

Proxy Statement

2021 Annual meeting of stockholders







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

"The challenges brought on by the COVID-19 pandemic provided us with opportunities to show perseverance, strength and kindness."

- Patrick H. Nettles, Ph.D.

Message from our Board of Directors

Dear Fellow Stockholders:

Fiscal 2020 was a year that brought unprecedented challenges, testing us as individuals, companies and entire industries, and highlighting the essential nature of the global networks that connect us together. The COVID-19 pandemic also provided us with opportunities to show perseverance, strength and kindness. Our 2020 performance, across multiple dimensions, illustrated our market leadership, core values and resiliency. We were able to deliver solid performance in spite of these challenges through 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 our success is ultimately rooted in our people. Through our team's collective efforts, we achieve exceptional engineering feats, impactful social programs, progressive human capital initiatives and upstanding governance practices. Similarly, good corporate governance and a commitment to high ethical standards and sustainability remain essential to Ciena's success in our markets. In 2020, we took several meaningful steps, including:

- Promoting Employee Safety & Wellbeing. Prioritizing the health and safety of our employees, we temporarily closed our offices around the world, shifted the vast majority of our employees to work from home, and instituted travel bans and restrictions. We also adopted new employee benefits and wellbeing initiatives, including physical, emotional, mental, and social programming, global pandemic leave, work from home reimbursements, regular mental wellbeing sessions, morale initiatives, and new wellbeing platforms.
- Supporting our Communities. In the face of the pandemic, we enhanced our Ciena Cares program, which provides corporate matching for employee charitable donations and volunteer service, to increase our corporate match three-fold. Our employees' support for neighbors, communities and front-line health care workers has been truly inspiring. We've contributed in innovative ways, using 3-D printers and engineering know-how to make and design face shields and components for health care workers. We also created a new community initiative focused on promoting digital inclusion, providing greater opportunities for underserved students through access, technology and digital skills, and have collaborated on community projects with business partners as part of this program.
- Commitment to Board Refreshment, Diversity and Governance. Refreshment and
 diversity are important to Ciena's success. In 2020, we appointed a new independent
 director and a new executive officer, adding further gender and ethnic diversity to our
 leadership. We also created and resourced new, dedicated functions focused on
 Diversity, Inclusion & Belonging initiatives as well as Corporate Compliance & Ethics,
 and we're excited to see the output of these new levels of focus.

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 1, 2021 Record Date: February 4, 2021

Time: 3:00 p.m. Eastern Time Attendance: www.virtualshareholdermeeting.com/CIEN2021

To the Stockholders of Ciena Corporation:

The 2021 Annual Meeting of Stockholders of Ciena Corporation will be held on April 1, 2021 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/CIEN2021 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

- Elect four members of the Board of Directors from the nominees named in the attached proxy statement to serve as Class III directors for three-year terms ending in 2024, or until their respective successors are elected and qualified, including one director previously appointed by the Board of Directors to fill a newly created vacancy in Class III.
- 2. Approve the amendment and restatement of the Employee Stock Purchase Plan to (a) extend the term thereof to April 1, 2031, (b) increase the number of shares available for issuance thereunder by 8.7 million shares, (c) eliminate the evergreen mechanism thereunder, and (d) make such other changes described in these proxy materials.
- Ratify the appointment of PricewaterhouseCoopers LLP as our independent registered public accounting firm for fiscal 2021.
- 4. Conduct an advisory vote on our named executive officer compensation, as described in these proxy materials.
- 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, 2021.

In accordance with Securities and Exchange Commission rules, we are furnishing these proxy materials and our Annual Report to Stockholders for fiscal 2020 via the Internet. On February 18, 2021, 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.

David M. Rothenstein

Senior Vice President, General Counsel and Secretary



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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.

Our COVID-19 Response

Employee Safety and Wellbeing

- Prioritized employee health and safety, following Centers for Disease Control and Prevention and other relevant guidelines
- Temporarily closed offices globally
- Required vast majority of employees to work from home
- Instituted business travel bans and restrictions
- Adopted new pandemic leave and work from home benefits
- Launched wellbeing initiatives focusing on mental health

Business Continuity

- Established COVID-19 business continuity planning team
- Implemented business continuity plans to minimize business disruption
- Mitigated supply chain disruption, including through multi-sourcing
- Met customer fulfillment needs despite disruptions in ability to provide services and access sites
- Invested significantly in digital platforms and virtual collaboration, enabling a smooth transition to remote working

Financial Resiliency

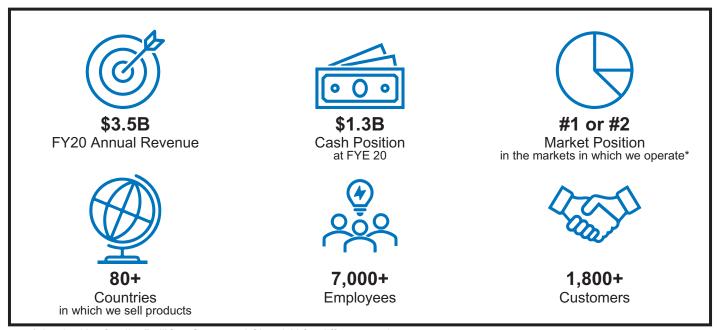
- Increased profitability despite slowdowns in customer spending and business velocity that negatively impacted annual revenue
- Demonstrated resilient operating model and ability to continue to invest in innovation leadership
- Strengthened balance sheet and generated cash flow
- After a temporary pause, reinstated stock repurchase plan in first quarter of fiscal 2021

Community Outreach and Support

- Tripled corporate matching for employee charitable donations and volunteering through Ciena Cares program
- Donated personal protective equipment
- Designed and 3-D printed face shields and components for healthcare workers
- Launched digital inclusion commitment to provide greater opportunities for underserved students through access, technology, and digital skills
- Participated in joint digital inclusion community projects with business partners

Ciena at a Glance

Industry-leading, global networking systems, services and software company



^{*} As cited by Omdia, Dell'Oro Group and Cignal AI for different markets

Foundational Strengths



Leading Technology & Innovation

we own the key enabling technologies for our solutions and use 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, a wide range of solutions and applications, and multiple geographies



Global Scale

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

Strategic Initiatives



Grow

grow our core networking platforms and services businesses and extend innovation leadership through offerings that leverage our Adaptive Network™ vision



Develop

embrace multiple consumption models and offer a range of networking solutions across these models to drive the evolution of next-generation network infrastructures and promote choice

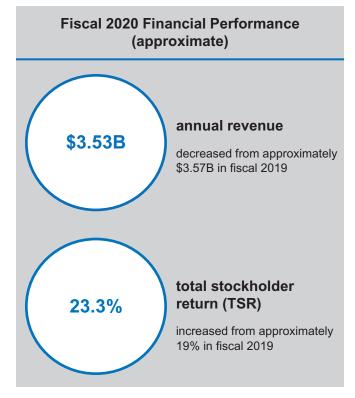


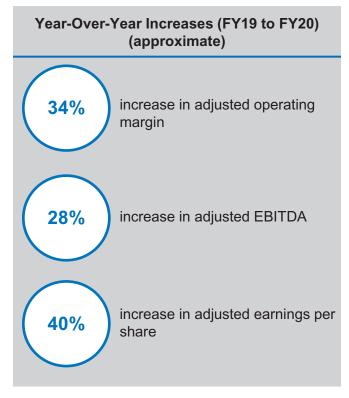
Expand

promote broader adoption of our Blue Planet software and services portfolio to transform network operations and management

Business Highlights

Our fiscal 2020 performance highlights the strength and durability of our business model, which allowed us to deliver solid performance despite the impact of the COVID-19 pandemic.





Contained above, and elsewhere in this proxy statement, are certain non-GAAP measures of Ciena's financial performance for fiscal 2019 and 2020. 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 Securities and Exchange Commission (the "SEC") on December 10, 2020, Also see "Non-GAAP Measures" below for more information about these measures and how they are used.

Fiscal 2020 Business Performance

- Delivered solid financial results, with a significant increase in profitability measures, in spite of the global pandemic
- Generated \$411 million in free cash flow
- Ended fiscal 2020 with \$1.3 billion in cash and investments
- Grew by more than 300% the number of customers adopting MCP, our domain control software
- Pushed the pace of innovation with our Adaptive Network approach, including general availability of the industry's first single-wavelength 800G product and several deployments of our Adaptive IP solutions
- Developed footprint-optimized WaveLogic 5 Nano 100G-400G coherent pluggable transceivers
- Completed acquisition of Centina Systems to strengthen Blue Planet's closed-loop automation portfolio
- Added new customers and expanded relationships for our Blue Planet software automation portfolio

Fiscal 2020 Compensation Highlights

COVID-19 Compensation Considerations

time-based compensation base salary time-based

equity (RSUs)

performance

compensation

target annual cash incentive performancebased equity (PSUs/MSUs)

at-risk,

based

- Compensation decisions for fiscal 2020 were made by the Compensation Committee in December 2019, following Ciena's outstanding business and financial performance in fiscal 2019 and prior to the onset of the global COVID-19 pandemic
- Although our sales orders and annual revenue were negatively impacted by COVID-19, our profitability and TSR increased meaningfully in fiscal 2020
- The Compensation Committee determined not to make any adjustments to the fiscal 2020 objectives or payouts under incentive compensation programs due to the COVID-19 pandemic
- In light of ongoing macro and industry conditions, at the end of 2020, the Compensation Committee determined not to increase any element of compensation for the NEOs for fiscal 2021

Base Salaries

Increased the base salary of the CEO and the other NEOs in order to better align with the market median for their positions and to reflect their and Ciena's strong performance

Target Cash Incentives

Increased the target cash incentive opportunity for the NEOs other than the CEO to better align with the market median and to reflect their and Ciena's strong performance

Made no adjustments to objectives or payouts for fiscal 2020 cash incentives, despite slowdowns in customer spending and business velocity due to the COVID-19 pandemic

Equity Award Values

Delivered annual equity awards for the CEO and the other NEOs that represented meaningful 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 performance

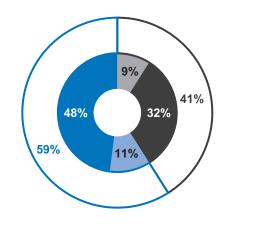
Equity Award Structure

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 in the form of PSUs and MSUs

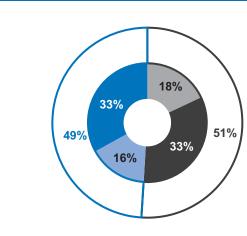
Made no adjustments to objectives or payments for fiscal 2020 equity awards, despite slowdowns in customer spending and business velocity due to the COVID-19 pandemic

Pay-for-Performance Alignment

CEO Fiscal 2020
Target Total Direct Compensation Mix



NEO Fiscal 2020 Target Total Direct Compensation Mix



Corporate Governance and Stockholder Outreach

Stockholder Outreach and Engagement

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, industry dynamics, governance, compensation, and ESG matters. 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 detail on key elements of our corporate strategy and an articulation of our capital allocation priorities. In addition, in connection with our proposal at last year's annual meeting to increase the number of shares available under our 2017 Omnibus Incentive Plan, we reached out to a number of our largest stockholders to discuss our current equity practices and receive feedback. Since the 2020 annual meeting, we have also provided updates with respect to our environmental, social and governance practices through an investor presentation available on the "Investors" section of our website at www.ciena.com. Information contained on or available through our website is not incorporated by reference in or made part of this proxy statement.

Fiscal 2020 Governance Changes

Board Composition

Continued our commitment to refreshment and diversity:

- Appointed a new independent director
- 50% of directors bring gender or ethnic diversity to the
- Reduced average tenure of non-employee directors from 12.1 to 9.7 years from end of fiscal 2016 to end of fiscal 2020

Policies and Charters

Updated to ensure alignment with governance best practices:

- Principles of Corporate Governance
- Code of Ethics for Directors
- Charters of standing Board committees

Existing Strong Governance Structure

- Eight of ten directors are independent
- Lead Independent Director
- Separate Chairman and CEO roles
- Code of Ethics for Directors
- Standing committees are comprised solely of independent 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

Voting Roadmap

This section highlights selected information about the items to be voted on at the annual meeting. It does not contain all information that you should consider in deciding how to vote. You should read the entire proxy statement carefully before voting.

Proposal



Elect 4 Class III Director Nominees

see page 7

The Board recommends a vote FOR each nominee

	Independent	Director Since	Committees and Board Leadership
Hassan M. Ahmed, Ph.D. Former Chairman of the Board and Chief Executive Officer of Affirmed Networks, Inc.	~	June 2020	CompensationGovernance and Nominations
Bruce L. Claflin Former President and Chief Executive Officer of 3Com Corporation	~	August 2006	AuditCompensation
T. Michael Nevens Senior adviser to Permira Advisers, LLC	~	February 2014	• Audit
Patrick T. Gallagher Chairman of Harmonic Inc.	~	May 2009	Lead Independent DirectorCompensationGovernance and Nominations (Chair)

Proposal



Approve the amendment and restatement of our Employee Stock Purchase Plan

see page 30

The Board recommends a vote FOR this proposal

- Promotes stock ownership culture and alignment of interest between our employees and stockholders
- Represents important compensation element for employee recruitment, retention and motivation
- Aligns with best practices and promotes broad-based, cross-border participation

Proposal



Ratify PricewaterhouseCoopers LLP as our independent registered public accounting firm for fiscal 2021

see page 33

The Board recommends a vote FOR this proposal

- Independent firm with reasonable fees and significant financial reporting expertise
- PwC has audited our consolidated financial statements annually since our incorporation in 1992
- Audit Committee annually evaluates PwC and has determined that its appointment continues to be in the best interests of our stockholders

Proposal



Say-on-Pay: Advisory vote on named executive officer compensation

see page 72

The Board recommends a vote FOR this proposal

- At last year's annual meeting, approximately 94% of stockholder votes cast were in favor of our executive compensation program
- The key elements of our executive compensation program remain essentially unchanged
- We employ core compensation principles and practices to promote pay for performance and alignment of executive and stockholder interests
- Our overall fiscal 2020 executive compensation was reasonable and appropriate in light of our business and financial performance

Proposal No. 1

Election of Class III Directors

Overview

Our Board of Directors currently consists of ten directors divided into three classes. Each class of our Board of Directors serves a staggered three-year term. At the Annual Meeting, four directors will be elected to fill positions in Class III, whose term expires at the Annual Meeting. Hassan M. Ahmed, Ph.D., Bruce L. Claflin, Patrick T. Gallagher, and T. Michael Nevens, our current Class III directors, are nominees for election at the Annual Meeting. Each of the nominees for Class III, if elected, will serve for a three-year term expiring at the 2024 Annual Meeting, or until his successor is elected and qualified, or until such director's earlier death, resignation or removal from the Board.

Effective June 30, 2020, the Board of Directors increased the size of the Board from nine to ten directors and appointed Dr. Ahmed to fill the newly created vacancy in Class III of the Board. Dr. Ahmed was initially identified as a possible candidate for Board service by our CEO and was subsequently recommended to the Board following a vetting process conducted by a third-party search firm engaged by the Board and the Governance and Nominations Committee In accordance with our bylaws, Dr. Ahmed's term of office continues until this year's Annual Meeting, the first annual meeting following his appointment.

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.

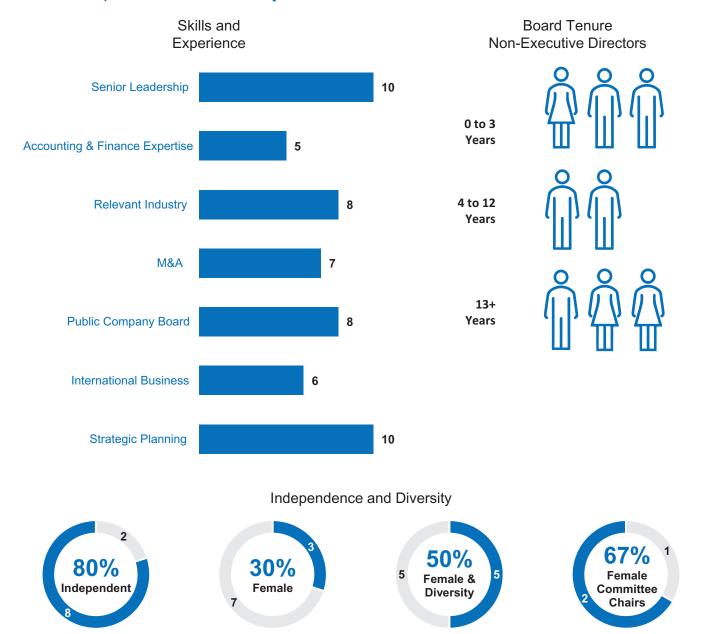
Director Qualifications

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, ethnicity, race, nationality and age, 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 (the "NYSE") and 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



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**

Director Nominees

Class III Director Nominees with Terms Expiring in 2024

Hassan M. Ahmed, Ph.D.



Director Since June 2020

- · Compensation Committee
- Governance and **Nominations Committee**

Other Public Boards: 0

Skills and Qualifications

- · Prior service as a Chief Executive Officer of a technology company in an adjacent space provides the Board with a high level of expertise and experience in our industry
- Provides the Board with strategic insights across a range of corporate functions
- Previous management and oversight experience within the industry
- Significant industry knowledge and expertise in NFV solutions

Other Current Board Experience

- Oxefit, Inc. (private)
- Vesper Technologies, Inc. (private)

Previous Board Experience

· Affirmed Networks, Inc., Chairman

Professional Highlights

Dr. Ahmed most recently served as Chairman of the Board and Chief Executive Officer of Affirmed Networks, Inc., which was acquired by Microsoft in April 2020. Before founding Affirmed Networks, Inc. in 2010, he was a senior advisor at Charles River Ventures. From 1998 to 2008, Dr. Ahmed served as Chairman and Chief Executive Officer of Sonus Networks, Inc. Prior to that time, he served in various executive roles at Ascend Communications, Inc., Cascade Communications Corporation and Analog Devices, Inc., He also served as President and founder of WaveAccess, Inc. and founded and served as director of the VLSI Systems Group of Motorola Codex. Dr. Ahmed previously served as Associate Professor of Electrical, Computer and Systems Engineering and Associate Professor of Finance at Boston University.

Bruce L. Claflin



Director Since August 2006

- **Audit Committee**
- Compensation Committee

Age 69

Other Public Boards: 1

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, Inc. (AMD)

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 Corporation, 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.

T. Michael Nevens



Director Since February 2014

Audit Committee

Age 71

Other Public Boards: 1

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 longterm 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

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.

Patrick T. Gallagher



Director Since May 2009

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

Age 66

Other Public Boards: 1

Skills and Qualifications

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

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 Ltd. and, prior to that role, held various senior management positions at British Telecom.

Continuing Directors

Class I Directors with Terms Expiring in 2022

Lawton W. Fitt



Director Since November 2000

Audit Committee (Chair)

Age 67

Other Public Boards: 3

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

- The Carlyle Group Inc. (public)
- Micro Focus International PLC (public)
- The Progressive Corporation, Chairperson (public)

Previous Board Experience

- ARM Holdings PLC
- **Thomson Reuters Corporation**

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.

Devinder Kumar



Director Since August 2019 Audit Committee **Age** 64

Other Public Boards: 0

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

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 Advanced Micro Devices, Inc.'s 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.

Patrick H. Nettles, Ph.D.



Director Since April 1994 · Executive Chairman

Age 77

Other Public Boards: 1

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.

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.

Class II Directors with Terms Expiring in 2023

Judith M. O'Brien



Director Since July 2000

- · Compensation Committee (Chair)
- Governance and **Nominations Committee**

Age 70

Other Public Boards: 0

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., Chairman (private)
- Theatro Labs, Inc. (private)
- LightDeck Diagnostics, Inc. (private)

Previous Board Experience

- Adaptec, Inc.
- Inform, Inc.

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 LLP. 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.

Joanne B. Olsen



Director Since October 2018

- Compensation Committee
- Governance and **Nominations Committee**

Age 62

Other Public Boards: 2

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

Other Current Board Experience

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

Professional Highlights

Ms. Olsen previously served as Executive Vice President of Global Cloud Services and Support at Oracle Corporation 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.

Gary B. Smith



Director Since October 2000 Age 60 Other Public Boards: 1

Skills and Qualifications

- As Chief Executive Officer of Ciena for over 19 years, provides the Board with leadership skills, industry experience and comprehensive knowledge of Ciena's business, strategy, operations and financial position
- 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 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.

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; serves on the Wake Forest University Advisory Council for the Center for Innovation, Creativity and Entrepreneurship; and participates in initiatives with the Center for Corporate Innovation.

Proposal No. 1 — Recommendation of the Board of Directors

The Board of Directors recommends that you vote **FOR**

the election of the four Class III nominees 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 NYSE listing standards, 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 2020 are or during their tenure were "independent directors," using the definition of that term in the NYSE listed company manual. 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 evolve over time, we continue to focus on our people and culture, environmental stewardship, community outreach and support, and strong corporate governance. Highlights of our current practices in these areas are described below.





People & Culture

Our "People Promise," launched in fiscal 2020, focuses on fostering a workplace environment where our employees are empowered, feel included and have an opportunity to make a difference through their work at Ciena. In so doing, we seek to cultivate for employees a culture of vibrancy, belonging and happiness, while enabling us to be an attractive employer of choice within our markets. Our "people strategy" is annually reviewed by and discussed with our Board.

Employee Wellbeing and Engagement

We prioritize supporting the overall wellbeing of our employees from a physical, emotional, financial and social perspective.

- regular broad employee satisfaction surveys (ESAT)
- pulse surveys on specific issues
- promote environment where employees are engaged. satisfied, productive, and possess a strong understanding of business goals
- long-standing practice of remote and flexible working arrangements
- flexible paid time off in the U.S. and Canada
- life planning and retirement readiness programming
- wellness platforms and expense reimbursement benefits
- fitness challenges and rewards
- 24x7 crisis support and employee assistance program
- mental health coaching

Diversity and Inclusion

We promote an inclusive and diverse workplace, where all individuals are respected and feel they belong regardless of their age, race, national origin, gender, religion, disability, sexual orientation or gender identity.

- recruiting outreach to extend diverse representation
- internal networking and resource groups include our Women@Ciena group, Black & African Heritage group, and Pride@Ciena LGBT+ group
- new dedicated function focused on Diversity, Inclusion & Belonging initiatives
- inclusivity networks
- mentoring programs

Growth and Development

We focus on creating opportunities for employee growth, development, training and education.

- "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 and leadership development programs
- mentoring programs
- employee learning and training initiatives
- support for continuing education through tuition reimbursement

Competitive Compensation and Pay Equity

We strive to ensure that our employees receive competitive, fair and transparent compensation and innovative benefits offerings.

- gender pay fairness assessments
- incentives tied to business and individual performance
- competitive parental, caregiver, and adoption leave
- meaningful retirement benefits
- employee stock purchase plan
- equity compensation pushed deeper into the organization in fiscal 2019 and 2020

Employee Recognition

We believe that providing rewards and recognition programs helps drive strong employee performance.

- annual "Spirit of Ciena" awards to recognize employees who best exemplify Ciena's core values
- "bravo" and "applause" programs for spot awards and recognition of employee contributions throughout the year
- patent incentive and distinguished engineer awards
- "Ciena Cares" awards recognizing employees and teams who exemplify our commitment to communities and volunteerism

COVID-19 Response

We have been prioritizing the safety and wellbeing of our employees during this unprecedented period, including:

- temporary office closures around the world, with limited exceptions for employees in certain roles
- large-scale employee work from home arrangements on a regular basis
- instituted travel bans and restrictions
- meaningful precautions in accordance with CDC and relevant guidelines
- new employee benefits and wellbeing initiatives
- physical, emotional, mental, and social programming
- global pandemic leave
- work from home reimbursement benefit
- new wellbeing platforms, including regular mental wellbeing sessions and morale initiatives
- comprehensive set of global site reopening guidelines

Recognition

- "Great Place to Work" certified in the U.S., India, and Canada
- Recognized as one of Fortune's "Most Admired Companies" in each year, 2017 through 2021



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.

Sustainability in Our Products and Suppliers

Our technology innovation reduces the environmental impact of network infrastructures in a time of significant traffic and service expansion.

- our WaveLogic coherent modem solutions have yielded immense contributions to sustainability for over 10
 - through the end of fiscal 2019, energy efficient product innovation related to our first four generations of this technology has helped network operators avoid over three million metric tons of CO2 emissions
 - WaveLogic 5 extreme, launched in fiscal 2020, yields a 50 percent improvement in power and floorspace per bit as compared to our fourth generation WaveLogic Ai solution
- 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
- engagement with key customers on sustainability opportunities in products and fulfillment

Climate Change

Addressing climate change is a priority at Ciena. Mitigating climate risks and reducing our greenhouse gas (GHG) emissions are integrated into our long-term strategic planning and operations management.

- committed to be carbon neutral across our global operations by 2023
- participate in CDP climate change and water disclosures
- partnered with Tree-Nation to offset certain operational emissions by planting a tree for each employee at
- rapid adoption of flexible and remote working and collaborative tools
- pursuing opportunities to reduce water, light and power consumption in our offices worldwide
- 5 locations LEED certified or certifiable

Reporting and Recognition

- RBA / Responsible Minerals Initiative / TIA sustainability membership
- Published initial Corporate Social Responsibility ("CSR") Report in December 2018
- AT&T Diversity Supplier Award
- Completed global Environment, Health and Safety Management System Certification
- Platinum rating by EcoVadis

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.

Encourage Opportunities to Volunteer Time

We support and encourage our employees' passion for giving back to the community through Ciena Cares, our comprehensive, best-in-class community program.

- local "Ciena Cares Champions" across the globe promote engagement in our communities
- volunteering time off and flexible volunteering during work time
- matching rewards for volunteer hours served provide further charity benefits that can be directed by employees
- joint community projects with customers and business partners
- opportunities for employees to volunteer in person or virtually

Charitable Donation Matching

We believe it is important to invest resources to positively impact the communities in which we live and work.

- online charitable giving portal to promote employee donation and corporate matching program
- new employee stipend to donate to their favorite charities
- up to \$5,000 annual matching for employee donations

Support for Employees

We offer support to employees through:

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

COVID-19 Response

We and our global workforce have undertaken a range of volunteering and charitable actions to support our neighbors. communities and front-line health care workers during this challenging time.

- enhanced by three times our corporate charitable matching program for employee donations and volunteering
- donated personal protective equipment
- 3-D printed and designed face shields and components for health care workers
- created new community initiative focused on promoting digital inclusion and providing greater opportunities for underserved students through access, technology and digital skills
- have undertaken joint community projects with business partners as part of the digital inclusion program

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, and additional information about our people promise can be found on the "CienaLife" page of the "About us" section of our website at www.ciena.com.



Corporate Governance

We believe that good corporate governance and high ethical standards are a duty that we owe to our investors, customers and employees, and are essential to Ciena's success.

Board of Directors

Refreshment

- appointed new independent director in each of the past four years
- appointed new Lead Independent Director and Chair of Governance and Nominations Committee in 2017
- reduced average tenure of non-employee directors from 12.1 to 9.7 years from end of fiscal 2016 to end of fiscal 2020

Gender and Diversity

- · three female directors
- · two ethnically diverse directors
- two of three Board committee chairs are female

Compensation

 maintain limits on annual compensation for non-employee directors

Commitment to Investors

Outreach and Engagement

- 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 (temporarily paused in March 2020 due to COVID-19 related considerations and resumed in December 2020)
- 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

Stock Ownership Guidelines

- strong minimum ownership requirements for directors and officers, including 5x base salary for CEO and 5x cash retainer for non-employee directors
- 50% holding requirement until relevant minimum ownership level is achieved

Corporate Governance Vehicles

- annually update Code of Ethics for Directors
- annually update Principles of Corporate Governance
- annually refresh all Board Committee Charters

Created new dedicated Corporate Compliance & Ethics function in 2020

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. Copies of our Principles of Corporate Governance, bylaws, stock ownership guidelines and other governance documents can be found on the "Governance" page of the "Investors" section of our website at www.ciena.com. You should review these documents for a complete understanding of these corporate governance practices, but some of the key elements of our strong governance policies and practices are summarized below:

Proxy access

provision in our bylaws by which eligible stockholders may nominate director candidates for inclusion in our proxy statement and proxy card

Majority vote standard

in uncontested director elections with a mandatory resignation policy that requires incumbent directors and nominees to submit an irrevocable resignation that becomes effective upon the failure to receive a majority vote and the Board's acceptance of the resignation

"Overboarding" and service on other boards

limited to three other public companies for directors not serving as an executive officer of a public company, and one other public company for a director serving as an executive officer of a public company

Changes affecting independence

including a change to a director's principal occupation, require the director to tender resignation and Board to consider whether to accept the director's resignation

No term limits or mandatory retirement age

to allow the skill set and perspectives of the Board's members to remain sufficiently current and broad in dealing with current and changing business dynamics

Robust annual assessment process

to address refreshment and ensure that our Board and its committees are performing effectively and in the best interests of Ciena and its stockholders

Stock ownership guidelines

require our executive officers and directors to hold shares 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

Prohibition against pledging Ciena securities and hedging transactions

for all employees and directors, in accordance with Ciena's Insider Trading Policy

❖ Term limit for directors elected to fill vacancies

from the period from election by the Board until the first annual meeting following election

Executive sessions

of independent directors meet regularly without employeedirectors or other executive officers present

Outside advisors and consultants

may be retained by the Board or its committees at their discretion and at Ciena's expense, without consent of management

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 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 longterm 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 critical elements of our strategy, the 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.

With respect to fiscal 2020, the Board played an important oversight role in Ciena's business continuity planning and execution in the face of the COVID-19 pandemic, including overseeing the management by our executive team of risks relating to employees and benefits, health and safety, research and development, supply chain, services and fulfillment, IT operations and financial controls.

The Board also 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. Each standing committee of the Board has risk oversight responsibilities and provides regular reports to the Board on at least a quarterly basis, as more fully described below under "Composition and Meetings of the Board of Directors and its Committees."

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 2020 and the number of Board and committee meetings held during fiscal 2020. Mr. Smith and Dr. Nettles do not serve on standing committees of the Board of Directors.

				Committee Memberships		Other Current Public	
Name	Class	Principal Occupation	Independent	AC	CC	GNC	Boards
Hassan M. Ahmed, Ph.D.	III (2021)	Former CEO, Affirmed Networks, Inc.	~		*	*	0
Bruce L. Claflin	III (2021)	Former CEO, 3Com Corporation	~	*	*		1
Lawton W. Fitt	I (2022)	Chairperson, The Progressive Corporation	~	*			3
Patrick T. Gallagher	III (2021)	Chairman, Harmonic, Inc.	~		*	*	1
Devinder Kumar	I (2022)	SVP, CFO and Treasurer, Advanced Micro Devices, Inc.	~	*			0
Patrick H. Nettles, Ph.D.	I (2022)	Executive Chairman, Ciena Corporation					1
T. Michael Nevens	III (2021)	Senior Advisor, Permira Advisors, LLC	~	*			1
Judith M. O'Brien	II (2023)	Former Partner, King & Spalding LLP	~		*	*	0
Joanne B. Olsen	II (2023)	Former EVP Global Cloud Services & Support, Oracle Corporation	~		*	*	2
Gary B. Smith	II (2023)	CEO, Ciena Corporation					1
Fiscal 2020 Meetings			Board: 8	8	8	7	

Chairperson

Each of our directors attended 100% of the total number of meetings of the Board of Directors and the committees on which he or she served during fiscal 2020. Ciena encourages, but does not require, members of the Board of Directors to attend the Annual Meeting, and all of Ciena's then nine directors participated in the virtual Annual Meeting last year.

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.

Partly as a result of COVID-19's impact on in-person meetings in fiscal 2020, the Board of Directors recently collaborated with management to develop and approve a revised approach to its annual meeting calendar and engagement framework for fiscal 2021 and beyond, including an increased number of meetings of shorter duration. The revised calendar is designed to operate in either a hybrid (virtual and physical) model or a fully virtual and remote environment, and is intended to enable more frequent engagement between the Board and management, optimize the productivity and efficiency of Board operations, and space out work for the Board and management throughout the year

Audit Committee

Chair

Lawton W. Fitt

Members

Devinder Kumar Bruce L. Claflin T. Michael Nevens

Qualifications, as determined by the Board:

- "Is a separately designated standing audit committee" in accordance with Section 3(a)(58)(A) of the Securities Exchange Act of 1934, as amended (the "Exchange Act")
- Each member meets both the independence criteria established by the SEC under Rule 10A-3 under the Exchange Act and qualifies under the general independence standards of the NYSE
- Each member is financially literate
- Each of Mr. Claflin, 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 each member gualifies as an independent director under the NYSE listing standards for purposes of audit committee service

Among its responsibilities, the 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 and matters
- Discusses audit plans and reviews results of audit engagements 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 NYSE listing standards
- 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
- Where it determines to do so, makes recommendations to the Board of Directors with respect to rotation of the lead partner of the independent registered public accounting firm
- Reviews and considers any related person transactions in accordance with our Policy on Related Person Transactions and applicable NYSE rules

Ciena's independent registered public accounting firm and internal audit department report directly to the Audit Committee

Risk Oversight

Oversee management of financial risks associated with:

- accounting matters
- liquidity and credit risks
- corporate tax positions
- insurance coverage
- cash investment strategy
- financial results

Oversee financial and business process systems

Oversee management of risks relating to the performance of the company's internal audit function and its independent registered public accounting firm

Oversee whistleblower complaints and internal investigations

Oversee the company's systems of internal controls and disclosure controls and procedures

Oversee IT risk management, cybersecurity matters and data privacy

Governance and Nominations Committee

Chair **Members**

Patrick T. Gallagher Hassan M. Ahmed, Ph.D.

> Judith M. O'Brien Joanne B. Olsen

Qualifications, as determined by the Board:

The members of the Governance and Nominations Committee are all independent directors under applicable rules of the NYSE

Among its responsibilities, the committee:

- Reviews, develops and makes recommendations regarding various governance matters related to the Board of Directors, including its size, composition, standing committees and practices
- Reviews and implements corporate governance policies, practices and procedures
- Conducts an annual review of the performance and effectiveness of the Board of Directors, its standing committees, and its individual members
- Makes recommendations to the Board of Directors regarding the composition and independence of its non-employee members
- Provides oversight and direction for our compliance and ethics program and sustainability practices

The committee considers recommendations for nomination from other sources and interested parties, including Ciena's officers, directors and stockholders. When appropriate, the Governance and Nominations Committee may retain executive recruitment firms to assist in identifying suitable candidates. In considering these recommendations, the committee:

- Applies the same standards described in "Director Qualifications" above
- Considers the current size and composition of the Board
- Considers the needs of the Board and its committees

Risk Oversight

Oversee management of risks associated with:

- corporate governance practices and sustainability
- compliance and ethics program
- director independence
- Board composition
- Board performance
- annual assessment of Board effectiveness

Review and assess allocation of responsibility for risk oversight among the Board and its standing committees

Compensation Committee

Chair **Members**

Judith M. O'Brien Hassan M. Ahmed, Ph.D.

> Bruce L. Claflin Patrick T. Gallagher Joanne B. Olsen

Qualifications, as determined by the Board:

- The members of the Compensation Committee qualify as "non-employee directors" within the meaning of Rule 16b-3 under the Exchange Act
- The members are independent directors under the NYSE listing standards for purposes of compensation committee service

Among its responsibilities, the committee:

- Has authority and oversight relating to the development of Ciena's overall compensation strategy and compensation
- Establishes our compensation philosophy and policies
- Oversees compensation plans for our executive officers and non-executive employees
- Has oversight responsibility for the compensation program for Ciena's non-employee directors
- Receives information and advice from its compensation consultant, as described below
- Reviews and has final authority to approve and make decisions with respect to the compensation of our executive officers

In determining compensation of our executive officers, the committee:

- Annually evaluates the performance of our CEO and our Executive Chairman
- Considers evaluations by or recommendations from our CEO regarding our other executive officers

The Board has delegated limited authority to our CEO 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 guarterly and year-to-date grant activity pursuant to this delegated authority.

Risk Oversight

Oversee management of risks associated with:

- executive compensation
- overall compensation and benefit strategies
- compensation and benefit plans and arrangements
- compensation practices and policies
- Board of Directors' compensation

Compensation Philosophy & Objectives

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.

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 2020, 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 2020, 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 2020, 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.

Compensation Committee Interlocks and Insider Participation

Dr. Ahmed, Mses. O'Brien and Olsen, and Messrs. Claflin and Gallagher, who comprised the Compensation Committee as of the end of fiscal 2020, are independent directors and were not, at any time during fiscal 2020, or at any other time, officers or employees of Ciena. During fiscal 2020, 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 2020 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 2020 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 2020 Board Compensation

For the purpose of determining non-employee director compensation for fiscal 2020, 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 2020 the Board of Directors increased the annual retainer for the non-employee directors from \$60,000 to \$70,000 and increased the target delivered value of initial and annual director equity awards from \$210,000 to \$220,000.

Cash Compensation

Our cash compensation program for non-employee directors for fiscal 2020 was as follows:

Cash Compensation	Amount
Annual Retainer — Non-Employee Director	\$ 70,000
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, generally are paid promptly following the end of the fiscal year.

Equity Compensation

Our equity compensation program for non-employee directors and Dr. Nettles for fiscal 2020 was as follows:

Equity Compensation	Target Delivered Value (\$)
Initial RSU Award — Upon Director Election or Appointment	\$ 220,000
Annual RSU Award — Non-Employee Directors and Executive Chairman	\$ 220,000

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 (the "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 2020:

Name	Fees Earned or Paid in Cash (\$) (1)	Stock Awards (\$) (2)	All Other Compensation (\$) (3)	Total (\$)
Patrick H. Nettles, Ph.D.	_	\$ 230,640	\$ 162,377	\$ 393,017
Hassan M. Ahmed, Ph.D.	\$ 43,000	\$ 164,789	_	\$ 207,789
Bruce L. Claflin	\$ 95,000	\$ 230,640	_	\$ 325,640
Lawton W. Fitt	\$ 105,000	\$ 230,640	_	\$ 335,640
Patrick T. Gallagher	\$ 125,000	\$ 230,640	_	\$ 355,640
Devinder Kumar	\$ 85,000	\$ 230,640		\$ 315,640
T. Michael Nevens	\$ 85,000	\$ 230,640	_	\$ 315,640
Judith M. O'Brien	\$ 101,000	\$ 230,640	_	\$ 331,640
Joanne B. Olsen	\$ 86,000	\$ 230,640	_	\$ 316,640

Fiscal 2020 Director Compensation Table

⁽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 2020, 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 Dr. Ahmed, the aggregate grant date fair value in the above table was calculated using the closing price of Ciena common stock on April 2, 2020, 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 Dr. Ahmed, the aggregate grant date fair value in the above table was calculated using the closing price of Ciena common stock on July 1, 2020, the grant date for his initial

equity award. This award was granted under the 2017 Plan and vests on September 20, 2021. 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 2020, (b) Section 401(k) plan matching contributions paid by Ciena and available to all full-time U.S. employees on the same terms, and (c) reimbursement of costs associated with financial planning and tax preparation services generally made available to all executive officers.

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 2020.

Outstanding Equity Awards at Fiscal Year-End

	Stock Awards
Name	Aggregate Number of Unvested Shares or Units (#)
Patrick H. Nettles, Ph.D.	5,678
Hassan M. Ahmed, Ph.D.	3,075
Bruce L. Claflin	5,678
Lawton W. Fitt	5,678
Patrick T. Gallagher	5,678
Devinder Kumar	5,678
T. Michael Nevens	5,678
Judith M. O'Brien	5,678
Joanne B. Olsen	5,678

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 and Restatement of Ciena's Employee Stock Purchase Plan

Executive Summary

Purpose of Proposal

- Extend term of expiring ESPP to April 1, 2031
- Increase shares available for issuance under ESPP by 8,700,000 shares
- Eliminate evergreen feature
- Make other clarifying and administrative changes to the ESPP, as described below

Why You Should Vote for the Proposal

- Promotes stock ownership culture and alignment of interest between our employees and stockholders
- Important compensation element for employee recruitment, retention and motivation
- Aligns with best practices and promotes broad-based, cross-border participation

Overview

We are asking our stockholders to approve the amendment and restatement of our Employee Stock Purchase Plan (the "ESPP"), which will (a) extend the term thereof to ten years from the date of stockholder approval; (b) increase the number of shares of Ciena common stock available for issuance thereunder by 8,700,000 shares; (c) eliminate the evergreen mechanism under which the shares available under the ESPP are automatically refreshed each year; and (d) make such other changes described below. A copy of the ESPP, as proposed to be modified by the amendment and restatement, is attached to this Proxy Statement as *Annex A*.

The ESPP allows all full-time and certain part-time employees of Ciena and of designated parents and subsidiaries (as defined in the ESPP) to purchase shares of Ciena common stock at a discount to fair market value. However, the Compensation Committee has restricted executive officers from participating. Employees purchase shares in June and December of each year using funds deducted from paychecks during the preceding six months. The ESPP is an important component of the benefits package that Ciena offers to its employees and of our employee recruitment, retention and motivation efforts. Our ESPP promotes broad employee participation and we believe that it plays an important role in aligning the interests of our employees and stockholders in the long-term success of Ciena.

The Board of Directors believes it is in the best interest of Ciena and its stockholders that the proposed amendment and restatement be approved. The amended and restated ESPP was approved by the Board of Directors on January 29, 2021, and will not be effective unless and until it is approved by Ciena's stockholders.

Without stockholder approval of the amendment and restatement of the ESPP, the ESPP will expire pursuant to its terms on January 20, 2022, prior to the anticipated date of next year's annual meeting. The Board of Directors believes that the amendment and restatement of the ESPP as proposed is necessary to avoid the premature termination of the ESPP and to ensure that the ESPP will continue to have a positive impact on employee recruitment, retention and motivation. As of January 1, 2021, 4,535,200 shares remained available for issuance under the ESPP. Assuming approval of the amendment and restatement, the number of shares available for issuance under the ESPP will be immediately increased by 8,700,000 shares following the Annual Meeting. In addition, the term of the ESPP will be extended to April 1, 2031.

In addition to the proposed increase in shares available for issuance under the ESPP, the extension of the term thereof, and the removal of the evergreen feature, the proposed amendment and restatement includes certain additional, and generally administrative, changes as set forth on *Annex A*. Among other things, as amended and restated, the ESPP clarifies that (a) qualifying employees of both designated parents and subsidiaries may participate in the ESPP, (b) employees who customarily work no more than 20 hours per week are ineligible to participate, and (c) that participants generally may not purchase shares following a termination of employment.

A copy of the ESPP, as proposed to be amended and restated, is attached hereto as *Annex A*. A summary of the principal features of the ESPP follows.

Summary of the ESPP

Administration. The ESPP is administered under the direction of the Compensation Committee of the Board of Directors. The Committee has authority to interpret the ESPP and to make all other determinations necessary or advisable in administering it.

Eligibility. All full-time, and certain part-time, employees with at least three months of continuous service are eligible to participate in the ESPP, although the Compensation Committee currently restricts the participation to non-executive employees. Part-time employees whose customary employment is for less than five months in any calendar year, or whose customary employment is not more than 20 hours per week, are ineligible to participate. Employees who, after exercising their rights to purchase shares under the ESPP, would own shares representing 5% or more of the voting power of Ciena's common stock, are also ineligible to participate. As of January 1, 2021, approximately 6,600 employees were eligible to participate in the ESPP.

Participation in the ESPP is at the election of each eligible employee and the amounts received by a participant under the ESPP depend on the fair market value of Ciena's common stock on future dates; therefore, the benefits or amounts that will be received by any participant if the ESPP is approved are not currently determinable. Moreover, in recent years, the Compensation Committee has restricted executive officers from participating.

Shares Available for Issuance. As of January 1, 2021, 4,535,200 shares remained available for issuance under the ESPP. Assuming the amendment and restatement is approved by stockholders at the Annual Meeting, 8,700,000 shares would be added and there would be 13,235,200 shares available for issuance under the ESPP (approximately 8.53% of Ciena's outstanding shares as of the record date). Stockholders previously approved an evergreen mechanism under which the shares available under the ESPP were automatically refreshed each year. The amendment and restatement would remove this evergreen mechanism in its entirety.

Participation. To participate in the ESPP, an eligible employee authorizes payroll deductions in an amount not less than 1% nor greater than 10%, or a flat dollar amount, of his or her "eligible earnings" (i.e., regular base pay, not including overtime pay, bonuses, employee benefit plans or other additional payments) for each full payroll period in the offering period. To ensure that IRS share limitations are not exceeded, we do not accept contributions from an individual participant in excess of \$21,250 per year.

Purchases. Eligible employees currently enroll in a 12-month offering period during the open enrollment period prior to the start of that offering period. A new offering period begins approximately every June 16 and December 16. Each offering period consists of two six-month purchase periods, during which payroll deductions are accumulated and used to purchase shares of Ciena's common stock from Ciena.

Shares are purchased at a price equal to 85% of the fair market value (the "FMV") of Ciena's common stock with the actual purchase price 15% less than the FMV on either the trading day immediately preceding the "Offer Date," which is the first day of an offering period, or on the "purchase date," which is the last day of a purchase period, whichever is lower. If the FMV on a purchase date is lower than the FMV on the trading day immediately preceding the applicable Offer Date, continuing participants are enrolled automatically in a new offering period on the next Offer Date. The closing price of Ciena's common stock on December 31, 2020, as quoted on the NYSE under the symbol "CIEN," was \$52.85 per share.

Termination of Employment. If a participating employee voluntarily resigns or is terminated by Ciena prior to the last day of the purchase period, the employee's option to purchase terminates and the amount in the employee's account is returned to the employee.

Adjustments Upon Change in Capitalization. In the event of a recapitalization, reclassification, stock split, reverse split, combination of shares, exchange of shares, stock dividend, or similar event, the number and kind of shares that may be purchased under the ESPP is adjusted proportionately such that the proportionate interest of participating employees remains the same, to the extent practicable.

Participation Adjustment. If the number of unsold shares that remains available for purchase under the ESPP is insufficient to permit exercise of all rights deemed exercised by all participating employees, a participation adjustment will be made, and the number of shares purchasable by all participating employees is reduced proportionately. Any funds remaining in a participating employee's account after such exercise are refunded to the employee.

Effect of Change of Control. In the event of a dissolution or liquidation of Ciena, or a merger or other similar transaction in which Ciena is not the surviving entity (or which results in a person or entity owning more than 80 percent of the combined voting power of all classes of stock of Ciena), or upon a sale of all or substantially all of Ciena's assets, the ESPP and all outstanding rights thereunder terminate unless provision is made in writing in connection with the transaction for the continuation of the ESPP and/or the assumption of the rights granted under it, or for the substitution for those rights of new rights covering the stock of a successor corporation, with appropriate adjustments as to the number and kind of shares and exercise prices. In that event, the ESPP continues in the manner and under the terms provided. In the event of any such termination of the ESPP, all current purchase periods and offering periods shall be deemed to have ended on the last trading day prior to such termination, and the rights of each participating employee then outstanding shall be deemed to be automatically exercised on such last trading day.

Amendment. The Board of Directors may amend the ESPP at any time and in any respect. An amendment to the ESPP shall be contingent on approval of the stockholders only to the extent required by applicable law, regulations or rules or as provided by the Board of Directors.

Termination. The Board of Directors may terminate the ESPP at any time and for any reason or for no reason, provided that no termination shall impair any rights of participating employees that have vested at the time of termination. Without approval of the

proposed amendment and restatement, the ESPP shall terminate on January 20, 2022. As amended, the ESPP would terminate on April 1, 2031, provided the ESPP would terminate earlier, at such time as all shares of common stock that may be made available for purchase under the ESPP have been issued.

Rule 16b-3. Transactions under the ESPP are intended to comply with all applicable conditions of Rule 16b-3 under the Exchange Act or any successor provision.

Material U.S. Federal Income Tax Consequences. The ESPP, and the rights of participant employees to make purchases thereunder, are designed to qualify for treatment under the provisions of Sections 421 and 423 of the Internal Revenue Code. The Compensation Committee may also establish purchase rights under the ESPP that are not intended to so qualify.

Under the qualification provisions, no income will be taxable to a participant until the shares purchased under the ESPP are sold or otherwise disposed of.

Upon sale or other disposition of the shares, the participant will generally be subject to tax and the amount of the tax will depend upon the holding period. If the shares are sold or otherwise disposed of more than two years from the first day of the relevant offering period (and more than one year from the date the shares are purchased), then the participant generally will recognize ordinary income measured as the lesser of:

- (i) the excess of the fair market value of the shares at the time of such sale or disposition over the purchase price, or
- (ii) an amount equal to 15% of the fair market value of the shares as of the first day of the applicable offering period.

Any additional gain would be treated as long-term capital gain.

If the shares are sold or otherwise disposed of before the expiration of this holding period, the participant will recognize ordinary income generally measured as the excess of the fair market value of the shares on the date the shares are purchased over the purchase price. Any additional gain or loss on such sale or disposition will be long-term or short-term capital gain or loss, depending on the holding period.

Under nonqualified offerings, a participant will generally recognize ordinary income on the difference between the fair market value of the shares at purchase and the purchase price, subject to withholding. Upon the sale or disposition of shares purchased under a nonqualified offering, the participant will generally recognize a capital gain or loss on any increase or decrease in the value of the shares from the fair market value at purchase. This gain or loss will be long-term or short-term, depending on the holding period.

Ciena generally is entitled to a deduction for amounts taxed as ordinary income to a participant, subject to the limits of Code section 162(m). In all other cases, no deduction is allowed to Ciena.

The foregoing tax discussion is a general description of certain expected U.S. federal income tax results under current law. No attempt has been made to address any state, local, foreign or estate and gift tax consequences that may arise in connection with participation in the ESPP.

New Awards

The amounts that may be received under the ESPP in the future are not determinable because participation in the ESPP is voluntary and the number of shares that may be purchased depends in part on the market value of Ciena common stock.

Registration with the SEC

If the amendment and restatement of the ESPP is approved by our stockholders, we intend to file a Registration Statement on Form S-8 relating to the amended and restated ESPP with the SEC pursuant to the Securities Act of 1933, as amended.

Proposal No. 2 — Recommendation of the Board of Directors

The Board of Directors recommends that you vote

FOR

the amendment and restatement of our Employee Stock Purchase 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 fiscal 2021, 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 2021, 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 2019 and 2020 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 2021

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 2019 and 2020.

Fee Category	Fiscal 2019	Fiscal 2020
Audit Fees	\$ 3,800,000	\$ 3,975,000
Audit-Related Fees	200,000	_
Tax Fees	121,650	87,500
All Other Fees	_	_
Total Fees	\$ 4,121,650	\$ 4,062,500

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, and services that generally only PwC as the independent registered public accounting firm can provide, such as services for comfort letters and consents. 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.

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 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, tax planning, and other general tax consulting fees.

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 2019 or fiscal 2020.

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, 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 2019 and 2020 were pre-approved by the Audit Committee.

Audit Committee Report

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 2020, 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 control over financial reporting and the overall quality of Ciena's financial reporting practices. The Audit Committee also met with Ciena's management during fiscal 2020 to consider Ciena's internal control 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 2020 with management and with PwC.
- 2. The Audit Committee has discussed with PwC the matters required to be discussed under the applicable requirements of the Public Company Accounting Oversight Board ("PCAOB") and the SEC.
- 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 2020 be included in Ciena's Annual Report on Form 10-K for fiscal 2020, for filing with the SEC.

Submitted by the members of the Audit Committee:

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

Ownership of Securities

The following table sets forth, as of February 4, 2021, 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, 2021, there were 155,158,402 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)	14,792,049	_	14,792,049	9.53%
The Vanguard Group, Inc. (5)	14,561,776	_	14,561,776	9.39%
Directors & Named Executive Officers				
Patrick H. Nettles, Ph.D. (6)	238,523	12,178	250,701	*
Gary B. Smith	225,926	22,946	248,872	*
James E. Moylan, Jr.	235,462	1,237	236,699	*
Scott A. McFeely	48,655	5,891	54,546	*
Jason M. Phipps	26,846	6,340	33,186	*
David M. Rothenstein	224,908	5,433	230,341	*
Hassan M. Ahmed, Ph.D.	_	_	_	*
Bruce L. Claflin	40,895	29,893	70,788	*
Lawton W. Fitt	3,928	103,308	107,236	*
Patrick T. Gallagher	35,779	5,678	41,457	*
Devinder Kumar	_	5,678	5,678	*
T. Michael Nevens	24,675	5,678	30,353	*
Judith M. O'Brien (6)	1	59,314	59,315	*
Joanne B. Olsen	_	378	378	*
All executive officers and directors (18 persons)	1,211,407	275,572	1,486,979	*

- * 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.
- (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 January 1, 2021 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 14,032,610 shares and sole dispositive power with respect to 14,792,049 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 12, 2020 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 79,660 shares, shared voting power with respect to 31,271 shares, sole dispositive power with respect to 14,470,982 shares and shared dispositive power with respect to 90,794 shares.
- (6) Voting and investment power is shared with spouse.

Delinquent Section 16(a) Reports

Section 16(a) of the Exchange Act requires Ciena's directors, executive officers, and beneficial owners of more than 10% of our common stock to file reports with the SEC indicating their holdings of, and transactions in, Ciena's equity securities. Based solely on a review of copies of these reports, we believe that all of our executive officers, directors, and 10% owners timely complied with all Section 16(a) filing requirements for fiscal 2020 except for one late Form 4 reporting one transaction for Andrew C. Petrik with respect to a sale of Ciena's common stock on March 25, 2020, which was filed with the SEC on March 30, 2020.

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Contained below and elsewhere in this proxy statement are certain non-GA measures of Ciena's financial performance for fiscal 2019 and 2020. These measures, along with their corresponding GAAP measures and reconciliating thereto, have been previously disclosed in exhibits to Ciena's Current Reports.	e ons

Form 8-K furnished with the SEC on December 12, 2019 and December 10, 2020. Also see "Non-GAAP Measures" below for more information on the use of these measures.

This Compensation Discussion and Analysis describes our executive compensation program, the compensationsetting process followed by the Compensation Committee of the Board of Directors (the "Committee"), and the compensation of our named executive officers ("NEOs") for fiscal 2020:



Gary B. Smith President and CEO



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



Scott A. McFeely Senior Vice President, Global Products and Services



Jason M. Phipps Senior Vice President, Global Customer Engagement



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

Executive Summary

COMPENSATION DECISIONS RELATIVE TO COVID-19

- The compensation-related decisions for fiscal 2020 were made in December 2019, following Ciena's outstanding business and financial performance in fiscal 2019 and prior to the onset of the global COVID-19 pandemic. Although our sales orders and revenue were negatively impacted by COVID-19 due to slowdowns in customer spending and business velocity in the second half of fiscal 2020, our profitability increased as a result of higher gross margins and lower operating expense due to resulting business dynamics
- Against this backdrop, the Committee determined not to make any adjustments to the fiscal 2020 objectives or payouts for the NEOs under the incentive compensation programs
- Subsequently, in light of ongoing macro and industry conditions, at the end of 2020, the Committee agreed not to increase any element of compensation for the NEOs for fiscal 2021

FISCAL 2020 EXECUTIVE COMPENSATION

- 80% of CEO target total direct compensation was in the form of equity awards and 59% was "at risk" and performance-based
- Increased the base salary of the CEO and the other NEOs, and the target cash incentives for the other NEOs, in order to better align with the market median for their positions and to reflect their and Ciena's strong performance
- Delivered annual equity awards for the CEO and the other NEOs that represented meaningful year-over-year increases in grant date value in order to keep pace and ensure alignment with the market and to reflect their and Ciena's strong performance
- Based on performance against fiscal 2020 objectives, the NEOs received annual cash incentive payments at 90% of target and earned PSUs at 91.5% of target
- Allocated a component of fiscal 2020 performancebased equity to MSUs with a relative TSR goal measured over a three-year performance period; based on relative TSR performance from fiscal 2018 through fiscal 2020, the NEOs earned MSUs previously awarded in December 2017 at 200% of target

FISCAL 2020 BUSINESS PERFORMANCE

- Delivered solid financial results in spite of the global pandemic, including significant year-over-year increases in adjusted operating income (32%), adjusted EBITDA (28%) and adjusted earnings per share (40%)
- Generated \$411 million in free cash flow, representing 66% of adjusted operating income, and ended the year with \$1.3 billion in cash and investments
- Forced the pace of innovation with our Adaptive Network approach, including general availability of the industry's first single-wavelength 800G product, new customers and expanded relationships for our Blue Planet software automation portfolio, and several deployments of our Adaptive IP solutions
- Supported our employees through wellbeing, inclusion and diversity, and empowerment programs, and instituted a range of volunteering and charitable activities to provide greater resources and opportunities for underserved students in our communities

Say-on-Pay Results



We provide stockholders with the opportunity to cast an annual advisory vote on the compensation of our NEOs. 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. Last year, approximately 94% 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. See "Proposal No. 4" below for this year's say-on-pay proposal.

Fiscal 2020 Compensation Overview

Base Salaries

Increased the base salary of the CEO and the other NEOs in order to better align with the market median for their positions and to reflect their and Ciena's strong performance

Target Cash Incentives

Increased the target cash incentive opportunity for the NEOs other than the CEO to better align with the market median and to reflect their and Ciena's strong performance

Made no adjustments to objectives or payouts for fiscal 2020 cash incentives, despite slowdowns in customer spending and business velocity due to the COVID-19 pandemic



Delivered annual equity awards for the CEO and the other NEOs that represented meaningful 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 performance

Equity Award Structure

Structured equity awards to include PSUs and MSUs and 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

Made no adjustments to objectives or earnouts for fiscal 2020 equity awards, despite slowdowns in customer spending and business velocity due to the COVID-19 pandemic

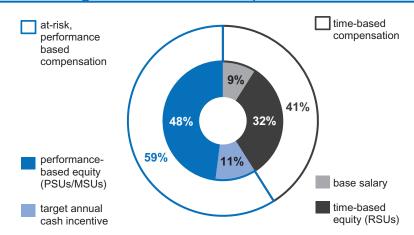


of our CEO's target total direct compensation was in the form of equity awards



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

CEO Fiscal 2020 **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.

Decision-Making Framework

Executive Compensation Best Practices

The Committee's fiscal 2020 compensation decision-making reflects the following core compensation 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

- Ensure independence in establishing our executive compensation program
- Align pay with performance
- Align compensation with stockholder interests
- Maintain stock ownership requirements
- Maintain a compensation recovery ("clawback") policy
- Assess risks relating to our executive compensation program
- Provide only a limited number of executive perquisites

WHAT WE DON'T DO

- S Offer income tax gross-ups
- Permit "single trigger" change in control benefits
- Provide excise tax gross-ups
- Allow for hedging or pledging of company securities

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 and our Executive Chairman, do not participate in the determination of their own compensation. Our CEO works with the Chair of the 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 2020, Compensia used several quantitative and qualitative criteria, including the primary selection and refinement criteria listed below, which were identical to those used in the previous year. Compensia noted its view that, given the limited number of similarly sized business competitors due to industry consolidation, the revenue criterion has the highest relevance in selecting peer companies for purposes of comparing compensation.

Following Compensia's analysis, the Committee:

- Removed five companies from the existing peer group: ARRIS Group because of its acquisition by CommScope Holding; CA because of its acquisition by Broadcom; CommScope Holding because its revenue had increased above the target range following the acquisition of ARRIS Group; Finisar because of its thenpending acquisition by II-VI; and NETGEAR because its revenue and market capitalization had dropped below the target ranges; and
- Added five new companies II-VI, Harris, Keysight Technologies, NetApp and Synopsys 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 continue to position Ciena close 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 2020 (the "Peer Group"):

Fiscal 2019 Peer Group	Primary Selection Criteria	Refinement Criteria	Fiscal 2020 Peer Group
Akamai Technologies	U.Sbased publicly traded	Key business and/or	II-VI
ARRIS Group CA	companies in technology	executive labor market	Akamai Technologies
Cadence Design Systems	industry	competitor	Cadence Design Systems Citrix Systems
Citrix Systems	Revenue of between one-half	Employee headcount	EchoStar
CommScope Holding	to two times our size		F5 Networks
EchoStar		Peers of current and	Harris
F5 Networks	Market capitalization of	suggested peers	Juniper Networks
Finisar	between one-quarter to four		Keysight Technologies
Juniper Networks	times our size	Companies listed as peers	NetApp
NETGEAR	Communications equipment,	by ISS	Symantec
Symantec ViaSat	systems software, application		Synopsys ViaSat
Zebra Technologies	software or Internet software and services industries		Zebra Technologies

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 2020, with the revenue comparison based on revenue over the four fiscal quarters preceding the assessment.



The Committee noted that Ciena was slightly above the median of the Peer Group for the revenue criterion (54%) and significantly below the medians of the Peer Group for the market capitalization criterion (16%) and the headcount criterion (18%). 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 2020 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 19 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
- Against the backdrop of a global pandemic and resulting macroeconomic uncertainty and industry challenges, presided over Ciena's delivery of a strong year of profitability



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 a substantial increase in free cash flow
- Effectively managed our operating expense to enable incremental investment across the business, including in our products, infrastructure and people
- Served as the executive sponsor of several cross-functional, longer-term projects to enable integrated business processes and improve operating efficiencies



Scott A. McFeely

- Exhibited strong leadership of the Global Products & Services organization
- Oversaw industry-leading technology innovation from the engineering organization, including the industry's first single-wavelength 800G product
- Ensured that the product line management and supply chain organizations continued to drive meaningful product design and transformation cost reductions
- Successfully focused on developing and deploying our MCP domain controller platform and Adaptive IP solutions
- Enabled improvement of critical customer experience metrics relating to supply chain operations and global services delivery, despite COVID-related challenges



Jason M. Phipps

- Led the Global Customer Engagement (formerly Global Sales & Marketing) organization to deliver increased gross margin and global optical market share
- Achieved these positively differentiated results during a continued period of variable customer spending and intense competition within our industry sector
- Oversaw several new strategic customer wins across our entire solutions portfolio
- Supported initiatives during the pandemic to enhance our customer engagement model and virtual customer collaboration tools
- Focused on expanding internal go-to-market resources in the areas of IP and automation



David M. Rothenstein

- Demonstrated strong performance as General Counsel and Secretary
- Substantially revised the annual meeting calendar and engagement framework with our Board of Directors
- Established and led our COVID-19 business continuity planning team, including recommendations relating to office closures, travel restrictions and site reopening guidelines
- Supervised our corporate social responsibility program, including establishment of our digital inclusion commitment and corporate environmental goals
- * Continued to serve as the Chair of our Disclosure Committee and our Corporate Compliance Committee, and as executive sponsor of our enterprise risk management program

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 our 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.

Elements of Compensation

Principal Elements of Compensation

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

Element	Туре	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	Variable	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
	Restricted Stock Units	RSU equity awards based on continued service vest in quarterly increments over a four-year period		
Long-Term Equity Incentive	Variable	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	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
		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	interests

We also provide severance and change in control related payments and 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 2020 so that a significant portion of the target total direct compensation of the 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 59% of our CEO's target total direct compensation for fiscal 2020 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.



Target Total Direct Compensation reflects annual base salary, annual cash incentive opportunity and grant date fair value of fiscal 2020 equity awards.

Cash Compensation

Base Salary

In determining base salaries for fiscal 2020, the Committee not only recognized the changes in the composition of the Peer Group but also considered that the overall market had experienced year-over-year increases in cash compensation, both collectively and at the individual executive level, which were significantly greater than the year-over-year increases in cash compensation for Ciena's executives. As a result, the Market Data showed that the base salaries for all of the executives in the aggregate had decreased from the 50th to the 35th percentile of the market, and that the base salary for each of the NEOs was either at or below the 40th percentile of executives in equivalent positions at the time of the Committee's assessment. The Committee was concerned about the continuing market competitiveness of Ciena's cash compensation for its executives, particularly in light of Ciena's outstanding business and financial performance and the factors for each individual executive described in the "Qualitative Factors" described above, and therefore sought to better align the fiscal 2020 base salaries of the NEOs with the approximate median of the Market Data for their respective positions by approving the increases set forth below. In addition, the Committee considered that Messrs. McFeely and Phipps had each been promoted into executive leadership roles in recent years and continued to have meaningful expansions of their roles and oversight of important strategic and operational initiatives. The Committee believed that these increases were reasonable and appropriate under the circumstances. By way of example, even after the increase for Mr. Smith, his base salary still remained below the 50th percentile of the market for chief executive officers.

Annual Base Salary

	Anı	nual Base Sala	ry (\$)
Name	Fiscal 2019	Fiscal 2020	Percentage Increase
Gary B. Smith	\$ 950,000	\$ 1,000,000	5.3%
James E. Moylan, Jr.	\$ 560,000	\$ 575,000	2.7%
Scott A. McFeely	\$ 440,000	\$ 500,000	13.6%
Jason M. Phipps	\$ 440,000	\$ 500,000	13.6%
David M. Rothenstein	\$ 485,000	\$ 515,000	6.2%

The above salary increases were made effective as of Ciena's second quarter of fiscal 2020, 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, 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, for the same reasons set forth above with respect to base salaries, the Market Data showed that, if fully paid at the target level, the overall target total cash compensation of the executives in the aggregate had decreased from the 60th to the 40th percentile of the market, with variance by individual executive, at the time of the Committee's assessment. The Committee noted that, after application of the increase to his base salary, Mr. Smith's target total cash compensation approximated the market median for chief executive officers and determined not to increase his target cash incentive opportunity for fiscal 2020. However, the Committee recognized that, even after the base salary increases for the other NEOs, their target total cash compensation remained below the 50th percentile of their equivalent positions in the market. Accordingly, in order to increase the continuing market competitiveness of their cash compensation, the Committee decided to increase the fiscal 2020 target cash incentive opportunities for the NEOs other than Mr. Smith and Mr. Phipps, as set forth below.

Annual Cash Incentive Opportunity

		Target Cash Incentive Compensation (as a percentage of base salary)		
Name	Fiscal 2019	Fiscal 2020	Percentage Increase	
Gary B. Smith	125%	125%	0%	
James E. Moylan, Jr.	85%	90%	6%	
Scott A. McFeely	85%	90%	6%	
Jason M. Phipps	100%	100%	0%	
David M. Rothenstein	75%	80%	7%	

Target Total Cash Compensation

The Committee's decisions with respect to annual base salaries and annual cash incentive bonus opportunities for fiscal 2020 resulted in target total cash compensation for the NEOs as set forth below.

Target Total Cash Compensation

	Target Tota	Target Total Cash Compensation (\$)	
Name	Fiscal 2019	Fiscal 2020	Percentage Increase
Gary B. Smith	\$ 2,137,500	\$ 2,250,000	5.3%
James E. Moylan, Jr.	\$ 1,036,000	\$ 1,092,500	5.5%
Scott A. McFeely	\$ 814,000	\$ 950,000	16.7%
Jason M. Phipps	\$ 880,000	\$ 1,000,000	13.6%
David M. Rothenstein	\$ 848,750	\$ 927,000	9.2%

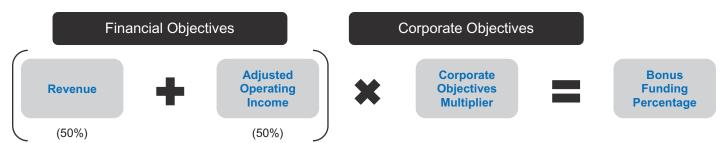
The amounts in the table above represent target total cash compensation for fiscal 2019 and fiscal 2020. For amounts actually earned or received by our NEOs during fiscal 2020, see "Summary Compensation Table" in the "Executive Compensation Tables" below.

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 pre-established set of shortterm 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 2020 Structure. In designing the fiscal 2020 bonus plan, the Committee decided to retain the existing structure from the previous year, including the use of two financial objectives and a set of defined corporate objectives to determine the applicable bonus funding percentage. Revenue and adjusted operating income were again selected as the financial objectives in order to reflect Ciena's overall emphasis on balancing both top-line revenue growth and bottom-line profitability. These financial objectives were weighted equally and their performance averaged to determine the total financial funding percentage. In turn, the financial funding percentage was multiplied by the corporate objectives multiplier, which included an upside multiplier based on overperformance against the corporate objectives, to derive the total bonus funding percentage. However, the Committee made two changes to the pay-for-performance table for the adjusted operating income financial objective: (i) increased the minimum performance threshold from 70% to 80% of target; and (ii) modified the slope for performance below target from 1-to-1 to 1.5-to-1, such that, the resulting target bonus earned for 90% performance against target would decrease from 90% to 85%. These changes were made to reflect Ciena's larger adjusted operating income target and its historical performance against that target, and to better balance risk and reward for adjusted operating income performance below target by avoiding the possibility of a meaningful bonus payout in the event of Ciena's average or below-average financial performance. The Committee 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 2020 bonus payout representing a percentage of Ciena's profit that was reasonably consistent with that in recent years.

The applicable bonus funding percentage under the fiscal 2020 bonus plan is calculated as set forth below, with the maximum amount that could be paid equaling 216% of the target bonus ((200% x 50%) + (160% x 50%) x 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 2020 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 2020 Revenue		
Performance Against Target (%)	Total Target Bonus Earned (%)	
< 90%	0%	
90%	50%	
95%	75%	
100%	100%	
105%	150%	
≥110%	200%	

	Fiscal 2020 Adjusted Operating Income		
-	Performance Against Target (%)	Total Target Bonus Earned (%)	
	< 80%	0%	
	80%	70%	
	90%	85%	
	100%	100%	
	110%	120%	
	120%	140%	
	≥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 minimum performance threshold of each Financial Objective; 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, 90% of the adjusted operating income target and seven of its eight corporate objectives, the applicable annual cash incentive award would have been 96% ((90% x 50%) + (85% x 50%) x 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 2020 revenue target was \$3,800 million.
- The fiscal 2020 adjusted operating income target was \$645 million in the aggregate, after taking into account the above adjustments.

Each of the above targets was taken directly from our fiscal 2020 operating plan approved by the Board of Directors.

Corporate Objectives. The fiscal 2020 corporate objectives were aligned with Ciena's execution imperatives for the fiscal vear, as follows:

Achieve general availability of at least three of four defined Packet-Optical product releases or feature content
 Achieve general availability of at least three of four defined Packet Networking product releases or feature content Generate \$320M in orders from Packet Networking portfolio
Generate \$90M in orders from Blue Planet portfolio, of which 50% are derived from certain named customers
 Generate 12% year-over-year aggregate increase in orders from international sales regions Deploy an Adaptive IP solution based on new Service-Aware Operating System release with three customers
 Maintain and improve customer experience by attaining defined levels of product delivery by original promise date and deployment project completion on-time Implement two internal project initiatives relating to new Salesforce.com platform release and a "no touch" customer purchase order booking process

Attainment of Fiscal 2020 Cash Incentive Bonus

Ciena had a solid year of business and financial performance in fiscal 2020 against the backdrop of the COVID-19 pandemic and its resulting business and economic impacts. The company significantly underachieved against the revenue target as a direct result of the material slowdown in both customer spending and business velocity around the world due to COVID-19. At the same time, the company overachieved against the adjusted operating income target due to higher gross margins associated with deriving a larger percentage of revenue from existing business instead of new design wins and early-in-life projects, as well as lower operating expense due to reduced travel and other costs resulting from the ongoing pandemic.

	Revenue (50%)	
Target (\$MM)	Actual (\$MM)	% Bonus Payout
\$ 3.800	\$ 3,532	65%

Adjusted Operating Income (50%)		
Target	Actual	% Bonus
(\$MM)	(\$MM)	Payout
\$ 645	\$ 694	115%

Based on the payout-for-performance structure described above, this resulted in a bonus earned at 90% of target ((65% + 115%) / 2). Separately, Ciena achieved six of the eight corporate performance objectives for fiscal 2020, after falling short on both the Blue Planet orders and international orders growth objectives for the reasons set forth above, which resulted in application of a 1.0x multiplier. Notwithstanding the impact of those factors outside of Ciena's control, the Committee determined not to make any adjustments to either the objectives or the payout under the fiscal 2020 incentive bonus plan. As a result, the NEOs earned and were awarded a bonus equal to 90% of the annual target bonus opportunity (90% x 1.0), which resulted in the cash incentive bonus payments as set forth below.

Attainment of Fiscal 2020 Cash Incentive Bonus

Name	Fiscal 2020 Cash Incentive Bonus
Gary B. Smith	\$ 1,125,000
James E. Moylan, Jr.	\$ 465,750
Scott A. McFeely	\$ 405,000
Jason M. Phipps	\$ 450,000
David M. Rothenstein	\$ 370,800

Equity Compensation

Factors and Process in Determining Equity Awards

In determining equity compensation for fiscal 2020, the Committee considered that the year-over-year market increases in annual equity values were slightly higher than those provided to Ciena's executive officers. The Market Data showed that, as a result of these market increases, the overall average equity value of awards granted to our executive officers as compared to the market decreased year-over-year, from the 50th to the 45th percentile of the market at the time of the Committee's assessment. The Committee noted that this overall average in equity value fell below the bottom of its target range of between the 50th and 75th market percentiles for the value delivered to similar executives. As previously discussed, 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 our executive officers using a target range at or above median for the values delivered to similar executives in the Peer Group.

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 2020 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 Awards

As described above, based on the Market Data, the overall average equity value for awards to our executives was below 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 in recent years to align executive equity compensation with the Peer Group, and particularly in the context of 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 2020 equity awards to Mr. Smith and the other NEOs that represented meaningful 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 2020 equity award with a grant date value representing a 21% 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 year-over-year increases in grant date values of the fiscal 2020 equity awards to the other NEOs largely served to maintain their existing market positioning at approximately at or around the median of equity values awarded to similar executives. Overall, the Committee believed that the values of the equity awards to the NEOs were reasonable and appropriate.

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 recent years. Specifically, the fiscal 2020 equity awards for our 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 2020)	50% after first year and 50% after second year
Market Stock Units	24%	20%	Relative TSR	Three Years (Fiscal 2020 – 2022)	100% after third year

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, and then allocated as set forth above. The table below sets forth the specific number of shares underlying the equity awards, with the PSU and MSU awards at target level based on achievement of the goals described below, and the aggregate grant date delivered value of such awards based on Ciena's closing stock price of \$40.89 on the grant date of December 17, 2019. 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 2020 Annual Equity Awards

Name	RSUs (#)	Target PSUs (#)	Target MSUs (#)	Grant Date Delivered Value (\$)
Gary B. Smith	85,516	76,964	51,309	\$ 9,077,393
James E. Moylan, Jr.	24,052	14,431	9,621	\$ 2,029,894
Scott A. McFeely	24,052	14,431	9,621	\$ 2,029,894
Jason M. Phipps	24,052	14,431	9,621	\$ 2,029,894
David M. Rothenstein	20,043	12,026	8,017	\$ 1,691,548

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 2020 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 our 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 2020 performance period would be subject to a staggered vesting and delivery schedule in two equal installments over the 12 months following the fiscal 2020 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 our executive officers with our 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 2020: the aggregate sales orders target of \$3,928 million and the adjusted earnings per share target of \$2.71. Each of these goals was derived directly from the targets set forth in our fiscal 2020 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 our executive officers with our stockholders and to further incentivize them to overachieve against our fiscal 2020 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%)		
Aggregate Sales Orders (\$MM)	Total Target PSUs Earned (%)	
< \$ 3,535	0%	
\$ 3,535	50%	
\$ 3,928	100%	
≥\$ 4,321	200%	

Adjusted Earnings Per Share (50%)		
Adjusted EPS (\$)	Total Target PSUs Earned (%)	
< \$ 2.17	0%	
\$ 2.17	80%	
\$ 2.71	100%	
≥\$ 3.79	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 third consecutive year, the Committee incorporated a relative performance goal as part of the annual equity awards for our 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 2020 through fiscal 2022 (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, 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 2020 MSU Performance Goal

Fiscal 2020-22 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%
≥ 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 2022 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 our executive officers with those of stockholders and thereby enhance stockholder value.

Attainment of Fiscal 2020 PSUs

As noted above, Ciena had a solid year of business and financial performance in fiscal 2020 against the backdrop of the COVID-19 pandemic and its resulting impacts. The company significantly underachieved against the aggregate sales orders target and overachieved against the adjusted earnings per share in fiscal 2020, as set forth below:

Agg	regate Sales Or (50%)	ders
Target (\$MM)	Actual (\$MM)	% PSUs earned
\$ 3,928	\$ 3,623	61%

Adjuste	d Earnings Pe (50%)	er Share
Target (\$)	Actual (\$)	% PSUs earned
\$ 2.71	\$ 2.95	122%

Based on the equal weighting of the two goals, approximately 91.5% of the total PSUs were earned as set forth below. One-half of the PSUs earned during fiscal 2020 vested in December 2020, and the remaining one-half of the PSUs earned will vest in December 2021, subject to continued service.

Fiscal 2020 PSU Awards Earned

Name	PSUs Earned (#)
Gary B. Smith	70,422
James E. Moylan, Jr.	13,203
Scott A. McFeely	13,203
Jason M. Phipps	13,203
David M. Rothenstein	11,004

Attainment of Fiscal 2018 MSUs

The MSUs granted in December 2017 applied to the three-year measurement period covering Ciena's fiscal 2018 through fiscal 2020. During that period, Ciena's stock price significantly increased from \$22.53 at the beginning of the measurement period to \$47.72 at the end of the measurement period, thereby generating a TSR of 111.34%. During that same period, the stock price of the S&P Networking Index increased from \$192.97 to \$211.32, thereby generating a Return of 9.51%. Based on that performance, Ciena's TSR outperformed the S&P Networking Index's Return over the measurement period by 101.83%, which resulted in 200% of the total MSUs being earned as set forth below. By their terms, the MSUs vested in their entirety in December 2020.

Fiscal 2018-2020 Comparative TSR Performance					
Ciena TSR (%)	Index TSR (%)	% MSUs earned			
111.34%	9.51%	200%			

Fiscal 2018 MSU Awards Earned

Name	MSUs Earned (#)
Gary B. Smith	149,210
James E. Moylan, Jr.	28,694
Scott A. McFeely	22,956
Jason M. Phipps	19,130
David M. Rothenstein	22,956

Equity Award 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 our 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 2020, with the fourth quarter earnings release on December 12, 2019 and executive and non-executive awards granted on December 17, 2019.

Other Program Elements and Pay Practices

Risk Assessment of Compensation Practices

During fiscal 2020, at the Committee's request and direction, management conducted an assessment of the risks associated with Ciena's compensation policies and practices, including:

- review of plans, policies and procedures relating to the components of our 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

The Committee paid particular attention to any additions, modifications or revisions to our compensation programs during the current and preceding fiscal years, and how these changes affected the strengths, weaknesses or controls related to such programs. The 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:

- oversight of major incentive compensation programs and decision-making by the 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 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.

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 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.

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.

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.

Change in Control Severance Agreements

Each of our executive officers 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. The current change in control severance agreements are effective through November 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.

Clawback Policy

We maintain a compensation 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

Under our perquisites policy, our executive officers are eligible for the same benefits as salaried employees and 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 Policy

We maintain a policy requiring our executive officers 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. 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.

Anti-Hedging and Pledging Policy

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 2020 by reference from this proxy statement.

> Submitted by the members of the Compensation Committee:

Judith M. O'Brien (Chair) Hassan M. Ahmed. Ph.D. Bruce L. Claflin 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 named executive officers ("Named Executive Officers" or "NEOs") as of the end of fiscal 2020. 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.

Fiscal 2020 Summary Compensation Table

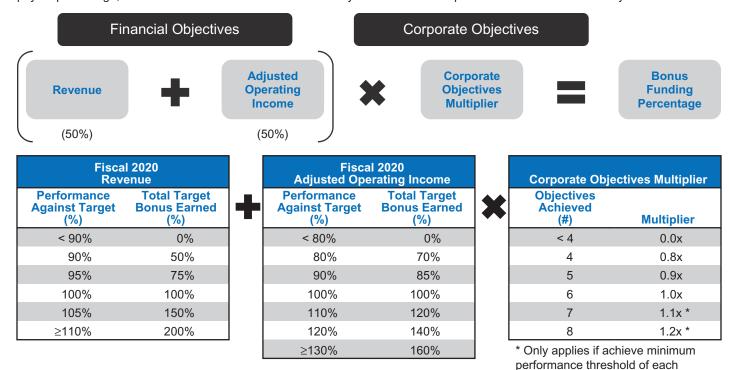
Name and Principal Position	Year	Salary (\$) (1)	Bonus (\$)	Stock Awards (\$) (2)	Ince	on- Equity entive Plan npensation (\$) (3)	Com	II Other pensation (\$) (4)	Total (\$)
Gary B. Smith	2020	\$ 988,462	_	\$ 9,077,393	\$	1,125,000	\$	11,400	\$ 11,202,255
President and CEO	2019	\$ 1,010,344	_	\$ 8,030,246	\$	1,959,375	\$	16,400	\$ 11,016,365
	2018	\$ 917,307	_	\$ 6,797,777	\$	1,406,250	\$	8,250	\$ 9,129,584
James E. Moylan, Jr.	2020	\$ 571,888	_	\$ 2,029,894	\$	465,750	\$	18,921	\$ 3,086,453
SVP and CFO	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
Scott A. McFeely	2020	\$ 486,154	_	\$ 2,029,894	\$	405,000	\$	21,400	\$ 2,942,448
SVP, Global Products and Services	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
Jason M. Phipps	2020	\$ 486,154	_	\$ 2,029,894	\$	450,000	\$	18,181	\$ 2,984,229
SVP, Global Customer Engagement	2019	\$ 473,846	_	\$ 1,578,769	\$	726,000	\$	16,369	\$ 2,794,984
David M. Rothenstein	2020	\$ 508,077	_	\$ 1,691,548	\$	370,800	\$	11,303	\$ 2,581,728
SVP, General Counsel and Secretary	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

- (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 2020 and fiscal 2019 consisted of a 52-week period. Ciena's fiscal 2018 consisted of a 53-week period. For fiscal 2019, salary for each NEO includes 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.
- (2) 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, 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 23 to our consolidated financial statements included in our Annual Report on Form 10-K for fiscal 2020. Assuming the maximum future payout under the PSUs and MSUs, the aggregate grant date fair value in the "Stock Awards" column above for fiscal 2020 would have been as follows: \$14,658,037 for Mr. Smith, \$3,076,302 for Mr. Moylan, \$3,076,302 for Mr. McFeely, \$3,076,302 for Mr. Phipps, and \$2,563,537 for Mr. Rothenstein. See the "Grants of Plan-Based Awards" table below for information relating to RSU, PSU and MSU awards granted during fiscal 2020 under our 2017 Plan.
- (3) Non-Equity Incentive Plan Compensation reflects amounts earned by each NEO under Ciena's annual cash incentive bonus plan for fiscal 2020. See the "Grants of Plan-Based Awards" table below for information relating to cash incentive awards granted during fiscal 2020 under our annual cash incentive bonus plan.
- (4) All other compensation includes the following for each NEO (as applicable) during fiscal 2020:
 - a. For each NEO, Section 401(k) plan matching contributions paid by us and generally available to all full-time U.S. employees, together with payments made in fiscal 2020 in lieu of 401(k) matching contributions that would have been for calendar year 2019 absent IRS limitations. Includes \$11,400 for each of Messrs. Smith and McFeely, \$11,303 for Mr. Rothenstein, and \$10,721 for Mr. Moylan.

 For Messrs. Moylan, McFeely, and Phipps, 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.

Grants of Plan-Based Awards

Non-Equity Incentive Plan Awards. Non-equity incentive plan awards for fiscal 2020, 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 2020 is set forth in the "Non-Equity Incentive Compensation" column of the "Summary Compensation Table" above. The design of the plan for fiscal 2020, including the use of a combination of (i) financial objectives consisting of our fiscal 2020 revenue target and our fiscal 2020 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.



Based on the level of achievement of the fiscal 2020 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:

Financial Objective; otherwise

reverts to 1.0x

	Fiscal 2020 Cash Incentive Bonus Plan
	Adjusted Operating Revenue Income Corporate Target Objective Objective Objectives Bonus Achieved Achieved Achieved Payable
"Threshold"	90% < 80% 4 20%
"Target"	100% 100% 6 100%
"Maximum"	≥ 110% ≥ 130% 8 216%

The "threshold," "target" and "maximum" values in the table below are calculated by multiplying each NEO's base salary for fiscal 2020 by his respective target bonus opportunity (expressed as a percentage of annual base salary) by the applicable target bonus payable factor above. See "Compensation Discussion and Analysis — Annual Cash Incentive Bonus Plan."

Equity Awards. Equity awards during fiscal 2020 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 2020 vest over a four-year term, with one-sixteenth of the grant amount vesting quarterly.

PSU awards granted to the NEOs in fiscal 2020 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 2020 PSU Performance Goals

Aggregate Sales Orders (50%)					
Aggregate Sales Orders (\$MM)	Total Target PSUs Earned (%)				
< \$ 3,535	0%				
\$ 3,535	50%				
\$ 3,928	100%				
≥\$ 4,321	200%				

Adjusted Earnings Per Share (50%)					
Adjusted EPS (\$)	Total Target PSUs Earned (%)				
< \$ 2.17	0%				
\$ 2.17	80%				
\$ 2.71	100%				
≥\$ 3.79	200%				

MSU awards granted to the NEOs in fiscal 2020 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 2020 through fiscal 2022 (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 2020 MSU Performance Goal

Fiscal 2020-22 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%
≥ 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 than 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 2022 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.

The following table sets forth information regarding non-equity incentive awards and equity awards granted to each of the NEOs during fiscal 2020. For information regarding the performance criteria applicable to PSUs and MSUs granted in fiscal 2020, see "Compensation Discussion and Analysis" above. For each equity award made to our NEOs during fiscal 2020, the date that the award was approved by our Compensation Committee was the same as the grant date.

Fiscal 2020 Grants of Plan-Based Awards

			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		Full Grant	
Name	Type of Award		Threshold (\$)	Target (\$)	Maximum (\$)	Threshold (#) (2)	Target (#)	Maximum (#)	Stock Units (#)		
Gary B. Smith	PSU	12/17/2019				19,241	76,964	153,928		\$	3,147,058
	RSU	12/17/2019							85,516	\$	3,496,749
	MSU	12/17/2019					51,309	102,618		\$	2,433,586
	Incentive Cash	12/17/2019	\$ 250,000 \$	1,250,000	\$ 2,700,000						
James E. Moylan, Jr.	PSU	12/17/2019				3,608	14,431	28,862		\$	590,084
	RSU	12/17/2019							24,052	\$	983,486
	MSU	12/17/2019					9,621	19,242		\$	456,324
	Incentive Cash	12/17/2019	\$ 103,500 \$	517,500	\$ 1,117,800						
Scott A. McFeely	PSU	12/17/2019				3,608	14,431	28,862		\$	590,084
	RSU	12/17/2019							24,052	\$	983,486
	MSU	12/17/2019					9,621	19,242		\$	456,324
	Incentive Cash	12/17/2019	\$ 90,000 \$	450,000	\$ 972,000						
Jason M. Phipps	PSU	12/17/2019				3,608	14,431	28,862		\$	590,084
	RSU	12/17/2019							24,052	\$	983,486
	MSU	12/17/2019					9,621	19,242		\$	456,324
	Incentive Cash	12/17/2019	\$ 100,000 \$	500,000	\$ 1,080,000						
David M. Rothenstein	PSU	12/17/2019				3,007	12,026	24,052		\$	491,743
	RSU	12/17/2019							20,043	\$	819,558
	MSU	12/17/2019					8,017	16,034		\$	380,246
	Incentive Cash	12/17/2019	\$ 82,400 \$	412,000	\$ 889,920						

⁽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 2020.

⁽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 23 to our consolidated financial statements included in our Annual Report on Form 10-K for fiscal 2020.

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 NEO as of the end of fiscal 2020. 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 \$39.39, the closing market price per share of our common stock on the NYSE on the last trading day of fiscal 2020.

Outstanding Equity Awards at Fiscal 2020 Year-End

			Stock Awards					
Name	Grant Date	Number of Shares or Uni of Stock That Have Not Vested (#)	its Ma Un	rket Value of Shares or its of Stock That Have Not Vested (\$)				
Gary B. Smith	12/17/2019	70,422 ((1)	\$ 2,773,923				
,	12/17/2019	69,482 (\$ 2,736,896				
	12/17/2019	51,309 (` '	\$ 2,021,062				
	12/18/2018	49,289 (\$ 1,941,494				
	12/18/2018		(5)	\$ 1,926,132				
	12/18/2018	52,158 (\$ 2,054,504				
	12/12/2017	38,858 (· ·	\$ 1,530,617				
	12/12/2017	149,210 (\$ 5,877,382				
	12/14/2016	5,902 (\$ 232,480				
James E. Moylan, Jr.	12/17/2019	13,203 (•	\$ 520,066				
• •	12/17/2019	19,543 (\$ 769,799				
	12/17/2019	9,621 (,	\$ 378,971				
	12/18/2018	9,975 (\$ 392,915				
	12/18/2018	14,846 (\$ 584,784				
	12/18/2018	10,556 (\$ 415,801				
	12/12/2017	11,209 (,	\$ 441,523				
	12/12/2017	28,694 (\$ 1,130,257				
	12/14/2016	1,968 (\$ 77,520				
Scott A. McFeely	12/17/2019	13,203 (\$ 520,066				
Coott A. Wor Gery	12/17/2019	19,543 (\$ 769,799				
	12/17/2019	9,621 (\$ 378,971				
	12/18/2018	8,215 (\$ 376,971				
	12/18/2018	12,226 (
	12/18/2018							
	12/12/2017	8,693 (
		8,968 (
	12/12/2017	22,956 (
Jacon M. Dhinna	12/14/2016	675 (,	\$ 26,588				
Jason M. Phipps	12/17/2019	13,203 (\$ 520,066				
	12/17/2019	19,543 (\$ 769,799				
	12/17/2019	9,621 (,	\$ 378,971				
	12/18/2018	8,215 (\$ 323,589				
	12/18/2018	12,226 (\$ 481,582				
	12/18/2018	8,693 (,	\$ 342,417				
	12/12/2017	7,473 (\$ 294,361				
	12/12/2017	19,130 (\$ 753,531				
	03/01/2017	1,495 (\$ 58,888				
D :: 114 D ::	12/14/2016	562 (\$ 22,137				
David M. Rothenstein	12/17/2019	11,004 (\$ 433,448				
	12/17/2019	16,286 (\$ 641,506				
	12/17/2019	8,017 (\$ 315,790				
	12/18/2018	8,215 (\$ 323,589				
	12/18/2018	12,226 (\$ 481,582				
	12/18/2018	8,693 (\$ 342,417				
	12/12/2017	8,968 (\$ 353,250				
	12/12/2017	22,956 (\$ 904,237				
	12/14/2016	1,405 (9)	\$ 55,343				

- (1) PSU awards granted on December 17, 2019 were subject to achievement of the goals described above in "Grants of Plan-Based Awards" and "Compensation Discussion and Analysis" for the fiscal 2020 performance period. In December 2020, such goals were determined by the Compensation Committee to have been satisfied in part, and approximately 91.5% 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 2020. The amounts earned thereunder vest in equal installments on December 20, 2020 and 2021.
- (2) Remaining unvested RSUs granted on December 17, 2019 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, 2023.
- (3) MSU awards granted on December 17, 2019 are subject to achievement of the goals described above in "Grants of Plan-Based Awards" and "Compensation Discussion and Analysis" above.
- (4) Remaining amounts earned with respect to PSUs granted on December 18, 2018 vested on December 20, 2020.
- (5) 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.
- (6) MSU awards granted on December 18, 2018 are subject to achievement of the goals described above in "Grants of Plan-Based Awards" and "Compensation Discussion and Analysis" above.
- (7) 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
- (8) MSU awards granted on December 12, 2017 were subject to achievement of the goals described above in "Grants of Plan-Based Awards" and "Compensation Discussion and Analysis" for the fiscal 2018-2020 performance period. In December 2020, such goals were determined by the Compensation Committee to have been satisfied, and 200% of the total MSUs were earned. See "Compensation Discussion and Analysis" above. Amounts reported above reflect the actual amount earned with respect to such MSU awards in December 2020. The amounts earned thereunder vested in their entirety on December 20, 2020.
- (9) Remaining unvested RSUs granted on December 14, 2016 vested on December 20, 2020.
- (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 2020. 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 2020 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.

Fiscal 2020 Stock Vested

	Stock	Awards
Name	Number of Shares Acquired on Vesting (#)	Value Realized on Vesting (\$)
Gary B. Smith	256,029	\$ 10,939,884
James E. Moylan, Jr.	41,869	\$ 1,781,821
Scott A. McFeely	42,016	\$ 1,799,995
Jason M. Phipps	38,394	\$ 1,647,634
David M. Rothenstein	48,449	\$ 2,074,394

Nonqualified Deferred Compensation

The following table shows the executive contributions, earnings and account balances for fiscal 2020 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.

Fiscal 2020 Nonqualified Deferred Compensation

Name	Executive Contributions in Fiscal 2020 (\$)	Registrant Contributions in Fiscal 2020 (\$)	Aggregate Earnings in Fiscal 2020 (\$)	Aggregate Withdrawals/ Distributions (\$)	Aggregate Balance at October 31, 2020 (\$)
Gary B. Smith	_	_	_	_	_
James E. Moylan, Jr.	1,548,230	_	173,980	_	3,980,087
Scott A. McFeely	_	_	_	_	_
Jason M. Phipps	_	_	_	_	_
David M. Rothenstein	300,094	_	59,337	_	779,307

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 2020 and assume that the triggering event occurred on such date. The estimated payment amounts are based on a Ciena common stock price of \$39.39, which was the closing market price per share of our common stock on the NYSE on the last trading day of our fiscal 2020. 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 the Ciena Corporation 2008 Omnibus Incentive 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.

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. 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 \$39.39 per share, the closing market price per share of Ciena common stock on the NYSE on the last trading day of our fiscal 2020.

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

Name	Value Realized Upon Acceleration (\$)
Gary B. Smith	\$ 5,096,593
James E. Moylan, Jr.	\$ 1,320,372
Scott A. McFeely	\$ 1,083,619
Jason M. Phipps	\$ 1,090,955
David M. Rothenstein	\$ 1,072,895

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 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 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 2020.

Payments Upon Involuntary Separation of Service for Other than Cause Continuation Selection of Payments Continuation Continuation Continuation Continuation

Name	Salary and Bonus Payment (\$)	Continuation of Benefits Coverage and Outplacement (\$)	Total (\$)
Gary B. Smith	\$ 4,500,000	\$ 38,904	\$ 4,538,904
James E. Moylan, Jr.	\$ 1,092,500	\$ 19,794	\$ 1,112,294
Scott A. McFeely	\$ 950,000	\$ 19,794	\$ 969,794
Jason M. Phipps	\$ 1,000,000	\$ 26,339	\$ 1,026,339
David M. Rothenstein	\$ 927,000	\$ 26,339	\$ 953,339

Payments Upon Change in Control

Each of our executive officers, including the NEOs, is party to a change in control severance agreement that 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 payments and 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.

The following table shows the estimated earned value of the conversion of performance-based equity awards, 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 2020 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 \$39.39 per share, the closing market price per share of Ciena common stock on the NYSE on the last trading day of our fiscal 2020.

Acceleration of Vesting of Equity Awards Upon Change in Control

	Conversion of Performance-Based Stock Awards Upon Change in Control				
Name	Shares Subject to Conversion (#)	Shares Subject to Accelerated Vesting Upon Conversion (#)	Value Realized Upon Acceleration (\$)		
Gary B. Smith	255,036	140,503	\$ 5,534,413		
James E. Moylan, Jr.	48,955	27,126	\$ 1,068,493		
Scott A. McFeely	44,223	23,410	\$ 922,120		
Jason M. Phipps	42,310	21,656	\$ 853,030		
David M. Rothenstein	40,214	22,107	\$ 870,795		

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 \$39.39 per share, the closing market price per share of our common stock on the NYSE on the last trading day of our fiscal 2020. 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	\$ 18,413,486
James E. Moylan, Jr.	\$ 4,194,877
Scott A. McFeely	\$ 3,696,752
Jason M. Phipps	\$ 3,616,947
David M. Rothenstein	\$ 3,439,298

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, 18 months) 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."

Continuation Value Realized Salary and Bonus of Benefits **Upon Equity Payment** Coverage Acceleration Total Name (\$) (1) (\$) (2) (\$)(3)(\$) Gary B. Smith \$ 5,625,000 \$ 38,904 \$ 18,413,486 \$ 24,077,390 James E. Moylan, Jr. \$ 1.638.750 \$ 26,966 4.194.877 5.860.593 Scott A. McFeely \$ 1,425,000 \$ 26,966 3,696,752 5,148,718 Jason M. Phipps \$ 1,500,000 \$ 36,783 3,616,947 \$ 5,153,730 David M. Rothenstein \$ 1,390,500 \$ 36,783 \$ 3,439,298 4,866,581 \$

Potential Payments Upon "Covered Termination"

- (1) Reflects pre-tax severance payments to each NEO based upon: (a) annual salary in effect as of the end of fiscal 2020, and (b) annual cash incentive compensation payable during fiscal 2020 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 2020 despite the NEO's non-employee status.
- (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.

CEO Pay Ratio	
CEO Annual Total Compensation *	\$ 11,202,255
Median Employee Annual Total Compensation	\$ 98,261
CEO to Median Employee Pay Ratio	114:1

^{*} 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 2019, who is a full-time employee located in Canada, 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 2019, we calculated our median employee's annual total compensation for fiscal 2020 according to the SEC's instructions for preparing the Summary Compensation Table. We applied an exchange rate of 1 CAD to 0.758437 USD as of October 30, 2020, 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 2020.

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 2020, we believe it is important to view the Compensation Committee's decision-making against the backdrop of both our overall corporate governance and our fiscal 2020 business and financial performance.

We have deliberately structured our core compensation 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 "Decision-Making Framework – Executive Compensation Best Practices" therein.

The compensation-related decisions for fiscal 2020 were made in December 2019, following our outstanding business and financial performance in fiscal 2019 and prior to the onset of the global COVID-19 pandemic. Although our sales orders and revenue were negatively impacted by COVID-19 due to slowdowns in customer spending and business velocity in the second half of fiscal 2020, our profitability increased as a result of higher gross margins and lower operating expense due to resulting business dynamics. Against this backdrop, the Compensation Committee determined not to make any adjustments to the fiscal 2020 objectives or payouts for the NEOs under the incentive compensation programs.

We believe our overall fiscal 2020 executive compensation was reasonable and appropriate in light of Ciena's business and financial performance, which is described more fully in the "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 2021 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 2022 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 2020 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 2020 with respect to the shares of Ciena common stock that may be issued under Ciena's existing equity compensation plans.

Plan category	Number of securities to be issued upon exercise of outstanding options, warrants and rights (A)	Weighted average exercise 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	4,175,803(1)	\$ 31.41(2)	19,027,565(3)
Equity compensation plans not approved by stockholders		<u> </u>	
Total	4,175,803	\$ 31.41	

(1) Includes the following:

- 107,275 shares underlying options awarded under the Cyan, Inc. 2006 Stock Plan and Cyan, Inc. 2013 Equity Incentive Plan, assumed by Ciena in connection with an acquisition transaction:
- 3,426,137 shares underlying unvested RSUs awarded under the Ciena Corporation 2008 Omnibus Incentive Plan (the "2008 Plan") and the 2017 Plan and deferred RSUs awarded under the Ciena Corporation 2000 Equity Incentive Plan, the 2008 Plan, and the 2017 Plan:
- 102,685 shares underlying earned but unvested PSUs awarded under the 2017 Plan;
- 165,314 shares underlying unearned PSUs awarded under the 2017 Plan, assuming the achievement of target performance with respect to each applicable performance metric such that 100% of the target PSUs are earned. The number of shares earned pursuant to such PSUs, if any, will be determined following completion of the relevant performance period.
- 374,392 shares underlying unearned MSUs awarded under the 2017 Plan, assuming the achievement of target performance such that 100% of the target MSUs are earned. The number of shares earned pursuant to such MSUs, if any, will be determined following completion of the relevant performance period.

The number of shares of Ciena common stock to be issued to participants upon vesting of unvested RSUs, PSUs, and MSUs will be lower than what is reflected in the above table because shares will be withheld to meet employee tax withholding requirements upon vesting.

- (2) Represents the weighted average exercise price of options, and does not take into account RSUs, PSUs, or MSUs, which have no exercise price.
- (3) As of October 31, 2020, reflects approximately 14.7 million and 4.3 million shares available for issuance under the 2017 Plan and ESPP, respectively. 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 shares. If the ESPP is amended and restated pursuant to Proposal No. 2, the evergreen feature will be removed and the total number of shares available for issuance under the ESPP will be increased to 13,235,200.

Stockholder Proposals for 2022 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 21, 2021. 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 2022 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 2021 annual meeting, which would be no earlier than September 21, 2021 and no later than October 21, 2021. 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 2022 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 2, 2021 and no later than January 1, 2022. If the date of our 2022 Annual Meeting of Stockholders is more than 30 calendar days before or more than 30 calendar days after the anniversary date of the 2021 Annual Meeting, your submission must be delivered not earlier than 120 days prior to our 2022 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
- 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 2021 Annual Meeting. The Annual Meeting will be held on April 1, 2021 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 2020, available to our stockholders on the Internet. On February 18, 2021, 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 2020. 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/CIEN2021. 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/CIEN2021;
- 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/CIEN2021;
- Stockholders with questions regarding how to attend and participate in the Annual Meeting or who encounter any technical difficulties with the virtual meeting may call 1-844-976-0738 (or 1-303-562-9301 for international calls) on the meeting date;
- 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, 2021 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, 2021, 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/CIEN2021. As a result of the ongoing COVID-19 pandemic, we expect that our offices may generally remain closed through the date of the Annual Meeting. Stockholders wishing to examine the list may contact our Corporate Secretary, and arrangements will be made to review the list in person.

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 155,158,402 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?

Pro	oposals	Recommendation
1.	Elect four Class III Director nominees	FOR each nominee
2.	Approve amendment and restatement of the Employee Stock Purchase Plan	FOR
3.	Ratify appointment of PricewaterhouseCoopers LLP as our independent registered public accounting firm for fiscal 2021	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.

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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 this majority vote standard, please see our Principles of Corporate Governance and bylaws, which can be found on the "Governance" page of the "Investors" section of our website at www.ciena.com.

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 shares present in person or represented by proxy at the Annual Meeting and entitled to vote on these proposals, with abstentions having the same effect as a vote "AGAINST" and broker non-votes not counted as a vote either "FOR" or "AGAINST" and having no effect on the outcome of the vote.

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 have no effect on the outcome of the election of our directors in an uncontested election, but will have the same effect as a vote "AGAINST" 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/CIEN2021. 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.

How can I submit a question at the Annual Meeting?

Stockholders as of the record date of the Annual Meeting may submit questions in advance of the Annual Meeting by visiting www.proxyvote.com and accessing the online pre-meeting forum using the 16-digit control number found on the Notice, proxy card or voting instructions that accompanied these proxy materials. Stockholders may also submit questions while attending the Annual Meeting. As part of the Annual Meeting, we will hold a live question and answer session during which we

intend to answer questions submitted in advance of and during the Annual Meeting that are pertinent to Ciena and the items of business at the Annual Meeting, as time permits. Stockholders may submit questions during the Annual Meeting by logging into www.virtualshareholdermeeting.com/CIEN2021 with the 16-digit control number found on the Notice, proxy card or voting instructions that accompanied these proxy materials and typing the question into the "Ask a Question" field.

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 2020, 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 2020 with the SEC on December 18, 2020. Ciena will mail without charge, upon written request, a copy of its Annual Report on Form 10-K for fiscal 2020, 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, 2020

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

Comparable GAAP Measure (in thousands, except share data)	
Operating Expense	\$ 1,165,927
Operating Income	\$ 486,964
Net Income	\$ 361,291
Net Income per diluted common share	\$ 2.32

Non-GAAP Measures

We report our financial results in accordance with GAAP. However, management believes that certain non-GAAP financial measures provide management and investors useful supplemental information and meaningful insight into the operating performance of the business. 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. 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 or superior to 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, along with a description of adjustments, can be found in the Appendix to our investor presentation for the fourth quarter of fiscal 2020 included as an exhibit to our Current Report on Form 8-K furnished with the SEC on December 10, 2020 and should be carefully evaluated.



Annex A to Proxy Statement

FORM OF AMENDED AND RESTATED CIENA CORPORATION EMPLOYEE STOCK PURCHASE PLAN

The Board of Directors of Ciena Corporation (the "Company") has adopted this Amended and Restated 2003 Employee Stock Purchase Plan (the "Plan") to enable eligible employees of the Company and its participating Affiliates (as defined below), through payroll deductions, to purchase shares of the Company's common stock, par value \$0.01 per share (the "Common Stock"). The Plan is for the benefit of the employees of the Company and any participating Affiliates. The Plan is intended to benefit the Company by increasing the employees' interest in the Company's growth and success and encouraging employees to remain in the employ of the Company or its participating Affiliates. The provisions of the Plan are set forth below:

1. SHARES SUBJECT TO THE PLAN

Subject to adjustment as provided in Section 24 below, the aggregate number of shares of Common Stock that may be made available for purchase by participating employees under the Plan is 13,235,200 shares. The shares issuable under the Plan may, in the discretion of the Board of Directors of the Company (the "Board"), be authorized but unissued shares, treasury shares or issued and outstanding shares that are purchased in the open market.

2. ADMINISTRATION

The Plan shall be administered under the direction of the Compensation Committee of the Board (the "Committee"). The Committee shall have the power to make, amend and repeal rules and regulations for the interpretation and administration of the Plan, which shall include the power to designate Affiliates to participate in the Plan. In particular, the Committee may adopt rules or procedures, including sub-plans, relating to the operation and administration of the Plan to accommodate the specific requirements of local laws and procedures for jurisdictions outside the United States. Without limiting the generality of the foregoing, the Committee is authorized to determine, among other items, eligibility requirements, earnings definitions, how payroll deductions are taken, whether payroll deductions are held in a financial institution or trust account, payment of interest on payroll deductions, procedures for conversion of local currency, beneficiary designation requirements, restrictions on shares of Common Stock and tax withholding and reporting requirements.

3. INTERPRETATION

The Plan includes two components: a component that is intended to qualify under Section 423 of the Internal Revenue Code of 1986, as amended (the "Code") (the "423 Component") and a component that is not intended to qualify under Section 423 of the Code (the "Non-423 Component"). It is intended for the 423 Component to constitute an "employee stock purchase plan" within the meaning of Section 423(b) of the Code. In addition, this Plan authorizes the grant of options under the Non-423 Component that does not qualify as an "employee stock purchase plan" under Section 423 of the Code. Except as otherwise provided herein, the Non-423 Component will operate and be administered in the same manner as the 423 Component.

Subject to the express provisions of the Plan, the Committee shall have authority to interpret the Plan, with such interpretations to be conclusive and binding on all persons and otherwise accorded the maximum deference permitted, and shall take any other actions and make any other determinations or decisions that it deems necessary or appropriate in connection with the Plan or the administration or interpretation thereof. Neither the Board, the Committee, any other committee appointed by the Board, nor any of their agents or designees shall be liable for any act, failure to act, or determination made in good faith with respect to the Plan.

To the extent any provision in the Plan is deemed to be in violation of local laws or regulations, the provision shall be deemed to be modified in a manner that complies with applicable law, provided that such modification is in conformance with the requirements of Section 423 of the Code with respect to the 423 Component. Notwithstanding the foregoing, the Plan shall continue to be governed by U.S. law as provided in Section 25 herein and all interpretations and determinations made by the Committee under the Plan will be made subject to U.S. law.

4. ELIGIBLE EMPLOYEES

Any employee of the Company and its participating Affiliates as determined by the Committee may participate in the Plan, except the following, who are ineligible to participate: (a) an employee who has been employed by the Company or any of its

participating Affiliates for less than three months as of the beginning of an Offering Period (as defined in Section 8 below); (b) an employee whose customary employment is for less than five months in any calendar year; (c) an employee whose customary employment is not more than 20 hours per week; (d) an employee who, after exercising his or her rights to purchase shares under the Plan, would own shares of Common Stock (including shares that may be acquired under any outstanding options) representing five percent or more of the total combined voting power of all classes of stock of the Company; and (e) employees who are citizens or residents of a non-U.S. jurisdiction where the grant of an option under the Plan to a citizen or resident of the non-U.S. jurisdiction, or where compliance with the laws of the foreign jurisdiction would cause the Plan to violate Code Section 423 requirements if such option is granted under the 423 Component.

The term "participating Affiliate" means any company or other trade or business that is a parent or subsidiary of the Company (determined in accordance with the principles of Sections 424(e) and (f) of the Code and the regulations thereunder) designated by the Committee as being eligible to participate in the Plan under the 423 Component or Non-423 Component. The Board may at any time in its sole discretion, if it deems it advisable to do so, terminate the participation of the employees of a particular participating Affiliate. The Committee may at any time in its sole discretion, if it deems it advisable to do so, restrict the participation of highly compensated employees or other employees consistent with Section 423 of the Code.

5. PARTICIPATION IN THE PLAN

An eligible employee may become a participating employee in the Plan by completing an election to participate in the Plan on a form provided by the Company and submitting that form to the Benefits Department of the Company. The form will authorize payroll deductions (as provided in Section 6 below) and authorize the purchase of shares of Common Stock for the employee's account in accordance with the terms of the Plan. Enrollment will become effective upon the first day of the next Offering Period. Enrollment in this Plan is limited to one Offering Period at a time.

6. PAYROLL DEDUCTIONS

At the time an eligible employee submits his or her election to participate in the Plan (as provided in Section 5 above), the employee shall elect to have deductions made from his or her pay, on each pay day following his or her enrollment in the Plan, and for as long as he or she shall participate in the Plan. The Committee shall have discretion to establish limitations on the amount of any such deductions. As determined by the Committee, such deductions may be either as a percentage or as a maximum dollar amount, but in either case such deductions shall not exceed ten percent (10%) of such employee's base salary allocable to the Offering Period. The deductions will be credited to the participating employee's account under the Plan. An employee may not during any Offering Period change his or her amount or percentage of payroll deduction for that Offering nor may an employee withdraw any contributed funds, other than in accordance with Sections 15 through 18 below.

7. RECORD OF PAYROLL DEDUCTIONS

The Company and participating Affiliates will cause to be maintained a record of amounts credited to each participating employee authorizing a payroll deduction pursuant to Section 6. The Company will not credit interest on the balance of the employees' accounts during the Offering Period.

8. OFFERING AND PURCHASE PERIODS

An Offering Period is the period determined by the Committee during which payroll deductions are accumulated for the purpose of purchasing Common Stock under the Plan, provided such Offering Period shall in no event exceed twenty-four months (24 months). A Purchase Period is the period designated by the Committee and ending on the last trading day on which purchases of Common Stock are made under the Plan.

9. RIGHTS TO PURCHASE COMMON STOCK; PURCHASE PRICE

Rights to purchase shares of Common Stock will be deemed granted to participating employees as of the first trading day of each Offering Period. The purchase price of each share of Common Stock (the "Purchase Price") shall be the lesser of 85 percent of the fair market value of the Common Stock (i) on the trading day immediately preceding the first day of the Offering Period or (ii) on the last trading day of the Purchase Period, unless the Purchase Price is otherwise established by the Committee; provided that in no event shall the Purchase Price be less than the amount determined pursuant to subparagraphs (i) and (ii) above, or the par value of the Common Stock. For purposes of the Plan, "fair market value" means the value of each share of Common Stock subject to the Plan determined as follows: if on the determination date the shares of Common Stock are listed on an established national or regional stock exchange, are admitted to quotation on the National Association of Securities Dealers Automated Quotation System, or are publicly traded on an established securities market, the fair market value of the shares of Common Stock shall be the closing price of the shares of Common Stock on such exchange or in such market (the exchange designated by the Board if there is more than one such exchange or market) on the determination date (or if there is no such reported closing price, the fair market value

shall be the mean between the highest bid and lowest asked prices or between the high and low sale prices on such trading day) or, if no sale of the shares of Common Stock is reported for such trading day, on the next preceding day on which any sale shall have been reported. If the shares of Common Stock are not listed on such an exchange, quoted on such System or traded on such a market, fair market value shall be determined by the Board in good faith.

10. TIMING OF PURCHASE; PURCHASE LIMITATION

Unless a participating employee has given prior written notice terminating such employee's participation in the Plan, or the employee's participation in the Plan has otherwise been terminated as provided in Sections 16 through 18 below, such employee will be deemed to have exercised automatically his or her right to purchase Common Stock on the last trading day of the Purchase Period (except as provided in Section 15 below) for the number of shares of Common Stock which the accumulated funds in the employee's account at that time will purchase at the Purchase Price, subject to the participation adjustment provided for in Section 14 below and subject to adjustment under Section 24 below. Notwithstanding any other provision of the Plan, no employee may purchase in any one Purchase Period and in any one calendar year under the Plan and all other "employee stock purchase plans" of the Company and its participating Affiliates shares of Common Stock having an aggregate fair market value in excess of \$25,000, determined as of the last trading date preceding the Offering Period as to shares purchased during such period. Notwithstanding any other provision of the Plan, the Committee may specify a maximum number of shares of Common Stock that may be purchased by any participating employee for such Offering Period and/or a maximum aggregate number of shares of Common Stock that may be purchased by all participating employees for such Offering Period. Effective upon the last trading day of the Purchase Period, a participating employee will become a stockholder with respect to the shares purchased during such period, and will thereupon have all dividend, voting and other ownership rights incident thereto. Notwithstanding the foregoing, no shares shall be sold pursuant to the Plan unless the Plan is approved by the Company's stockholders in accordance with Section 23 below.

11. REGISTRATION; ISSUANCE OF STOCK CERTIFICATES

As of the last trading day of the Purchase Period, a participating employee will be credited with the number of shares of Common Stock purchased for his or her account under the Plan during such Offering Period. Shares purchased under the Plan will be held in the custody of an agent (the "Agent") appointed by the Committee. Notwithstanding any provision of the Plan to the contrary, the ownership of the shares of Stock issued under the Plan may be evidenced in such a manner as the Committee, in its sole discretion, deems appropriate or required by any applicable law, rule or regulation, including by book-entry or direct registration (including transaction advices) or the issuance of one or more share certificates. The Agent may hold the shares purchased under the Plan in stock certificates in nominee names and may commingle shares held in its custody in a single account or stock certificate without identification as to individual participating employees. A participating employee may, at any time following his or her purchase of shares under the Plan and after the expiration of the qualifying holding period, by written notice instruct the Agent to have all or part of such shares reissued in the participating employee's own name and have the stock certificate delivered to the employee. The Committee shall have the right to require that participating employees abstain from selling or otherwise transferring shares of Common Stock purchased pursuant to the Plan for a period lasting up to two years from the date the shares were purchased pursuant to the Plan.

12. WITHHOLDING OF TAXES

To the extent that a participating employee realizes ordinary income in connection with a sale or other transfer of any shares of Common Stock purchased under the Plan, the Company may withhold amounts, by any method permissible under applicable law, needed to cover such taxes from any payments otherwise due and owing to the participating employee or from shares that would otherwise be issued to the participating employee hereunder. Any participating employee who sells or otherwise transfers shares purchased under the Plan within two years after the beginning of the Offering Period in which the shares were purchased must within 30 days of such transfer notify the Payroll Department of the Company in writing of such transfer.

13. ACCOUNT STATEMENTS

The Company will cause the Agent to deliver to each participating employee a statement for each Purchase Period during which the employee purchases Common Stock under the Plan, but no more frequently than every six months, reflecting the amount of payroll deductions during the Purchase Period, the number of shares purchased for the employee's account, the price per share of the shares purchased for the employee's account and the number of shares held for the employee's account at the end of the Purchase Period.

14. PARTICIPATION ADJUSTMENT

If in any Purchase Period the number of unsold shares that may be made available for purchase under the Plan pursuant to Section 1 above (or, as determined by the Committee, pursuant to any limitation on the aggregate number of shares purchasable in any Purchase Period) is insufficient to permit exercise of all rights deemed exercised by all participating employees pursuant to

Section 9 above, a participation adjustment will be made, and the number of shares purchasable by all participating employees will be reduced proportionately. Any funds then remaining in a participating employee's account after such exercise will be refunded to the employee.

15. CHANGES IN ELECTIONS TO PURCHASE

- (a) A participating employee may, at any time prior to the fifth business day before the last day of the Purchase Period, by written notice to the Company, direct the Company to cease payroll deductions (or, if the payment for shares is being made through periodic cash payments, notify the Company that such payments will be terminated), in accordance with the following alternatives:
 - (i) The employee's option to purchase shall be reduced to the number of shares which may be purchased, as of the last day of the Purchase Period, with the amount then credited to the employee's account; or
 - (ii) Withdraw the amount in such employee's account and terminate such employee's option to purchase.
- (b) Any participating employee may decrease his or her payroll deduction or periodic cash payments, to take effect as soon as administratively practicable by delivering to the Company a new form regarding election to participate in the Plan under Section 5 above.
- (c) Any participating employee may increase his or her payroll deduction or periodic cash payments, to take effect on the first day of the next following Offering Period by delivering to the Company a new form regarding election to participate in the Plan under Section 5 above.

16. TERMINATION OF EMPLOYMENT

In the event a participating employee voluntarily leaves the employ of the Company or a participating Affiliate or is terminated by the Company or a participating Affiliate, or in the event of the death of a participating employee, in each case prior to the last day of the Purchase Period, the amount in the employee's account will be distributed and the employee's option to purchase will terminate.

17. LAY-OFF, AUTHORIZED LEAVE OF ABSENCE OR DISABILITY

Payroll deductions for shares for which a participating employee has an option to purchase may be suspended during any period of absence of the employee from work due to lay-off, authorized leave of absence or disability or, if the employee so elects, periodic payments for such shares may continue to be made in cash.

If such employee returns to active service prior to the last day of the Purchase Period, the employee's payroll deductions will be resumed and if said employee did not make periodic cash payments during the employee's period of absence, the employee shall, by written notice to the Company's Payroll Department within 10 days after the employee's return to active service, but not later than the last day of the Purchase Period, elect one of the following alternatives:

- (a) The employee's option to purchase shall be reduced to the number of shares that can be purchased with the amount, if any, then credited to the employee's account plus the aggregate amount, if any, of all payroll deductions to be made thereafter; or
- (b) Withdraw the amount in the employee's account and terminate the employee's option to purchase.

A participating employee on lay-off, authorized leave of absence or disability on the last day of the Purchase Period shall deliver written notice to his or her employer on or before the last day of the Purchase Period, electing one of the alternatives provided in the foregoing clauses (a) or (b) of this Section 17. If any employee fails to deliver such written notice within 10 days after the employee's return to active service or by the last day of the Purchase Period, whichever is earlier, the employee shall be deemed to have elected subsection 17(b) above.

If the period of a participating employee's lay-off, authorized leave of absence or disability shall terminate on or before the last day of the Purchase Period, and the employee shall not resume active employment with the Company or a participating Affiliate, the employee shall receive a distribution in accordance with the provisions of Section 16 of this Plan.

18. TERMINATION OF PARTICIPATION

A participating employee will be refunded all moneys in his or her account, and his or her participation in the Plan will be terminated if either (a) the Board elects to terminate the Plan as provided in Section 23 below, or (b) the employee ceases to be

eligible to participate in the Plan under Section 4 above. As soon as practicable following termination of an employee's participation in the Plan, the Company will deliver to the employee a check representing the amount in the employee's account and a stock certificate representing the number of whole shares held in the employee's account. Once terminated, participation may not be reinstated for the then current Offering Period, but, if otherwise eligible, the employee may elect to participate in any subsequent Offering Period.

19. ASSIGNMENT

No participating employee may assign his or her rights to purchase shares of Common Stock under the Plan, whether voluntarily, by operation of law or otherwise. Any payment of cash or issuance of shares of Common Stock under the Plan may be made only to the participating employee (or, in the event of the employee's death, to the employee's estate). Once a stock certificate has been issued to the employee or for his or her account, such certificate may be assigned the same as any other stock certificate.

20. APPLICATION OF FUNDS

All funds received or held by the Company under the Plan shall be deposited with the Agent for the account of the participating employees. Participating employees' accounts will not be segregated.

21. NO RIGHT TO CONTINUED EMPLOYMENT

Neither the Plan nor any right to purchase Common Stock under the Plan confers upon any employee any right to continued employment with the Company or any of its participating Affiliates, nor will an employee's participation in the Plan restrict or interfere in any way with the right of the Company or any of its participating Affiliates to terminate the employee's employment at any time.

22. AMENDMENT OF PLAN

The Board may, at any time, amend the Plan in any respect (including an increase in the percentage specified in Section 9 above used in calculating the Purchase Price). An amendment to the Plan shall be contingent on approval of the stockholders of the Company only to the extent required by applicable law, regulations or rules or as provided by the Board.

23. EFFECTIVE DATE; TERM AND TERMINATION OF THE PLAN

The Plan, as amended and restated, shall be effective as of the date of adoption by the Board, which date is set forth below, subject to approval of the Plan by a majority of the votes present and entitled to vote at a duly held meeting of the shareholders of the Company at which a quorum representing a majority of all outstanding voting stock is present, either in person or by proxy; provided, however, that upon approval of the Plan by the shareholders of the Company as set forth above, all rights to purchase shares granted under the Plan on or after the effective date shall be fully effective as if the shareholders of the Company had approved the Plan on the effective date. If the shareholders fail to approve the Plan on or before one year after the effective date, the amendment and restatement of the Plan shall be rejected, any rights to purchase shares granted hereunder shall be null and void and of no effect and all contributed funds shall be refunded to participating employees to the extent based upon the amendment and restatement of the Plan. The Board may terminate the Plan at any time and for any reason or for no reason, provided that such termination shall not impair any rights of participating employees that have vested at the time of termination. In any event, the Plan shall, without further action of the Board, terminate ten (10) years after the April , 2021 approval of the amendment and restatement of the Plan by the Company's stockholders or, if earlier, at such time as all shares of Common Stock that may be made available for purchase under the Plan pursuant to Section 1 above have been issued.

24. EFFECT OF CHANGES IN CAPITALIZATION

(a) Changes in Stock

If the number of outstanding shares of Common Stock is increased or decreased or the shares of Common Stock are changed into or exchanged for a different number or kind of shares or other securities of the Company by reason of any recapitalization, reclassification, stock split, reverse split, combination of shares, exchange of shares, stock dividend, or other distribution payable in capital stock, or other increase or decrease in such shares effected without receipt of consideration by the Company occurring after the effective date of the Plan, the number and kinds of shares that may be purchased under the Plan shall be adjusted proportionately and accordingly by the Company. In addition, the number and kind of shares for which rights are outstanding shall be similarly adjusted so that the proportionate interest of a participating employee immediately following such event shall, to the extent practicable, be the same as immediately prior to such event. Any such adjustment in outstanding rights shall not change the aggregate Purchase Price payable by a participating employee with respect to shares subject to such rights, but shall include a corresponding proportionate adjustment in the Purchase Price per share.

(b) Reorganization in Which the Company Is the Surviving Corporation

Subject to Subsection (c) of this Section 24, if the Company shall be the surviving corporation in any reorganization, merger or consolidation of the Company with one or more other corporations, all outstanding rights under the Plan shall pertain to and apply to the securities to which a holder of the number of shares of Common Stock subject to such rights would have been entitled immediately following such reorganization, merger or consolidation, with a corresponding proportionate adjustment of the Purchase Price per share so that the aggregate Purchase Price thereafter shall be the same as the aggregate Purchase Price of the shares subject to such rights immediately prior to such reorganization, merger or consolidation.

(c) Reorganization in Which the Company Is Not the Surviving Corporation or Sale of Assets or Stock

Upon any dissolution or liquidation of the Company, or upon a merger, consolidation or reorganization of the Company with one or more other corporations in which the Company is not the surviving corporation, or upon a sale of all or substantially all of the assets of the Company to another corporation, or upon any transaction (including, without limitation, a merger or reorganization in which the Company is the surviving corporation) approved by the Board that results in any person or entity owning more than 80 percent of the combined voting power of all classes of stock of the Company, the Plan and all rights outstanding hereunder shall terminate, except to the extent provision is made in writing in connection with such transaction for the continuation of the Plan and/or the assumption of the rights theretofore granted, or for the substitution for such rights of new rights covering the stock of a successor corporation, or a parent or subsidiary thereof, with appropriate adjustments as to the number and kinds of shares and exercise prices, in which event the Plan and rights theretofore granted shall continue in the manner and under the terms so provided. In the event of any such termination of the Plan, all current Purchase Periods and Offering Periods shall be deemed to have ended on the last trading day prior to such termination, and in accordance with Section 10 above the rights of each participating employee then outstanding shall be deemed to be automatically exercised on such last trading day. The Board shall send written notice of an event that will result in such a termination to all participating employees not later than the time at which the Company gives notice thereof to its stockholders.

(d) Adjustments

Adjustments under this Section 24 related to stock or securities of the Company shall be made by the Committee, whose determination in that respect shall be final, binding, and conclusive.

(e) No Limitations on Company

The grant of a right pursuant to the Plan shall not affect or limit in any way the right or power of the Company to make adjustments, reclassifications, reorganizations or changes of its capital or business structure or to merge, consolidate, dissolve or liquidate, or to sell or transfer all or any part of its business or assets.

25. GOVERNMENTAL LAW AND REGULATION

The provisions of the Plan shall be governed by and construed in accordance with the laws of the State of Delaware, without regard to its conflict of law rules.

The Company's obligation to issue, sell and deliver shares of Common Stock pursuant to the Plan is subject to such approval of any governmental authority and any national securities exchange or other market quotation system as may be required in connection with the authorization, issuance or sale of such shares.

26. **SECTION 409A**

The 423 Component is exempt from the application of Section 409A of the Code. The Non-423 Component is intended to be exempt from Section 409A of the Code under the short-term deferral exception and any ambiguities shall be construed and interpreted in accordance with such intent. In the case of a participant who would otherwise be subject to Section 409A of the Code, to the extent an option to purchase Shares or the payment, settlement or deferral thereof is subject to Section 409A of the Code, the option to purchase Shares shall be granted, paid, exercised, settled or deferred in a manner that will comply with Section 409A of the Code, including the final regulations and other guidance issued with respect thereto, except as otherwise determined by the Board or the Committee. Notwithstanding the foregoing, the Company shall have no liability to a participant or any other party if the option to purchase Shares under the Plan that is intended to be exempt from or compliant with Section 409A of the Code is not so exempt or compliant or for any action taken by the Board or the Committee with respect thereto.

27. STOCKHOLDER RIGHTS

Any dividends paid on shares held by the Company for a participating employee's account will be transmitted to the employee. The Company will deliver to each participating employee who purchases shares of Common Stock under the Plan, as

promptly as practicable by mail or otherwise, all notices of meetings, proxy statements, proxies and other materials distributed by the Company to its stockholders. Any shares of Common Stock held by the Agent for an employee's account will be voted in accordance with the employee's duly delivered and signed proxy instructions. There will be no charge to participating employees in connection with such notices, proxies and other materials.

28. RULE 16B-3

Transactions under this Plan are intended to comply with all applicable conditions of Rule 16b-3 or any successor provision under the Securities Exchange Act of 1934, as amended. If any provision of the Plan or action by the Board fails to so comply, it shall be deemed null and void to the extent permitted by law and deemed advisable by the Board. Moreover, in the event the Plan does not include a provision required by Rule 16b-3 to be stated herein, such provision (other than one relating to eligibility requirements, or the price and amount of awards) shall be deemed automatically to be incorporated by reference into the Plan.

29. PAYMENT OF PLAN EXPENSES

The Company will bear all costs of administering and carrying out the Plan; provided, however, participating employees shall bear all costs incurred subsequent to the issuance of stock certificates pursuant to Section 11.

This Plan was duly adopted and approved by the Board of Directors on January 24, 2003 and amended by action of the
Board or a committee thereof on December 8, 2004, March 3, 2005, May 30, 2006, and September 10, 2010. This Plan, as
amended, was approved by action of the stockholders on March 12, 2003, and March 16, 2005. This Plan was further amended and
restated by action of the Board on January 20, 2012, and, this Plan, as amended, was approved by action of the stockholders on
March 21, 2012. This Plan was further amended and restated by action of the Board on May 24, 2017. This Plan was further
amended and restated by action of the Board on January 29, 2021, and as amended and restated was approved by action of the stockholders on April 1, 2021.

Secretary of the Company