transaction is advisable and whether to approve, ratify or reject the transaction or refer it to the full Board of Directors, in its discretion. If the Committee approves a related person transaction, it will report the action to the full Board of Directors, and Ciena will disclose the terms of related person transactions in its filings with the SEC to the extent required.

EQUITY COMPENSATION PLAN INFORMATION

The following table provides information as of the end of fiscal 2019 with respect to the shares of Ciena common stock that may be issued under Ciena’s existing equity compensation plans. In accordance with SEC rules, the tabular disclosure in column (A) does not reflect the approximately 4.0 million shares underlying stock unit awards issued and outstanding at the end of fiscal 2019.

Plan category	Number of securities to be issued upon exercise of outstanding options, warrants and rights (A)	Weighted average price of outstanding options, warrants and rights (B)	Number of securities remaining available for future issuance under equity compensation plans (excluding securities reflected in Column (A)) (C)
Equity compensation plans approved by stockholders (1)	219,997	\$ 35.54	9,533,308 (2)
Equity compensation plans not approved by stockholders	—	—	
Total	219,997	\$ 35.54	

(1) Consists of awards outstanding under the following equity compensation plans:

- the 2008 Plan;
- the Cyan, Inc. 2006 Stock Plan and Cyan, Inc. 2013 Equity Incentive Plan, assumed by Ciena in connection with an acquisition transaction.

(2) As of October 31, 2019, reflects approximately 5.0 million and 4.5 million shares available for issuance under the 2017 Plan and ESPP, respectively. See Proposal No. 2 — Amendment of Ciena’s 2017 Omnibus Incentive Plan for information on the number of shares available for issuance under the 2017 Plan as of a more recent date. Pursuant to the terms of the 2017 Plan, if any shares covered by an award under the 2017 Plan or a “prior plan” (as such term is defined in the 2017 Plan) are not purchased or are forfeited, or if an award otherwise terminates without delivery of any common stock, then the number of shares of common stock not purchased or forfeited will again be available for making awards under the 2017 Plan. The ESPP includes an evergreen feature, pursuant to which, on December 31 of each year, the number of shares available for issuance annually increases by up to 571,428 shares, provided that the total number of shares available for issuance at any time under the ESPP may not exceed 8,211,915 million shares.

STOCKHOLDER PROPOSALS FOR 2021 ANNUAL MEETING

Pursuant to Rule 14a-8 under the Exchange Act, some proposals by stockholders may be eligible for inclusion in our proxy statement for the 2021 Annual Meeting. Stockholder proposals submitted must include proof of ownership of Ciena common stock in accordance with Rule 14a-8(b)(2). These submissions must comply with the rules of the SEC for inclusion in our proxy statement and must be received no later than October 22, 2020. Submitting a stockholder proposal does not guarantee that we will include it in our proxy statement.

Under our proxy access bylaw, if a stockholder (or a group of up to 20 stockholders) who has owned at least 3% of our shares for at least three years and has complied with the other requirements set forth in our bylaws wants us to include director nominees (up to the greater of two nominees or 20% of the Board) in our proxy statement for the 2020 Annual Meeting, the nominations must be received in a timely manner, between 120 and 150 days prior to the anniversary of the date our proxy statement was first sent to stockholders in connection with our last annual meeting, which would be no earlier than September 22, 2020 and no later than October 22, 2020. For more information on this proxy access right, please see “Principles of Corporate Governance, Bylaws and Other Governance Documents – Proxy Access” above.

We strongly encourage any stockholder interested in submitting a proposal or nomination to contact our Corporate Secretary in advance of this deadline to discuss the proposal, and stockholders may want to consult knowledgeable counsel with regard to the detailed requirements of applicable securities laws.

If you wish to present a proposal or nomination before our 2021 Annual Meeting, but you do not intend to have your proposal included in our proxy statement, your proposal must be delivered no earlier than December 3, 2020 and no later than January 2, 2021. If the date of our 2021 Annual Meeting of Stockholders is more than 30 calendar days before or more than 70 calendar days after the anniversary date of the 2020 Annual Meeting, your submission must be delivered not earlier than 120 days prior to our 2021 Annual Meeting and not later than the later of the 90th day prior to such Annual Meeting or the 10th day following the public announcement of the date of such meeting.

To submit a proposal or nomination, stockholders should provide written notice to Ciena Corporation, 7035 Ridge Road, Hanover, Maryland 21076, Attention: Corporate Secretary. Stockholders should note that our bylaws clarify the applicability of Ciena’s advance notice provision to all stockholder proposals, whether or not submitted for inclusion in Ciena’s proxy statement. Specifically, Article I, Section 4(A)(3)(c) of the bylaws, governing stockholder submission of a proposal or nomination of a person for election as a director, requires a stockholder to include the following information in the notice provided to Ciena:

- the name and address of such stockholder as it appears on Ciena’s books, and any beneficial owner;
- the class and number of shares that are owned beneficially and of record by the stockholder and any beneficial owner;
- a representation that the stockholder is entitled to vote at the meeting and intends to attend the meeting to present the proposal or director nomination;
- a representation as to whether the stockholder intends to conduct a proxy solicitation;
- a description of any agreement, arrangement or understanding between or among the stockholder, any beneficial owner, any of their affiliates or other persons acting in concert with them, and any nominee or the nominee’s affiliates, with respect to the nomination or proposal; and
- a description of any agreement, arrangement or understanding, including any derivative or short positions, profit interests, options, warrants, stock appreciation or similar rights, hedging transactions, and borrowed or loaned shares, entered into as of the notice date by, or on behalf of, the stockholder and any beneficial owner, the effect or intent of which is to mitigate loss, manage risk, benefit from share price changes, or increase or decrease voting power of the stock held by such person.

Additional information is required to be included in the notice provided to Ciena for stockholder proposals made in accordance with our proxy access bylaw provision, including, among other things:

- statements certifying and materials evidencing continuous ownership of stock for at least three years;
- written consent of the stockholder’s nominees;
- certain representations and undertakings with respect to ownership of stock, nominations, and accuracy of information provided; and

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- an undertaking to comply with applicable law and assume liability stemming from any violations arising from information provided by the stockholder.

The description above is intended as a summary and is qualified in its entirety by reference to the relevant bylaw provisions regarding the requirements for making stockholder proposals and nominating director candidates. The bylaws are available on the "Governance" page of the "Investors" section of our website at www.ciena.com.

GENERAL INFORMATION

Our Board of Directors has made these proxy materials available to you via the Internet or, upon your request, has delivered printed versions of these materials to you by mail. We are furnishing this proxy statement in connection with the solicitation by our Board of Directors of proxies to be voted at our 2020 Annual Meeting. The Annual Meeting will be held on April 2, 2020 at 3:00 p.m. Eastern Time, or at any adjournment thereof. As described below, this year's Annual Meeting will be a completely virtual meeting of stockholders to be held over the Internet.

Internet Availability of Proxy Materials

We are making this proxy statement and our Annual Report to Stockholders, including our Annual Report on Form 10-K for fiscal 2019, available to our stockholders on the Internet. On February 19, 2020, we mailed our stockholders a Notice of Internet Availability of Proxy Materials containing instructions on how to access our proxy materials, including this proxy statement and our Annual Report to Stockholders for fiscal 2019. The Notice of Internet Availability of Proxy Materials also provides instructions on how to vote over the Internet, by mail or by telephone. If you received a Notice of Internet Availability of Proxy Materials by mail, you will not receive a printed copy of the proxy materials in the mail unless you specifically request these materials. Other stockholders, in accordance with their prior requests, have received e-mail notification of how to access our proxy materials and vote over the Internet, or have been mailed paper copies of our proxy materials and a proxy card or a vote instruction form from their bank or broker.

Internet distribution of proxy materials is designed to expedite receipt by stockholders, lower the cost of our Annual Meeting, and reduce the environmental impact of our Annual Meeting. However, if you received a Notice of Internet Availability of Proxy Materials by mail and would like to receive a printed copy of our proxy materials, please follow the instructions for requesting such materials contained on the Notice of Internet Availability of Proxy Materials. If you have previously elected to receive our proxy materials electronically, you will continue to receive these materials via e-mail unless you elect otherwise.

Attending the Annual Meeting

Ciena will be hosting this year's Annual Meeting live over the Internet at www.virtualshareholdermeeting.com/ciena2020. The Annual Meeting will be a completely virtual meeting to be held over the Internet. A summary of the information you need to attend the Annual Meeting online is provided below:

- All stockholders can attend the Annual Meeting over the Internet at www.virtualshareholdermeeting.com/ciena2020;
- Only stockholders as of the record date may vote or submit questions while attending the Annual Meeting (by using the 16-digit control number provided in your Notice of Internet Availability of Proxy Materials, your proxy card, or the voting instructions that accompanied your proxy materials);
- Instructions on how to attend the Annual Meeting are posted at www.virtualshareholdermeeting.com/ciena2020;
- Stockholders with questions regarding how to attend and participate in the Annual Meeting may call 1-855-449-0991 on the meeting date; and
- A replay of the Annual Meeting will be available online for approximately 12 months following the meeting date.

See "Frequently Asked Questions" below for additional information.

FREQUENTLY ASKED QUESTIONS

Who may vote at the Annual Meeting?

The Board of Directors has set February 4, 2020 as the record date for the Annual Meeting. If you were the owner of Ciena common stock at the close of business on February 4, 2020, you may vote at the Annual Meeting. You are entitled to one vote for each share of common stock you held on the record date.

A list of stockholders of record entitled to vote at the Annual Meeting will be open to examination by any stockholder, for any purpose germane to the Annual Meeting, during normal business hours for a period of ten days before the Annual Meeting at our corporate offices at 7035 Ridge Road, Hanover, Maryland 21076, and online during the Annual Meeting accessible at www.virtualshareholdermeeting.com/ciena2020.

How many shares must be present to hold the Annual Meeting?

A majority of our shares of common stock outstanding as of the record date must be present at the Annual Meeting in order to hold the meeting and conduct business. This is called a "quorum." On the record date, there were 153,911,399 shares

of Ciena common stock outstanding. Your shares will be counted as present at the Annual Meeting if you either attend our online Annual Meeting or properly submit your proxy prior to the Annual Meeting.

Why was I mailed a notice regarding the Internet availability of proxy materials instead of a full set of printed proxy materials?

Pursuant to the "notice and access" rules adopted by the SEC, we have elected to provide stockholders access to our proxy materials over the Internet. Accordingly, we sent a Notice of Internet Availability of Proxy Materials ("Notice") to all of our stockholders as of the record date. The Notice includes instructions on how to access our proxy materials over the Internet and how to request a printed copy of these materials. In addition, by following the instructions in the Notice, stockholders may request to receive proxy materials in printed form by mail or electronically by email on an ongoing basis.

Choosing to receive your future proxy materials by email will save us the cost of printing and mailing documents to you and will reduce the impact of our annual meetings on the environment. If you choose to receive future proxy materials by email, you will receive an email next year with instructions containing a link to those materials and a link to the proxy voting site. Your election to receive proxy materials by email will remain in effect until you terminate it.

What proposals will be voted on at the Annual Meeting and how does the Board of Directors recommend that I vote?

Proposals	Board Vote Recommendation
1. Elect three Class II Director nominees and one Class I Director nominee	FOR each nominee
2. Approve amendment of the 2017 Omnibus Incentive Plan to increase the number of shares available for issuance thereunder by 12.2 million shares	FOR
3. Ratify appointment of PricewaterhouseCoopers LLP as our independent registered public accounting firm for fiscal 2020	FOR
4. Advisory vote on named executive officer compensation ("Say-on-Pay")	FOR

How will voting on any business not described in this proxy statement be conducted?

We are not currently aware of any other business to be acted upon at the Annual Meeting. If any other matters are properly submitted for consideration at the Annual Meeting, including any proposal to adjourn the Annual Meeting, the persons named as proxies will vote the shares represented thereby in their discretion. Adjournment of the Annual Meeting may be made for the purpose of, among other things, soliciting

additional proxies. Any adjournment may be made from time to time by approval of the holders of common stock representing a majority of the votes present in person or by proxy at the Annual Meeting, whether or not a quorum exists, without further notice other than by an announcement made at the Annual Meeting.

How many votes are required to approve each proposal?

In the case of an uncontested election, our bylaws require that each director be elected by the vote of a majority of the votes cast with respect to that director's election by holders of shares present in person or represented by proxy at the Annual Meeting. For this purpose, a "majority of the votes cast" means that the number of votes cast "FOR" a director's election exceeds the number of votes cast "AGAINST" that director's election, with abstentions and broker non-votes not counted as a vote cast either "FOR" or "AGAINST." For more information regarding the Board's required procedures and disclosures associated with this majority vote standard, please see "Majority Vote Standard in Director Elections" in the "Corporate Governance and the Board of Directors" section above. In the

case of a contested election (*i.e.*, an election in which the number of candidates exceeds the number of directors to be elected), directors will be elected by plurality vote. For this election, the election of directors at the Annual Meeting is uncontested, meaning that the nominees will be elected by a majority of the votes cast, as described above.

Approval of proposals 2, 3 and 4 each require the affirmative vote of a majority of the total votes cast by holders of shares present in person or represented by proxy at the Annual Meeting and entitled to vote on these proposals, with abstentions and broker non-votes not counted as a vote cast either "FOR" or "AGAINST."

How are votes counted?

With regard to the election of each director nominee in proposal 1 and with regard to proposals 2, 3 and 4, each as set forth in this proxy statement, you may vote "FOR," "AGAINST" or "ABSTAIN." If you abstain from voting on these proposals, your shares will be counted as present for purposes of establishing a

quorum at the Annual Meeting. An abstention will not count as a vote "FOR" or "AGAINST" these proposals at the Annual Meeting and will have no effect on the outcome of the election of our directors in an uncontested election, or on the outcome of the vote on the remaining proposals.

What are broker non-votes and how are they counted at the Annual Meeting?

Broker non-votes occur when brokers do not receive voting instructions from their customers and do not have discretionary voting authority with respect to a proposal. If you hold shares through a broker, bank or other nominee and you do not give instructions as to how to vote, your broker may have discretionary authority to vote your shares on certain routine

items but not on other items. Broker non-votes are counted as present for purposes of determining the presence or absence of a quorum for the transaction of business at the Annual Meeting but will not be counted for purposes of the election of directors and will have no effect on the outcome of the vote on the remaining proposals.

What is the difference between holding shares as a "stockholder of record" and as a beneficial owner of shares held in "street name"?

If your shares are registered directly in your name with our transfer agent, Computershare Trust Company, N.A., you are considered the "stockholder of record" with respect to those shares, and the Notice was sent directly to you.

If your shares are held in an account at a brokerage firm, bank, broker-dealer, or other similar organization, then you are the beneficial owner of shares held in "street name," and the Notice

or separate voting instructions were forwarded to you by that organization. As a beneficial owner, you have the right to direct that organization on how to vote the shares held in your account. You should follow the instructions in the Notice or voting instructions provided to you by that organization in order to vote your shares or direct the organization on how to vote your shares

Why hold a virtual Annual Meeting over the Internet?

We embrace the latest technologies in our business and believe that holding our Annual Meeting virtually over the Internet provides expanded access, improves communication with stockholders, and yields cost savings for Ciena and our stockholders. We ensure that at our virtual Annual Meeting, all attendees are afforded the same rights and opportunities to participate as they would at an in-person meeting. We began holding our Annual Meeting online in 2013. At that time, we considered a number of factors, including the technologies available to us, the cost of our Annual Meeting, and the historical level of stockholder attendance in person, as compared to the use of other communications such as telephone or Internet. We noted at that time that only a very small number of stockholders, generally less than ten each

year, attended our Annual Meeting in person. When we considered implementing a fully virtual Annual Meeting in 2013, we reached out to a number of our stockholders and received extensive support. We continue to receive positive feedback from our stockholders as we adopt best practices and new technologies for our Annual Meeting, proxy statement and related materials. We evaluate annually the method of holding the Annual Meeting, taking into consideration the above factors as well as business and market conditions and the proposed agenda items. We continue to believe that holding our Annual Meeting virtually over the Internet is the right approach for our company, as it enables more of our global base of stockholders to participate in our Annual Meeting.

How do I vote my shares without participating in the online Annual Meeting?

Whether you are a “stockholder of record” or hold your shares in “street name,” you may direct your vote without participating in the online Annual Meeting.

If you are a stockholder of record, you may vote by your shares over the Internet or by telephone by following the instructions on the Notice. If you request printed copies of the proxy materials by mail, you may also vote by signing and submitting your proxy card and returning it by mail. You should sign your name exactly as it appears on the proxy card. If you are signing in a representative capacity (for example, as guardian, executor, trustee, custodian, attorney or officer of a corporation), you should indicate your name and title or capacity.

If you are the beneficial owner of shares held in street name, you may be eligible to vote your shares electronically over the

Internet or by telephone by following the instructions on the Notice. If you request printed copies of the proxy materials by mail, you may also vote by signing the voter instruction form provided by your bank or broker and returning it by mail. If you provide specific directions on how to vote by mail, telephone or over the Internet, your shares will be voted by your broker or nominee as you have directed.

The persons named as proxies are executive officers of Ciena. All proxies properly submitted in time to be counted at the Annual Meeting will be voted in accordance with the directions contained therein. If you submit your proxy without directing how your shares are to be voted, your shares will be voted by the proxy holders in accordance with the recommendations of the Board of Directors set forth above.

How do I vote my shares during the online Annual Meeting?

Even if you plan to attend and participate in our online Annual Meeting, we encourage you to vote by telephone or over the Internet, or by returning a proxy card following your request of printed materials. This will ensure that your vote will be counted if you are unable to, or later decide not to, participate in the online Annual Meeting. Whether you are a stockholder of

record or hold your shares in “street name,” you may vote online at the Annual Meeting. You will need to enter your 16-digit control number (included in your Notice, your proxy card or the voting instructions that accompanied your proxy materials) to vote your shares at the Annual Meeting.

What happens if my shares are held in more than one account?

If your shares are held in more than one account, you will receive a Notice or separate voting instructions for each account. To ensure that all of your shares in each account are

voted, you must vote in accordance with the Notice or separate voting instructions that you receive for each account.

May I revoke my proxy and change my vote after I have voted?

You may revoke your proxy and change your vote at any time before the final vote at the Annual Meeting. You may revoke your proxy over the Internet or by phone by following the instructions included in your proxy materials, or by submitting a written notice of revocation to Ciena Corporation, 7035 Ridge Road, Hanover, Maryland 21076, Attention: Corporate Secretary. You may also revoke a previously submitted proxy by voting again on a later date over the Internet, by telephone

or by signing and returning a new proxy card by mail (only your latest proxy submitted prior to the Annual Meeting will be counted), or by attending and voting at the online Annual Meeting. Your attendance at the Annual Meeting will not automatically revoke your proxy unless you enter your 16-digit control number and vote again electronically at the Annual Meeting.

What happens if additional matters are presented at the meeting?

Management knows of no matters to be presented for action at the Annual Meeting other than those mentioned in this proxy statement, and the deadline under our bylaws for stockholder proposals and director nominations has passed. However, if any additional matters properly come before the Annual Meeting, it is intended that the persons named as proxies will

vote on such other matters in accordance with their judgment of the best interests of Ciena. If for any unforeseen reason any of our nominees is not available as a candidate for director, the persons named as proxies will vote for such other candidate or candidates as may be nominated by the Board of Directors.

Will the Annual Meeting be webcast?

Yes. This year's Annual Meeting will be a completely virtual meeting and will be webcast live at www.virtualshareholdermeeting.com/ciena2020. All stockholders may attend and listen live to the webcast of the Annual Meeting. Stockholders as of the record date of the Annual Meeting may electronically vote their shares and submit questions while attending the Annual Meeting over the

Internet by using the 16-digit control number included in the Notice, proxy card or the voting instructions that accompanied these proxy materials. A replay of the Annual Meeting audio webcast will be available on our website for approximately one year.

Where can I find the voting results of the Annual Meeting?

The preliminary voting results will be announced at the Annual Meeting. The final voting results will be tallied by the inspector of elections and will be subsequently published by us by the

filing of a current report on Form 8-K with the SEC shortly following our Annual Meeting. This filing will also be available on our website at www.ciena.com.

Who is soliciting my vote and who will bear the cost of this solicitation?

Our Board of Directors is making this solicitation, and Ciena will bear the entire cost of preparing, assembling, printing, mailing and distributing these proxy materials and soliciting votes. We have engaged Alliance Advisors as our proxy solicitor to help us solicit proxies for a fee of \$12,500, plus reasonable out-of-pocket expense. Copies of solicitation materials may be furnished to brokers, custodians, nominees and other

fiduciaries for forwarding to beneficial owners of shares of Ciena common stock, and normal handling charges may be paid for such forwarding service. Officers and other Ciena employees, who will receive no additional compensation for their services, may solicit proxies by mail, e-mail, via the Internet, personal interview or telephone.

ANNUAL REPORT ON FORM 10-K

A copy of Ciena's Annual Report to Stockholders for fiscal 2019, which includes the Annual Report on Form 10-K, has been posted on the Internet along with this proxy statement, each of which is accessible by following the instructions in the Notice of Internet Availability of Proxy Materials. The Annual Report to Stockholders is not incorporated into this proxy statement and is not considered proxy-soliciting material.

Ciena filed its Annual Report on Form 10-K for fiscal 2019 with the SEC on December 20, 2019. Ciena will mail without charge, upon written request, a copy of its Annual Report on Form 10-K for fiscal 2019, excluding exhibits. Please send a written request to Investor Relations, Ciena Corporation, 7035 Ridge Road, Hanover, Maryland, 21076, or access these materials from the "Investors" section of Ciena's website at www.ciena.com.

HOUSEHOLDING OF PROXY MATERIALS

Stockholders residing in the same address who hold their stock through a bank or broker may receive only one set of proxy materials, including the Notice of Internet Availability of Proxy Materials, in accordance with a notice sent earlier by their bank or broker. This practice of sending only one copy of proxy materials, called "householding," saves Ciena money in printing and distribution costs and reduces the environmental impact of our Annual Meeting. This practice will continue unless instructions to the contrary are received by your bank or broker from one or more of the stockholders within the household.

If you hold your shares in "street name" and reside in a household that received only one copy of the proxy materials, you can request to receive a separate copy in the future by following the instructions sent by your bank or broker. If your household receives multiple copies of the proxy materials, you may request that only a single set of materials be sent by following the instructions sent by your bank or broker.

ELECTRONIC DELIVERY OF FUTURE PROXY MATERIALS

If you receive your proxy materials by mail, we encourage you to elect to receive future copies of our proxy materials by e-mail. To enroll in this program, follow the instructions included on your Notice of Internet Availability of Proxy Materials or in the proxy materials provided by your bank or broker. Enrollment in the online program will remain in effect for as long as your brokerage account is active or until enrollment is canceled. Enrolling to receive proxy materials online will save Ciena the cost of printing and mailing documents and will reduce the environmental impact of our Annual Meeting.

NON-GAAP MEASURES

GAAP Measures at or as of fiscal year ended October 31, 2019

The following table includes certain comparable GAAP measures for Non-GAAP measures included in this proxy statement:

Comparable GAAP Measure	
Operating Expense	\$ 1,195,300,000
Operating Income	\$ 346,766,000
Net Income	\$ 253,434,000
Net Income per diluted common share	\$ 1.61

Non-GAAP Measures

This proxy statement includes non-GAAP measures of one or more of Ciena's operating expense, operating income, net income, and net income per diluted common share, as well as 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 herein provide management and investors useful information and meaningful insight into 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 this proxy statement to Ciena's GAAP results for the relevant period can be found in the Appendix to our investor presentation for the fourth quarter of fiscal 2019 included as an exhibit to our Current Report on Form 8-K furnished with the SEC on December 12, 2019.

ANNEX A TO PROXY STATEMENT

FORM OF AMENDMENT TO CIENA CORPORATION 2017 OMNIBUS INCENTIVE PLAN

THIS AMENDMENT NO. 1 (this "Amendment") to the Ciena Corporation 2017 Omnibus Incentive Plan (the "Plan"), which increases the number of shares available for issuance under the Plan by twelve million, two hundred thousand (12,200,000) shares, was adopted by the Board of Directors of Ciena Corporation (the "Company") on December 11, 2019, and is effective as of April 2, 2020, the date upon which the Amendment received approval of the stockholders of the Company.

The Plan is hereby amended by deleting Section 4.1 and replacing it in its entirety as follows:

"4.1. Number of Shares Available for Awards.

Subject to such additional shares of Stock as shall be available for issuance under the Plan pursuant to Section 4.2, and subject to adjustment pursuant to Section 15, the maximum number of shares of Stock reserved for issuance under the Plan shall be equal to the sum of (a) twenty-one million, one hundred thousand (21,100,000) shares of Stock, plus (b) the number of shares of Stock available for future awards under the 2008 Plan as of the Effective Date, plus (c) the number of shares of Stock related to awards outstanding under the Prior Plans as of the Effective Date that thereafter terminate by expiration or forfeiture, cancellation, or otherwise without the issuance of such shares of Stock (collectively, and in the aggregate, the "*Authorized Share Amount*"), all of which may be granted as Incentive Stock Options. Stock issued or to be issued under the Plan shall be authorized but unissued shares, or to the extent permitted by Applicable Law, issued shares that have been reacquired by the Company."

* * *

To record adoption of the Amendment of the Plan by the Board as of December 11, 2019, and approval of the Amendment by the stockholders on April 2, 2020, the Company has caused its authorized officer to execute this Amendment to the Plan.

CIENA CORPORATION

By: _____
Name: David M. Rothenstein
Title: Sr. VP, General Counsel & Secretary
Date: April 2, 2020



VOTE BY INTERNET
Before The Meeting - Go to www.proxyvote.com or scan the QR Barcode above

Use the Internet to transmit your voting instructions and for electronic delivery of information up until 11:59 p.m. Eastern Time the day before the cut-off date or meeting date. Have your proxy card in hand when you access the web site and follow the instructions to obtain your records and to create an electronic voting instruction form.

During The Meeting - Go to www.virtualshareholdermeeting.com/ciena2020

You may attend the Meeting on April 2, 2020 at 3:00 p.m. Eastern Time via the Internet and vote during the Meeting. Have the information that is printed in the box marked by the arrow available and follow the instructions.

VOTE BY PHONE - 1-800-690-6903

Use any touch-tone telephone to transmit your voting instructions up until 11:59 p.m. Eastern Time the day before the cut-off date or meeting date. Have your proxy card in hand when you call and then follow the instructions.

VOTE BY MAIL

Mark, sign and date your proxy card and return it in the postage-paid envelope we have provided or return it to Vote Processing, c/o Broadridge, 51 Mercedes Way, Edgewood, NY 11717.

TO VOTE, MARK BLOCKS BELOW IN BLUE OR BLACK INK AS FOLLOWS:

E89756-P30953

KEEP THIS PORTION FOR YOUR RECORDS
 DETACH AND RETURN THIS PORTION ONLY

THIS PROXY CARD IS VALID ONLY WHEN SIGNED AND DATED.

CIENA CORPORATION

The Board of Directors recommends you vote FOR the following proposals:

1. Election of three Class II Directors and one Class I Director:

Nominees:	For	Against	Abstain
1a. Judith M. O'Brien	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
1b. Joanne B. Olsen	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
1c. Gary B. Smith	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
1d. Devinder Kumar	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

	For	Against	Abstain
2. Approve the amendment of the 2017 Omnibus Incentive Plan to increase the number of shares available for issuance thereunder by 12.2 million shares.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3. Ratification of the appointment of PricewaterhouseCoopers LLP as our independent registered public accounting firm for the fiscal year ending October 31, 2020.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4. Advisory vote on our named executive officer compensation, as described in these proxy materials.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

NOTE: Such other business as may properly come before the Annual Meeting or any adjournment or postponement thereof.

Please sign exactly as your name(s) appear(s) hereon. When signing as attorney, executor, administrator, or other fiduciary, please give full title as such. Joint owners should each sign personally. All holders must sign. If a corporation or partnership, please sign in full corporate or partnership name by authorized officer.

Signature [PLEASE SIGN WITHIN BOX]	Date

Signature (Joint Owners)	Date

Important Notice Regarding the Availability of Proxy Materials for the Annual Meeting:
The Notice and Proxy Statement and Annual Report with Form 10-K are available at www.proxyvote.com.

E89757-P30953

**CIENA CORPORATION
Annual Meeting of Stockholders
April 2, 2020 at 3:00 p.m. Eastern Time**

This proxy is solicited by the Board of Directors

The undersigned hereby revokes all previous proxies, acknowledges receipt of the Notice of Annual Meeting of Stockholders and the Proxy Statement, and appoints Gary B. Smith, James E. Moylan, Jr. and David M. Rothenstein, or any of them, the proxies of the undersigned, with full power of substitution, to vote all shares of common stock of Ciena Corporation that the undersigned is entitled to vote at the Annual Meeting of Stockholders of Ciena Corporation to be held via live webcast at www.virtualshareholdermeeting.com/ciena2020 on Thursday, April 2, 2020 at 3:00 p.m. Eastern Time, or any adjournment thereof.

This proxy, when properly executed, will be voted in the manner directed herein. If no such direction is made, this proxy will be voted in accordance with the Board of Directors' recommendations.

Continued and to be signed on reverse side