Infinera Corporation
2020 Proxy Statement
and
2019 Annual Report on Form 10-K

Infinera Corporation
140 Caspian Court
Sunnyvale, California 94089

Dear Shareholders,

The new communications infrastructure built on the internet has redefined how people around the globe connect and interact—in business, education, entertainment and almost every corner of our personal lives. At a time when “social distancing” has become an expectation, this infrastructure plays an increasingly critical role in keeping our communities engaged and businesses alive, while democratizing communication opportunity for everyone, everywhere.

Our innovations, backed by almost 1,900 patents and recognized by multiple industry awards, rely not only on incremental improvements to current technology, but on radical re-invention of how people will approach communications in the future. This “re-imagining” drives our pipeline of invention, our new product roadmap, and our opportunities with customers around the world as they also re-imagine how to better service their customers in this new era of global connectivity. We believe we are well positioned to take advantage of—and potentially accelerate—growing market demand for more capacity delivered to the edge of the network at an always decreasing cost. Through our leadership in vertical integration, and by designing and manufacturing our differentiated optical technology in-house, we believe that we will deliver the core ingredients necessary to address tomorrow’s network requirements while building a company that will be valued on this unique capability. Our motivation to help our customers and shareholders achieve this opportunity has never been greater.

We are proud to have attracted a first-rate set of shareholders and are pleased that they gave us over 96% support for both our compensation plans and our stock plan proposals in 2019. We ask for your voting support so that we can continue this work. We welcome your input through any of the means described in this proxy, and we thank you for your investment.

Sincerely,

Thomas J. Fallon
Chief Executive Officer

Infinera Corporation
140 Caspian Court
Sunnyvale, California 94089

Dear Fellow Infinera Shareholders,

As Infinera's independent board chair, I feel very fortunate to be writing to you on behalf of our board of directors. I would like to take this opportunity to explain (1) what we do, (2) how we govern and (3) how we strive to create shareholder value.

We provide Optical Transport equipment. As a premier provider of optical technology, a significant percentage of global internet traffic is transported using our products. Our customers include many of the globe's largest telecommunications and internet content companies. Imagine that we enable our customers to build the network of roads and freeways to carry their global internet traffic. Our innovative solutions allow building additional freeways on-demand to carry excess traffic.

Our technology requires very specialized knowledge of optical components and optical systems as well as complex software-based network services. The natural cadence of our business is long. Each product cycle is 3-4 years and nominally allows a doubling of the optical transport systems we make. As such, we must always balance short term gains against a host of strategic investments to deliver our next product cycle.

At Infinera, we have a strong culture of governance. I am an independent chair who, along with the board, oversees the CEO. Our board is diverse, with deep experience in optical components and systems, telecom networks, modern data centers, intellectual property, and financial management. Please refer to Proposal 1 in our proxy for a detailed view of each board member's qualifications. I am sure you will agree that we have assembled an impressive and diverse group of individuals to guide our management.

The average age for our board is approximately 59 years and the average tenure for our board is approximately six years. We also value experience on our board given the long product cycles and strategic cadence of our business.

Perhaps, not surprisingly, given this balance, we have long been a leader in human capital and environmental management in a sector not known for either. Sustainalytics ranks us 6th in the world for communications equipment peers, and we are a leader in making detailed diversity data available. I encourage you to read more about our accomplishments in the At-A-Glance section that follows.

Infinera is a company that invests heavily in innovation. As a board, given our diverse experience, we help guide management's incorporation of this innovation into business strategies that target specific market segments and customer solutions. This strategy helps drive long term shareholder value.

Our fiduciary duty to shareholders is to assemble the best management team and long-term strategy, align our team's compensation with shareholders, and govern with the highest standards of integrity. With all that I have covered here, I am asking for your voting support at our upcoming annual meeting.

Sincerely,

Kambiz Y. Hooshmand
Independent Board Chair

Infinera Corporation
140 Caspian Court
Sunnyvale, California 94089

NOTICE OF 2020 ANNUAL MEETING OF SHAREHOLDERS

To Be Held on May 21, 2020
10:00 a.m. Pacific Time

Dear Shareholder:

You are cordially invited to attend the virtual 2020 Annual Meeting of Shareholders of Infinera Corporation, a Delaware corporation, and any postponement, adjournment or other delay thereof (the “Annual Meeting”). The Annual Meeting will be held via live webcast at www.virtualshareholdermeeting.com/INFN2020 on Thursday, May 21, 2020 at 10:00 a.m. Pacific Time. You will be able to attend the meeting online and submit questions during the meeting by visiting the website listed above. You will also be able to vote your shares electronically at the annual meeting.

This meeting is being held for the following purposes:

1. To elect to the Board of Directors the three nominees for Class I directors named in the Proxy Statement;
2. To approve an amendment of the Infinera Corporation 2016 Equity Incentive Plan to (i) increase the number of shares authorized for issuance thereunder by 8,100,000 shares and (ii) effect minor technical revisions and improvements;
3. To approve, on an advisory basis, the compensation of Infinera’s named executive officers, as described in the Proxy Statement;
4. To ratify the appointment of Ernst & Young LLP as Infinera’s independent registered public accounting firm for the fiscal year ending December 26, 2020; and
5. To transact such other business as may properly come before the meeting or any postponement or adjournment thereof.

These items of business are more fully described in the Proxy Statement accompanying this Notice.

The record date for the Annual Meeting was March 26, 2020 (the “Record Date”). Only shareholders of record at the close of business on that date may vote at the Annual Meeting.

Your vote is important. Whether or not you expect to attend the Annual Meeting, it is important that you vote as soon as possible so that your shares are represented. To vote your shares, please follow the instructions on your proxy card, which is being mailed to you on or about April 15, 2020.

On behalf of the Board of Directors, thank you for your participation in this important annual process.

By Order of the Board,

Nancy Erba
Chief Financial Officer

Sunnyvale, California
April 14, 2020

Important Notice Regarding Proxy Materials for the Shareholder Meeting to be Held on May 21, 2020

The Notice of Annual Meeting, Proxy Statement and Form of Proxy are first being mailed on or about April 15, 2020 to all shareholders entitled to vote at the Annual Meeting. This Proxy Statement and our 2019 Annual Report are also available on the Investors page at www.infinera.com.

Virtual Meeting Admission

Shareholders of record as of March 26, 2020 will be able to participate in the Annual Meeting by visiting our Annual Meeting website at www.virtualshareholdermeeting.com/INFN2020. To participate in the Annual Meeting, you will need the 16-digit control number included on your proxy card.

The Annual Meeting will begin promptly at 10:00 a.m. Pacific time on Thursday, May 21, 2020. Online check-in will begin at 9:45 a.m. Pacific time, and you should allow approximately 15 minutes for the online check-in procedures.

Voting. Whether or not you plan to virtually attend the Annual Meeting and regardless of the number of shares of common stock that you own, please cast your vote, at your earliest convenience, as instructed on your proxy card and/or voting instruction form. **Your vote is very important.** Your vote before the Annual Meeting will ensure representation of your shares at the Annual Meeting even if you are unable to virtually attend. You may submit your vote by the internet, telephone, mail or virtually at the Annual Meeting. Voting over the internet or by telephone is fast and convenient, and your vote is immediately confirmed and tabulated. By using the Internet or telephone, you help us reduce postage, printing and proxy tabulation costs. We encourage all holders of record to vote in accordance with the instructions on the proxy card and/or voting instruction form prior to the Annual Meeting even if they plan on virtually attending the Annual Meeting. Submitting a vote before the Annual Meeting will not preclude you from voting your shares at the Annual Meeting should you decide to virtually attend. You may vote using the following methods:

Prior to the Annual Meeting, visit the website listed on your proxy card/voting instruction form to vote via the internet.

During the Annual Meeting, visit our Annual Meeting website at www.virtualshareholdermeeting.com/INFN2020

Sign, date and return your proxy card/voting instruction form to vote by mail.

Call the telephone number on your proxy card/voting instruction form to vote by telephone.

INFINERA AT A GLANCE

About Infinera

Our Mission
Enable an Infinite Network that can provide unlimited communications services to everyone—Everywhere, Always and Instantly

Our Vision
Continually challenge conventional thinking to reimagine networking solutions that will provide unique value to our customers and shareholders

Our Differentiation
The Infinera Experience defines our promise of a differentiated business relationship with our customers—from how we design our products for ease of use and help our customers gain a competitive advantage to how we rapidly respond to customer needs, issues, and challenges

Our Company, Customers, and Solutions			
$1B+ in Revenue	~1,900 Patents	3,000+ Employees	45+ Countries with Operations
High-End Subcomponent Technology	Systems for Network Infrastructure	Automation Software	Professional Services
1,000+ Customers Worldwide	9 of the Top 10 Service Providers	5 of the Top 6 Internet Content Providers	

History of Technology Innovation

Infinera's Optical Innovation Center has a distinguished history of delivering breakthrough innovation through multi-discipline opto-electronic R&D including: industry-leading high-performance optical engines, revolutionary point-to-multipoint coherent optics, and customized design and production

AISC/DSP Design	Analog Electronics Design	Holistic Co-design	RF Interconnects
Packaging Manufacturing	Packaging Design	PIC Design	PIC Manufacturing

Responsibility & Ethics Throughout Our Business

At Infinera, we apply our innovation mindset to the task of determining what elements of sustainability are most material to our business and to the needs of our stakeholders.

Corporate governance

- Business ethics
- Transparency and reporting
- Supply chain management

Environmental responsibility

- Greenhouse gas emissions
- Energy management
- Waste and hazardous materials management
- Environmental compliance

Product responsibility

- Data security
- Product safety and compliance

Social Responsibility

- Employee health and safety
- Employee development and engagement
- Diversity and inclusion
- Labor practices and human rights

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PROXY STATEMENT SUMMARY

Here are highlights of important information you will find in this Proxy Statement. As it is only a summary, please review the complete Proxy Statement before you vote.

Virtual Shareholder Meeting
In light of the current COVID-19 pandemic and government orders related to activities in the state and county where we usually hold our annual meeting of shareholders, we believe a virtual meeting would allow the greatest number of shareholders to attend. As such, our 2020 Annual Meeting will be conducted exclusively online via live webcast, allowing all of our shareholders the option to participate in the live, online meeting from any location convenient to them, providing shareholder access to our Board and management, and enhancing participation while supporting the safety of our shareholders and maintaining legal compliance with government orders. Shareholders at the close of business on March 26, 2020 will be allowed to communicate with us and ask questions in our virtual shareholder meeting forum before and during the meeting. All directors and key executive officers are expected to be available to answer questions. For further information on the virtual meeting, please see the “User’s Guide” at the back of this Proxy Statement. Please note that there will not be a physical meeting.

Meeting Agenda and Voting Matters

Agenda Items	Board Vote Recommendation	Page Reference (for more detail)
1. To elect to the Board of Directors the three nominees for Class I directors named in the Proxy Statement to serve until the 2023 annual meeting of shareholders or until their successors have been duly elected and qualified, or until his or her earlier death, resignation or removal from the Board.	FOR EACH DIRECTOR NOMINEE	4
2. To approve an amendment of the Infinera Corporation 2016 Equity Incentive Plan (the “2016 Plan”) to (i) increase the number of shares authorized for issuance thereunder by 8,100,000 shares and (ii) effect minor technical revisions and improvements.	FOR	56
3. To approve, on an advisory basis, the compensation of Infinera’s named executive officers, as described in the Proxy Statement.	FOR	66
4. To ratify the appointment of Ernst & Young LLP as Infinera’s independent registered public accounting firm for the fiscal year ending December 26, 2020.	FOR	67
5. To transact such other business that may properly come before the meeting or any postponement or adjournment thereof.		

Board Nominees

				Committee Memberships[2]		
Name	**Age**	**Director Since**	**Independent[1]**	**AC**	**CC**	**NGC**
Thomas J. Fallon	58	2009	—	—	—	—
Kambiz Y. Hooshmand[3]	58	2009	✓	M	—	M
Amy H. Rice[4]	40	2020	✓	—	—	M

AC = Audit Committee; CC = Compensation Committee; NGC = Nominating and Governance Committee; C = Chairman; M = Member

(1) Under the rules and regulations of the Securities and Exchange Commission (“SEC”) and the listing standards of The Nasdaq Stock Market (“Nasdaq”).

(2) The Board suspended the Technology and Acquisition Committee in June 2019 and determined not to reconstitute this committee in March 2020.

(3) Mr. Hooshmand currently serves as Chairman of the Board.

(4) Ms. Rice was appointed to the Board and Nominating and Governance Committee effective as of April 13, 2020.

Board and Governance Highlights

Board Independence. Eight out of ten of our directors are independent in accordance with the rules and regulations of the SEC and the listing standards of Nasdaq.

Board Diversity. The Board consists of a diverse group of professionals who bring significant leadership and distinct qualities and skill sets to Infinera. We believe the current composition of the Board is culturally and ethnically diverse, which provides a diverse range of perspectives and experience to engage each other and management to effectively represent our shareholders.

Leadership Structure. We have separated the positions of Chairman and Chief Executive Officer ("CEO").

Board and Committee Evaluation. The Board and its committees annually assess their performance through an annual self-evaluation.

Board Tenure. The average tenure of our current Board members is approximately five years and eleven months. We have refreshed our Board by appointing three new directors in the last two years.

Board Committees. We have three standing committees of the Board—Audit, Compensation, and Nominating and Governance. All committees are composed entirely of independent directors.

Director Stock Ownership. Each non-employee director is required to own shares of Infinera common stock having a value of at least four times their respective annual cash retainer.

Risk Oversight. Members of our senior management team are responsible for implementation of our day-to-day risk management processes, while the Board, as a whole and through its committees, has responsibility for the oversight of overall risk management.

Executive Compensation Program Highlights

The design of our executive compensation program for fiscal 2019 reflects our ongoing commitment to pay-for-performance and the continued strong alignment of the interests of our named executive officers ("NEOs") with those of our shareholders. At the beginning of fiscal 2019, when a majority of executive compensation decisions were made, the Compensation Committee considered the performance of our company as we exited fiscal 2018 and the importance of achieving the successful integration with Infinera of the recently acquired Telecom Holding Parent LLC ("Coriant"). The decisions made reflected a continuing effort to maintain a strong pay-for-performance profile and support accountability of our leadership team for our financial performance. Highlights of our executive compensation program for fiscal 2019 included:

There were no increases in target cash compensation for our CEO. During the Compensation Committee's annual review in February 2019, the Compensation Committee approved no increase in base salary or annual incentive targets for our CEO. This included maintaining the 20% salary reduction that was applied in December 2017. This decision was based on the Compensation Committee's view of Infinera's challenging business environment and an analysis of the market data provided by the Compensation Committee's independent compensation consultant.

Our long-term incentive program continues to emphasize performance-based awards. For our CEO, 100% of the target value of equity granted in fiscal 2019 was in the form of two performance share awards. The first performance share award was based on the achievement of positive non-GAAP operating income (the "OI PSAs").

The second performance share award was only granted to our CEO in lieu of time-based RSUs. This award would only vest if the stock price was equal to or greater than $10.00 per share for each trading day during a ninety-calendar day period occurring during a three-year performance period beginning on the grant date. The $10.00 per share target represented a premium of 232% above the closing share price on the date of grant.

We continue to maintain sound corporate governance policies and practices. During fiscal 2019, the following policies and practices continued to be in effect:

- Compensation At-Risk
- Executive Clawback Policy
- Anti-Hedging Policy
- No Pledging of our Common Stock by NEOs
- Fully Independent Compensation Committee
- Stock Ownership Policy
- Majority Voting for the Election of Directors
- No Tax Gross-Ups
- "Double-Trigger" Change-of-Control Agreements
- Annual Compensation Risk Assessment
- No Executive Perquisites
- Independent Compensation Consultant Reporting Directly to Compensation Committee

INFINERA CORPORATION

PROXY STATEMENT
2020 ANNUAL MEETING OF SHAREHOLDERS

OUR BOARD OF DIRECTORS

Proposal 1—Election of Directors

We have endeavored to summarize the accomplishments, attributes and experiences of the members of our Board in short bullets to make them easy to read because we think there is little that is more important to emphasize in this proxy statement than the caliber of our directors.

Our Board members have created and patented technologies, founded and grown companies, managed complex financial and accounting issues and spent significant time representing investors and shareholders. We believe that the caliber of our people and the breadth and complementary nature of their skills, attributes and experiences are among the most important aspects of our governance best practices.

WHO WE ARE

The director information we provide below includes their respective ages as of the Record Date, the periods during which they have served as a director, certain information as to their principal occupations, directorships they hold in corporations whose shares are publicly registered and qualifications for serving as a member of the Board, including the skills, qualities, attributes and experiences that led the Board to determine it is appropriate to nominate these directors.

Nominees for election as Class I Directors. If elected, the Class I Directors terms would expire at the 2023 Annual Meeting of Shareholders.

Thomas J. Fallon

Age: 58

Chief Executive Officer of Infinera

Director since July 2009

Committees: None

Experience:

- CEO of Infinera (January 2010 to present); President (January 2010 to June 2013); Chief Operating Officer ("COO") (October 2006 to December 2009; Vice President of Engineering and Operations (April 2004 to September 2006)
- Vice President, Corporate Quality and Development Operations at Cisco Systems, Inc., a networking and telecommunications company (August 2003 to March 2004); served in a variety of functions at Cisco, including General Manager of the Optical Transport Business Unit and Vice President of Service Provider Manufacturing (March 1991 to August 2003)
- Served in various manufacturing roles at Sun Microsystems and Hewlett Packard

Other Boards:

- Hercules Capital, Inc., a public specialty finance company (present)
- Engineering Advisory Board of the Cockrell School at the University of Texas (present)

Qualifications:

- Deep knowledge of Infinera and the industry
- Critical strategic planning, executive management, leadership and director expertise
- Technical expertise

Kambiz Y. Hooshmand

Age: 58

Chairman of the Board since October 2010

Independent Director since December 2009

Committees: Audit; Nominating and Governance

Experience:

- President and CEO of Applied Micro Circuits Corporation, a communications solutions company (March 2005 to May 2009)
- Group Vice President and General Manager of Cisco Systems (February 2002 to March 2005); Vice President and Division General Manager of the DSL Business Unit (March 2000 to February 2002); Vice President of Engineering (June 1997 to February 2000)
- Director of Engineering of StrataCom, Inc., a networking solutions company, which was acquired by Cisco Systems (January 1992 to June 1997)

Other Boards:

- Former:
  - Power-One, Inc., an energy efficient power solutions company (October 2009 to July 2013, when acquired by ABB Ltd.)

Qualifications:

- Board and executive leadership
- Broad knowledge of the business and industry
- Engineering expertise

Amy H. Rice

Age: 40

Independent Director since April 2020

Committees: Nominating and Governance

Experience:

- Managing Director in Oaktree Capital Management L.P.'s Special Situations Group and leads the group's investing efforts in several industry sectors (February 2019 to present)
- Senior Vice President for Oaktree Capital Management L.P. (February 2013 to February 2019)
- Prior to joining Oaktree in 2009, Ms. Rice spent two years as an associate at Lindsay Goldberg, LLC, and before that, she spent two years as an analyst in the Leveraged Finance group at Deutsche Bank

Qualifications:

- Expertise in capital markets transactions and merger and acquisition transactions, outside of her primary industry coverage
- Representative of the investor perspective

Incumbent Class II Directors whose terms expire at the 2021 Annual Meeting of Shareholders

Gregory P. Dougherty

Age: 60

Independent Director since January 2019

Committees: Compensation

Experience:

- CEO of Oclaro, Inc. (June 2013 until its acquisition by Lumentum Holdings Inc. in December 2018)
- Interim CEO of Picarro, Inc., a manufacturer of ultra-sensitive gas spectroscopy equipment using laser-based technology (January 2003 to April 2004)
- COO of SDL (1997 to 2001, when the company was acquired by JDS Uniphase Corporation), where he continued in the role until 2002
- Director of Product Management and Marketing at Lucent Technologies Microelectronics in the Optoelectronics Strategic Business Unit. (1989 to 1997)

Other Boards:

- IPG Photonics Corporation, a fiber laser manufacturer (January 2019 to present)
- Fabrinet, an optical, electro-mechanical and electronic manufacturing services company (February 2019 to present)
- Max Linear, a fabless integrated circuit design company (March 2020 to present)
- Former:
    - Oclaro, Inc. (April 2009 to December 2018)
    - Avanex Corporation, a leading global provider of intelligent photonic solution (April 2005 to April 2009, when Avanex and Bookham merged to become Oclaro)

Qualifications:

- Board expertise as Lead Independent Director and compensation and audit committee chairs
- Extensive knowledge of the fiber optic component and transceiver markets
- Significant restructuring and integration experience

Paul J. Milbury

Age: 71

Independent Director since July 2010

Committees: Audit (Chair); Compensation

Experience:

- Cisco Systems—Played a key role in integrating Starent Networks into Cisco Systems to create the Mobile Internet Technology Group (2009 to 2010)
- Vice-President of Operations and Chief Financial Officer ("CFO") of Starent Networks, Corp, a provider of mobile network solutions (2006 to 2009, when acquired by Cisco Systems)
- Vice-President and CFO of Avid Technology, a digital media creation, management and distribution solutions company (2000 to 2007)
- Vice-President and CFO of private internet companies iBelong and JuniorNet (1998 to 2000)
- Vice-President and Treasurer of Digital Equipment Corporation (1994 to 1998, when acquired by Compaq Computer)

Other Boards:

- Former:
  - Gigamon, a provider of network visibility and analytics (January 2014 to December 2017, AC Chair, acquired by Elliott Management Corp)
  - Aerohive Networks, a pioneer in cloud-managed WLAN. (November 2012 to August 2014, AC Chair; IPO 2014)

Qualifications:

- Significant finance, accounting and technology operations experience; Financial Expert
- Wide executive management and board experience at leading public and private technology companies

David F. Welch, Ph.D.

Age: 59

Director since October 2010; previously May 2001 to November 2006

Committees: None

Experience:

- Co-founded Infinera; Chief Innovation Officer (October 2018 to present); Chief Strategy and Technology Officer (November 2017 to October 2018); President (June 2013 to November 2017); Executive Vice President and Chief Strategy Officer (May 2004 to June 2013); Chief Development Officer/Chief Technology Officer (May 2001 to May 2004)
- Chief Technology Officer of the Transmission Division of JDS Uniphase Corporation, an optical component company (February 2001 to April 2001)
- Served in various executive roles, including Chief Technology Officer and Vice President of Corporate Development of SDL, an optical component company (January 1985 to February 2001)

Other Boards:

- CytoDyn Inc., a biopharmaceutical company (January 2019 to present)
- Former:
    - Rezolute, Inc., a clinical stage biopharmaceutical company (June 2015 to January 2019)

Other:

- Holds over 130 patents
- Has been awarded the Optical Society of America's ("OSA") Adolph Lomb Medal, Joseph Fraunhofer Award, the John Tyndall Award and the IET JJ Thompson Medal for Achievement in Electronics, in recognition of his technical contributions to the optical industry
- Fellow of OSA and the Institute of Electrical and Electronics Engineers

Qualifications:

- One of the most highly regarded innovators in the optical communications sector
- Deep technology knowledge of the optical networking industry
- Experience as an Infinera founder, executive leader and board member
- Product development, marketing and sales strategies insights

Incumbent Class III Directors whose terms expire at the 2022 Annual Meeting of Shareholders

Sharon Holt

Age: 55

Independent Director since June 2019

Committees: Nominating and Governance (Chair)

Experience:

- Principal at Fraser Stuart Ventures, LLC, a private investment and advisory firm (2016 to present)
- Advisor to several technology companies (2012 to present)
- Senior executive at Rambus Inc., a leading technology development and licensing company, where she served as Senior Vice President of Sales, Licensing and Marketing, and Senior Vice President and General Manager of the Semiconductor Business Group (2004 to 2012)
- Executive at Agilent Technologies in the Semiconductor Products Group (now Broadcom), where her last position was Vice President & General Manager of Americas Field Operations, overseeing sales and technical support operations for the semiconductor business, including ASICs, ASSPs, optical and wireless ICs and previously ran sales operations focused on Agilent's largest global customers (1999 to 2004)
- Worked at HP in Applications Engineering, Sales, and Distribution Channel Management for the Semiconductor Products Group (1986 to 1999)

Other Boards:

- Immersion Corporation, a publicly traded developer of haptics technology for cellphones and other devices (August 2016 to Present; Chair through August 2018)

Qualifications:

- Board expertise as Lead Independent Director and nominating and governance and compensation committee chairs
- Wide technology sector executive leadership experience and intellectual property expertise

Marcel Gani

Age: 67

Independent Director since June 2014

Committees: Compensation (Chair); Audit

Experience:

- Independent consultant (2009 to present)
- Lecturer in Accounting and Finance at the Leavey School of Business at Santa Clara University (2005 to 2009)
- Held multiple roles at Juniper Networks, Inc., including Chief of Staff (January 2005 to March 2006); Executive Vice President and CFO (February 1997 to December 2004)
- Vice President and CFO of NVIDIA Corporation (February 1996 to February 1997)
- Served as CFO of Grand Junction Networks, Primary Access Corporation and NeXT Computer, Inc.

Other Boards:

- SolarEdge Technologies, Inc., a power optimizer solutions company (March 2015 to present)
- Former:
  - Envivio, Inc., a video technology company (May 2011 to October 2015.)

Qualifications:

- Public and private company technology industry CFO experience
- Financial, accounting and financial reporting experience

Mark A. Wegleitner

Age: 69

Independent Director since May 2011

Committees: Nominating and Governance

Experience:

- President of Wegleitner Consulting, LLC, a privately-owned telecommunications consulting company (April 2011 to present)
- Senior Vice President, Technology, for Verizon Communications Inc., a telecommunications company, where his responsibilities included technology assessment, network architecture, platform development and laboratory testing for wireline and wireless communications networks (September 2007 until his retirement in July 2010). Chief Technology Officer, with responsibility for wireline communications technologies (July 2000 to September 2007)
- Held various positions in the Network Services division of Bell Atlantic, a telecommunications company, including Chief Technology Officer from January 1999 to July 2000
- Worked at Bell Laboratories and AT&T General Departments

Qualifications:

- Extensive telecommunications industry and technology experience
- Representative of the customer perspective

Departing Director

Mr. Patel is not standing for election at the Annual meeting and will retire from the Board at the conclusion of the 2020 annual meeting. The Board thanks Mr. Patel for his distinguished service to our company and his many contributions as a director.

Rajal M. Patel

Age: 51

Independent Director since September 2015

Committees: Nominating and Governance

Experience:

- Vice President, Infrastructure and Production Engineering for Workday, Inc. (September 2019 to present)
- Vice President, Cloud Platform Engineering at Symantec Corporation (April 2016 to September 2019)
- Head of Cloud Engineering at Pinterest (March 2014 to April 2016)
- Senior Vice President for Technical Operations at Salesforce.com (July 2013 to December 2013)
- Vice President for Cloud Services Engineering for the Webex collaboration portfolio at Cisco (April 2010 to July 2013)
- Held various engineering and management roles at Yahoo! Inc. (2004 to early 2010)
- Worked at Exodus Communications, which was shortly thereafter acquired by Cable and Wireless where he served as Vice President of Network Services and facilitated the integration of Exodus technology assets into Cable and Wireless
- Began his career at Pacific Bell, which is now AT&T, and over a 10-year span was last the GM of the Advanced Technologies Group

Vote Required

Directors are elected by a majority vote, which means that each of the three director nominees requires the affirmative vote of a majority of the votes cast in order to be elected. Abstentions will have the same effect as an “AGAINST” vote. Broker non-votes are not deemed to be votes cast and, therefore, are not included in the tabulation of the voting results on this proposal and will not affect the outcome of the vote.

Proposal 1—Recommendation of the Board

The Board unanimously recommends a vote “FOR” the election of each of the three Class I nominees listed above.

HOW WE ARE SELECTED AND ELECTED

Director Qualifications

The Nominating and Governance Committee reviews candidates for service on the Board and recommends nominees for election to fill vacancies on the Board, including nomination for re-election of directors whose terms are due to expire. In discharging its responsibilities to nominate candidates for election to the Board, the Nominating and Governance Committee endeavors to identify, recruit and nominate candidates characterized by wisdom, maturity, sound judgment, excellent business skills and high integrity. The Nominating and Governance Committee seeks to assure that the Board is composed of individuals of diverse backgrounds who have a variety of complementary experience, training, attributes and relationships relevant to our business. In nominating candidates to fill vacancies created by the expiration of the term of a director, the Nominating and Governance Committee determines whether the incumbent director is willing to stand for re-election. The Nominating and Governance Committee evaluates each director’s performance to determine suitability for re-election, taking into consideration, among other things, each director’s willingness to fully participate and contribute to the Board and its committees, ability to work constructively with the rest of the members of the Board, personal and professional integrity and familiarity with our business, operations and markets.

Each of the nominees to fill positions as Class I directors have consented to serve if elected. However, if any of the persons nominated by the Board subsequently declines to accept election, or is otherwise unavailable for election prior to the Annual Meeting, proxies solicited by the Board will be voted by the proxy holders for the election of any other person or persons as the Board may recommend, at its option, or may decide to further reduce the number of directors that constitute the entire Board.

The Board currently consists of ten directors and is divided into three classes. Each class of the Board serves a staggered three-year term. Our Class I directors, whose terms expire at the Annual Meeting, are Thomas J. Fallon, Kambiz Y. Hooshmand, Rajal M. Patel and Amy Rice. After the Annual Meeting, the Board will consist of nine members.

There are three nominees for election to Class I of the Board this year, Messrs. Fallon and Hooshmand and Ms. Rice. The nomination of these directors to stand for election at the Annual Meeting has been recommended by the Nominating and Governance Committee and has been approved by the Board. Each of the nominees for our Class I directors, if elected, will serve for a three-year term expiring at the 2023 Annual Meeting of Shareholders, or until his successor is duly elected and qualified, or until his earlier death, resignation or removal from the Board.

Our Amended and Restated Bylaws (“Bylaws”) provide that, in an election of directors where the number of nominees does not exceed the number of directors to be elected, each director nominee must receive a majority of votes cast with respect to that director nominee. Should one of the nominees up for election not receive a majority of votes cast, the Board, after taking into consideration the recommendation of the Nominating and Governance Committee, will determine whether or not to accept a pre-tendered resignation of such nominee. The Board will publicly disclose its decision and its rationale within 90 days of the certification of the election results. The director whose resignation is under consideration shall abstain from participating in any decision regarding that resignation.

We believe the current Board consists of a diverse group of professionals, including former CEOs, CFOs and industry leaders, who bring significant leadership and distinct qualities and skill sets to Infinera, including direct shareholder representation by our second largest shareholder. This group provides a diverse range of perspectives and experience to engage each other and management to effectively represent our shareholders. In addition, the Board added its first female director in June 2019, which further highlights our commitment to diversity. **Any search firms retained to assist the Nominating and Governance Committee will be specifically advised to seek to include qualified, diverse candidates from traditional and nontraditional environments, including women and ethnically diverse minorities**.

Independence of the Board

On an annual basis, in accordance with the current listing standards of Nasdaq, the Board affirmatively determines the independence of each director or nominee for election as a director. The Board has determined that eight out of ten of our directors (with the exception of Mr. Fallon and Dr. Welch, both of whom are employees of Infinera) are “independent” in accordance with the rules and regulations of the SEC and the listing standards of Nasdaq. Also, all members of the Audit Committee, Compensation Committee and Nominating and Governance Committee, as more fully described below, are independent directors.

HOW WE GOVERN AND ARE GOVERNED

Although it is important and exciting to focus on opportunities and successes, we at Infinera believe it is also important to focus on responsible compliance, risk management, and governance structures and functions. Success in our sector in particular depends on maintaining an ability to identify challenges early, maintaining best-possible security and governance practices, and fostering an ability to pivot quickly and continually.

Board Oversight of Risk

Risk is inherent with every business and the Board is responsible for overseeing our risk management function, including a regular review of our strategic plans and business objectives. Members of our senior management team are responsible for implementation of our day-to-day risk management processes, while the Board, as a whole and through its committees, has responsibility for the oversight of overall risk management. In addition, each of the committees of the Board considers any risks that may be within its area of responsibilities and Board members, or Board committee members, periodically engage in discussions with members of our senior management team as appropriate. Specifically, the Audit Committee assists the Board in fulfilling its oversight responsibilities with respect to risk management in the areas of financial reporting, internal controls, key accounting and reporting policies, and cybersecurity, as well as meeting with the Head of Internal Audit and our external independent auditors. The Compensation Committee assists the Board in fulfilling its oversight responsibilities with respect to the management of risks arising from our compensation policies and programs. The Nominating and Governance Committee assists the Board in fulfilling its oversight responsibilities with respect to the management of risks associated with Board organization, membership and structure, succession planning for our directors and executive officers, and corporate governance. The Technology and Acquisition Committee assists the Board in fulfilling its oversight responsibilities with respect to managing the risks associated with technology development and smaller acquisitions and investments. Each of the committee chairs reports to the full Board at regular meetings concerning the activities of the committee, the significant issues it has discussed, and the actions taken by the committee.

Code of Business Conduct and Ethics

We have adopted a Code of Business Conduct and Ethics, most recently updated in March 2019, which applies to all of our employees, officers (including our principal executive officer, principal financial officer, and principal accounting officer or controller, or persons performing similar functions) and our directors. The Code of Business Conduct and Ethics reflects our policy of dealing honestly and with integrity with everyone, including our customers, employees, investors and suppliers. We require all employees to complete training on our Code of Business Conduct and Ethics.

Our Code of Business Conduct and Ethics is just one element of the many practices and procedures we utilize to try to create a diverse and inclusive culture that encourages helpful and honest communication both up and down reporting relationship chains. Our executive leaders set the tone for this culture at the top and our ability to maintain a positive and creative work environment depends on its success. Our annual Infinera Sustainability Report describes some of the additional programs and practices we maintain to protect our people and their productivity, health and well-being.

A copy of our Code of Business Conduct and Ethics is posted on our website at *www.infinera.com* in the Corporate Governance section on our Investors page. You may also obtain a copy of our Code of Business Conduct and Ethics without charge by writing to: Infinera Corporation, c/o Corporate Secretary, 140 Caspian Court, Sunnyvale, California 94089. We intend to disclose future amendments to certain provisions of our Code of Business Conduct and Ethics, or waivers of such provisions, applicable to any principal executive officer, principal financial officer, principal accounting officer or controller, or persons performing similar functions and our directors on our website identified above or on a Current Report on Form 8-K if required by the applicable listing standards.

Corporate Governance Guidelines

The letter from our Board Chair at the beginning of this proxy statement references some of our governance best practices. The Board has adopted Corporate Governance Guidelines which govern, among other things, Board composition, Board responsibilities, committee composition, management succession and shareholder communications. You can access these Corporate Governance Guidelines, along with other materials such as Board committee charters, on our website at *www.infinera.com* in the Corporate Governance section on our Investors page.

Stock Ownership Policy

The Board believes that it is important to link the interests of our directors and management to those of our shareholders. Accordingly, the Board has adopted a Stock Ownership Policy for our directors and executive officers who are designated as reporting officers under Section 16 ("Section 16 Officers") of the Securities Exchange Act of 1934, as amended (the "Exchange Act"). For additional information regarding our Stock Ownership Policy, please see the section entitled "Compensation Discussion and Analysis—Additional Information Regarding Our Compensation Practices—Stock Ownership Policy."

Corporate Social Responsibility

We aim to create a corporation that strategically considers all choices in light of our role in the global community. As an established player in transport networking, we recognize that we have some level of influence in the communities where we operate and in the marketplace. We view this influence as a privilege that inspires us to lead with bold and intentional socially responsible practices. Whenever possible, our hope is to use that influence to drive new best practices and a sense of obligation to the world around us. Each year we summarize our sustainability program and activities in a report, the Infinera Sustainability Report.

These are not just words: we have the practices, metrics, targets and disclosures to back them up. Rather we encourage you to read the current Infinera Sustainability Report and watch for our updated one which we expect to post in the coming months.

In addition:

- We have leveraged our ability as a company with an immense customer base and supply chain to promote good practices broadly. We not only conduct individual supplier reviews and supplier audits but have achieved **100% certification of our supplier code of conduct**. A copy of the Supplier Code of Conduct as well as other related policies related information can be found on the "Corporate Social Responsibility" page of our website at *www.infinera.com*.
- We provide detailed diversity data.
- We are committed to using our design, development and sales practice to protect personal data against unauthorized access, use, retention and disclosure. We are not aware of any complaints about breaches of customers' privacy or of any leaks, thefts, losses of customers' personal data from any such breach.
- All of our full-time employees and regular 24 hr+ part time employees are eligible for all Infinera benefits.
- We are members of the Responsible Minerals Initiative.
- We incorporate SASB into our materiality assessment and use both a UN Global Compact and a GRI Index in our ESG reporting.

We are fortunate to operate in a sector that presents relatively few major environmental challenges while creating many opportunities to provide environmental and social benefits. In addition to the practices, targets, metrics and disclosures summarized above, our operations directly help people connect socially and professionally; run their businesses more efficiently, fairly and globally; and enable the management of risks that are created by living in a connected global economy.

HOW WE ARE ORGANIZED

Board Leadership Structure

The Board believes its current leadership structure best serves the objectives of the Board's oversight of management, the Board's ability to carry out its roles and responsibilities on behalf of our shareholders, and our overall corporate governance. Separating the positions of Chairman of the Board and CEO allows our CEO to focus on our day-to-day business, while allowing the Chairman of the Board to lead the Board in its fundamental role of providing advice to and independent oversight of management. While our Bylaws do not require that our Chairman of the Board and CEO positions be separate, the Board believes that having separate positions is the appropriate leadership structure for Infinera at this time and demonstrates our commitment to good corporate governance practices. The Board has assigned the Chairman of the Board responsibility for presiding over meetings of the Board, developing meeting agendas, facilitating communication between management and the Board, representing director views to management and improving meeting effectiveness, among other things. Mr. Hooshmand has served as Chairman of the Board since October 2010.

The Board also believes that the combination of an independent Chairman of the Board, all three of our current standing committees being comprised entirely of independent directors and the regular use of executive sessions of the independent directors enables the Board to maintain independent oversight of our strategies and activities.

Agreement with Oaktree Optical Holdings

In April 2020, we entered into a letter agreement with Oaktree Optical Holdings, L.P. ("Oaktree") pursuant to which we agreed, among other things, to nominate and support Ms. Rice for election as a director at the Annual Meeting. Subject to certain exceptions set forth in the letter agreement, Oaktree and certain affiliates agreed to vote all of its shares at the Annual Meeting in a manner consistent with the recommendation of our board of directors. Oaktree also agreed to customary standstill restrictions.

Information Regarding the Board and its Committees

The Board met 12 times during fiscal 2019. The Board acted by written consent six times during fiscal 2019. During fiscal 2019, each director then in office attended 75% or more of the meetings of the Board other than Dr. Welch who attended 66% of the Board meetings. During fiscal 2019, each director then in office attended 75% or more of the meetings of the committees on which he or she served during the period for which he or she was a committee chairman or committee member, as applicable. Our independent directors meet in executive sessions, without management present, during most regular meetings of the Board. Directors are encouraged, but not required, to attend our annual meetings of shareholders. Two members of the Board attended our 2019 Annual Meeting of Shareholders. In addition, John P. Daane stepped down from the Board and did not stand for re-election to the Board in May 2019.

The Board had three standing committees as of the end of fiscal 2019: an Audit Committee, a Compensation Committee and a Nominating and Governance Committee. The Board suspended the Technology and Acquisition Committee in June 2019 and determined not to reconstitute this ad hoc committee in March 2020. The Board also established an Integration Oversight Committee with a one-year term in October 2018 (as described in more detail below). Mr. Fallon and Dr. Welch do not currently serve on any committees of the Board.

Name	Board	Audit	Compensation	Nominating and Governance
Gregory P. Dougherty[1]	M	—	M	—
Thomas J. Fallon	M	—	—	—
Marcel Gani	M	M	C	—
Sharon E. Holt[2]	M	—	—	C
Kambiz Y. Hooshmand	C	M	—	M
Paul J. Milbury	M	C	M	—
Rajal M. Patel[3]	M	—	—	M
Amy H. Rice[4]	M	—	—	M
Mark A. Wegleitner	M	—	—	M
David F. Welch, Ph.D.	M	—	—	—
Total Meetings in Fiscal 2019	12	11	6	5

C = Chairman; M = Member

(1) Effective as of January 29, 2019, Mr. Dougherty joined the Board and replaced Mr. Daane on the Compensation Committee.

(2) Effective as of June 3, 2019, Ms. Holt joined the Board, effective July 16, 2019, Ms. Holt joined the Nominating and Governance Committee, and effective April 13, 2020 Ms. Holt replaced Mr. Patel as Chairman of the Nominating and Governance Committee.

(3) Effective as of May 23, 2019, Mr. Patel replaced Mr. Daane as Chairman of the Nominating and Governance Committee and served as Chairman until April 13, 2020.

(4) Effective as of April 13, 2020, Ms. Rice joined the Board and was appointed to the Nominating and Governance Committee.

Audit Committee

The Audit Committee reviews and monitors our financial statements, financial reporting process and our external audits, including, among other things, our internal controls and audit functions, the results and scope of the annual audit and other services provided by our independent registered public accounting firm as well as our compliance with legal matters that have a significant impact on our financial statements. The Audit Committee also consults with our management and our independent registered public accounting firm prior to the presentation of financial statements to shareholders and, as appropriate, initiates inquiries into aspects of our financial affairs. The Audit Committee is responsible for establishing procedures for the receipt, retention and treatment of complaints regarding accounting, internal accounting controls or auditing matters, and for the confidential, anonymous submission by our employees of concerns regarding questionable accounting or auditing matters. In addition, the Audit Committee is directly responsible for the appointment, retention, compensation and oversight of the work of our independent registered public accounting firm, including approving services and fee arrangements. Any related party transactions are subject to approval by the Audit Committee. A more detailed description of the Audit Committee's functions can be found in our Audit Committee charter. In addition, the Audit Committee meets in executive sessions, without management present and with the independent registered public accounting firm, during most regular meetings of the Audit Committee. A copy of the Audit Committee charter is available on our website at *www.infinera.com* in the Corporate Governance section on our Investors page.

The current members of the Audit Committee are Messrs. Gani, Hooshmand and Milbury. Mr. Milbury chairs the Audit Committee. Each current member of the Audit Committee served the entire fiscal year. The Audit Committee met eleven times during fiscal 2019. The Audit Committee acted by written consent once during fiscal 2019. Each member of the Audit Committee is independent for Audit Committee purposes under the rules and regulations of the SEC and the listing standards of Nasdaq. In addition to qualifying as independent under the Nasdaq rules, each member of the Audit Committee can read and understand fundamental financial statements in accordance with Nasdaq Audit Committee requirements. The Board has determined that Messrs. Gani and Milbury are each an "Audit Committee Financial Expert" as defined in Item 407(d)(5)(ii) of Regulation S-K. The designation does not impose on Messrs. Gani and Milbury any duties, obligations or liabilities that are greater than are generally imposed on them as members of the Audit Committee and the Board.

Compensation Committee

The Compensation Committee has the responsibility, authority and oversight relating to the development of our overall compensation strategy and compensation policies and programs. The Compensation Committee establishes our compensation philosophy and policies, administers all of our compensation plans for executive officers, and recommends the compensation for the non-employee directors of the Board. The Compensation Committee seeks to assure that our compensation policies and practices promote shareholder interests and support our compensation objectives and philosophy as described in more detail in the Compensation Discussion and Analysis section of this Proxy Statement.

The Compensation Committee also oversees, reviews and administers all of our material employee benefit plans, including our 401(k) plan, and reviews and approves various other compensation policies and matters. The Compensation Committee may form and delegate authority to one or more subcommittees as appropriate. A more detailed description of the Compensation Committee's functions can be found in our Compensation Committee charter. A copy of the Compensation Committee charter is available on our website at *www.infinera.com* in the Corporate Governance section on our Investors page.

The current members of the Compensation Committee are Messrs. Dougherty, Gani and Milbury. Mr. Gani chairs the Compensation Committee. In addition, Mr. Dougherty replaced Mr. Daane on the Compensation Committee effective as of January 29, 2019. Other than Mr. Dougherty, each current member of the Compensation Committee served the entire fiscal year. The Compensation Committee met six times during fiscal 2019. The Compensation Committee acted by written consent three times during fiscal 2019. Each member of the Compensation Committee is a non-employee director, as defined in Rule 16b-3 promulgated under the Exchange Act, an outside director, as defined pursuant to Section 162(m) ("Section 162(m)") of the Internal Revenue Code, as amended (the "Code") and satisfies the director and compensation committee independence requirements under the listing standards of Nasdaq.

Non-Executive Equity Award Subcommittee

The guidelines for the size of new hire, promotional and annual retention equity awards for Section 16 Officers are reviewed and approved by the Compensation Committee. The Compensation Committee has delegated to the Non-Executive Equity Award Subcommittee (the "Subcommittee") the authority to formally approve new hire, promotional and retention equity awards to certain employees pursuant to guidelines pre-approved from time to time by the Compensation Committee. The delegation to the Subcommittee does not include the authority to grant equity awards to new employees who are or are reasonably expected to become Section 16 Officers or to current Section 16 Officers. The delegation of authority to the Subcommittee is not exclusive and the Board and Compensation Committee have retained the right to approve any equity awards at their discretion. The Subcommittee acted by written consent fourteen times during fiscal 2019. This Subcommittee is currently comprised solely of our CEO (who is also a Board member).

Nominating and Governance Committee

The Nominating and Governance Committee reviews and recommends changes to corporate governance policies and practices applicable to Infinera. In addition, the Nominating and Governance Committee is responsible for identifying, evaluating and making recommendations of nominees to the Board and evaluating the performance of the Board and individual directors, including those eligible for re-election at the annual meeting of shareholders. The Nominating and Governance Committee also oversees an annual board evaluation process to determine whether the Board is functioning effectively. The Nominating and Governance Committee is also responsible for reviewing developments in corporate governance practices, and evaluating and making recommendations to the Board concerning corporate governance matters. In addition, the Nominating and Governance Committee oversees our succession planning process. A more detailed description of the Nominating and Governance Committee's functions can be found in our Nominating and Governance Committee charter. A copy of the Nominating and Governance Committee charter is available on our website at *www.infinera.com* in the Corporate Governance section on our Investors page.

The current members of the Nominating and Governance Committee are Messrs. Hooshmand, Patel, and Wegleitner and Mses. Holt and Rice. In addition, Mr. Patel replaced Mr. Daane as Chairman on the Nominating and Governance Committee effective as of May 23, 2019 and Ms. Holt replaced Mr. Patel as Chairman of the Nominating and Governance Committee effective as of April 13, 2020. Other than Ms. Holt and Ms. Rice, each current member of the Nominating and Governance Committee served during the entire 2019 fiscal year. The Nominating and Governance Committee met five times during fiscal 2019. The Nominating and Governance Committee acted by written consent twice during fiscal 2019. Each member of the Nominating and Governance Committee satisfies the independence requirements under the listing standards of Nasdaq.

Board Nominees and Diversity

The Nominating and Governance Committee reviews and reports to the Board on a periodic basis with regard to matters of corporate governance, and reviews, assesses and makes recommendations on the effectiveness of our corporate governance policies. In addition, the Nominating and Governance Committee reviews and makes recommendations to the Board regarding the size and composition of the Board and the appropriate skills and characteristics required of our directors in the context of the then-current composition of the Board. This includes an assessment of each candidate's independence, personal and professional integrity, financial literacy or other professional or business experience relevant to an understanding of our business, ability to think and act independently and with sound judgment, and ability to serve our shareholders' long-term interests. The Board and the Nominating and Governance Committee follow a process that we consider best practices when reviewing the overall composition of the Board and considering the slate of nominees for annual election to the Board and the appointment of individual directors to the Board. The Board and Nominating and Governance Committee evaluates the skill sets needed to provide the right level of guidance and oversight to the management team. Within the context of evaluating the skills needed on the Board, the Nominating and Governance Committee also considers diversity attributes, including gender, race, orientation, ethnicity, specialized expertise and a range of insight gathered from relevant industries. These factors, and others considered useful by the Nominating and Governance Committee, are reviewed in the context of an assessment of the perceived needs of the Board at a particular point in time.

The Nominating and Governance Committee leads the search for, selects and recommends candidates for election to the Board. Consideration of new director candidates typically involves a series of committee discussions, review of information concerning candidates and interviews with selected candidates. From time to time, the Nominating and Governance Committee may engage the services of a search firm to identify director candidates. **Any search firms retained to assist the Nominating and Governance Committee will be specifically advised to seek to include qualified, diverse candidates from traditional and nontraditional environments, including women and ethnically diverse minorities**. The Nominating and Governance Committee will also consider candidates proposed in writing by shareholders, provided such proposal meets the eligibility requirements for submitting shareholder proposals for inclusion in our next proxy statement and is accompanied by the required information about the candidate specified in Section 2.4 of our Bylaws. Candidates proposed by shareholders are evaluated by the Nominating and Governance Committee using the same criteria as for all other candidates.

If a shareholder wishes to recommend a director candidate for consideration by the Nominating and Governance Committee, pursuant to our Corporate Governance Guidelines, the shareholder must have held at least 1,000 shares of our common stock for at least six months and must notify the Nominating and Governance Committee by writing to our Corporate Secretary at our principal executive offices, and must include the following information:

- To the extent reasonably available, information relating to such director candidate that would be required to be disclosed in a proxy statement pursuant to Regulation 14A under the Exchange Act, in which such individual would be a nominee for election to the Board;
- The director candidate's written consent to (a) if selected, be named in our proxy statement and proxy, and (b) if elected, to serve on the Board;
- The other information set forth in the applicable sections of Section 2.4 of our Bylaws; and
- Any other information that such shareholder believes is relevant in considering the director candidate.

Technology and Acquisition Committee

At the time the Technology and Acquisition Committee was suspended in June 2019, this committee was comprised of Messrs. Hooshmand, Patel, Wegleitner and Dr. Welch. Mr. Wegleitner chaired the Technology and Acquisition Committee. The Technology and Acquisition Committee met once during fiscal 2019. The Technology and Acquisition Committee did not act by written consent during fiscal 2019.

The Board suspended the Technology and Acquisition Committee in June 2019 in order to re-evaluate its responsibilities. There were no further meetings after its initial meeting in February 2019. The Board finally determined not to reconstitute the Technology and Acquisition Committee in March 2020.

Integration Oversight Committee

In October 2018, the Board formed the Integration Oversight Committee to provide guidance to the management of Infinera in its integration of the business, personnel and infrastructure of Coriant with Infinera, and assist the Board in its oversight of the integration. The Integration Oversight Committee provided general oversight of all activities related to the integration, oversaw the formulation and implementation of a plan for the integration and oversaw the execution, performance and results of the integration. This committee had a one-year term which terminated in October 2019.

The Integration Oversight Committee consisted of Messrs. Dougherty, Hooshmand and Milbury at its termination. Mr. Dougherty had replaced Mr. Daane as a member of the Integration Oversight Committee effective as of March 1, 2019. The Integration Oversight Committee met twice during fiscal 2019. The Integration Oversight Committee did not act by written consent during fiscal 2019.

Compensation Committee Interlocks and Insider Participation

During fiscal 2019, Messrs. Daane, Dougherty, Gani and Milbury served on the Compensation Committee. None of these individuals was at any time during fiscal 2019, or at any other time, an executive officer or employee of Infinera. No member of the Compensation Committee had any relationship with Infinera during fiscal 2019 requiring disclosure under Item 404 of Regulation S-K under the Exchange Act. None of our executive officers has ever served as a member of the board or compensation committee of any other entity that has or has had one or more executive officers serving as a member of the Board or Compensation Committee.

HOW TO COMMUNICATE WITH US

The board of directors actively seeks input from shareholders, stakeholders, thought leaders and many others to perform its functions optimally. As shareholders bring wide and relevant experiences and have a financial stake in the wisdom of their input, the board values maintaining a number of avenues to receive that input. These include:

- Shareholder attendance or participation at our annual shareholders meetings
- Input from proxy voting
- Use of the company’s various reporting mechanisms such as its “hot lines’ and reports to the internal audit function
- Participation in our numerous investor relations programs and conferences

Write to the directors as a whole or individually to the following address:

Board of Directors
c/o Corporate Secretary
Infinera Corporation
140 Caspian Court
Sunnyvale, California 94089

Communications are distributed to the Board or to any individual director, as appropriate, depending on the facts and circumstances outlined in the communication. At the direction of the Board, all mail received may be opened and screened for security purposes. Communications that are unduly hostile, threatening, illegal or similarly unsuitable will be excluded with the provision that any communication that is filtered out will be made available to any independent or non-employee director upon request.

HOW WE ARE PAID

Our compensation program for our non-employee directors is designed to attract and retain highly qualified, independent directors to represent shareholders on the Board and to act in their best interests. The Compensation Committee, which consists solely of independent directors, has the primary responsibility for reviewing and recommending any changes to our director compensation program, with compensation changes approved or ratified by the full Board. During fiscal 2019, the Compensation Committee engaged an outside advisor to provide relevant market data regarding our director compensation program in order to review the program. The Compensation Committee and Board determined that a mix of cash compensation and equity awards should continue to be used in our compensation program for our non-employee directors. Directors who are also employees of Infinera do not participate in our director compensation program, nor do they receive any additional compensation for their service as directors. The Compensation Committee did not recommend any changes to our director compensation program after its review during fiscal 2019. The full Board last approved changes to the director cash compensation program in December 2015 other than to approve fees for service on the Integration Oversight Committee, which has since ceased to exist.

Director Fees

During fiscal 2019, our cash compensation program for our non-employee directors was as follows:

Position	Annual Retainer Fee ($)
Non-Employee Director	50,000
Chairman of the Board	50,000
Audit Committee Chairman	30,000
Audit Committee Member	12,500
Compensation Committee Chairman	20,000
Compensation Committee Member	10,000
Nominating and Governance Committee Chairman	11,000
Nominating and Governance Committee Member	6,000
Technology and Acquisition Committee Chairman	10,000(1)
Technology and Acquisition Committee Member	5,000(1)
Integration Oversight Committee Member(2)	15,000

(1) The annual retainer fees for the Technology and Acquisition Committee were suspended for the third and fourth quarter of fiscal 2019. The Board determined not to reconstitute the Technology and Acquisition Committee in March 2020.

(2) Beginning the third quarter of fiscal 2019, the Integration Oversight Committee was disbanded.

We do not pay meeting fees for the Board or any of the committees of the Board. We pay the retainer fees set forth above in quarterly installments. Retainer fees are paid in arrears. In addition, we have a policy of reimbursing our non-employee directors for reasonable travel, lodging and other expenses incurred in connection with their attendance at Board and committee meetings.

Director Equity Awards

Non-employee directors are eligible to receive equity awards as follows:

- *Initial RSU Award*. Each individual who commences service as a non-employee director upon his or her appointment to the Board or election at an annual meeting of shareholders will receive an RSU award covering a number of shares with an aggregate fair market value as reported on Nasdaq on the day prior to the grant date equal to approximately $165,000 (the “Initial RSU Award”). The Initial RSU Award vests in annual installments over three years, provided that the non-employee director remains a service provider of Infinera through each applicable vesting date.

- *Annual RSU Award.* On the date of each annual meeting of shareholders, each individual who continues to serve as a non-employee director after that annual meeting will be eligible to receive an RSU award covering a number of shares with an aggregate fair market value as reported on Nasdaq on the day prior to the grant date equal to approximately $165,000 (the “Annual RSU Award”). The Annual RSU Award will vest as to 100% of the underlying shares on the earlier of the date of the next annual meeting of shareholders or the one-year anniversary of the date of grant, provided that the non-employee director remains a service provider of Infinera on the applicable vesting date.

Assuming a non-employee director is appointed to the Board at least six months prior to the next annual meeting of shareholders, such non-employee director will also be eligible for an RSU award covering a number of shares with an aggregate fair market value as reported on Nasdaq on the day prior to the grant date equal to approximately $165,000. The number of shares covering this RSU award will be prorated for the number of months remaining until the next scheduled annual meeting of shareholders.

For the Annual RSU Award in connection with the 2019 Annual Meeting of Shareholders, we granted RSU awards covering 53,745 shares of Infinera common stock to each non-employee director then in office. These RSU awards vest in full on May 21, 2020, subject to each non-employee director’s continued service to Infinera on the applicable vesting date.

Fiscal 2019 Director Compensation

The following table sets forth all of the compensation awarded to or earned by the non-employee members of the Board in fiscal 2019.

Name	Fees Earned or Paid in Cash ($)(1)	Stock Awards ($)(2)	Option Awards ($)	Total ($)
John P. Daane(3)	26,813	—	—	26,813
Gregory P. Dougherty	60,041	324,622(4)	—	384,663
Marcel Gani	82,500	159,623	—	242,123
Sharon E. Holt	31,445	329,997(5)	—	361,442
Kambiz Y. Hooshmand	128,500	159,623	—	288,123
Paul J. Milbury	97,500	159,623	—	257,123
Rajal M. Patel	61,508	159,623	—	221,131
Mark A. Wegleitner	61,000	159,623	—	220,623

(1) For a description of the annual non-employee director retainer fees and retainer fees for chair positions and for service as Chairman of the Board, see the disclosure above under “Director Fees.”

(2) The amounts reported in this column represent the aggregate grant date fair value of the RSU awards granted in fiscal 2019 computed in accordance with Financial Accounting Standards Board Accounting Standards Codification Topic 718, “Compensation—Stock Compensation” (“ASC 718”) and without any adjustment for estimated forfeitures. These amounts reflect our accounting expense for these awards and do not correspond to the actual value that will be recognized by the non-employee directors with respect to these awards at the time the shares of Infinera common stock underlying the RSU awards are vested and/or sold. There can be no assurance that the actual value realized by a non-employee director will be at or near the grant date fair value of the RSU awards granted.

(3) Mr. Daane did not stand for re-election at the 2019 Annual Meeting of Shareholders and no longer serves as a director.

(4) In addition to the Annual RSU Award, this amount includes the value of an Initial RSU Award upon Mr. Dougherty’s appointment to the Board on January 29, 2020.

(5) In addition to the Annual RSU Award, this amount includes the value of an Initial RSU Award upon Ms. Holt’s appointment to the Board on June 3, 2020.

Additional Information with Respect to Director Equity Awards

Name	Shares Subject to Stock Awards Outstanding at Fiscal Year-End (#)[1]	Shares Subject to Option Awards Outstanding at Fiscal Year-End (#)
John P. Daane[2]	—	—
Gregory P. Dougherty	91,589	—
Marcel Gani	53,745	—
Sharon E. Holt	107,142	—
Kambiz Y. Hooshmand	53,745	—
Paul J. Milbury	53,745	7,600
Rajal M. Patel	53,745	—
Mark A. Wegleitner	53,745	40,000

(1) Unvested time-based RSU awards.

(2) Mr. Daane did not stand for re-election at the 2019 Annual Meeting of Shareholders and no longer serves as a director.

OUR PAY

COMPENSATION DISCUSSION AND ANALYSIS

This Compensation Discussion and Analysis provides information related to the fiscal 2019 compensation program and related decisions for our NEOs identified below.

Executive Summary

Fiscal 2019 was a mixed year for Infinera. Although we had a very strong one-year total shareholder return ("TSR") of 95%, this was largely due to a depressed share price at the beginning of the year. While we met our synergy targets as part of the integration of Infinera and Coriant and we achieved non-GAAP operating profitability in the fourth quarter of 2019, our financial performance for the full year did not meet our expectations set forth in our 2019 annual operating plan approved by the Board in the beginning of the year.

That mixed performance had a significant impact on our compensation structure and compensation outcomes in fiscal 2019. Last year, our CEO's compensation reflected this year in many ways, including that:

- Target pay opportunity was reduced nearly 10% below the level in 2018;
- Base salary continued to be paid at a level 20% below the level in 2017;
- Equity-based compensation was shifted to 100% performance-based;
- No annual cash bonus was earned; and
- Realized compensation value for our CEO in fiscal 2019 was less than a quarter of his target compensation.

We believe in strong pay and performance alignment, as these pay program decisions and outcomes demonstrate. The remainder of this executive summary will illustrate these various aspects of our compensation program.

Our Company

We are a global supplier of networking solutions comprised of networking equipment, software, and services. Our portfolio of solutions includes optical transport platforms, converged packet-optical transport platforms, optical line systems, disaggregated router platforms, a suite of networking and automation software offerings, and support and professional services. Our end-user's services and applications include, but are not limited to, high-speed internet access, business Ethernet services, 4G/5G mobile broadband, cloud-based services, high-definition video streaming services, virtual and augmented reality, and the Internet of Things.

- Our systems are highly scalable, flexible and designed with open networking principles for ease of deployment.
- We build our systems using a combination of internally manufactured and third-party components. Our portfolio includes systems that leverage our innovative optical engine technology, comprised of large-scale photonic integrated circuits ("PICs") and digital signal processors ("DSPs"). We optimize the manufacturing process by using indium phosphide to build our PICs, which enables the integration of hundreds of optical functions onto a set of semiconductor chips.
- This large-scale integration of our PICs and advanced DSPs allows us to deliver high-performance transport networking platforms with features that customers care about the most, including cost per bit, low power consumption and space savings.
- We design our optical engines to increase the capacity and reach performance of our products by leveraging coherent optical transmission.

Our Named Executive Officers

For fiscal 2019, our NEOs were the following:

- Thomas J. Fallon, our CEO;

- Nancy Erba, our CFO
- Brad D. Feller, our former CFO;
- David W. Heard, our COO;
- David L. Teichmann, our Chief Legal Officer (“CLO”) and Corporate Secretary; and
- Robert J. Jandro, our Senior Vice President, Worldwide Sales.

Fiscal 2019 Management Changes. In February 2019, the Compensation Committee established fiscal 2019 target compensation for our NEOs who were then employed with us. Mr. Feller resigned as CFO from Infinera effective as of August 26, 2019 and was replaced by Ms. Erba effective as of August 26, 2019. Ms. Erba originally joined Infinera on August 1, 2019 as the Senior Vice President, Strategic Finance until her appointment as CFO. Mr. Teichmann was appointed as our CLO and Corporate Secretary effective as of April 1, 2019. Mr. Jandro served in his role for the full fiscal year, but on January 3, 2020, Mr. Jandro informed us of his decision to retire from his position as our Senior Vice President, Worldwide Sales, effective immediately.

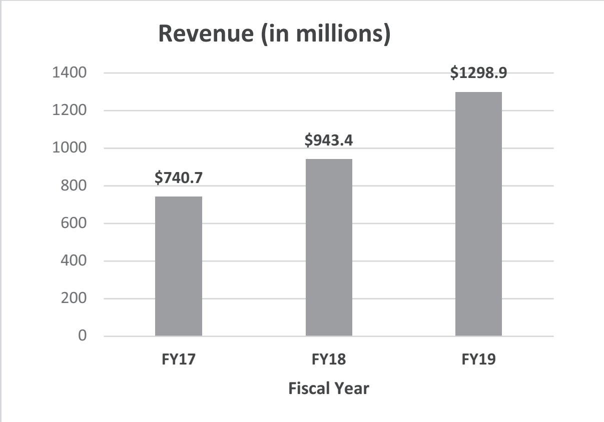
Fiscal 2019 Business Results

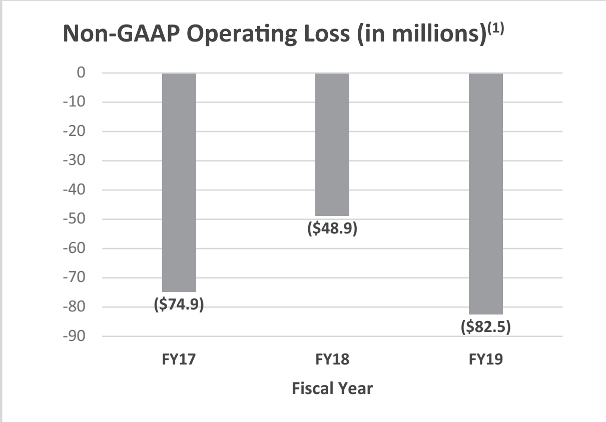
Our fiscal 2019 financial performance fell short of the expectations we established at the beginning of the year. In particular, our non-GAAP operating loss was $82.5 million compared to a target non-GAAP operating income loss of $45 million established at the beginning of the year in our 2019 bonus plan (the “2019 Bonus Plan”). However, this annualized view of performance could overshadow significant improvements during the year, including a significant drop in operating expenses as a percentage of revenue as we started to benefit from synergies related to reducing headcount, combining systems and decreasing our real estate footprint. It is noteworthy that our non-GAAP operating loss for the second half of the year of $9.7 million compared to a loss of $72.7 million in the first half of the year and included positive non-GAAP operating income of $8.8 million in the fourth quarter of 2019.

However, in spite of these financial outcomes, fiscal 2019 was also a year of significant accomplishment in establishing us as a leader in the optical networking market. Our progress is marked by achievements in four key areas:

- We made significant improvements in our financial performance, ending the year strong with solid results for the fourth quarter of 2019. Non-GAAP revenue for the quarter was $386 million, exceeding our guidance range, as customer demand remained robust in the quarter. In addition, non-GAAP operating margin improved to positive 2.3% in the fourth quarter of 2019 as we achieved our goal of exiting fiscal 2019 with non-GAAP operating profitability for the quarter.
- We completed the integration of Coriant and met or exceeded our year one integration goals, laying the foundation for improved operational efficiencies.
- Our portfolio of products and services enabled us to win new customers in fiscal 2019. We view these wins as important validation of the value we now bring to the market and believe our portfolio positions us well for continued growth.
- We increased our investment in differentiated optical technology, positioning us to lead in the emerging fifth generation 800 gigabits per second DSP markets and laying the foundation to create an entirely new market category with XR Optics.

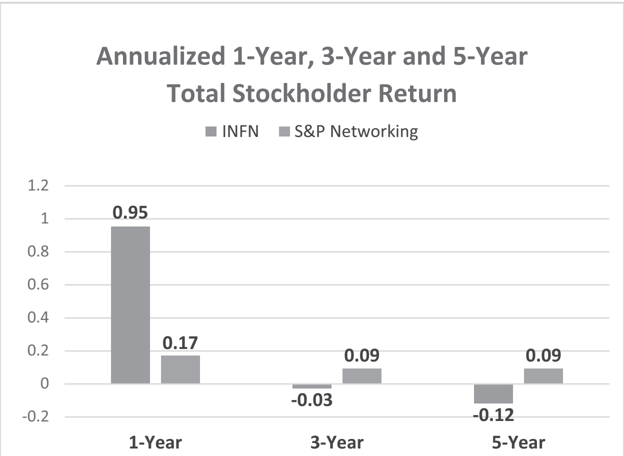
The following table illustrates our GAAP revenue and non-GAAP operating loss over the last three fiscal years:





(1) For a reconciliation of GAAP to non-GAAP revenue, gross profit, gross margin, operating income (loss) and operating margin for fiscal 2019, 2018 and 2017, please see Appendix A to this Proxy Statement.

The following graph shows our 1-, 3- and 5-year TSR as compared to the Standard & Poor's North American Technology Multimedia Networking Index ("S&P Networking Index").



Fiscal 2019 Executive Compensation Program Overview

At the beginning of fiscal 2019, when a majority of executive compensation decisions were made, the Compensation Committee considered the performance of our company as we exited fiscal 2018 and the importance of achieving the successful integration of Infinera and the recently acquired Coriant. The decisions made reflected a continuing effort to maintain a strong pay-for-performance profile and supported accountability of our leadership team for our financial performance. The key elements of our executive compensation program include base salary, a cash bonus plan and long-term incentives in the form of performance shares and, for executives other than our CEO, time-based RSUs.

Our business is still in a period of transformation. We are making significant progress in this transformation. For example, we reached non-GAAP operating profitability in the fourth quarter of 2019, exited the fourth quarter of 2019 with positive cash flow and also logged significant bookings growth. We have a plan for continued technology innovation over the next several years, as we build on our existing technologies such as DRX/XTM and ICE6, as well as a roadmap for developing new products and technologies, such as XR Optics.

Our compensation plans have been designed to reward our executives, and our employees more broadly, as we make progress toward long-term sustainable profitability and growth. Because we are in this period of transition, our compensation program measures progress on similar metrics in the short- and long-term, and contains rewards for our executives that are earned when certain strategically important financial milestones are met and sustained. We believe this program is in the best interests of and aligned with our shareholders and maximizes the incentive for our employees and executive team to deliver shareholder value.

Due to rapidly evolving business developments, in August 2019, our Compensation Committee worked with Compensia to effect changes to our annual incentive program to ensure that the program retained a motivational value for our NEOs and employees throughout Infinera. The CEO was not included in this program modification; Mr. Fallon continued to be held accountable to goals set at the beginning of the year. As part of this modification for our NEOs, the award payout was capped at 75% of the target opportunity to account for the decreased targets; actual payouts were further modified in a downward fashion due to the exercise of negative Compensation Committee discretion to create better alignment with our financial outcomes.

Executive Compensation Program Structure

Compensation Element (CEO/aggregate NEO[1] allocation at target)	Structure and Attributes
Base Salary (13% CEO/23% NEOs)	• Competitively benchmarked • No base salary increase for our CEO in 2019

Target Annual Cash Incentive (16% CEO/16% NEOs)	• Based on objective performance metrics[2]:
	  • 75% based on Non-GAAP Operating Income
	  • 25% based on Positive Cash Flow in Fourth Quarter of 2019
	• Program revised mid-year to account for business developments; payouts capped at 75% of target and goals for CEO not modified
	• CEO received no payout; after negative discretion, other NEOs received payout at 55% of target

Long-Term Performance-Based Stock Awards (71% CEO/27% NEOs)	• Based on objective performance metrics:
	  • 75% based on Non-GAAP Operating Income (100% for NEOs other than the CEO)
	  • 25% based on Market Price of the company's shares (0% for NEOs other than the CEO)
	• Vesting occurs when pre-set targets for each award are met and sustained for periods required by each award

Long-Term Restricted Stock Awards (0% CEO/34% NEOs)	• Designed for long-term retention and to provide strong long-term shareholder alignment • RSUs vest pro-rata annually over four years. No shares vest prior to the first anniversary of grant • CEO receives no restricted stock awards

(1) Only included then-current NEOs at time compensation decisions were made in February 2019
(2) Post-modification

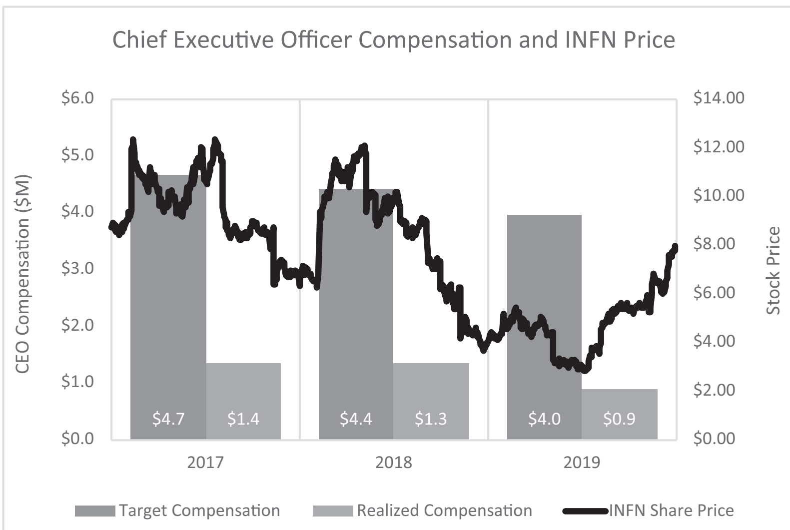
Pay-for-Performance Outcome in Fiscal 2019

Our emphasis on performance-based incentives is evidenced in the chart below, which illustrates our CEO's target total direct compensation versus his actual realized compensation during the most recent three fiscal years. Target total direct compensation is defined as the sum of the base salary rate approved for each fiscal year, the bonus target for the year, and the grant date target value of equity. The target value of equity reflects the grant date share price of performance share awards, which differs from the value reported in the Summary Compensation Table below. Actual realized compensation includes the base salary and cash annual incentive earned during the year plus the sum of any RSUs and performance shares that vested during the year, valued using the share price on the vesting date.

First, the Compensation Committee kept our CEO's base salary the same as the prior fiscal year. In addition, target equity awards in fiscal 2019 were equal to the value of target grants in fiscal 2018, and took the form of two performance share awards for our CEO. The Compensation Committee believes keeping CEO pay in line with the prior fiscal year was consistent taking into consideration the performance of Infinera exiting fiscal 2018.

In addition, our CEO's realized compensation is aligned with our shareholder return in 2019 and was significantly below target in 2017, 2018 and 2019. This relationship between realized pay and our total shareholder return continues a pattern from 2017 and demonstrates the alignment of pay and performance inherent in the design of our executive compensation programs. As the chart below illustrates, realized compensation for our CEO was approximately 70% to 80% below target in each of the most recent three fiscal years.

Our fiscal 2019 payouts reflect the alignment of our executive compensation program with the performance of Infinera. As indicated above, a significant portion of our executive compensation program was designed to align the compensation outcomes for our participating NEOs with performance against measurable objectives.



Bonuses under the amended 2019 Bonus Plan for participating NEOs were determined based on our performance against the achievement of financial targets. The financial performance targets for our participating NEOs under the amended 2019 Bonus Plan (as described in the section "Performance-Based Incentive Cash Compensation (2019 Bonus Plan)-Amended 2019 Bonus Plan") were tied to non-GAAP operating income for fiscal 2019 and positive cash flow for the fourth quarter of 2019. We met our financial targets under the amended 2019 Bonus Plan, which (after negative Compensation Committee discretion) resulted in a payout at 55% for our participating NEOs. Our CEO was not eligible to participate in the amended 2019 Bonus Plan.

Portions of long-term performance share awards made in 2017 and 2018 were earned at the completion of fiscal 2019. Each of those portions was earned below target levels of performance and were based on two- and three-year performance objectives based on total shareholder return. More details on those payouts are located in the section "Long-term Incentive Compensation-Outstanding Performance Share Awards Granted in Prior Fiscal Years."

During fiscal 2019, we granted performance share awards with a new type of performance goal related to the achievement of non-GAAP profitability. One hundred percent of the shares subject to the performance award would become eligible to vest based upon our achievement of positive non-GAAP operating income (that is, greater than $0). We did not achieve positive non-GAAP operating income for fiscal 2019 and no shares have become eligible to vest.

Governance of Executive Compensation

Our executive compensation program includes the following executive compensation governance policies and practices:

- Compensation At-Risk. Our executive compensation program is designed so that a significant portion of our NEO's compensation is "at risk" based on corporate performance, as well as equity-based to align the interests of our executives and shareholders.
- Executive Clawback Policy. We maintain an executive clawback policy that applies to our Section 16 Officers and provides for recovery of both cash and equity incentive compensation under specified circumstances.
- Anti-Hedging Policy. Our Insider Trading Policy prohibits all employees, including our NEOs, and Board members, from hedging their Infinera common stock.
- Anti-Pledging Policy. Our Insider Trading Policy prohibits our NEOs and Board members from pledging Infinera common stock as collateral for a loan.
- Fully Independent Compensation Committee. Our executive compensation program is administered annually by the Compensation Committee, which consists solely of independent directors.
- Stock Ownership Policy. Our Section 16 Officers and the non-employee members of the Board are subject to minimum stock ownership requirements.
- No Tax Gross-Ups. We do not have any arrangements providing for tax "gross-ups" of any compensation elements with any of our executive officers.
- "Double-trigger" Change of Control Arrangements. Our change of control agreements contain "double-trigger" arrangements that require a termination of employment without cause or a constructive termination of employment following a change of control of Infinera before payments and benefits are triggered.
- Annual Compensation Risk Assessment. The Compensation Committee annually conducts a compensation risk assessment to determine whether our compensation arrangements, or components thereof, create risks that are reasonably likely to have a material adverse effect on Infinera.
- No Executive Perquisites. Our executive officers are only eligible to receive the same benefits and perquisites as our other U.S. salaried employees.
- Independent Compensation Consultant Reporting Directly to Compensation Committee. The Compensation Committee utilizes input from an independent compensation consultant that is retained directly by the Compensation Committee and performed no services for Infinera during fiscal 2019 other than services for the Compensation Committee.

Advisory Vote on Fiscal 2018 Named Executive Officer Compensation—"Say-on-Pay" Vote

In calendar 2019, shareholders were provided with the opportunity to cast an advisory (non-binding) vote (a "say-on-pay" proposal) on the compensation of our NEOs for fiscal 2018. Our shareholders approved this say-on-pay proposal, with more than 96% of votes cast voting in favor of our executive compensation program. Noting the results of this vote, the Compensation Committee considered this when making compensation decisions for fiscal 2019.

In light of the 2019 say-on-pay vote, the Compensation Committee maintained a consistent general approach to our executive officer compensation program. This included a continued emphasis on pay-for-performance through the use of performance shares that reward executive officers only if they deliver value for our shareholders. For fiscal 2019, and as noted above, the Compensation Committee also approved no increases to the base salaries or target annual incentives of our CEO and COO when compensation decisions were made in February 2019. The 2019 Bonus Plan was modified for our NEOs, other than our CEO, and as modified enabled payout to our NEOs only if the financial performance objectives were met.

The Compensation Committee will continue to consider input from our shareholders as reflected in the outcome of our annual say-on-pay vote when making executive compensation program decisions.

Overview of our Executive Compensation Program Philosophy and Process

Compensation Objectives and Philosophy

Our executive compensation program is designed to attract, retain, and reward talented executive officers and to motivate them to pursue our corporate objectives, while fostering the creation of long-term value for our shareholders. To achieve this mission, we take a "pay-for-performance" approach that forms the foundation for the design of our executive compensation program. The Compensation Committee also designs the various components of our executive compensation program to support our company culture (i.e., increasing levels of accountability through the use of "at risk" pay for more senior level employees), the internal company environment relative to industry conditions, current business priorities, strategy and product development cycles, and current market practices of our peer group.

Compensation-Setting Process

Role and Authority of Compensation Committee. The Compensation Committee is responsible for our executive compensation program and all related policies and practices. The Compensation Committee has the responsibility to establish and approve the compensation of each of our executive officers, including our NEOs. In addition, the Compensation Committee reviews and administers our equity and employee benefit plans and programs, which are generally available to our employees, including our NEOs. The Compensation Committee also has the authority to engage its own advisors to assist it in carrying out its responsibilities, and the reasonable compensation for such advisor services is paid by Infinera.

Role of Compensation Consultant. During fiscal 2019, the Compensation Committee engaged the services of Compensia, Inc. ("Compensia"), a national compensation consulting firm, as its independent compensation consultant to provide advice on matters relating to the compensation of our executives and non-employee directors. Compensia provided the Compensation Committee with an analysis of industry sector competitive market data regarding NEO compensation, information on compensation trends, peer group and general market data, as well as assistance with the parameters used to determine the peer group, base salary, incentive plan design and the structure of our executive compensation program. During fiscal 2019, Compensia also provided general observations about our compensation programs and reviewed and provided input on the compensation discussion & analysis section of our Proxy Statement.

Compensia reports directly to the Compensation Committee. Compensia interacted with management at the direction of the Compensation Committee but did not provide any other services for Infinera or its management team in fiscal 2019. Compensia's fees were paid by Infinera. The Compensation Committee annually reviews the independence of its compensation consultant and during fiscal 2019 determined that there were no conflicts of interest in connection with Compensia's work.

Determination of CEO Compensation. Our compensation consultant provides market data and considerations for the Compensation Committee regarding the amount and form of our CEO's compensation. As part of this process, the Compensation Committee considers input from the Board and feedback from the Chairman of the Board, in particular with respect to the performance of our CEO. After considering the feedback and recommendations received, all decisions regarding our CEO's compensation are made by the Compensation Committee, based on its own judgment and after considering the interests of our shareholders, in executive sessions excluding our CEO.

Determination of non-CEO Compensation. As a result of his close working relationship with each of the other NEOs, our CEO is asked to provide his assessment of their performance to the Compensation Committee, including considerations regarding retention and importance of their contributions to Infinera. Our CEO is assisted by our Chief Human Resources Officer in making these assessments. Our CEO then presents his performance assessment of the other NEOs and makes formal recommendations to the Compensation Committee regarding adjustments to base salary, annual cash incentive award opportunities and equity awards for our NEOs (other than himself). While the Compensation Committee considers the recommendations of our CEO in determining compensation for our other NEOs, ultimately its decisions are based on its own judgment and the interests of our shareholders. None of our NEOs makes any recommendations regarding his own compensation and none of our NEOs are present at meetings in which their compensation is determined. The Compensation Committee finalized compensation decisions for the CEO in executive session without management present.

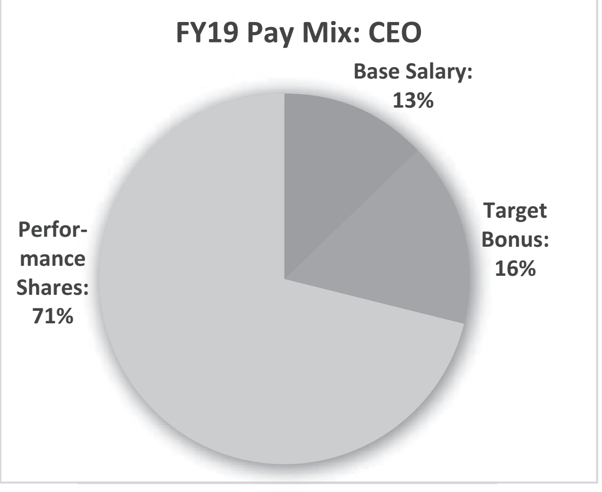
Executive Compensation Elements

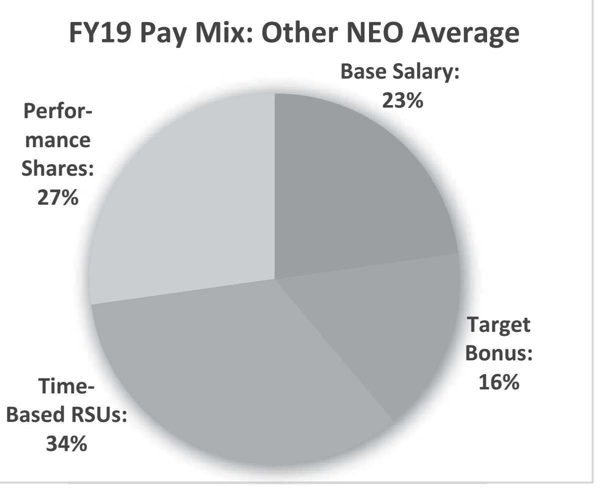
We provide base salaries to attract, retain and motivate our executive officers for their day-to-day contributions, annual incentive cash compensation to link payments to the achievement of our annual financial and/or operational objectives, and long-term incentive compensation delivered in the form of equity awards to align the interests of our executive officers with those of our shareholders and provide significant motivational and retention value to our executive officers. These are the key elements of our executive compensation program. We believe each is necessary to attract, retain and motivate our executive officers, on whom our success largely depends. In addition, we also provide employee benefits that are generally available to all our employees including our NEOs, and certain severance and "double-trigger" change of control payments and benefits as part of our executive compensation program as described further below.

Allocation of Compensation across Pay Elements

In determining how to allocate an NEO's target total direct compensation opportunity among these various elements, the Compensation Committee seeks to take into account market competitive practices for companies of a similar size and with a comparable business focus. Individual retention considerations specific to the individual are also factored in the Compensation Committee's final determination of target total direct compensation. Equity awards, which for fiscal 2019 consisted of awards of time-based RSUs (for our NEOs other than our CEO) and performance shares (for all NEOs), represented the largest component of our NEOs' target total direct compensation opportunity. This approach was designed to encourage sustained, long-term performance and to ensure alignment of the interests of our NEOs with those of our shareholders. Consistent with our "pay-for-performance" philosophy, a significant portion of our NEOs' fiscal 2019 target total direct compensation opportunity was completely "at risk," including 87% of our CEO's target total direct compensation opportunity as our CEO received all of his equity in performance shares. We define "at risk" compensation as opportunities for which vesting as well as the level of achievement is contingent upon achievement of specified performance conditions. In fiscal 2019, this included the amended 2019 Bonus Plan and performance share awards, where the value of performance shares is included based on the grant date target value of shares awarded.

The following charts show the target total direct compensation mix for fiscal 2019 for our CEO and our other NEOs then employed with us as a group (value of equity awards is determined using grant date fair value):





The foregoing chart for our other NEOs as a group does not take into account new hires during the year that included Ms. Erba and Mr. Teichmann, and reflects decisions made by the Compensation Committee in February 2019 (other than for the integration bonuses) as it related to our NEOs who were then employed with us, for our fiscal 2019 executive compensation program.

Role of Benchmarking and the Compensation Peer Group

In making compensation decisions for our executive officers, the Compensation Committee reviews and analyzes competitive market practices using data drawn from a group of peer companies and the Radford Global Technology survey.

In June 2018, the Compensation Committee reviewed the peer group used for executive compensation decision-making as part of its annual review of the peer group. The changes made in June 2018 were minimal and primarily to account for the recent acquisitions of two of the peer companies. However, in light of the impending acquisition of Coriant in October 2018, the Compensation Committee reviewed the peer group to account for the increased size of Infinera in terms of projected annual revenue and number of employees. The target selection criteria for the peer group identified in August 2018 and used for fiscal 2019 compensation planning were:

- Industry: companies in the communications equipment or related industry segments;
- Annual Revenue: $800 million to $3.2 billion;
- Market Capitalization: $500 million to $4.5 billion; and
- Location: U.S.-based companies, with a preference for Bay Area headquartered companies.

Based on this recalibration, the new peer group now consists of the following 16 companies:

Ciena Corporation	Lumentum Holdings Inc.*
Cirrus Logic, Inc.*	NETGEAR, Inc.
Coherent, Inc.*	NetScout Systems, Inc.*
EchoStar Corporation*	OSI Systems, Inc.*
Electronics for Imaging, Inc.*	Plantronics, Inc.
Extreme Networks, Inc.	Synaptics Incorporated*
Finisar Corporation	ViaSat, Inc.
Itron, Inc.*	Viavi Solutions Inc.

* Indicates an addition to the recalibrated peer group for fiscal 2019. Companies removed from the fiscal 2018 peer group included Acacia Communications, ADTRAN, Barracuda Networks, Harmonic, Integrated Device Technology, InterDigital, Oclaro, ShoreTel and Silicon Laboratories.

Given that not all of the peer companies report data for a position comparable to each of our NEOs, the Compensation Committee also reviewed market data derived from the Radford Global Technology survey. In this discussion, where we refer to “market” levels of pay and the “market data,” we are referring to the combined compensation peer group and survey data described above that were then in effect and applicable to our NEOs. Data collected from this updated compensation peer group was considered in negotiating and determining Mr. Teichmann’s initial compensation in connection with his appointment as our CLO in April 2019 and Ms. Erba’s initial compensation in connection with her appointment as our CFO in August 2019.

Use of Market Data

For its fiscal 2019 compensation decisions, the Compensation Committee continued to maintain a holistic and flexible approach in its use of market data. The Compensation Committee’s goal is generally to set all elements of compensation within a competitive range, using a balanced approach that does not use rigid percentiles to target pay levels for each compensation element, but instead makes its compensation decisions based on a variety of relevant factors, including those listed below. While the Compensation Committee continues to review and reference market data, the data generally is used to inform the Compensation Committee of market practices to ensure that our executive compensation program remains within a generally competitive range of our peers. In addition to the market data, several other factors are taken into account in setting the amount of each NEO's target total direct compensation opportunity. These factors include:

- **Recruitment, retention and historical factors**. The Compensation Committee reviews existing NEO compensation and retention levels relative to estimated replacement cost with respect to the scope, responsibilities and skills required of the particular position.
- **Lack of directly comparable data for some of our key roles**. Compensation data for some of our key positions are often not explicitly reported by companies in our compensation peer group or survey data. This results in limited sample sizes and/or inconclusive data that can be misleading if targeting a specific percentile for market positioning.
- **Market positioning may be distorted by the source of the data**. Certain elements of compensation reported from one source can be consistently higher or lower than the data collected from another, given differences in methods and samples used by each source to collect market data. Given this variability and volatility within the market data, the Compensation Committee has determined that targeting pay levels at specific percentiles of this data could result in outcomes that do not align with the internal value and strategic importance of various roles at Infinera.
- **Desire to account for other factors not captured in the market data.** As discussed below, the Compensation Committee also considers several qualitative factors.

Relevant Qualitative Factors

In addition to our uses of competitive market data as described above, the Compensation Committee considers a range of subjective and qualitative factors when making compensation decisions for our NEOs, including:

- The role the executive officer plays and the importance of such individual's contributions to our ability to execute on our business strategy and to achieve our strategic objectives;
- Each executive officer's tenure, skills and experience;
- The responsibilities and particular nature of the functions performed or managed by the executive officer;
- Our CEO's recommendations and his assessment of each executive officer's performance (other than his own performance), and with respect to the CEO's performance, assessment by the Board;
- The value of unvested equity awards held by each executive officer and in comparison to other members of our executive management team and senior employees;
- Internal pay equity across the executive management team;
- The impact of our compensation decisions on key financial and other measures such as our equity award "burn rate";
- Our overall performance as compared to internal plans and external benchmarks;
- The potential impact on shareholder dilution of our compensation decisions relative to peers and historical practices; and
- Competitive labor market pressures and the likely cost, difficulty and impact on our business and strategic objectives that would be encountered in recruiting a replacement for the role filled by each of our NEOs.

The Compensation Committee does not assign relative weights or rankings to any of these factors and does not solely use any quantitative formula, target percentile or multiple for establishing compensation among the executive officers or in relation to the market data. Instead, the Compensation Committee relies upon its members' knowledge and judgment in assessing the various qualitative and quantitative inputs it receives regarding each individual and makes compensation decisions accordingly.

Fiscal 2019 Compensation

Base Salaries

For fiscal 2019, the Compensation Committee reviewed the base salaries in February 2019 for each of our NEOs who were then employed with us. The Compensation Committee approved no changes to the base salaries of our CEO and COO but did approve increases to such other NEOs after taking into consideration the market data provided by its independent compensation consultant and increased size of the company in terms of scale as well as the challenging integration tasks expected in fiscal 2019. Mr. Teichmann's base salary was established at the time he joined us in April 2019 and Ms. Erba's base salary was established at the time she joined us in August 2019, which salaries remained the same through fiscal 2019.

The following table shows the annual base salary for each of our NEOs for fiscal 2018 and fiscal 2019:

Name	Fiscal 2018 Annual Base Salary	Fiscal 2019 Annual Base Salary
Thomas J. Fallon	$520,000	$520,000
Brad D. Feller(1)	$400,000	$425,000
Nancy Erba(2)	—	$425,000
David W. Heard	$520,000(3)	$520,000
David L. Teichmann(4)	—	$385,000
Robert J. Jandro	$365,000	$420,000

(1) Mr. Feller resigned as CFO effective as of August 26, 2019. Mr. Feller received a separation payment of $1.5 million upon termination of his employment with us on September 30, 2019.

(2) Ms. Erba's annual base salary was set as part of her new hire package in August 2019. Her actual fiscal 2019 salary was prorated based on her length of service during fiscal 2019.

(3) Mr. Heard's fiscal 2018 annual base salary increased from $500,000 to $520,000 effective as of October 1, 2018 in connection with his appointment to his new role of COO.

(4) Mr. Teichmann's annual base salary was set as part of his new hire package in April 2019. His actual fiscal 2019 salary was prorated based on his length of service during fiscal 2019.

Performance-Based Incentive Cash Compensation (2019 Bonus Plan)

Target Bonus Opportunities. In February 2019, the Compensation Committee reviewed the target bonus opportunities (which are expressed as a percentage of base salary) for fiscal 2019 for each of our NEOs who were then employed with us, and determined that our CEO, CFO and COO would remain the same. After a review of the market data and in light of the increase to Mr. Jandro's base salary, the Compensation Committee approved a decrease to Mr. Jandro's target bonus opportunity as a percentage of his base salary. Mr. Teichmann's target bonus opportunity as a percentage of base salary was established at the time he joined us in April 2019 and Ms. Erba's target bonus opportunity as a percentage of base salary was established at the time she joined us in August 2019.

The following table shows the target bonus opportunities for each of our NEOs for fiscal 2018 and fiscal 2019.

Name	Fiscal 2018 Target Bonus (as a percentage of base salary)	Fiscal 2019 Target Bonus (as a percentage of base salary)
Thomas J. Fallon	125%	125%
Brad D. Feller	75%	75%
Nancy Erba	—	75%(1)
David W. Heard	90%(2)	90%
David L. Teichmann	—	70%(3)
Robert J. Jandro	100%	80%

(1) Ms. Erba's target bonus opportunity (which is expressed as a percentage of base salary) was established as part of her new hire package in August 2019. As part of her offer letter and in light of her joining us in the latter part of the fiscal year, Ms. Erba was guaranteed a bonus under the 2019 Bonus Plan equal to 100% of her target bonus for fiscal 2019 prorated based on her length of service during fiscal 2019.

(2) Mr. Heard's fiscal 2018 target bonus opportunity (which is expressed as a percentage of base salary) was changed from 75% to 90% effective October 1, 2018 in connection with his appointment to the new role of COO. In considering the increased target bonus opportunity for Mr. Heard, the Compensation Committee considered the scope of Mr. Heard's new role as well as the competitive market data provided by Compensia.

(3) Mr. Teichmann's target bonus opportunity (which is expressed as a percentage of base salary) was established as part of his new hire package in April 2019. As part of his offer letter, Mr. Teichmann was guaranteed a bonus under the 2019 Bonus Plan equal to at least 50% of his target bonus for fiscal 2019 prorated based on his length of service during fiscal 2019.

2019 Bonus Plan Design. In February 2019, the Compensation Committee approved a 2019 Bonus Plan that was applicable to our NEOs who were then employed with us. Given the continued challenges facing us as we entered fiscal 2019 and the need to successfully integrate Infinera and Coriant, the Compensation Committee considered an emphasis on improved operating income as an important goal that would support alignment of the interests of our executive officers with those of our shareholders. In particular, the Compensation Committee believes that non-GAAP operating income continues to be a key metric for our shareholders that supports a balanced approach to near-term and long-term growth.

Taking these considerations into account, the 2019 Bonus Plan approved in February 2019 established an opportunity for a bonus between 75% and 100% of target for non-GAAP operating income losses of $45 million (threshold) and $35 million (target), respectively. No bonus would be earned for a non-GAAP operating income loss that exceeded $45 million, and the percentage of the target bonus earned would be interpolated on a linear basis for results between threshold and target. The Compensation Committee determined that there would be no opportunity for our NEOs to earn a bonus that exceeds their individual targets. This bonus plan design was intended to balance retention and motivational objectives and a desire to maintain alignment with shareholders with a reasonable profile of executive compensation as we worked to reestablish profitability.

Amended 2019 Bonus Plan. Following the approval of the 2019 Bonus Plan design described above, the Compensation Committee, with management's assistance, reassessed the appropriateness of the initial non-GAAP operating loss targets and determined to amend the 2019 Bonus Plan. In deciding to revise the 2019 Bonus Plan, the Compensation Committee considered not only the importance of the successful completion of the integration but also the retention concerns of management while maintaining alignment with the interests of our shareholders.

In August 2019, in consultation with Compensia and management, the Compensation Committee approved the amended 2019 Bonus Plan to incorporate a mix of non-GAAP operating income and cash flow goals, weighted 75% and 25%, respectively, and adjusting overall funding thresholds based on non-GAAP operating loss for the full fiscal year and setting positive cash flow thresholds for the fourth quarter of 2019.

In order to maintain our emphasis on pay-for-performance while also recognizing the challenges facing our business, our CEO was excluded from the amended 2019 Bonus Plan and was only eligible to earn a bonus if we achieved the goals established at the beginning of the year. In addition, the maximum payout for our NEOs other than our CEO was reduced from 100% of target to 75% of target.

As a first step in determining fiscal 2019 bonuses becoming payable under the amended 2019 Bonus Plan, we were required to achieve as a precondition both of the following goals during the fourth quarter of 2019:

- Non-GAAP profitability (after taking into account all 2019 Bonus Plan funding).
- Positive cash flow (for purposes of the amended 2019 Bonus Plan, cash flow threshold means at least one dollar of positive cash flow for the fourth quarter of 2019).

In the event both funding preconditions were met, the bonus would be determined based on the following financial performance objectives for non-GAAP operating loss (weighted 75%) and cash flow (weighted 25%):

	Operating Loss Threshold	Operating Loss Target	Cash Flow Threshold	Cash Flow Target
Amount	$(97) million	$(77) million	$1	$20 million
Funding % of Target	25%	90%	25%	90%
Actual Results	$(82.5) million		$23.6 million	

For any result that falls between the threshold and target levels in the table above, the funding as a percent of target would be determined using straight-line interpolation. Although funding up to 90% of target for each of the operating loss and cash flow targets, the total payout for plan participants at or above SVP level and accordingly, for each of our NEOs (other than Mr. Fallon and Ms. Erba) was capped at 75% of target.

In addition to the minimum financial targets to fund the amended 2019 Bonus Plan, the bonus earned by our NEOs could be modified by an individual performance component that could be used to downward adjust the bonus. In the event that our financial performance was achieved at a level that would trigger a bonus, our CEO would be responsible for reviewing the performance of each NEO (other than himself) and recommending any changes to each NEO (other than himself). The individual performance factor was based on a qualitative assessment of the NEO's contributions during 2019 and did not include specific, pre-established, individual performance targets. The Compensation Committee then had sole discretion to determine any downward adjustments for each NEO (including the CEO) and the final bonus payout for fiscal 2019.

For purposes of the amended 2019 Bonus Plan, "cash" is defined as non-GAAP cash from operations (excluding cash used to pay integration and restructuring costs), less budgeted capital expenditure for the period and any additional capital expenditure beyond such budgeted amount. For purposes of the amended 2019 Bonus Plan, "non-GAAP operating income" was calculated excluding acquisition-related deferred revenue and inventory adjustments, other customer related charges, non-cash stock-based compensation expenses, amortization of acquired intangible assets, acquisition and integration costs, restructuring and other related costs, litigation charges, intangible asset impairment, and certain purchase accounting adjustments related to Infinera's acquisitions. For a reconciliation of GAAP to non-GAAP operating income for the fourth quarter and full fiscal year 2019, please see Appendix A to this Proxy Statement.

2019 Bonus Plan Results. Our non-GAAP operating income loss of $82.5 million fell below the threshold established under the original 2019 Bonus Plan in February 2019. As a result, our CEO did not earn a bonus for fiscal 2019 performance.

We did achieve both funding preconditions for the amended 2019 Bonus Plan, including non-GAAP profit of 2.3% for the fourth quarter of 2019 and $23.6 million of cash flow in the fourth quarter of 2019, and finished the year with a non-GAAP operating loss of $82.5 million. Overall, this resulted in bonus achievement of 77% for our NEOs other than our CEO. In light of our overall cash position, the Compensation Committee applied negative discretion and approved limited funding at 55% for our NEOs and limited funding at 70% for our VPs and below. Ms. Erba was paid out at 100% of her target bonus for fiscal 2019 prorated based on her length of service during fiscal 2019 as contractually agreed to as part of her new hire package. Our CEO was not eligible to receive a bonus under the amended 2019 Bonus Plan.

2019 Integration Bonus. In February 2019, the Compensation Committee also approved additional bonuses tied to the successful completion of the integration of Infinera and Coriant, a critical project to drive down costs and for the long-term success of Infinera. These integration bonuses were given to Messrs. Heard, Feller and Jandro and not our CEO. Mr. Feller's opportunity to earn an integration bonus terminated upon his separation from Infinera. The Compensation Committee established performance goals for each participating NEO that were allocated different weightings in order to drive key integration activities. Full achievement of a performance goal resulted in payout of, and was capped at, 100% for that portion of the integration bonus.

The Compensation Committee approved a target integration bonus opportunity of $650,000 for Mr. Heard, which resulted in a payout of $552,500 upon the achievement of the integration goals set forth below. The following table sets forth the goals, weighting of each goal, resulting percentage of goal met and final payout.

Integration Goals	Weighting	Results	Percentage of Goal Met	Amount Earned
Achieve synergies of $160 million	50%	$198 million	100%	$325,000
Non-GAAP Gross Margin of 36% or above	15%	33.6%	0%	$ 0
Annual revenue targets for legacy Coriant products and services	20%	Achieved	100%	$130,000
Completion of key integration activities	15%	Partially achieved	80%	$ 97,500

The Compensation Committee approved a target integration bonus opportunity of $500,000 for Mr. Jandro, which resulted in a payout of $500,000 upon the achievement of the integration goals set forth below. The following table sets forth the goals, weighting of each goal, resulting percentage of goal met and final payout.

Integration Goals	Weighting	Results	Percentage of Goal Met	Amount Earned
Achieve sales synergies of $25.1 million	50%	$30.6 million	100%	$250,000
Succession plan in place during fiscal 2019	25%	Achieved	100%	$125,000
Annual revenue targets for legacy Coriant products and services	25%	Achieved	100%	$125,000

2019 Final Bonus Payouts. The following table sets forth the bonus payments earned for fiscal 2019 by our participating NEOs pursuant to the amended 2019 Bonus Plan and integration bonus plan.

Name	Amended 2019 Bonus Plan Payout	2019 Integration Bonus Payout
Tom J. Fallon	—	—
Nancy Erba(1)	$130,120	—
David W. Heard	$257,400	$552,500
David L. Teichmann	$110,052	—
Robert J. Jandro	$184,800	$500,000

(1) As part of her offer letter and in light of her joining us in the latter part of the fiscal year, Ms. Erba was guaranteed a bonus under the 2019 Bonus Plan equal to 100% of her target bonus for fiscal 2019 prorated based on her length of service during fiscal 2019.

Mr. Feller's employment with us terminated as of September 30, 2019 and was not eligible in either of the two bonus programs. Mr. Feller received a separation payment of $1.5 million following his separation.

Long-Term Incentive Compensation

Our long-term incentive compensation opportunities are delivered in the form of equity awards. Annual equity awards for NEOs are generally approved by the Compensation Committee during the first open trading window of each new calendar year.

Equity Compensation Design. Under the 2016 Plan, the Compensation Committee grants equity awards to eligible employees, including our NEOs. All awards to our NEOs were made pursuant to the 2016 other than Ms. Erba's two awards, which were made under the 2019 Inducement Equity Incentive Plan. The Compensation Committee actively monitors our annual aggregate equity utilization as measured by our burn rate.

The Compensation Committee believes that it is in the best interests of Infinera and our shareholders to grant a combination of time-based and performance-based equity awards to senior level employees, including our NEOs. It also believes that our performance-based equity awards foster a "pay-for-performance" culture and multi-year vesting schedules create longer-term incentives that maintain alignment of the interests of our NEOs with those of our shareholders. Our NEOs benefit from these equity awards based on our sustained performance over time and the ability of our NEOs to create the results that drive shareholder value.

In determining the appropriate mix of such equity awards, the Compensation Committee considered how each equity vehicle supports our compensation strategy as follows:

Type of Award	Description	Why It Is Used
Performance Share Award	• Provides the opportunity to earn shares of Infinera common stock upon the achievement of pre-established performance objectives. • If the threshold performance level is not achieved, the entire portion of the award tied to such performance objective is forfeited.	• Supports pay-for-performance philosophy and retention efforts. • Links compensation directly to Infinera's stock performance in areas identified as important by the Compensation Committee. • Increases alignment with interests of shareholders.
RSU Award	• Provides the opportunity to earn a specified number of shares of Infinera common stock subject to the participant's continued employment for a specified period. • Typically has a three-year or four-year vesting period to encourage a long-term perspective and to encourage key employees to remain at Infinera.	• Supports retention and succession planning. • Provides a direct incentive for future performance. • Useful in recruiting new executives.

In February 2019, the Compensation Committee granted annual equity awards for fiscal 2019 in the form of a time-based RSU award and a performance share award to each of our NEOs who were then employed with us, except our CEO. Our CEO was not awarded any time-based RSUs in fiscal 2019 and instead was awarded two performance share awards in March 2019. The Compensation Committee determined to move away performance awards based on TSR and instead focused on increasing revenue and reducing operating expenses as management undertook the task of integration of Infinera and Coriant during fiscal 2019. The Compensation Committee decided to focus on non-GAAP operating income and designed the award to reward sustained positive non-GAAP operating income over four consecutive quarters or a full fiscal year during the three-year performance period that began with fiscal 2019 and ended with fiscal 2021.

The grants made in fiscal 2019 were carefully considered and designed to work in concert with grants made in previous years that will have overlapping performance cycles. For instance, in fiscal 2018, the company made relative TSR performance awards to all our NEOs that will continue to have performance periods through the end of fiscal 2020. Fiscal 2019 awards were structured differently to encourage executives to accelerate our return to sustained profitability and, for our CEO, to make significant gains on our share price. We made this decision carefully, considering the context of overlapping programs from multiple years maintaining our executives' attention on relative performance and long-term sustained value creation, while providing them with an incentive to deliver value to our shareholders quickly and efficiently.

In determining the size of these annual equity awards, the Compensation Committee considered the factors described above in the sections entitled "Use of Market Data" and "Relevant Qualitative Factors," with particular attention to market data, internal equity considerations, the potential dilutive impact of the equity awards and the amount and value of unvested equity awards held by each of our NEOs. The Compensation Committee believed a combination of time-based and performance-based equity awards promote close alignment of the interests of our NEOs with those of our shareholders.

The Compensation Committee first determined the target value of long-term incentive compensation for each executive. The number of RSUs and performance shares granted to each executive was then determined based on an average stock price of $5.00 per share and assuming a 100% allocation of target value into performance shares for our CEO, a 50% allocation of target value into performance shares for our COO and a 40% allocation of target value into performance shares for our other NEOs who were then employed by us. Ms. Erba's and Mr. Teichmann's allocation were determined as part of their new hire package. The target value approved by the

Compensation Committee differs from the Summary Compensation Table reported value of equity below. The following table sets forth the equity awards granted to our NEOs in February 2019 unless otherwise noted.

		2019 Performance Share Awards	
Name	**Number of Shares Subject to RSU Awards**	**Non-GAAP Operating Income**	**Market Price**
Thomas J. Fallon[1]	—	487,500	162,500
Brad D. Feller[2]	132,000	88,000	—
Nancy Erba[3]	562,500	187,500	—
David W. Heard	220,000	220,000	—
David L. Teichmann[4]	220,000	65,000	—
Robert J. Jandro	102,000	68,000	—

(1) Mr. Fallon's performance share awards were granted in March 2019.

(2) Mr. Feller's employment with us terminated effective as of September 30, 2019.

(3) Ms. Erba's awards were granted effective as of August 26, 2020 to coincide with the date of her appointment to CFO. Ms. Erba's awards were granted under the 2019 Inducement Equity Incentive Plan and not the 2016 Plan.

(4) Mr. Teichmann's time-based RSU award was granted effective as of April 1, 2020. Mr. Teichmann's was awarded an OI PSA in June 2019.

The RSU awards in the table above for Messrs. Feller and Jandro vest in annual installments with one-fourth of the underlying shares of Infinera common stock vesting on May 5th of each of 2020, 2021, 2022 and 2023, subject to the NEO's continued service with Infinera through each applicable vesting date. Mr. Feller's outstanding time-based RSUs that had not vested were cancelled upon his separation from Infinera.

In April 2019, Mr. Teichmann, in connection with his new hire, was granted a time-based RSU award covering 220,000 shares. These shares vest in annual installments with one-fourth of the underlying shares of Infinera common stock vesting on April 5th of each of 2020, 2021, 2022 and 2023. In finalizing the terms of this grant, the Compensation Committee considered the scope of Mr. Teichmann's new role with us as well as competitive market data provided by Compensia. Mr. Teichmann's OI PSA is subject to the same non-GAAP operating income target granted to the other NEOs and described in more detail below.

In August 2019, Ms. Erba, in connection with her appointment as CFO, was granted a time-based RSU award covering 562,500 shares. These shares vest in annual installments with one-fourth of the underlying shares of Infinera common stock vesting on September 5th of each of 2020, 2021, 2022 and 2023. In finalizing the terms of this grant, the Compensation Committee considered the scope of Ms. Erba's new role with us as well as competitive market data provided by Compensia. Ms. Erba's OI PSA is subject to the same non-GAAP operating income target granted to the other NEOs and described in more detail below. Ms. Erba's two equity awards were granted under the 2019 Inducement Equity Incentive Plan.

Under the terms of the OI PSA for fiscal 2019, the Compensation Committee established a three-year performance period in which 100% of the shares subject to this award will become eligible to vest based upon our achievement of positive non-GAAP operating income (that is, greater than $0) (the "Profitability Goal") for:

(i) Any of Fiscal Years 2019, 2020 or 2021 (the "Fiscal Year Period"); or

(ii) Each fiscal quarter of Infinera in four (4), consecutive fiscal quarters of Infinera completed during the performance period, excluding our four (4) consecutive fiscal quarters of any Fiscal Year Period (each fiscal quarter of the Company occurring during the Performance Period, a "Fiscal Quarter").

The OI PSA shall only vest upon the determination by the Compensation Committee of the achievement of the performance metrics and are subject to each NEO's continued service to Infinera through each applicable vesting date. The Profitability Goal will be measured on a non-GAAP basis, as reported in our earnings release as filed on Form 8-K with respect to any Fiscal Quarter or Fiscal Year Period, as applicable.

Any eligible shares (that is, eligible to vest as a result of performance achievement, as described above) that vest on or before fiscal 2021 shall also have a time-based component such that if the Profitability Goal is achieved before the last day of fiscal 2021, then a number of eligible shares, equal to the product of (A) the number of performance shares that became eligible shares on the date of achievement of such goal, multiplied by (B) a fraction, the numerator of which is the number of whole calendar months within the performance period that was completed through the date of achievement of such goal, and the denominator of which is thirty-six (36) months (with any resulting fractional eligible shares rounded down to the nearest whole eligible share), will vest on the 5th day of the month following the date of achievement, and the remainder will vest on January 5, 2020.

For fiscal 2019, a second performance share award was granted only to our CEO in lieu of time-based RSUs. This award will only vest if the stock price is equal to or greater than $10.00 per share for each trading day during a ninety-calendar day period occurring during a three-year performance period beginning on the grant date. The award is designed to be rigorous and require significant effort to achieve; the $10.00 per share target represents a premium of 232% above the closing share price on the date of grant. Mr. Fallon was not granted time-based RSUs in fiscal 2019. The mix of performance shares for our CEO that measured both non-GAAP operating income and shareholder value creation was intended to reinforce a strong pay-for-performance culture and a commitment to long-term growth in shareholder value. This award represented 25% of the target value of long-term incentives awarded to Mr. Fallon in fiscal 2019.

Results of Performance Shares Through Fiscal 2019. We did not achieve the Profitability Goal for fiscal 2019. Our non-GAAP operating loss for the fiscal year was $82.5 million. As a result, as of the end of fiscal 2019, the target number of shares subject to the OI PSAs granted to each NEO remained unearned and outstanding. These shares are eligible to be earned and vest if the Profitability Goal is achieved during the remainder of the performance period through the end of our fiscal 2021. The second performance award for our CEO was also not triggered in fiscal 2019.

Outstanding Performance Share Awards Granted in Prior Fiscal Years. The following table provides information regarding outstanding performance share awards granted prior to fiscal 2019 that were eligible to be earned in fiscal 2019 by our NEOs based on the achievement of performance with respect to relative TSR, including the performance requirements and number of shares of Infinera common stock earned through fiscal 2019. Mr. Feller's outstanding equity awards were cancelled upon termination of his employment with us as of September 30, 2019.

Name	Fiscal Year of Grant	Total Number of Performance Shares Remaining at Target (#)	Target Number of Shares that Could Vest for Fiscal 2019 Performance Period (#)	Maximum Number of Shares that Could Vest for Fiscal 2019 Performance Period (#)	Actual Number of Shares Vested for Fiscal 2019 Performance Period (#)
Thomas J. Fallon	2017(1)	57,415	57,415	114,830	30,217
	2018(2)	136,416	67,708	135,416	58,032
David W. Heard	2017(1)	16,666	16,666	33,332	8,771
	2018(2)	30,555	15,728	31,456	13,094
Robert J. Jandro	2017(1)	14,011	14,011	28,022	7,373
	2018(2)	23,610	11,805	23,610	10,118

(1) In fiscal 2017, the Compensation Committee granted to the NEOs in the table above a performance share award that measures our TSR against the TSR of each of the companies (the "Index Companies") listed in the S&P Networking Index. This award is subject to a payout of between 0% and 200% of the target number of shares based on our relative performance against the Index Companies for that period, with 100% of the target number of shares allocated to the performance. Our TSR performance for the third and final performance period finished with a ranking of 15 out of 20 Index Companies (26th percentile) listed in the S&P Index. As a result, 52.63% of the target number of shares of our common stock allocated to the second performance period became eligible to vest. For the three-year performance period ended December 28, 2019, the start price was the 60-day average (of our closing stock price or the index value, as applicable) leading up to and inclusive of December 28, 2016 and the end price was the 60-day average (of our closing stock price or the index value, as applicable) leading up to and inclusive of the last day of fiscal 2019.

(2) In fiscal 2018, the Compensation Committee granted to the NEOs in the table above a performance share award that measures our TSR against the TSR of the Index Companies listed in the S&P Index. This award is subject to a payout of between 0% and 200% of the target number of shares based on our relative performance against the Index Companies for that period, with 100% of the target number of shares allocated to the performance. Our TSR performance for the second

performance period finished with a ranking of 13 out of 22 Index Companies (43rd percentile) listed in the S&P Index. As a result, 85.71% of the target number of shares of our common stock allocated to the second performance period became eligible to vest. For the two-year performance period ended December 28, 2019, the start price was the 60-day average (of our closing stock price or the index value, as applicable) leading up to and inclusive of December 28, 2016 and the end price was the 60-day average (of our closing stock price or the index value, as applicable) leading up to and inclusive of the last day of fiscal 2019.

Employee Benefits and Perquisites

Our NEOs are only eligible to receive the same benefits as our U.S. salaried employees except with respect to accrued paid time off as explained below. Infinera and the Compensation Committee believe this approach is reasonable and consistent with the overall compensation objectives to attract and retain employees. These benefits include medical, dental, vision and disability benefits, a Section 401(k) plan, and other plans and programs, including the 2007 ESPP, made available to other eligible employees in the applicable country of residence. We provide a matching contribution of up to $2,500 under the Section 401(k) plan that is applicable to all eligible participants, including our NEOs. Employee benefits and perquisites are reviewed periodically to ensure that benefit levels remain competitive, but are not included in the Compensation Committee's annual determination of the total compensation for each of our NEOs.

All exempt U.S. employees, at any U.S. work location, participate in our "As Needed" FTO Program ("Flexible Time Off"). Under this program, these employees may schedule FTO as they see fit and as business necessity allows, although they must continue to meet all job expectations and remain responsible for ensuring appropriate coverage for the time they will be out of the office. Under this program, FTO does not accrue for these employees.

Additional Information Regarding Our Compensation Practices

Change of Control Payments and Benefits

The Compensation Committee considers maintaining a stable and effective management team to be essential to protecting the best interests of Infinera and its shareholders. Accordingly, Infinera has entered into Change of Control Agreements (the "COC Agreements") with each of our NEOs to encourage their continued attention, dedication and continuity with respect to their roles and responsibilities without the distraction that may arise from the possibility or occurrence of a change of control of Infinera. The current terms of these COC Agreements are included below.

An NEO will receive payments and benefits under the COC Agreement only if his or her employment is terminated without "cause," or by him or her as a result of a "constructive termination" (as more fully described in the section entitled "Estimated Payments and Benefits upon Termination, Change of Control or Death/Disability" below), beginning on the date three (3) months prior to the first change of control to occur following the effective date of the COC Agreement and ending on the date eighteen (18) months following a change of control of Infinera. The Compensation Committee believes that this "double-trigger" structure provides an appropriate balance between the corporate objectives described above and the potential compensation payable to each NEO upon a change of control. The Compensation Committee also believes that should Infinera engage in any discussions or negotiations relating to a change of control that the Board believes is in the best interests of our shareholders, these COC Agreements will help to ensure that our NEOs remain focused on the consummation of such potential transaction, without significant distraction or concern regarding their personal circumstances, such as continued employment.

The following terms apply with respect to each of the NEOs if Infinera undergoes a change of control and the NEO's employment is terminated without cause or as a result of a constructive termination during the Change of Control Period, subject to such individual entering into and not revoking a release of claims in our favor within 60 days of the termination date:

- 100% of all outstanding equity awards will vest (awards based on the achievement of performance criteria will vest as to 100% of the amount of the award assuming the performance criteria have been achieved at target levels);

- Our CEO will be paid a lump sum severance payment (less applicable tax withholdings) equal to two times his annual base salary and our other NEOs will be paid a lump sum severance payment (less applicable tax withholdings) equal to one and one-half times their annual base salary;
- Our CEO will be paid a lump sum severance payment (less applicable tax withholdings) equal to two times his annual target incentive bonus amount and our other NEOs will be paid a lump sum severance payment (less applicable tax withholdings) equal to one and one-half times their annual target incentive bonus amount; and
- Our CEO will be reimbursed for premiums under COBRA for a period of 24 months and our other NEOs will be reimbursed for premiums under COBRA for a period of 18 months.

Each COC Agreement will have an initial term of three years commencing on the effective date of such COC Agreement. On the third anniversary of the effective date, such COC Agreement will renew automatically for an additional, one-year term unless either party provides the other party with written notice of nonrenewal at least one year prior to the date of automatic renewal.

Executive Severance Policy

In addition to the change of control-related payments and benefits discussed above, the Compensation Committee has taken appropriate steps to provide competitive post-employment compensation arrangements that promote the continued attention, dedication and continuity of the members of our senior management team, including our NEOs, and enable us to continue to recruit talented senior executive officers. Accordingly, the Compensation Committee has adopted an executive severance policy, under which the following severance payments and benefits will become payable if the employment of one of our NEOs is terminated by us without "cause" (as defined in the policy) subject to such individual entering into and not revoking a release of claims in our favor:

- Our CEO will be paid a lump sum severance payment equal to one and one-half times his annual base salary and our other NEOs will be paid a lump sum severance payment equal to their annual base salary; and
- Our CEO will be reimbursed for premiums under COBRA for a period of 18 months and our other NEOs will be reimbursed for premiums under COBRA for a period of 12 months.

If an NEO's employment with Infinera is less than one year, the amount of severance payable to such individual will be equal to the lesser of (x) the base salary paid to such individual during his or her period of employment, or (y) the severance amount set forth above.

Acceleration of Equity Awards upon Death or Disability. In addition, all awards granted under our equity incentive plans permit accelerated vesting in the event of an employee's death or terminal illness (with exceptions in certain circumstances). Because we do not have any policy with respect to severance payments or benefits in the event of an employee's death or disability other than certain disability and life insurance benefits generally available to our employees, the Compensation Committee believes that in the event of an employee's death or terminal illness, it would be appropriate to provide the accelerated vesting of his or her RSU awards, performance share awards and stock options.

The estimated payments and benefits that would be received by each NEO in connection with a qualifying termination of employment are presented in the section entitled "Estimated Payments and Benefits upon Termination, Change of Control or Death/Disability" below.

Equity Grant Policy

Under our Equity Grant Policy, the Compensation Committee has delegated to a Subcommittee the authority to grant new hire, promotional and retention equity awards to non-executive employees pursuant to certain pre-approved guidelines. This Subcommittee is currently comprised of our CEO.

The Subcommittee approves the award by written consent on the second Monday of each month to approve new hire, promotional and retention equity awards. Annual focal equity awards are approved by the Compensation

Committee. The delegation to the Subcommittee does not include the authority to grant equity awards to new employees who are or are reasonably expected to become Section 16 Officers or to current Section 16 Officers.

Executive Clawback Policy

We maintain an Executive Clawback Policy that applies to our Section 16 Officers (which includes each of our NEOs) and directors. Pursuant to this policy, the Compensation Committee has the authority to seek:

- Repayment of any cash incentive payment;
- Cancellation of unvested, unexercised or unreleased equity awards; and
- Repayment of any compensation earned on previously exercised or released equity awards,

where such payments, equity awards and/or compensation earned on previously exercised or released cash incentive payments and equity awards was predicated on financial results that were augmented by fraud, embezzlement, gross negligence or deliberate disregard of applicable rules resulting in significant monetary loss, damage or injury to Infinera (the “Excess Compensation”), whether or not such activity resulted in a financial restatement. The Compensation Committee shall have sole discretion under this policy, consistent with any applicable statutory requirements, to seek reimbursement for any Excess Compensation paid or received by a Section 16 Officer or director for up to a 12-month period prior to the date of the Compensation Committee action to require reimbursement of the Excess Compensation. Further, following a restatement of our financial statements, we will recover any compensation received by our CEO and CFO that is required to be recovered by Section 304 of the Sarbanes-Oxley Act of 2002.

For purposes of this policy, Excess Compensation will be measured as the positive difference, if any, between the compensation earned by a Section 16 Officer or director and the compensation that would have been earned by a Section 16 Officer or director had the fraud, embezzlement, gross negligence or deliberate disregard of applicable rules resulting in significant monetary loss, damage or injury to Infinera not occurred.

Stock Ownership Policy

The Board believes that it is important to link the interests of our NEOs to those of our shareholders. Our Stock Ownership Policy requires our non-employee directors and Section 16 Officers (which includes each of our NEOs) to accumulate and hold a minimum number of shares of Infinera common stock within three years of the later of (i) the effective date of the policy or (ii) the date of appointment of the director or appointment/promotion of the Section 16 Officer. As of the Record Date, each of our Section 16 Officers and the non-employee members of the Board has either satisfied these ownership guidelines or had time remaining to do so. The specific Infinera stock ownership requirements for our Section 16 Officers and non-employee directors are as follows:

- CEO: 4x annual base salary
- CFO: 2x annual base salary
- Other NEOs: 1x annual base salary
- Non-employee directors: 4x annual cash retainer for annual Board service

Shares of Infinera common stock that count towards satisfaction of this policy include: (i) shares owned outright by the Section 16 Officer or non-employee director or his or her immediate family members residing in the same household; (ii) shares held in trust for the benefit of the Section 16 Officer or non-employee director or his or her family; and (iii) shares subject to vested, unexercised, in-the-money stock options (the “spread” or “intrinsic value” of options). The value of a share of Infinera common stock is measured on the last day of the fiscal year as the greater of (i) the closing price on the date of calculation or (ii) the purchase price actually paid by the person for such share of Infinera common stock (for the avoidance of doubt, the purchase price for shares of Infinera common stock subject to RSU awards, performance share awards and other similar full value awards is zero).

Anti-hedging Policy

Under our Insider Trading Policy, we prohibit our employees, including our NEOs, and Board members, from hedging the risk associated with ownership of shares of Infinera common stock and other securities.

Anti-pledging Policy

Under our Insider Trading Policy, we prohibit our NEOs and directors from pledging any Infinera securities as collateral for a loan.

Tax and Accounting Treatment of Compensation

Prior to 2018, Section 162(m) of the Code generally limited the tax deductibility of compensation paid to the CEO and each of the next three most highly compensated executive officers (excluding the CFO) that exceeded $1 million in any taxable year unless the compensation over $1 million qualified as “performance-based” within the meaning of Section 162(m).

The ability to rely on the “performance-based” compensation exception under Section 162(m) was eliminated in 2017 and the $1 million limitation on deductibility generally was expanded to include any individuals serving as the CEO or CFO during the tax year, the next three most highly compensated executive officers during the tax year and any other individual who was considered a covered employee for any prior tax year beginning after 2016. Thus, we generally will not be able to take a deduction for any compensation paid to our NEOs in excess of $1 million unless the compensation qualifies for transition relief applicable to certain arrangements in place on November 2, 2017. We cannot guarantee that any compensation payable to our NEOs will qualify for the transition relief or that the compensation will ultimately be deductible. Historically, the Compensation Committee had not adopted a formal policy regarding tax deductibility of compensation paid to our CEO and other senior executive officers. Nonetheless, the Compensation Committee intends to maintain an approach to executive compensation that strongly links pay to performance.

We account for the equity compensation awarded to our executive officers and other employees under ASC 718, which requires us to estimate and record an expense for each award of equity compensation over the service period of the award. Accounting rules also require us to record cash compensation as an expense at the time the obligation is incurred.

COMPENSATION COMMITTEE REPORT

The Compensation Committee has reviewed and discussed the Compensation Discussion and Analysis with management. Based on its review and discussions with management, the Compensation Committee has recommended to the Board that the Compensation Discussion and Analysis be included in this Proxy Statement.

Compensation Committee

Marcel Gani (Chair)
Gregory P. Dougherty
Paul J. Milbury

EXECUTIVE COMPENSATION TABLES

The following tabular information and accompanying narratives and footnotes provide all of the compensation awarded to, earned by, or paid to the individuals who served as our principal executive officer, principal financial officer and our three other highest paid executive officers during fiscal 2019. The tables also include Brad D. Feller who served as our principal financial office until August 26, 2019. As previously noted, we refer to these executive officers as our NEOs.

Fiscal 2019 Summary Compensation Table

Name and Principal Position	Year	Salary ($)(1)	Bonus ($)	Stock Awards ($)(2)	Option Awards ($)	Non-Equity Incentive Plan Compensation ($)	All Other Compensation ($)(3)	Total ($)
Thomas J. Fallon	2019	520,000	—	2,439,125	—	—	2,968	2,962,093
Chief Executive Officer	2018	520,000	—	4,362,442	—	—	468	4,882,910
	2017	630,000	—	4,250,478	—	—	312	4,880,790
Nancy Erba(4)	2019	166,731	—	3,660,000	—	130,120(5)	2,432	3,959,283
Chief Financial Officer	—	—	—	—	—	—	—	—
	—	—	—	—	—	—	—	—
Brad D. Feller(6)	2019	327,981	—	1,078,000	—	—	1,502,968(7)	2,908,949
former Chief Financial Officer	2018	400,000	—	1,351,009	—	—	468	1,751,477
	2017	400,000	—	1,258,532	—	—	312	1,658,844
David W. Heard	2019	520,000	—	2,156,000	—	809,900(8)	2,968	3,488,868
Chief Operating Officer	2018	503,077	—	1,783,609	—	—	468	2,287,154
	2017	278,846	215,750(9)	2,526,000	—	—	312	3,020,908
David L. Teichmann(10)	2019	281,346	50,000(11)	1,187,450	—	110,052(12)	2,968	1,631,816
Chief Legal Officer and	—	—	—	—	—	—	—	—
Corporate Secretary	—	—	—	—	—	—	—	—
Robert J. Jandro(13)	2019	418,731	—	833,000	—	684,800(14)	2,968	1,939,499
Senior Vice President,	2018	365,000	—	1,043,955	—	—	468	1,409,423
Worldwide Sales	2017	365,000	—	1,195,615	—	—	285	1,560,900

(1) Salary data is provided from payroll records based on the calendar year.

(2) The amounts reported in this column represent the aggregate grant date fair value of the listed equity awards, computed in accordance with ASC 718. See Notes 2 and 16 of the notes to our consolidated financial statements contained in our 2019 Annual Report on Form 10-K filed on March 4, 2020 (the “2019 Annual Report”) for a discussion of all assumptions made by us in determining the ASC 718 values of equity awards.

(3) For fiscal 2017 and 2018, this amount represented the payment of life insurance premiums. For fiscal 2019, this amount represented the payment of life insurance premiums and 401(k) match.

(4) Ms. Erba was appointed Senior Vice President of Strategic Finance on August 1, 2019 and was appointed CFO effective as of August 26, 2019. Ms. Erba’s annual base salary was set at $425,000.

(5) For fiscal 2019, Ms. Erba’s prorated annual target bonus opportunity was fully guaranteed at 100%.

(6) Mr. Feller resigned as CFO effective as of August 26, 2019 and terminated effective as of September 30, 2019.

(7) In addition to the payments represented by life insurance premiums and the 401(k) match, Mr. Feller was also paid a separation payment of $1.5 million following his separation from Infinera on September 30, 2019.

(8) Mr. Heard received a payment of $257,400 from his participation in the amended 2019 Bonus Plan and a payment of $552,500 as part of his Integration Bonus. Please see the section entitled “Fiscal 2019 Compensation—Performance-Based Incentive Cash Compensation (2019 Bonus Plan)” for more information on the amended 2019 Bonus Plan and the Integration Bonus.

(9) Mr. Heard was not eligible to participate in the 2017 Bonus Plan; however, in connection with his new hire package, he received a one-time bonus in the amount of $215,750, which was paid out at the same time as the 2017 bonus for all Infinera employees in April 2018.

(10) Mr. Teichmann was appointed Chief Legal Officer and Corporate Secretary on April 1, 2019. Mr. Teichmann’s annual base salary was set at $385,000.

(11) Mr. Teichmann received a sign-on bonus in connection with his hiring on April 1, 2019.

(12) Mr. Teichmann received a payment of $110,052 from his participation in the amended 2019 Bonus Plan.

(13) Mr. Jandro resigned as Senior Vice President, Worldwide Sales effective January 3, 2020.

(14) Mr. Jandro received a payment of $184,800 from his participation in the amended 2019 Bonus Plan and a payment of $500,000 as part of his Integration Bonus. Please see the section entitled “Fiscal 2019 Compensation—Performance-Based Incentive Cash Compensation (2019 Bonus Plan)” for more information on the amended 2019 Bonus Plan and the Integration Bonus.

Fiscal 2019 Grants of Plan-Based Awards Table

The following table sets forth information regarding fiscal 2019 annual cash incentive compensation and equity awards granted to our NEOs during fiscal 2019.

		Estimated Future Payouts Under Non-Equity Incentive Plan Awards			Estimated Future Payouts Under Equity Incentive Plan Awards			All Other Stock Awards: Number of Shares of Stock or Units	All Other Option Awards: Number of Securities Underlying Options	Exercise or Base Price of Option Awards	Grant Date Fair Value of Stock and Option Awards
Name	Grant Date	Threshold ($)	Target ($)	Maximum ($)	Threshold (#)	Target (#)	Maximum (#)	(#)	(#)	($/Sh)	($)[1]
Thomas J. Fallon	3/28/2019	—	—	—	—	487,500[2]	487,500[2]	—	—	—	2,101,125
	3/28/2019	—	—	—	—	162,500[3]	162,500[3]	—	—	—	338,000
					—						
Nancy Erba	8/1/2019	130,120	130,120[4]	130,120	—				—	—	—
	8/26/2019	—	—	—	—	—	—	562,500[5]	—	—	2,745,000
	8/26/2019	—	—	—	—	187,500[2]	187,500[2]		—	—	915,000
					—						
Brad D. Feller	2/20/2019	—	318,750[6]	318,750	—	—	—	—	—	—	—
	2/20/2019	—	—	—	—	—	—	132,000[7]	—	—	646,800
	2/20/2019	—	—	—	—	88,000[2]	88,000[2]	—	—	—	431,200
					—						
David W. Heard	2/20/2019	—	351,000[8]	351,000	—	—	—	—	—	—	—
	2/20/2019	—	650,000[9]	650,000	—	—	—	—	—	—	—
	2/20/2019	—	—	—	—	—	—	220,000[7]	—	—	1,078,000
	2/20/2019	—	—	—	—	220,000[2]	220,000[2]	—	—	—	1,078,000
David L. Teichmann	4/1/2019	100,047[10]	150,071[8]	150,071	—	—	—	—	—	—	—
	4/1/2019	—	—	—	—	—	—	220,000[11]	—	—	994,400
	6/6/2019	—	—	—	—	65,000[2]	65,000[2]	—	—	—	193,050
					—						
Robert J. Jandro	2/20/2019	—	252,000[8]	252,000	—	—	—	—	—	—	—
	2/20/2019	—	500,000[9]	500,000	—	—	—	—	—	—	—
	2/20/2019	—	—	—	—	—	—	102,000[7]	—	—	499,800
	2/20/2019	—	—	—	—	68,000[2]	68,000[2]	—	—	—	333,200

(1) For RSUs, represents the aggregate grant date fair value of each equity award computed in accordance with ASC 718. For performance shares, represents the aggregate grant date fair value of each equity award at the target payout level computed in accordance with ASC 718. See Notes 2 and 16 of the notes to our consolidated financial statements contained in our 2019 Annual Report for a discussion of all assumptions made by us in determining the ASC 718 values of equity awards.

(2) This performance share award can be earned based on the performance of the Company's achievement of a positive operating income, measured on a non-GAAP basis, on either the fiscal years 2019, 2020 or 2021, or each our fiscal quarters in four (4) consecutive fiscal quarters completed during fiscal 2019 through fiscal 2021. For additional information regarding these performance share awards granted to our NEOs in fiscal 2019, please see the section entitled "Fiscal 2019 Compensation—Long-Term Incentive Compensation" in the Compensation Discussion and Analysis above. Mr. Feller's performance shares subject to this award were cancelled upon his separation on September 30, 2019. Ms. Erba's performance share award was granted under the 2019 Inducement Equity Incentive Plan and not the 2016 Plan.

(3) This performance share award will only vest if the stock price is equal to or greater than $10.00 per share for each trading day during a ninety-calendar day period occurring during the three-year performance period. The performance period for this award was three years from the date of grant. For additional information regarding this performance share awards granted to our CEO in fiscal 2019, please see the section entitled "Fiscal 2019 Compensation—Long-Term Incentive Compensation" in the Compensation Discussion and Analysis above.

(4) For fiscal 2019 only, Ms. Erba's prorated annual target bonus opportunity was fully guaranteed at 100%.

(5) This RSU award is scheduled to vest in annual installments with one-fourth of the underlying shares vesting on September 5 of each of 2020, 2021, 2022 and 2023, subject to Ms. Erba's continued service to Infinera through each applicable vesting date. Ms. Erba's RSU award was granted under the 2019 Inducement Equity Plan and not the 2016 Plan.

(6) On May 7, 2019, Mr. Feller informed us of his intention to resign as CFO no later than the end of the third quarter of fiscal 2019. As part of this arrangement, we agreed to provide Mr. Feller a separation payment of $1.5 million and 18 months of COBRA benefits. Mr. Feller also agreed that he would no longer be eligible to participate in the 2019 Bonus Plan.

(7) These RSU awards are scheduled to vest in annual installments with one-fourth of the underlying shares vesting on May 5 of each of 2020, 2021 and 2022, subject to each NEO's continued service to Infinera through each applicable vesting date. Mr. Feller's RSUs subject to this award were cancelled upon his separation on September 30, 2019.

(8) The original objectives that were established in February 2019 were amended by the Compensation Committee in August 2019. The maximum amount that could be earned by our NEOs was also reduced from 90% at target to 75% at target. This table reflects the updated values that could be earned by each NEO under the amended 2019 Bonus Plan. For a further description of the amended 2019 Bonus Plan applicable to our eligible NEOs (excluding the CEO) and payouts, please see the section entitled "Fiscal 2019 Compensation—Performance-Based Incentive Cash Compensation (2019 Bonus Plan)" in the Compensation Discussion and Analysis above.

(9) Messrs. Heard and Jandro were eligible to earn an Integration Bonus for fiscal 2019. For a further description of the Integration Bonus applicable to each of Messrs. Heard and Jandro and payouts, please see the section entitled "Fiscal 2019 Compensation—Performance-Based Incentive Cash Compensation (2019 Bonus Plan)" in the Compensation Discussion and Analysis above.

(10) The threshold reflects the minimum amount that Mr. Teichmann could earn under the 2019 Bonus Plan. For fiscal 2019 only, Mr. Teichmann's prorated annual target bonus opportunity was fully guaranteed at 50%.

(11) This RSU award is scheduled to vest in annual installments with one-fourth of the underlying shares vesting on April 5 of each of 2020, 2021, 2022 and 2023, subject to Mr. Teichmann's continued service to Infinera through each applicable vesting date.

Fiscal 2019 Outstanding Equity Awards at Fiscal Year-End Table

The following table sets forth information regarding outstanding stock options, RSU awards and performance share awards held by each of our NEOs as of December 28, 2019. The vesting conditions for each award are set forth in the footnotes below the table.

Name	Grant Date	Number of Securities Underlying Unexercised Options (#) Exercisable	Number of Securities Underlying Unexercised Options (#) Unexercisable	Option Exercise Price ($)	Option Expiration Date	Grant Date	Number of Shares or Units of Stock That Have Not Vested (#)	Market Value of Shares or Units of Stock That Have Not Vested ($)[1]	Equity Incentive Plan Awards: Number of Unearned Shares, Units or Other Rights That Have Not Vested (#)	Equity Incentive Plan Awards: Market or Payout Value or Unearned Shares, Units or Other Rights That Have Not Vested ($)[1]
Thomas J. Fallon	2/10/2011	14,286	—[2]	8.58	2/10/2021	2/23/2016	21,712[3]	168,919	—	—
	2/10/2011	32,965	—[2]	8.58	2/10/2021	2/21/2017	—	—	57,415[4]	446,689
	2/10/2011	30,475	—[2]	8.58	2/10/2021	2/21/2017	57,415[5]	446,689	—	—
	2/10/2011	182,250	—[2]	8.58	2/10/2021	2/15/2018	—	—	135,416[6]	1,053,536
	—	—	—	—	—	2/15/2018	101,562[7]	790,152	—	—
	—	—	—	—	—	3/28/2019	—	—	487,500[8]	3,792,750
	—	—	—	—	—	3/28/2019	—	—	162,500[9]	1,264,250
Nancy Erba	—	—	—	—	—	8/26/2019	562,500[10]	4,376,250	—	—
	—	—	—	—	—	8/26/2019	—	—	187,500[8]	1,458,750
Brad D. Feller	1/13/2014	25,000	—[11]	9.02	1/13/2021	—	—	—	—	—
David W. Heard	—	—	—	—	—	6/8/2017	75,000[12]	583,500	—	—
	—	—	—	—	—	6/8/2017	—	—	16,666[4]	129,661
	—	—	—	—	—	2/15/2018	51,562[7]	401,152	—	
	—	—	—	—	—	2/15/2018	—	—	30,555[6]	237,718
	—	—	—	—	—	10/1/2018	52,500[13]	408,450	—	
	—	—	—	—	—	2/20/2019	—	—	220,000[8]	1,711,600
	—	—	—	—	—	2/20/2019	220,000[14]	1,711,600		
David L. Teichmann	—	—	—	—	—	4/1/2019	220,000[15]	1,711,600	—	—
	—	—	—	—	—	6/6/2019	—	—	65,000[8]	505,700
Robert J. Jandro	—	—	—	—	—	2/23/2016	7,830[3]	60,917	—	—
	—	—	—	—	—	2/21/2017	—	—	14,011[4]	109,006
	—	—	—	—	—	2/21/2017	21,017[5]	163,512	—	—
	—	—	—	—	—	2/15/2018	—	—	23,610[6]	183,686
	—	—	—	—	—	2/15/2018	39,843[7]	309,979	—	—
	—	—	—	—	—	2/20/2019	—	—	68,000[8]	529,040
	—	—	—	—	—	2/20/2019	102,000[14]	793,560	—	—

(1) The closing price of our common stock as of the last trading day prior to our fiscal year end, December 27, 2019, was $7.78 per share, which was used as the value of our common stock in the calculations.

(2) This stock option grant is fully vested.

(3) The remaining unvested portion of this RSU grant vests in its entirety on May 5, 2020, subject to the NEO's continued service to Infinera through each applicable vesting date.

(4) This performance share award had three performance periods, with one-third (1/3) of the target number of performance-based awards eligible to vest based on our one-year TSR relative to the TSR of each of the Index Companies listed in the S&P Networking Index, one-third (1/3) based on our two-year TSR relative to the TSR of each of the Index Companies, and one-third (1/3) based on our three-year TSR relative to the to the TSR of each of the Index Companies. For purposes of calculating TSR performance for Infinera and each of the Index Companies under these performance share awards, the baseline value for our relative TSR calculations is the 60-day average closing price of our common stock and each of the Index Companies leading up to and inclusive of December 31, 2016, which was the last day of fiscal 2016. TSR for Infinera and each of the Index Companies is then calculated by comparing the average closing price of our common stock and each of the Index Companies to this baseline value for the final 60 days of our fiscal 2017, 2018 and 2019. Shares subject to his award will vest on May 5, 2020, as partial achievement of the third and final performance period was met.

(5) The remaining unvested portion of this RSU grant vests in its entirety on May 5 of 2021, subject to each NEO's continued service to Infinera through each applicable vesting date.

(6) This performance share award has three performance periods, with one-third (1/3) of the target number of performance-based awards eligible to vest based on our one-year TSR relative to the TSR of each of the Index Companies listed in the S&P Networking Index, one-third (1/3) based on our two-year TSR relative to the TSR of each of the Index Companies, and one-third (1/3) based on our three-year TSR relative to the to the TSR of each of the Index Companies. For purposes of calculating TSR performance for Infinera and each of the Index Companies under these performance share awards, the baseline value for our relative TSR calculations is the 60-day average closing price of our common stock and each of the Index Companies leading up to and inclusive of December 30, 2017, which was the last day of fiscal 2017. TSR for Infinera and each of the Index Companies is then calculated by comparing the average closing price of our common stock and each of the Index Companies to this baseline value for the final 60 days of our fiscal 2018, 2019 and 2020. Shares subject to his award will vest on May 5, 2020, as partial achievement of the second performance period was met.

(7) These RSU awards are scheduled to vest in annual installments with one-fourth of the underlying shares vesting on May 5 of each of 2019, 2020, 2021 and 2022, subject to each NEO's continued service to Infinera through each applicable vesting date.

(8) This performance share award can be earned based on the performance of our achievement of a positive operating income, measured on a non-GAAP basis, on either the fiscal years 2019, 2020 or 2021, or each our fiscal quarters in four (4) consecutive fiscal quarters completed during fiscal 2019 through fiscal 2021. For a more detailed description of this performance share award, please see the section entitled "Fiscal 2019 Compensation—Long-Term Incentive Compensation" in the Compensation Discussion and Analysis above.

(9) This performance share award will only vest if the stock price is equal to or greater than $10.00 per share for each trading day during a ninety-calendar day period occurring during the three-year performance period. The performance period for this award was three years from the date of grant. For additional information regarding this performance share awards granted to our CEO in fiscal 2019, please see the section entitled "Fiscal 2019 Compensation-Long-Term Incentive Compensation" in the Compensation Discussion and Analysis above.

(10) These RSU awards are scheduled to vest in annual installments with one-fourth of the underlying shares vesting on September 5 of each of 2020, 2021, 2022 and 2023, subject to Ms. Erba's continued service to Infinera through each applicable vesting date.

(11) This stock option grant was fully vested. This option was cancelled 90 days after his termination on September 30, 2019.

(12) The remaining unvested portion of this RSU grant vests in its entirety on July 5 of 2021, subject to Mr. Heard's continued service to Infinera through each applicable vesting date.

(13) This RSU award is scheduled to vest in annual installments with one-fourth of the underlying shares vesting on October 5 of each of 2019, 2020, 2021 and 2022, subject to Mr. Heard's continued service to Infinera through each applicable vesting date.

(14) These RSU awards are scheduled to vest in annual installments with one-fourth of the underlying shares vesting on May 5 of each of 2020, 2021 and 2022, subject to each NEO's continued service to Infinera through each applicable vesting date.

(15) These RSU awards are scheduled to vest in annual installments with one-fourth of the underlying shares vesting on April 5 of each of 2020, 2021, 2022 and 2023, subject to Mr. Teichmann's continued service to Infinera through each applicable vesting date.

Fiscal 2019 Option Exercises and Stock Vested Table

The following table sets forth the number of shares acquired and the value realized upon the exercise of stock options and the vesting of RSU awards and performance share awards during fiscal 2019 by each of our NEOs.

Name	Number of Shares Acquired on Exercise (#)	Value Realized on Exercise ($)[1]	Number of Shares Acquired on Vesting (#)	Value Realized on Vesting ($)[2]
Thomas J. Fallon	—	—	84,274	373,334
Nancy Erba	—	—	—	—
Brad D. Feller	—	—	36,317	160,884
David W. Heard	—	—	72,188	282,418
David L. Teichmann	—	—	—	—
Robert J. Jandro	—	—	31,621	140,081

(1) The value realized on the exercise date is based on the difference in the fair market value of our common stock on the exercise date and the exercise price, and does not necessarily reflect the proceeds actually received by the NEO.

(2) The value realized on the vesting date is based on the fair market value of our common stock on the vesting date and does not necessarily reflect the proceeds actually received by the NEO.

2019 CEO Pay Ratio

We are providing the following information regarding the relationship of the annual total compensation of our median employee to the annual total compensation of our CEO (in each case, the annual total compensation was calculated in accordance with SEC rules applicable to the Summary Compensation Table above). The pay ratio included in this information is a reasonable estimate calculated in a manner consistent with Item 402(u) of Regulation S-K.

For 2019:

- Our median employee’s annual total compensation was $90,432.
- Our CEO’s annual total compensation, as reported on page 45 in the Summary Compensation Table, was $2,962,093.
- Based on this information, the ratio of the annual total compensation of our CEO to the annual total compensation of our median employee is 33 to 1.

Pay Ratio Methodology

SEC rules allow us to select a methodology for identifying our median employee in a manner that is most appropriate based on our size, organizational structure and compensation plans, policies and procedures.

We selected December 1, 2019 as the date on which to determine our median employee, which is a date within the last three months of our last completed fiscal year. As of that date, we had 3,291 employees, with 1,210 employees based in the United States and 2,081 employees located outside of the United States. The pay ratio disclosure rules provide an exemption for companies to exclude non-U.S. employees from the median employee calculation if non-U.S. employees in a particular jurisdiction account for five percent (5%) or less of the company’s total number of employees. We applied this *de minimis* exemption when identifying the median employee by excluding 25 countries: 26 employees in Malaysia, 19 employees in Argentina, 17 employees in South Africa, 15 employees in Russian Federation, 9 employees in Indonesia, 8 employees in Philippines, 8 employees in Saudi Arabia, 7 employees in Kazakhstan, 7 employees in Poland, 6 employees in Egypt, 6 employees in Taiwan, 4 employees in Belgium, 4 employees in Colombia, 4 employees in Thailand, 3 employees in Hungary, 3 employees in Korea, 3 employees in Vietnam, 2 employees in Denmark, 2 employees in Israel, 2 employees in Serbia, 2 employees in United Arab Emirates, 1 employee in Greece, 1 employee in Luxembourg, 1 employee in Norway, and 1 employee in Turkey.

After taking into account the *de minimis* exemption, 1,210 employees based in the United States and 1,920 employees located outside of the United States were considered for identifying the median employee.

For purposes of identifying the median employee from our employee population base, we considered total cash compensation (base salary, including overtime, annual bonus and the sum of other bonuses, which included retention bonuses), as compiled from our payroll records. We selected total cash compensation as this information is readily available in each country. In addition, we measured compensation for purposes of determining the median employee using the year-to-date period ended December 28, 2019 and annualized for employees who were employed on December 1, 2019 but did not work for us for all of 2019. Compensation paid in foreign currencies was converted to U.S. dollars based on exchange rates in effect on December 1, 2019.

Estimated Payments and Benefits upon Termination, Change of Control or Death/Disability

Executive Severance Policy

As discussed above in more detail in the section entitled "Compensation Discussion and Analysis—Additional Information Regarding Our Compensation Practices—Executive Severance Policy," the Compensation Committee has taken appropriate steps to provide competitive post-employment compensation arrangements that promote the continued attention, dedication and continuity of the members of our senior management team, including our NEOs, and enable us to continue to recruit talented senior executive officers. Infinera shall not pay severance pursuant to this policy to the individuals subject to this policy in the event of (i) a change of control of Infinera (as defined below), or (ii) if such individual is terminated for Cause (as defined below).

Death and Disability Benefits

Pursuant to the Infinera Corporation 2007 Equity Incentive Plan (the "2007 Plan") and the 2016 Plan, accelerated vesting is provided in the event of the death (with exceptions in certain circumstances) or permanent disability of an employee, including our NEOs. We do not currently provide any other benefits in the event of an employee's death or permanent disability.

Change of Control Payments and Benefits

As discussed above in more detail in the section entitled "Compensation Discussion and Analysis—Additional Information Regarding Our Compensation Practices—Change of Control Payments and Benefits," we entered into COC Agreements with each of our NEOs to encourage their continued attention, dedication and continuity with respect to their roles and responsibilities without the distraction that may arise from the possibility or occurrence of a change of control of Infinera.

For purposes of these benefits, the following terms have the following meanings:

Change of Control . . . . (i) Any "person" (as such term is used in Sections 13(d) and 14(d) of the Exchange Act) becomes the "beneficial owner" (as defined in Rule 13d-3 under the Exchange Act), directly or indirectly, of securities of Infinera representing fifty percent (50%) or more of the total voting power represented by Infinera's then outstanding voting securities; (ii) the consummation of the sale or disposition by Infinera of all or substantially all of Infinera's assets; (iii) the consummation of a merger or consolidation of Infinera with any other corporation, other than a merger or consolidation which would result in the voting securities of Infinera outstanding immediately prior thereto continuing to represent (either by remaining outstanding or by being converted into voting securities of the surviving entity or its parent) at least fifty percent (50%) of the total voting power represented by the voting securities of Infinera or such surviving entity or its parent outstanding immediately after such merger or consolidation; or (iv) a change in the composition of the Board occurring within a two (2) year period, as a result of which less than a majority of the directors are Incumbent Directors.

"Incumbent Directors" means directors who either (A) are directors of Infinera as of the date hereof, or (B) are elected, or nominated for election, to the Board with the affirmative votes of at least a majority of the directors of Infinera at the time of such election or nomination (but will not include an individual whose election or nomination is in connection with an actual or threatened proxy contest relating to the election of directors to Infinera).

Constructive Termination . . . . The executive officer's resignation as a result of, and within three (3) months following the expiration of any company cure period (discussed below) following the occurrence of one or more of the following: (i) a material reduction in the executive officer's job, duties or responsibilities in a manner that is substantially inconsistent with the position, duties or responsibilities held by the executive officer immediately before such reduction; (ii) a material reduction in the executive officer's base salary (in other words, a reduction of more than five percent of executive's base salary within the twelve-month period following a Change of Control); or (iii) a material change in the work location at which the executive officer is required to perform services for Infinera (in other words, a requirement that the executive officer relocate to a work location that is more than 50 miles from the executive's work location in effect as of the date immediately prior to a Change in Control). The executive officer will not resign as the result of a Constructive Termination without first providing Infinera with written notice of the acts or omissions constituting the grounds for "Constructive Termination" within ninety (90) days of the initial existence of the grounds for "Constructive Termination" and a cure period of thirty (30) days following the date of such notice.

Cause . . . . (i) The executive officer's willful failure to substantially perform his or her duties and responsibilities to Infinera or deliberate violation of a company policy; (ii) the executive officer's commission of any act of fraud, embezzlement, dishonesty or any other willful misconduct that has caused or is reasonably expected to result in material injury to Infinera; (iii) unauthorized use or disclosure by the executive officer of any proprietary information or trade secrets of Infinera or any other party to whom the executive officer owes an obligation of nondisclosure as a result of his or her relationship with Infinera; or (iv) the executive officer's willful breach of any of his or her obligations under any written agreement or covenant with Infinera. The determination as to whether the executive officer is being terminated for Cause will be made in good faith by Infinera and will be final and binding on the executive officer.

Fiscal 2019 Estimated Payments and Benefits Table

The amount of compensation and benefits payable to each of our NEOs (as of the last day of fiscal 2019) in the event of a termination of employment by Infinera, a termination of employment following a Change of Control transaction (as defined above), or a termination of employment due to death or permanent disability has been estimated in the table below. The value of the outstanding equity award vesting acceleration was calculated based on the assumption that the termination event occurred on December 28, 2019, the last day of fiscal 2019. The closing price of our common stock as of the last trading day of fiscal 2019 (December 27, 2019) was $7.78 per share, which was used as the value of our common stock in the calculations below. The value of the vesting acceleration was calculated by (i) multiplying the number of accelerated shares of common stock underlying unvested, in-the-money equity awards by $7.78 and (ii) subtracting the exercise price for the unvested stock options.

		Potential Payments in Connection With:		
Name	**Type of Benefit**	**Termination Under Severance Policy ($)**	**Termination After a Change of Control ($)**	**Termination Upon Death or Disability ($)**
Thomas J. Fallon	Cash Severance	780,000	1,040,000	—
	Bonus	—	1,300,000	—
	Vesting Acceleration[(1)]	—	7,962,986	7,962,986
	Continued Coverage of Employee Benefits	48,878	65,171	—
	Total Benefits	**828,878**	**10,368,157**	**7,962,986**
Nancy Erba	Cash Severance	425,000	637,500	—
	Bonus	—	478,125	—
	Vesting Acceleration[(2)]	—	5,835,000	5,835,000
	Continued Coverage of Employee Benefits	19,581	29,372	—
	Total Benefits	**444,581**	**6,979,997**	**5,835,000**
David W. Heard	Cash Severance	520,000	780,000	—
	Bonus	—	702,000	—
	Vesting Acceleration[(3)]	—	5,183,682	5,183,682
	Continued Coverage of Employee Benefits	28,206	42,310	—
	Total Benefits	**548,206**	**6,707,992**	**5,183,682**
David L. Teichmann	Cash Severance	385,000	577,500	—
	Bonus	—	404,250	—
	Vesting Acceleration[(4)]	—	2,217,300	2,217,300
	Continued Coverage of Employee Benefits	28,206	42,310	—
	Total Benefits	**413,206**	**3,241,360**	**2,217,300**
Robert J. Jandro	Cash Severance	420,000	630,000	—
	Bonus	—	504,000	—
	Vesting Acceleration[(5)]	—	2,149,700	2,149,700
	Continued Coverage of Employee Benefits	18,650	27,975	—
	Total Benefits	**438,650**	**3,311,675**	**2,149,700**

(1) The vesting of 1,023,520 shares of common stock would accelerate if Mr. Fallon was terminated without Cause, as a result of a Constructive Termination within 12 months following a Change of Control or upon death or permanent disability as of December 28, 2019.

(2) The vesting of 750,000 shares of common stock would accelerate if Ms. Erba was terminated without Cause, as a result of a Constructive Termination within 12 months following a Change of Control or upon death or permanent disability as of December 28, 2019.

(3) The vesting of 666,283 shares of common stock would accelerate if Mr. Heard was terminated without Cause, as a result of a Constructive Termination within 12 months following a Change of Control or upon death or permanent disability as of December 28, 2019.

(4) The vesting of 285,000 shares of common stock would accelerate if Mr. Teichmann was terminated without Cause, as a result of a Constructive Termination within 12 months following a Change of Control or upon death or permanent disability as of December 28, 2019.

(5) The vesting of 276,311 shares of common stock would accelerate if Mr. Jandro was terminated without Cause, as a result of a Constructive Termination within 12 months following a Change of Control or upon death or permanent disability as of December 28, 2019.

RISK ASSESSMENT OF COMPENSATION PRACTICES

At the request of the Compensation Committee, a review of the risks associated with our organization-wide compensation policies and practices was conducted for fiscal 2019 compensation. This assessment covered topics including: our compensation policies and practices; a review of each of the compensation vehicles that we employ; the identification of any compensation design features that could encourage excessive risk taking; and the controls, policies and plan features that mitigate our compensation risk.

Although all compensation programs were considered, particular attention was paid to incentive-based plans and arrangements involving variable payouts, where an employee might be able to influence payout factors and compensation plans and arrangements involving our executive team. The review found that, because our incentive programs are based primarily on financial objectives important to Infinera, we avoid an over-emphasis on shorter-term financial goals. In addition, the financial objectives used to determine the performance measures for our incentive-based compensation plans and arrangements were found to be substantially derived from our annual operating plan, which is approved by the Board.

In addition, the assessment considered the controls and other mitigating factors that serve to offset elements of our compensation policies and practices that may introduce or encourage risk-taking. Those elements include the Compensation Committee’s ability use discretion to adjust payouts on most awards; strong stock ownership requirements for our Section 16 Officers; a clawback policy; and the existence of, and training related to, corporate standards of business conduct and ethics.

This risk assessment was presented to and reviewed by the Compensation Committee. The Compensation Committee agreed with the result of the review, which concluded that the risks associated with our compensation policies and practices were being effectively managed. We have determined that the risks associated with our compensation policies and practices are not reasonably likely to result in a material adverse effect on Infinera.

PROPOSAL 2—APPROVAL OF AMENDMENT OF THE INFINERA CORPORATION 2016 EQUITY INCENTIVE PLAN

The Board believes that our future success depends on our ability to attract and retain talented employees and that the ability to grant equity awards is a necessary and powerful recruiting and retention tool for Infinera. The Board believes that equity awards motivate high levels of performance, more closely align the interests of employees and shareholders by giving employees an opportunity to hold an ownership stake in Infinera, and provide an effective means of recognizing employee contributions to the success of Infinera. At the Annual Meeting, we are requesting that shareholders approve (i) an increase to the number of shares of our common stock (the "Shares") authorized for issuance thereunder by 8,100,000 Shares and (ii) effecting minor technical revisions and improvements.

The 2016 Plan has not been amended in any material way, other than to effect minor technical revisions and improvements, as discussed further below, including affirmatively providing that no dividends may be paid or distributed to any unvested equity. Upon recommendation of the Compensation Committee, the Board approved amendments to the 2016 Plan on March 5, 2020 and March 26, 2020, subject to the approval of our shareholders at the Annual Meeting.

As of March 28, 2020, there were 883,163 Shares available for issuance pursuant to awards that may be granted under the 2016 Plan, excluding Shares already subject to outstanding awards granted under our predecessor 2007 Plan that, if forfeited, would be added to the number of Shares reserved under the 2016 Plan. If the proposed amendment to the 2016 Plan is not approved by our shareholders, the 2016 Plan will remain in effect without the amendment and awards will continue to be made under the 2016 Plan to the extent Shares remain available. However, in this event, we may not be able to continue our equity incentive program in the future. This could preclude us from successfully attracting and retaining highly skilled employees. The Board and the Compensation Committee believe that the additional Shares under the increased Share reserve will enable us to continue to use the 2016 Plan to achieve our recruiting, retention and incentive goals and will be essential to our future success.

If our shareholders approve this amendment to the 2016 Plan, we currently anticipate that the Shares will be sufficient to meet our expected needs through the date of our 2021 annual meeting of our shareholders ("2021 Annual Meeting"). In determining the number of Shares to be reserved for issuance under the 2016 Plan, the Compensation Committee and the Board considered the following:

- *Historical Grant Practices*. The Compensation Committee and the Board considered the historical amounts of equity awards that we granted in the past three years. In fiscal 2017, 2018 and 2019, we granted equity awards covering 5.197 million, 4.277 million and 11.152 million Shares, respectively, or a total of approximately 20.626 million Shares over the three-year period.
- *Forecasted Grants.* In determining the projected Share utilization, the Compensation Committee and the Board considered a forecast that included the following factors: (i) the Shares that would be available for grant under the 2016 Plan, if our shareholders approve this amendment to the 2016 Plan, which is 8,983,163 Shares (consisting of 883,163 Shares available for issuance under the 2016 Plan as of March 28, 2020, plus the 8,100,000 additional Shares pursuant to this amendment to the 2016 Plan, and excluding Shares already subject to outstanding awards granted under the 2007 Plan that, if forfeited, would be added to the number of Shares reserved under the 2016 Plan); (ii) the estimated number of Shares to be added to the 2016 Plan from forfeited awards under the 2007 Plan; and (iii) forecasted future grants, which are "value-based," meaning that Share amounts granted will be determined based on a dollar value of the award to be granted to the participant and stock price of Infinera. Due to our value-based grant program, any significant changes in our stock price as compared to the stock price we assumed for forecasting purposes could cause our actual Share usage to deviate significantly from our anticipated Share usage.
- *Proxy Advisory Firm Guidelines*. Given our significant institutional shareholder base, the Compensation Committee and the Board considered proxy advisory firm guidelines.

Outstanding Awards

The following table sets forth information regarding all outstanding stock options and RSUs and performance shares under all of our equity plans (other than our 2007 Employee Stock Purchase Plan (the "2007 ESPP")) as of March 28, 2020. We do not currently have any outstanding stock options under the 2016 Plan. The last sales price of our common stock as reported on The Nasdaq Global Select Market on March 27, 2020, was $5.14 per share.

Outstanding Options	Weighted Average Exercise Price	Weighted Average Remaining Contractual Term (in years)	Unvested Performance Shares / RSUs Outstanding	Number of Shares Available for Grant under 2016 Plan(1)
604,979	$8.33	0.96	21,270,819	883,163

(1) There are no other outstanding equity plans under which awards of shares could be granted.

Reasons for Voting for the Proposal

The 2016 Plan has been designed consistent with best corporate governance practices.

- *Administration.* The 2016 Plan is administered by the Compensation Committee of the Board, which is comprised entirely of independent non-employee directors.
- *Shareholder Approval is Required for Additional Shares.* The 2016 Plan does not contain an annual "evergreen" provision but instead reserves a fixed maximum number of Shares for issuance. Shareholder approval is required to increase that number.
- *Share Counting Provisions.* Under the 2016 Plan, if an option or stock appreciation right expires or becomes unexercisable without having been exercised in full, or if Shares subject to other types of awards are forfeited to or repurchased by us due to failure to vest, those Shares will become available for issuance again under the 2016 Plan. Shares used to pay the exercise or purchase price of an award will not become available for future grant under the 2016 Plan. Shares used to satisfy the tax withholding obligations for awards other than options and stock appreciation rights will become available for future grant under the 2016 Plan. With respect to stock appreciation rights settled in Shares, the gross number of Shares exercised under the stock appreciation right award will cease to be available under the 2016 Plan. In addition, to the extent that we pay out an award in cash rather than Shares, such cash payment will not reduce the number of Shares available for issuance under the 2016 Plan. No Shares purchased by us with proceeds received from the exercise of an option will become available for issuance under the 2016 Plan or the 2007 Plan.
- *Minimum Vesting Requirements.* 95% of the Shares reserved for issuance under the 2016 Plan may be issued only through awards that cannot vest in less than one year from the date of grant unless the vesting of such awards is accelerated due to the participant's death, disability, or retirement or a termination of the participant's service that occurs in connection with our change in control.
- *Limited Vesting Acceleration Upon a Change in Control.* Except (x) as permitted under the minimum vesting requirements and (y) for any awards made to non-employee directors, the administrator shall not be permitted to accelerate the vesting of an award upon a change in control other than in the event an award is not assumed or substituted for as described in this proposal below in the section entitled "Description of the 2016 Plan—Merger or Change in Control."
- *Repricing Prohibition.* The 2016 Plan prohibits any program providing participants the opportunity to transfer outstanding awards to a financial institution or other person or entity selected by the administrator, exchange awards for awards of the same type, awards of a different type, and/or cash, or have the exercise price of awards repriced (i.e., increased or reduced).
- *Non-Employee Director Award Limits.* Under the 2016 Plan, in any fiscal year, a non-employee director may be granted equity awards (with an aggregate grant date fair value) and any other compensation (including cash retainers or fees) of no more than an aggregate of $750,000, increased to $1,000,000 in our fiscal year of his or her initial service. Any equity awards or other compensation provided to the director for his or her services as an employee or consultant (other than as a non-employee director) will be excluded for purposes of these limits.

- *No Dividends on Options and Stock Appreciation Rights Until Shares are Issued or on Other Equity Awards While Unvested.* Under the revised 2016 Plan, shareholders are being asked to approve an amendment to the 2016 Plan so that no participant will have any rights to dividends or any other shareholder rights with respect to any Shares subject to options or stock appreciation rights until such Shares are issued following award exercise, and any dividends that the administrator may determine will be payable on any other equity awards will be subject to the same vesting criteria, forfeitability, and/or transferability restrictions as apply to the Shares subject the awards on which such dividends would be paid.

Our executive officers and directors have an interest in the approval of the 2016 Plan by our shareholders because they would be eligible to receive awards under the 2016 Plan.

Description of the 2016 Plan

The following paragraphs provide a summary of the principal features of the 2016 Plan and its operation. However, this summary is not a complete description of all of the provisions of the 2016 Plan and is qualified in its entirety by the specific language of the 2016 Plan. A copy of the 2016 Plan is provided as Appendix B to this Proxy Statement.

Purposes. The purposes of the 2016 Plan are to attract and retain the best available personnel for positions of substantial responsibility; to provide additional incentive to employees, directors, and consultants; and to promote the success of our business. These incentives will be provided through the grant of stock options, stock appreciation rights, restricted stock, RSUs, performance units, and performance shares as the administrator of the 2016 Plan may determine.

Authorized Shares. Subject to the adjustment provisions contained in the 2016 Plan, the maximum number of Shares that may be issued pursuant to awards under the 2016 Plan is equal to the sum of (1) 22,700,000 Shares plus (2) Shares subject to awards granted under the 2007 Plan that after May 12, 2016, expire, are forfeited or otherwise terminate without being exercised in full (to the extent they were exercisable), or are forfeited to or repurchased by us due to failure to vest (provided that the maximum number of Shares that may be added to the 2016 Plan with respect to awards granted under the 2007 Plan pursuant to this clause (2) above is 7,700,000 Shares). Our shareholders are being asked to approve an increase of 8,100,000 Shares in the maximum number of Shares that may be issued pursuant to awards under the 2016 Plan. Thus, if our shareholders approve this increase, the maximum number of Shares that may be issued pursuant to awards under the 2016 Plan will be increased to 30,800,000 Shares, plus the number of Shares described in clause (2) above.

Shares may be authorized, but unissued, or reacquired Shares. If an option or stock appreciation right expires or becomes unexercisable without having been exercised in full, or if Shares subject to other types of awards are forfeited to or repurchased by us due to failure to vest, those Shares will become available for issuance again under the 2016 Plan. Shares used to pay the exercise or purchase price of an award will cease to be available for future grant under the 2016 Plan. Shares used to satisfy the tax withholding obligations related to an award, except with respect to options and stock appreciation rights, will become available for future grant under the 2016 Plan. With respect to stock appreciation rights settled in Shares, the gross number of Shares exercised under the stock appreciation right award will cease to be available under the 2016 Plan. In addition, to the extent that we pay out an award in cash rather than Shares, such cash payment will not reduce the number of Shares available for issuance under the 2016 Plan. Shares used to pay the exercise price of an award will not be available for future grant or sale under the 2016 Plan. No Shares purchased by us with proceeds received from the exercise of an option will become available for issuance under the 2016 Plan or the 2007 Plan.

Plan Administration. The Compensation Committee (or other committee appointed by the Board) administers the 2016 Plan. The Board or any committee of directors or other individuals satisfying applicable laws appointed by the Board or a duly authorized committee of the Board may administer the 2016 Plan. With respect to awards granted or to be granted to certain officers and key employees intended to be an exempt transaction under Rule 16b-3 of the Exchange Act (“Rule 16b-3”), the members of the committee administering the 2016 Plan with respect to those awards must qualify as “non-employee directors” under Rule 16b-3 will administer the 2016 Plan with respect to such awards. In the case of awards that historically were intended to qualify as “performance-based compensation" within the meaning of Section 162(m), the 2016 Plan provided for administration with respect to those awards by a committee consisting of two or more "outside directors" within the meaning of Section 162(m). However, this provision relating to Section 162(m) no longer applies under the amended 2016 Plan due to changes to certain tax laws that have eliminated the "performance-based compensation" exemption under Section 162(m).

Subject to the provisions of the 2016 Plan, the administrator will have the power to determine the award recipients and the terms of the awards not inconsistent with the 2016 Plan, including the exercise price, the number of Shares subject to each such award, the exercisability of the awards, and the form of consideration, if any, payable by an option holder upon exercise. The administrator also will have the authority to amend existing awards, to determine fair market value of Shares, to construe and interpret the 2016 Plan and awards granted under the 2016 Plan, to establish rules and regulations, including sub-plans for the purpose of satisfying, or qualifying for favorable tax treatment under, applicable laws in jurisdictions outside of the United States, and to make all other determinations necessary or advisable for administering the 2016 Plan. The administrator's decisions and interpretations will be final and binding on all participants and any other holders of awards, and will be given the maximum deference permitted by law.

No Repricing. The 2016 Plan prohibits any program providing participants the opportunity to transfer outstanding awards to a financial institution or other person or entity selected by the administrator, exchange awards for awards of the same type, awards of a different type, and/or cash, or have the exercise price of awards repriced (i.e., increased or reduced).

Vesting Requirements. Awards granted under the 2016 Plan are required to vest no earlier than the one-year anniversary of the awards' grant date, except that (a) without regard to such limitation, vesting of awards can be accelerated due to a participant's death, disability or retirement, or service termination in connection with our change in control, and (b) awards that result in the issuance of up to an aggregate of 5% of the Shares reserved for issuance under the 2016 Plan may granted under the 2016 Plan, or outstanding awards granted under the 2016 Plan modified, without regard to such limitation. The administrator may provide for the acceleration of an award granted under the 2016 Plan in connection with the termination of a participant's service upon or in connection with our change in control. Except for any awards granted to non-employee directors or as described above in this paragraph, the administrator will not be permitted to accelerate the vesting of awards upon our change in control other than if the awards are not assumed or substituted for in our change in control.

Eligibility. We will be able to grant stock options, stock appreciation rights, restricted stock, RSUs, performance units and performance shares under the 2016 Plan to our employees, consultants and non-employee directors, and employees and consultants of our parent or subsidiary corporations. We will be able to grant incentive stock options under the 2016 Plan only to individuals who, as of the time of grant, are employees of ours or of any parent or subsidiary corporation of ours. As of March 28, 2020, we had seven non-employee directors, and approximately 3,376 employees (including five NEOs) and 47 independent consultants.

Non-Employee Director Award Limits. The 2016 Plan provides that all non-employee directors will be eligible to receive all types of awards (except for incentive stock options) under the 2016 Plan. However, in any fiscal year, a non-employee director may be granted equity awards (with an aggregate grant date fair value) and any other compensation (including cash retainers or fees) of no more than an aggregate of $750,000, increased to $1,000,000 in our fiscal year of his or her initial service as a non-employee director. Any equity awards or other compensation provided to the director for his or her services as an employee or consultant (other than as a non-employee director) will be excluded for purposes of these limits.

Certain Other Limits. In any fiscal year, subject to any adjustment provisions contained in the 2016 Plan, the maximum aggregate number of Shares covering equity awards that a participant is permitted to receive under the 2016 Plan is:

- With respect to stock options, 1,500,000 Shares, plus an additional 1,500,000 Shares in connection with his or her initial service as an employee;
- With respect to stock appreciation rights, 1,500,000 Shares, plus an additional 1,500,000 Shares in connection with his or her initial service as an employee;

- With respect to restricted stock, 1,500,000 Shares, plus an additional 1,500,000 Shares in connection with his or her initial service as an employee;
- With respect to RSUs, 1,500,000 Shares, plus an additional 1,500,000 Shares in connection with his or her initial service as an employee; and
- With respect to performance shares, 1,500,000 Shares, plus an additional 1,500,000 Shares in connection with his or her initial service as an employee.

The 2016 Plan also provides that during any fiscal year, the maximum aggregate initial value (based on the fair market value of the Shares underlying the award on the award's grant date) of performance units that a participant is permitted to receive under the 2016 Plan is $7,500,000. The 2016 Plan as amended clarifies that such limit for performance units is on a fiscal year by fiscal year basis.

Dividends. Until Shares are issued under a stock option or stock appreciation right granted under the 2016 Plan, the holder of such awards will have no right to receive dividends or any other rights as a shareholder with respect to the Shares subject to the award and no adjustment will be made for a dividend or other right for which the record date occurs before the date the related Shares are issued under the stock option or stock appreciation right award (other than subject to the adjustment provisions contained in the 2016 Plan, as discussed under "Certain Adjustments" further below). The 2016 Plan, as amended, provides that whether payable in Shares or otherwise, any dividends or distributions payable with respect to Shares subject to a restricted stock award granted under the 2016 Plan will be subject to the same restrictions on transferability and/or forfeitability as the Shares subject to such award. The Administrator also may determine, in its discretion, that such restricted stock awards will not be eligible to receive any dividends or other distributions during the period of restriction applicable to the award. The 2016 Plan, as amended, provides further that holders of any restricted stock units, performance shares and performance units granted thereunder will have no right to receive dividends or other distributions as a shareholder with respect to the Shares subject to such awards unless the Administrator determines otherwise, in which case any such dividends or distributions will be subject to the same vesting criteria and forfeitability provisions as the Shares subject to such award on which they are paid. For clarity, the Shares reserved for issuance under the 2016 Plan will not be reduced by dividends or other distributions that are paid on the Shares subject to awards granted under the 2016 Plan.

Stock Options. We are able to grant stock options under the 2016 Plan. Each option will be evidenced by an award agreement that specifies the exercise price, the number of Shares subject to the option, the maximum term of the option, forms of consideration for exercise, and such other terms and conditions as the administrator determines, subject to the terms of the 2016 Plan. The exercise price of options granted under the 2016 Plan must be at least equal to the fair market value of our common stock on the date of grant, except in special, limited circumstances as set forth in the 2016 Plan. The maximum term of a stock option must not exceed 10 years. However, with respect to any participant who owns more than 10% of the voting power of all classes of outstanding stock of ours or of any parent or subsidiary of ours, the maximum term of an incentive stock option granted to such participant must not exceed five years and such option's per share exercise price must equal at least 110% of the fair market value of a Share on the grant date. Generally, the fair market value of a Share is the closing sales price of a Share on the relevant date as quoted on Nasdaq. Options will be exercisable at such times and under such conditions as determined by the administrator and as set forth in the applicable award agreement. The administrator will determine and specify in each award agreement, and solely in its discretion, the period of post-termination exercise applicable to each option. In the absence of such a determination by the administrator, the participant generally will be able to exercise the vested portion of the option for three months following his or her termination for reasons other than death or disability, and for 12 months following his or her termination due to disability or death while holding the option (to the extent vested on the date of disability or death). However, in no event can an option be exercised after the expiration of the term of the option.

Stock Appreciation Rights. We are able to grant stock appreciation rights under the 2016 Plan. Stock appreciation rights allow the recipient to receive the appreciation in the fair market value of the underlying Shares between the exercise date and the date of grant. Each stock appreciation right will be evidenced by an award agreement that specifies the exercise price, the term of the stock appreciation right, and other terms and conditions as determined by the administrator, subject to the terms of the 2016 Plan. The per Share exercise price of a stock appreciation right will be no less than 100% of the fair market value per Share on the date of grant.

Stock appreciation rights will be exercisable at such times and under such conditions as determined by the administrator and set forth in the applicable award agreement. The maximum term of a stock appreciation right must not exceed 10 years. The administrator will determine and specify in each award agreement, and solely in its discretion, the period of post-termination exercise applicable to each stock appreciation right. In the absence of such a determination by the administrator, the participant generally will be able to exercise the vested portion of the stock appreciation right for three months following his or her termination for reasons other than death or disability, and for 12 months following his or her termination due to disability or death while holding the stock appreciation right (to the extent vested on the date of disability or death). However, in no event can a stock appreciation right be exercised after the expiration of the term of the option. At the discretion of the administrator, the payment upon exercise of a stock appreciation right may be paid in cash, Shares, or a combination of both.

Restricted Stock. We are able to grant restricted stock under the 2016 Plan. Restricted stock awards are grants of Shares that may be subject to various restrictions, which may include restrictions on transferability and forfeiture provisions. Each restricted stock award granted will be evidenced by an award agreement specifying the number of Shares subject to the award, any period of restriction, and other terms and conditions of the award, as determined by the administrator, subject to the terms of the 2016 Plan.

Restricted stock awards may (but are not required to) be subject to vesting conditions, as the administrator specifies (subject to the minimum vesting requirements), and the Shares acquired may not be transferred by the participant until the vesting conditions (if any) are satisfied. The administrator, in its sole discretion, may accelerate the time at which any restrictions will lapse or be removed (subject to minimum vesting requirements). Recipients of restricted stock awards generally will have full voting rights with respect to such Shares upon grant without regard to vesting, unless the administrator provides otherwise. Unless otherwise determined by the administrator, a participant generally will forfeit any Shares of restricted stock as to which the restrictions have not lapsed as of a date specified in the award agreement (such as the participant’s termination of service).

Restricted Stock Units. We are able to grant RSUs under the 2016 Plan. Each RSU granted is a bookkeeping entry representing an amount equal to the fair market value of one Share. Each RSU award will be evidenced by an award agreement that specifies the number of RSUs subject to the award, vesting criteria (which may include accomplishing specified performance criteria or continued service to us), form of payout, and other terms and conditions of the award, as determined by the administrator, subject to the terms of the 2016 Plan. RSUs result in a payment to a participant if the performance goals or other vesting criteria are achieved or the awards otherwise vest. The administrator, in its sole discretion, may accelerate the time at which any restrictions will lapse or be removed (subject to the minimum vesting requirements). The administrator determines in its sole discretion whether an award will be settled in cash, Shares, or a combination of both.

Performance Units and Performance Shares. We are able to grant performance units and performance shares under the 2016 Plan. Performance units and performance shares are awards that will result in a payment to a participant only if performance goals or other vesting criteria established by the administrator are achieved or the awards otherwise vest. Each award of performance units or performance shares will be evidenced by an award agreement specifying the performance period and other terms and conditions of the award, as determined by the administrator, subject to the terms and conditions of the 2016 Plan. On or before the date of grant, the administrator will establish an initial dollar value for each performance unit. Each performance share will have an initial value equal to the fair market value of a Share on the date of grant. The administrator in its discretion will establish performance goals or other vesting criteria (which may include continued service), which, depending on the extent to which they are met, will determine the value or number of performance units or performance shares to be paid out. After the grant of performance units or performance shares, the administrator, in its sole discretion, may reduce or waive any performance objectives or other vesting provisions for such performance units or performance shares (subject to the minimum vesting requirements). The administrator, in its sole discretion, may pay earned performance units or performance shares in the form of cash, Shares, or in some combination of both.

Non-Transferability of Awards. Unless the administrator provides otherwise, the 2016 Plan generally will not allow for the transfer of awards, and only the recipient of an award may exercise an award during his or her lifetime.

Certain Adjustments. In the event of any dividend or other distribution (whether in the form of cash, Shares, other securities or other property), recapitalization, stock split, reverse stock split, reorganization, reincorporation, reclassification, merger, consolidation, split-up, spin-off, combination, repurchase, or exchange of Shares or our other securities, or other change in our corporate structure affecting Shares, then in order to prevent diminution or enlargement of the benefits or potential benefits intended to be made available under the 2016 Plan, the administrator will adjust the number and class of shares that may be delivered under the 2016 Plan and/or the number, class and price of shares covered by each outstanding award, and the numerical share limits set forth in the 2016 Plan. In the event of our proposed liquidation or dissolution, the administrator will notify participants as soon as practicable and all awards will terminate immediately prior to the completion of such proposed transaction.

Merger or Change in Control. The 2016 Plan provides that in the event of our merger or change in control, as defined in the 2016 Plan, each outstanding award will be treated as the administrator determines, in accordance with the following: (i) the assumption or substitution of the award by the acquirer or successor corporation or its parent or subsidiary, (ii) termination of the award upon or immediately prior to the consummation of the merger or change in control following written notice and subject to the next paragraph, (iii) subject to the next paragraph, (A) termination of the award in exchange for an amount of cash and/or property in an amount that would have been attained upon exercise or realization of the award as of the date of the merger or change in control, or (B) replacement of the award with other rights or property, or (iv) any combination of the above. The administrator will not be required to treat all awards, all awards held by a participant, or all awards of the same type, similarly.

If outstanding awards (or portion of the awards) are not assumed or substituted for, the awards will fully vest and become exercisable and all restrictions will lapse, except that with respect to awards subject to performance-based vesting, performance criteria will be deemed achieved based on actual performance measured through the last date that the awards remain outstanding (or such earlier date that the administrator may determine), with any performance period shortened proportionately and applicable performance goals or other vesting criteria adjusted proportionately to reflect the adjusted performance period (or to the extent applicable, the value of the consideration to be received by our shareholders in connection with the merger or change in control). In addition, if an option or stock appreciation right is not assumed or substituted in the event of a merger or change in control, the administrator will notify the participant that such award will be exercisable for a specified period prior to the transaction, and such award will terminate upon the expiration of such period.

Dissolution or Liquidation. In the event of our dissolution or liquidation, the administrator will notify each participant as soon as practicable before the effective date of the proposed transaction. To the extent not previously exercised (as applicable), an award granted under the 2016 Plan will terminated immediately before the consummation of such proposed transaction.

Plan Amendment; Termination. The administrator has the authority to amend, alter, suspend, or terminate the 2016 Plan at any time, provided such action does not impair the existing rights of any participant unless mutually agreed in writing. The 2016 Plan will terminate automatically in 2026, unless we terminate it sooner.

Forfeiture of Awards. The 2016 Plan adds grants the administrator authority to specify in an award agreement that a participant’s rights, payments and benefits with respect to an award granted under the 2016 Plan will be subject to reduction, cancellation, forfeiture, or recoupment upon the occurrence of certain specified events. The 2016 Plan also provides that awards granted under the 2016 Plan also will be subject to any Infinera clawback policy as may be established or amended from time to time. The administrator may require a participant to forfeit, return or reimburse to Infinera all or a portion of an award and any amounts paid under the award pursuant to the terms of Infinera’s clawback policy or in order to comply with applicable laws.

Number of Awards Granted to Employees and Directors

The number of awards, and Shares subject thereunder, that an employee, director, or consultant may receive under the 2016 Plan is in the discretion of the administrator and therefore cannot be determined in advance. The following table sets forth the aggregate number of Shares subject to RSUs and performance shares (at target) granted under the 2016 Plan during fiscal 2019 to each of our NEOs; our current executive officers, as a group; directors who are not executive officers, as a group; and all employees who are not executive officers, as a group. There were no stock options granted to any employees (including our NEOs) or directors in fiscal 2019.

Name of Individual or Identity of Group and Principal Position	Dollar Value of Award(s) ($)[1]	Number of RSUs and Performance Shares Granted (#)
Thomas J. Fallon *Chief Executive Officer*	2,439,125	650,000
Nancy Erba *Chief Financial Officer*	—	—
Brad D. Feller[2] *Former Chief Financial Officer*	1,078,000	220,000
David W. Heard *Chief Operating Officer*	2,156,000	440,000
David L. Teichmann *Chief Legal Officer and Corporate Secretary*	1,187,450	285,000
Robert J. Jandro *Senior Vice President, Worldwide Sales*	833,000	170,000
All current executive officers as a group	9,654,075	2,175,000
All current directors who are not executive officers as a group	2,087,233	617,456
All employees (excluding executive officers as a group)	36,101,346	8,149,690

(1) For RSUs, represents the aggregate grant date fair value of each equity award computed in accordance with ASC 718. For performance shares, represents the aggregate grant date fair value of each equity award at the target payout level computed in accordance with ASC 718. See Notes 2 and 16 of the notes to our consolidated financial statements contained in our 2019 Annual Report, for a discussion of all assumptions made by us in determining the ASC 718 values of equity awards.

(2) Mr. Feller's equity awards were cancelled upon his separation from Infinera on September 30, 2019.

U.S. Federal Income Tax Consequences

The following paragraphs are a summary of the general federal income tax consequences to U.S. taxpayers and Infinera of awards granted under the 2016 Plan. Tax consequences for any particular individual may be different.

Incentive Stock Options. A participant recognizes no taxable income as the result of the grant or exercise of an incentive stock option qualifying under Section 422 of the Code (unless the participant is subject to the alternative minimum tax). If the participant exercises the option and then later sells or otherwise disposes of the Shares acquired through the exercise of the option after both the two-year anniversary of the grant date and the one-year anniversary of the exercise date, the difference between the sale price and the exercise price will be taxed as capital gain or loss. If the participant exercises the option and then later sells or otherwise disposes of the Shares on or before the two- or one-year anniversaries described above (a "disqualifying disposition"), he or she generally will have ordinary income at the time of the sale equal to the fair market value of the Shares on the exercise date (or the sale price, if less) minus the exercise price of the option.

Nonstatutory Stock Options. A participant generally recognizes no taxable income on the date of grant of a nonstatutory stock option with an exercise price equal to the fair market value of the underlying stock on the date of grant. Upon the exercise of a nonstatutory stock option, the participant generally will recognize ordinary income equal to the excess of the fair market value of the Shares on the exercise date over the exercise price of the option. If the participant is an employee, such ordinary income generally is subject to withholding of income and employment taxes. Upon the sale of Shares acquired through the exercise of a nonstatutory stock option, any subsequent gain or loss (generally based on the difference between the sale price and the fair market value on the exercise date) will be treated as long-term or short-term capital gain or loss, depending on how long the Shares were held by the participant.

Stock Appreciation Rights. A participant generally recognizes no taxable income on the date of grant of a stock appreciation right with an exercise price equal to the fair market value of the underlying stock on the date of grant. Upon exercise of the stock appreciation right, the participant generally will be required to include as ordinary income an amount equal to the sum of the amount of any cash received and the fair market value of any Shares received upon the exercise. If the participant is an employee, such ordinary income generally is subject to withholding of income and employment taxes. Upon the sale of Shares acquired by an exercise of the stock appreciation right, any gain or loss (generally based on the difference between the sale price and the fair market value on the exercise date) will be treated as long-term or short-term capital gain or loss, depending on how long the Shares were held by the participant.

Restricted Stock, Restricted Stock Units, Performance Units and Performance Shares. A participant generally will not have taxable income at the time an award of restricted stock, RSUs, performance shares, or performance units is granted. Instead, he or she generally will recognize ordinary income in the first taxable year in which his or her interest in the Shares underlying the award becomes either (i) freely transferable, or (ii) no longer subject to substantial risk of forfeiture. If the participant is an employee, such ordinary income generally is subject to withholding of income and employment taxes. However, the recipient of a restricted stock award may elect to recognize income at the time he or she receives the award in an amount equal to the fair market value of the Shares underlying the award (less any cash paid for the Shares) on the date the award is granted.

Section 409A. Section 409A of the Code (“Section 409A”) provides certain requirements for non-qualified deferred compensation arrangements with respect to an individual’s deferral and distribution elections and permissible distribution events. Awards granted under the 2016 Plan with a deferral feature will be subject to the requirements of Section 409A. If an award is subject to and fails to satisfy the requirements of Section 409A, the recipient of that award may recognize ordinary income on the amounts deferred under the award, to the extent vested, which may be prior to when the compensation is actually or constructively received. Also, if an award that is subject to Section 409A fails to comply with Section 409A’s provisions, Section 409A imposes an additional 20% tax on compensation recognized as ordinary income, as well as interest on such deferred compensation.

Medicare Surtax. In addition, a participant’s annual “net investment income”, as defined in Section 1411 of the Code, may be subject to a 3.8% federal surtax. Net investment income may include capital gain and/or loss arising from the disposition of Shares issued pursuant to awards granted under the 2016 Plan. Whether a participant’s net investment income will be subject to this surtax will depend on the participant’s level of annual income and other factors.

Tax Effect for Infinera. We generally will be entitled to a tax deduction in connection with an award under the 2016 Plan in an amount equal to the ordinary income realized by a participant and at the time the participant recognizes such income (for example, the exercise of a nonstatutory stock option). However, special rules limit the deductibility of compensation paid to our CEO and other “covered employees” as determined under Section 162(m) and applicable guidance. Under Section 162(m), the annual compensation paid to any of these specified individuals will be deductible only to the extent that it does not exceed $1,000,000. However, under Section 162(m) as it was in effect during fiscal year 2018, we could preserve the deductibility of certain compensation in excess of $1,000,000 if the conditions of Section 162(m) were met. These conditions included (among others) shareholder approval of the 2016 Plan and its material terms, setting certain limits on the number of Shares subject to awards and, for awards other than options and stock appreciation rights, establishing performance criteria that must be met before the award actually was vested or paid. As a result of the Tax Cuts and Jobs Act of 2017, for taxable years beginning on or after January 1, 2018, and except for certain grandfathered arrangements, under Section 162(m), any compensation over $1,000,000 paid to the covered employees is not deductible to Infinera.

THE FOREGOING IS ONLY A SUMMARY OF THE TAX EFFECT OF U.S. FEDERAL INCOME TAXATION UPON PARTICIPANTS AND INFINERA WITH RESPECT TO THE GRANT AND VESTING OR EXERCISE OF AWARDS UNDER THE 2016 PLAN. IT DOES NOT PURPORT TO BE COMPLETE, AND DOES NOT DISCUSS

THE TAX CONSEQUENCES OF A SERVICE PROVIDER'S DEATH OR THE PROVISIONS OF THE INCOME TAX LAWS OF ANY MUNICIPALITY, STATE, OR NON-U.S. COUNTRY TO WHICH THE SERVICE PROVIDER MAY BE SUBJECT.

Summary

The Board believes that it is in the best interests of our company and our shareholders to continue to provide employees, consultants and directors with the opportunity to acquire an ownership interest in Infinera through the grant of equity awards under the 2016 Plan and thereby encourage them to remain in our service and more closely align their interests with those of our shareholders.

Vote Required

Approval of Proposal 2 requires the affirmative vote of a majority of the votes cast on this proposal. Abstentions will have the same effect as an "AGAINST" vote. Broker non-votes are not deemed to be votes cast and, therefore, are not included in the tabulation of the voting results on this proposal and will not affect the outcome of the vote.

Proposal 2—Recommendation of the Board

The Board unanimously recommends a vote "FOR" the approval of the amendment to (i) increase the number of shares authorized for issuance thereunder by 8,100,000 shares and (ii) effect minor technical revisions and improvements.

PROPOSAL 3—ADVISORY APPROVAL OF NAMED EXECUTIVE OFFICER COMPENSATION

The Dodd-Frank Wall Street Reform and Consumer Protection Act of 2010, or the Dodd-Frank Act, enables our shareholders to vote to approve, on an advisory basis, the compensation of our NEOs as disclosed in the Compensation Discussion and Analysis and the tabular disclosures of this Proxy Statement. This proposal, commonly known as a “say-on-pay” proposal, provides our shareholders with the opportunity to express their views on the compensation of our NEOs.

As described in the section entitled “Compensation Discussion and Analysis,” we believe that the skill, talent, judgment and dedication of our executive officers are critical factors affecting the long-term value of Infinera. The goals of our executive compensation programs are to fairly compensate our executives, attract and retain highly-qualified executives able to contribute to our long-term success, encourage performance consistent with clearly defined corporate goals and align our executives’ long-term interests with those of our shareholders. The specific goals that our current executive compensation programs reward are focused on financial objectives, including specific non-GAAP operating loss targets. Please read the “Compensation Discussion and Analysis” section of this Proxy Statement beginning on page 24 for additional details about our executive compensation programs, including information about the fiscal 2019 compensation of our NEOs.

The Board is asking our shareholders to indicate their support for the compensation of our NEOs as described in this Proxy Statement. This vote is not intended to address any specific item of compensation, but rather the overall compensation of our NEOs and the philosophy, policies, practices and objectives described in this Proxy Statement. Accordingly, the Board recommends that our shareholders vote “FOR” the following resolution at the Annual Meeting:

> “**RESOLVED:** That the shareholders approve, on an advisory basis, the compensation of the named executive officers, as disclosed in the Proxy Statement for the 2020 Annual Meeting of Shareholders pursuant to the compensation disclosure rules of the Securities and Exchange Commission, including the Compensation Discussion and Analysis, the compensation tables, and the accompanying footnotes and narrative disclosures.”

As an advisory vote, this say-on-pay proposal is not binding upon Infinera, the Board or the Compensation Committee. However, Infinera, the Board and the Compensation Committee, which are responsible for overseeing, reviewing and administering our executive compensation programs, value the opinions expressed by our shareholders and will continue to consider our shareholders’ feedback in evaluating future compensation options for our NEOs.

Vote Required

Approval of Proposal 3 requires the affirmative vote of a majority of the votes cast on this proposal. Abstentions will have the same effect as an “AGAINST” vote. Broker non-votes are not deemed to be votes cast and, therefore, are not included in the tabulation of the voting results on this proposal and will not affect the outcome of the vote.

Proposal 3—Recommendation of the Board

The Board unanimously recommends a vote “FOR” the approval of the compensation of our NEOs, as disclosed in this Proxy Statement pursuant to the compensation disclosure rules of the SEC.

OUR AUDITORS

PROPOSAL 4—RATIFICATION OF APPOINTMENT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

The Audit Committee of the Board has selected Ernst & Young LLP, independent registered public accounting firm, as our independent auditors for the fiscal year ending December 28, 2019 and has further directed that we submit the appointment of independent auditors for ratification by the shareholders at the Annual Meeting. Ernst & Young LLP has audited our financial statements since fiscal 2001. Representatives of Ernst & Young LLP will have an opportunity to make a statement if they so desire and will be available to respond to appropriate questions.

Ratification of appointment of Ernst & Young LLP as our independent registered public accounting firm is not required pursuant to our Bylaws, our other governing documents or law. However, we are submitting the appointment of Ernst & Young LLP to the shareholders for ratification as a matter of good corporate practice. If the shareholders fail to ratify the appointment, the Audit Committee will reconsider whether or not to retain that firm. Even if the appointment is ratified, the Audit Committee in its discretion may direct the appointment of different independent auditors at any time during the year if it determines that such change would be in the best interests of Infinera and its shareholders.

Independent Registered Public Accounting Firm's Fees

The following table sets forth the aggregate fees for audit, audit-related, tax and other services provided by Ernst & Young LLP for the fiscal years ended December 28, 2019 and December 29, 2018. All of the services described in the following table were approved in conformity with the Audit Committee's pre-approval processes and procedures.

	2019	2018[(1)]
Audit Fees	$5,009,000	$6,493,000
Audit-Related Fees	—	135,000
Tax Fees	362,000	485,000
All Other Fees	532,000	257,000
Total Fees	$5,903,000	$7,370,000

(1) Prior year numbers have been reclassified to conform to current year classification.

Audit Fees

This category includes Ernst & Young LLP's audit of our annual financial statements and internal control over financial reporting, review of financial statements included in our Form 10-Q quarterly reports, and services that are typically provided by the independent registered public accounting firm in connection with statutory and regulatory filings or engagements for those fiscal years. This category also includes statutory audits required by non-U.S. jurisdictions, consultation and advice on new accounting pronouncements, and technical advice on various accounting matters related to the consolidated financial statements or statutory financial statements that are required to be filed by non-U.S. jurisdictions, comfort letters, and consents issued in connection with SEC filings. Fiscal 2018 fees were higher than the fiscal 2019 fees because of the additional fees for a registered debt offering and acquisition-related work in connection with our acquisition of Coriant, partially offset by higher fiscal 2019 fees for a full year audit of the combined company.

Audit-Related Fees

This category consists of assurance and related services provided by Ernst & Young LLP that are reasonably related to the performance of the audit or review of our financial statements and are not included in the fees reported in the table above under "Audit fees." Audit-related services principally include due diligence services in connection with acquisitions.

Tax Fees

This category includes fees for tax compliance, tax advice, tax planning and transfer pricing.

All Other Fees

This category consists of any permitted services provided by Ernst & Young LLP that are not included in the category descriptions under “Audit Fees,” “Audit-Related Fess” or “Tax Fees” in the table above, and principally includes non-audit services, including permissible business and advisory consulting services.

Pre-Approval Policies and Procedures

The Audit Committee’s policy is to pre-approve all audit and permissible non-audit services rendered by Ernst & Young LLP, our independent registered public accounting firm. The Audit Committee can pre-approve specified services in defined categories of audit services, audit-related services and tax services up to specified amounts, as part of the Audit Committee’s approval of the scope of the engagement of Ernst & Young LLP or on an individual case-by-case basis before Ernst & Young LLP is engaged to provide a service. The Audit Committee has determined that the rendering of the services other than audit services by Ernst & Young LLP is compatible with maintaining the principal accountant’s independence.

Vote Required

Approval of Proposal 4 requires the affirmative vote of a majority of the votes cast on this proposal. Abstentions will have the same effect as an “AGAINST” vote. Broker non-votes, if any, are not deemed to be votes cast and, therefore, are not included in the tabulation of the voting results on this proposal and will not affect the outcome of the vote.

Proposal 4—Recommendation of the Board

The Board unanimously recommends a vote “FOR” the ratification of the appointment of Ernst & Young LLP as Infinera’s independent registered public accounting firm for its fiscal year ending December 26, 2020.

REPORT OF THE AUDIT COMMITTEE

The Audit Committee of the Board currently consists of the three non-employee directors named below. The Board annually reviews the Nasdaq listing standards' definition of independence for Audit Committee members and has determined that each member of the Audit Committee meets that standard. The Board has also determined that Messrs. Gani and Milbury are each an Audit Committee Financial Expert as described in applicable rules and regulations of the SEC.

The principal purpose of the Audit Committee is to assist the Board in its general oversight of our accounting practices, system of internal controls, audit processes and financial reporting processes. The Audit Committee is responsible for appointing and retaining our independent auditor and approving the audit and non-audit services to be provided by our independent registered public accounting firm. The Audit Committee's function is more fully described in its charter, which the Board has adopted and which the Audit Committee reviews on an annual basis. A copy of the Audit Committee charter is available on our website at *www.infinera.com*.

Our management is responsible for preparing our financial statements and ensuring they are complete and accurate and prepared in accordance with generally accepted accounting principles. Ernst & Young LLP, our independent registered public accounting firm, is responsible for performing an independent audit of our consolidated financial statements in accordance with generally accepted auditing standards and expressing an opinion on the effectiveness of our internal control over financial reporting.

The Audit Committee has reviewed and discussed the audited financial statements for the year ended December 28, 2019 with our management and Ernst & Young LLP. The Audit Committee has also discussed with Ernst & Young LLP the matters required to be discussed by Auditing Standard No. 1301, "Communications with Audit Committees" issued by Public Company Accounting Oversight Board ("PCAOB"). The Audit Committee also has received and reviewed the written disclosures and the letter from Ernst & Young LLP required by applicable requirements of the PCAOB regarding Ernst & Young LLP's communications with the Audit Committee concerning independence, and has discussed with Ernst & Young LLP its independence from Infinera.

Based upon the review and discussions described above, the Audit Committee recommended to the Board that the audited financial statements referred to above be included in our Annual Report on Form 10-K for the year ended December 28, 2019 for filing with the SEC.

Submitted by the members of the Audit Committee:

Paul J. Milbury (Chair)
Marcel Gani
Kambiz Y. Hooshmand

CERTAIN RELATIONSHIPS AND RELATED PARTY TRANSACTIONS

We have adopted a formal policy that our executive officers, directors, and principal shareholders, including their immediate family members and affiliates, are not permitted to enter into a related party transaction with us without the prior consent of the Audit Committee, or other independent members of the Board in the case it is inappropriate for the Audit Committee to review such transaction due to a conflict of interest. Any request for us to enter into a transaction with an executive officer, director, principal shareholder, or any of such persons' immediate family members or affiliates, in which the amount involved exceeds $120,000 must first be presented to the Audit Committee for review, consideration and approval. All of our directors, executive officers and employees are required to report to the Audit Committee any such related party transaction. In approving or rejecting the proposed agreement, the Audit Committee shall consider the relevant facts and circumstances available and deemed relevant to the Audit Committee, including, but not limited to the risks, costs and benefits to us, the terms of the transaction, the availability of other sources for comparable services or products, and, if applicable, the impact on a director's independence. The Audit Committee shall approve only those agreements that, in light of known circumstances, are, or are not inconsistent with, our best interests, as the Audit Committee determines in the good faith exercise of its discretion.

On March 4, 2020, Dr. Welch, our Chief Innovation Officer and a member of the Board, was granted an award of 650,000 performance-based shares. This award provided for a number of quantitative and qualitative performance objectives related to the successful development of our XR Optics program. These shares may vest up to 100% over a four-year period through the end of fiscal 2024 upon the achievement of various performance metrics within specified time periods during this four-year range.

We did not engage in any other related party transactions during fiscal 2019.

DELIQUENT SECTION 16(a) REPORTS

The members of the Board, our executive officers and persons who hold more than 10% of our outstanding common stock are subject to the reporting requirements of Section 16(a) of the Exchange Act, which requires them to file reports with respect to their ownership of our common stock and certain transactions in our common stock. Based solely upon (i) the copies of Section 16(a) reports that we received from such persons for their fiscal 2019 transactions in our common stock and their common stock holdings and (ii) the written representations received from one or more of such persons, we believe that all reporting requirements under Section 16(a) were met in a timely manner during fiscal 2019 with the exception that Dr. Welch was late filing a Form 4 with respect to three transactions.

EQUITY COMPENSATION PLAN INFORMATION

The following table provides information as of December 28, 2019 with respect to the shares of our common stock that may be issued under our existing equity compensation plans.

Plan Category	(a) Number of Securities to be Issued Upon Exercise of Outstanding Options, Warrants and Rights	(b) Weighted Average Exercise Price of Outstanding Options, Warrants and Rights	(c) Number of Securities Remaining Available for Future Issuance Under Equity Compensation Plans (Excluding Securities Reflected in First Column)
Equity compensation plans approved by security holders	14,835,144[1]	$8.41	20,586,694[2]
Equity compensation plans not approved by security holders	—	—	—
Total	14,835,144		20,586,694

(1) This amount includes the following:

- 729,979 shares issuable upon the exercise of outstanding stock options granted under the 2007 Plan.
- 11,600,707 shares subject to RSUs granted under the 2007 Plan and 2016 Plan. Since these awards have no exercise price, they are not included in the weighted average exercise price calculation in column (b).
- 2,504,458 shares issuable pursuant to outstanding stock awards that have been granted under the 2007 Plan, but not yet earned as of December 28, 2019. The number of shares, if any, to be issued pursuant to such outstanding awards will be determined based on certain performance metrics, as discussed above in the section entitled "Fiscal 2019 Compensation-Long-Term Incentive Compensation" in the Compensation Discussion and Analysis. Since these awards have no exercise price, they are not included in the weighted average exercise price calculation in column (b).

(2) This amount includes 12,437,898 shares of common stock available for future issuances under the 2007 ESPP.

OUR SHAREHOLDERS

SECURITY OWNERSHIP OF CERTAIN BENEFICIAL OWNERS AND MANAGEMENT

The following table sets forth certain information known to us regarding beneficial ownership of our common stock as of the Record Date by:

- Each person known by us to be the beneficial owner of more than 10% of any class of our voting securities;
- Our NEOs;
- Each of our directors; and
- All current executive officers and directors as a group.

The information provided in this table is based on our records, information filed with the SEC and information provided to Infinera, except where otherwise noted. To our knowledge and unless as otherwise indicated, each shareholder possesses sole voting and investment power over the shares listed, except for shares owned jointly with such person's spouse. Percentage beneficially owned is based on 183,197,658 shares of common stock outstanding on the Record Date. Unless otherwise indicated, the principal address of each of the shareholders below is c/o Infinera Corporation, 140 Caspian Court, Sunnyvale, California 94089.

Name of Beneficial Owner	Common Shares Currently Held	Common Shares That May Be Acquired Within 60 Days of the Record Date[1]	Total Beneficial Ownership	Percent Beneficially Owned
5% or More Shareholders				
FMR LLC[2]	27,120,389	—	27,120,389	14.80%
Oaktree Optical Holdings, L.P.[3]	25,175,384	—	25,175,384	13.74%
The Vanguard Group[4]	16,173,674	—	16,173,674	8.83%
BlackRock, Inc.[5]	13,066,352	—	13,066,352	7.13%
Named Executive Officers and Directors				
Thomas J. Fallon[6]	1,482,246	432,499	1,914,745	1.04%
Nancy Erba	—	—	—	*
Brad D. Feller[7]	259,972	0	259,972	*
David W. Heard	116,796	112,387	229,183	*
David L. Teichmann	—	55,000	55,000	*
Robert J. Jandro[8]	201,481	83,111	284,592	*
Gregory P. Dougherty	12,615	53,745	66,360	*
Marcel Gani	240,573	53,745	294,318	*
Sharon E. Holt	—	53,571	53,571	*
Kambiz Y. Hooshmand[9]	122,589	53,745	176,334	*
Paul J. Milbury	72,355	61,345[10]	133,700	*
Rajal M. Patel[11]	60,213	53,745	113,958	*
Mark A. Wegleitner	85,489	93,745[12]	179,234	*
David F. Welch, Ph.D.[13]	1,619,084	306,253	1,925,337	1.05%
All Current Executive Officers and Directors as a Group (13 Persons)	3,814,960	1,354,109[14]	5,169,069	2.82%

* Less than 1% of the outstanding shares of common stock.

(1) Includes shares represented by vested, unexercised stock options as of the Record Date and stock options, RSUs or other rights that are expected to vest within 60 days of the Record Date. These shares are deemed to be outstanding for the purpose of computing the percentage ownership of the person holding the stock options or RSUs, but are not treated as outstanding for the purpose of computing the percentage ownership of any other person.

(2) According to a Schedule 13G/A filed with the SEC on February 7, 2020 by FMR LLC ("FMR"), Abigail P. Johnson (FMR's Director, Chairman and CEO) and Fidelity Growth Company Fund ("Fidelity"). Such amendment states that FMR is deemed to be the beneficial owner of 27,120,389 shares by virtue of its control over Fidelity, which is deemed to be the beneficial owner of 12,590,819 shares as a result of its acting as investment advisor to various investment companies registered under Section 8 of the Investment Company Act of 1940. Such amendment further states that (a) FMR has sole voting power over

10,421,158 shares, shared voting power over no shares, sole dispositive power over 27,120,389 shares, and shared dispositive power over no shares; (b) Ms. Johnson has neither sole nor shared voting power over any shares, sole dispositive power over 27,120,389 shares, and shared dispositive power over no shares and (c) Fidelity has sole voting power over 12,590,819 shares, shared voting power over no shares, sole dispositive power over no shares, and shared dispositive power over no shares. The address of FMR is 245 Summer Street, Boston, Massachusetts 02210.

(3) According to Forms 4 filed on March 18, 2020 and March 23, 2020 and a Schedule 13D/A filed with the SEC on March 19, 2020 jointly, pursuant to a joint filing agreement, by (i) Oaktree Optical Holdings, L.P., a Delaware limited partnership ("Optical"), whose principal business is to invest in securities; (ii) Oaktree Fund GP, LLC, a Delaware limited liability company ("GP LLC"), whose principal business is to serve as and perform the functions of the general partner of certain investment funds including Optical; (iii) Oaktree Fund GP I, L.P., a Delaware limited partnership ("GP I"), whose principal business is (A) serve as, and perform the functions of, the general partner of certain investment funds or to serve as, and perform the functions of, the managing member of the general partner of certain investment funds or (B) to act as the sole shareholder of certain controlling entities of certain investment funds; (iv) Oaktree Capital I, L.P., a Delaware limited partnership ("Capital I"), whose principal business is to serve as, and perform the functions of, the general partner of GP I; (v) OCM Holdings I, LLC, a Delaware limited liability company ("Holdings I"), whose principal business is to serve as, and perform the functions of, the general partner of Capital I and to hold limited partnership interests in Capital I; (vi) Oaktree Holdings, LLC, a Delaware limited liability company ("Holdings"), whose principal business is to serve as, and perform the functions of, the managing member of Holdings I; (vii) Oaktree Capital Group, LLC, a Delaware limited liability company ("OCG"), whose principal business is to act as the holding company and controlling entity of each of the general partner and investment adviser of certain investment funds and separately managed accounts; and (viii) Oaktree Capital Group Holdings GP, LLC, a Delaware limited liability company ("OCGH GP" and together with Optical, GP I, Capital I, Holdings I, Holdings, OCG and GP LLC, collectively, the "Reporting Persons"), whose principal business is to serve as, and perform the functions of, the manager of OCG. The principal business address of each of the Reporting Persons is c/o Oaktree Capital Group Holdings GP, LLC, 333 South Grand Avenue, 28th Floor, Los Angeles, California 90071.

(4) According to a Schedule 13G/A filed with the SEC on February 12, 2020 by The Vanguard Group ("Vanguard"). Vanguard is the beneficial owner of 16,173,674 shares and has sole voting power over 168,101 shares, shared voting power over 35,086 shares, sole dispositive power over 15,994,818 shares and shared dispositive power over 178,856 shares. The address of Vanguard is 100 Vanguard Boulevard, Malvern, Pennsylvania 19355.

(5) According to a Schedule 13G/A filed with the SEC on February 10, 2020 by BlackRock, Inc. ("BlackRock"). BlackRock is the beneficial owner of 13,066,352 shares and has sole voting power over 12,688,972 shares and sole dispositive power over 13,066,352 shares. The address of BlackRock is 55 East 52nd Street, New York, New York 10055.

(6) Shares held by The Fallon Family Revocable Trust dated 9/7/1994.

(7) Mr. Feller resigned as CFO effective as of August 26, 2019 and terminated effective as of September 30, 2019.

(8) Mr. Jandro resigned as Senior Vice President, Worldwide Sales effective January 3, 2020.

(9) Consists of (i) 64,042 shares held by Mr. Hooshmand; and (ii) 58,547 shares held by 2002 Hooshmand Family Trust UA 03/01/2002.

(10) Includes (i) 7,600 vested, unexercised stock options and (ii) 53,745 unvested RSUs.

(11) Shares held by The Rajal & Brinda Patel Trust U/A DTD 9/6/2016.

(12) Includes (i) 40,000 vested, unexercised stock options and (ii) 53,745 unvested RSUs.

(13) Consists of (i) 1,499,291 shares held by The Welch Family Trust U/A DTD 4/3/1996; (ii) 117,293 shares held by LRFA, LLC, a limited liability company of which Dr. Welch is the sole managing member; and (iii) 2,500 shares held by Dr. Welch as trustee for his children. Dr. Welch disclaims beneficial ownership of the shares held in trust for his children.

(14) Includes (i) 469,576 vested, unexercised stock options and (ii) 884,533 unvested RSUs.

SHAREHOLDER PROPOSALS FOR 2021 ANNUAL MEETING

To be considered for inclusion in our Proxy Statement for the 2021 Annual Meeting, shareholder proposals must comply with our Bylaws and the requirements of Rule 14a-8 under the Exchange Act and be received by our Corporate Secretary at our principal executive offices no later than December 4, 2020, or no later than 120 calendar days before the one-year anniversary of the date on which we first mailed our Proxy Statement to shareholders in connection with this year's Annual Meeting.

Under Rule 14a-8 of the Exchange Act, if the date of the 2021 Annual Meeting changes by more than 30 days from the anniversary of this year's Annual Meeting, to be included in our Proxy Statement, shareholder proposals must be received by us within a reasonable time before our solicitation is made.

To be raised at the 2021 Annual Meeting, shareholder proposals must comply with our Bylaws. Under our Bylaws, a shareholder must give timely notice thereof in proper written form to our Corporate Secretary of any business, including nominations of directors for the Board that the shareholder wishes to raise at our 2021 Annual

Meeting. To be timely, the shareholder notice must be received by our Corporate Secretary no later than February 17, 2021 nor earlier than January 18, 2021. To be in proper written form, the shareholder notice must contain a brief description of such business and the reasons for conducting such business at the meeting, as well as certain other information as set forth in greater detail in our Bylaws. In connection with a shareholder nomination of a candidate for the Board, the shareholder notice must also include certain information as set forth in our Bylaws about both the nominee and the shareholder making the nomination. If you wish to bring a shareholder proposal or nominate a candidate for director, you are advised to review our Bylaws, which contain additional requirements about advance notice of shareholder proposals and director nominations. Our current Bylaws may be found on our website at *www.infinera.com* in the Corporate Governance section on our Investors page.

Under our Bylaws, if the date of the 2021 Annual Meeting is advanced by more than 30 days prior to or delayed by more than 60 days after the one-year anniversary of the date of this year's Annual Meeting, then, for notice by the shareholder to be timely, it must be received by our Corporate Secretary no earlier than the close of business on the 120th day prior to the 2021 Annual Meeting and no later than the close of business on the later of (i) the 90th day prior to the 2021 Annual Meeting, or (ii) the tenth day following the day on which disclosure in a press release reported by GlobeNewswire, Associated Press or a comparable national news service or in a document publicly filed by Infinera with the SEC pursuant to Section 13, 14 or 15(d) of the Exchange Act of the date of the 2021 Annual Meeting is first made.

DELIVERY OF DOCUMENTS TO SHAREHOLDERS SHARING THE SAME LAST NAME AND ADDRESS

To reduce the expense of delivering duplicate proxy materials to shareholders who may have more than one account holding our common stock, but sharing the same address, we have adopted a procedure, approved by the SEC, called "householding." Under this procedure, shareholders who have the same last name and address, and who do not participate in electronic delivery of proxy materials, will receive only one copy of this Proxy Statement, our Annual Report and any additional proxy materials that are delivered. This procedure reduces duplicate mailings and saves printing costs and postage fees, as well as natural resources. Shareholders who participate in "householding" will continue to have access to and utilize separate proxy voting instructions.

Once you have received notice from your broker that they will be "householding" communications to your address, "householding" will continue until you are notified otherwise or until you revoke your consent. If, at any time, you no longer wish to participate in "householding" and would prefer to receive a separate set of proxy materials or if you would like an additional copy of any of the proxy materials, please notify your broker or direct your written request to Infinera Corporation, 140 Caspian Court, Sunnyvale, California 94089, Attention: Corporate Secretary, or call (408) 572-5200. Shareholders who currently receive multiple copies of the Proxy Statement at their address and would like to request "householding" of their communications should contact their broker.

OTHER MATTERS

The Board knows of no other matters that will be presented for consideration at the Annual Meeting. If any other matters are properly brought before the Annual Meeting, it is the intention of the persons named in the accompanying proxy to vote on such matters in accordance with their best judgment.

By Order of the Board,

Nancy Erba
Chief Financial Officer

Sunnyvale, California
April 14, 2020

USER'S GUIDE

QUESTIONS AND ANSWERS ABOUT THE PROXY MATERIALS AND VOTING PROCEDURAL MATTERS

Annual Meeting

Q: Why am I being provided access to these proxy materials?

A: We are providing you access to these proxy materials in connection with the solicitation of proxies by the Board for use at the 2020 Annual Meeting of Shareholders to be held exclusively virtually on Thursday, May 21, 2020 at 10:00 a.m. Pacific Time, and at any adjournment or postponement thereof, for the purpose of considering and acting upon the matters described herein. These materials were first sent or given to shareholders on or about April 15, 2020. You are invited to virtually attend the Annual Meeting and requested to vote on the items described in this proxy statement.

Q: Where is the Annual Meeting?

A: The Annual Meeting will be held virtually at www.virtualshareholdermeeting.com/INFN2020.

Q: Why are you holding a virtual meeting instead of a physical meeting?

A: In light of the current COVID-19 pandemic and government orders related to activities in the state and county where we operate, we believe that a virtual Annual Meeting would allow the greatest number of shareholders to attend. We are excited to embrace the latest technology to provide expanded access, improved communication and cost savings for our shareholders and our Company. We believe that hosting a virtual Annual Meeting will enable more of our shareholders to attend and participate in the meeting since our shareholders can participate from any location around the world with Internet access.

Q: How can I attend the virtual Annual Meeting?

A: The Annual Meeting will be a completely virtual meeting of shareholders conducted exclusively by a live audio webcast.

If you are a shareholder of record as of the close of business on March 26, 2020, the record date for the Annual Meeting, you will be able to virtually attend the Annual Meeting, vote your shares and submit your questions online during the meeting by visiting www.virtualshareholdermeeting.com/INFN2020. You will need to enter the 16-digit control number included on your notice, on your proxy card or on the instructions that accompanied your proxy materials.

If you are a shareholder holding your shares in "street name" as of the close of business on March 26, 2020, you may gain access to the meeting by following the instructions in the voting instruction card provided by your broker, bank, trustee or other nominee. You may not vote your shares electronically at the Annual Meeting unless you receive a valid "legal proxy" from your broker, bank, trustee or other nominee.

The online meeting will begin promptly at 10:00 a.m., Pacific time. We encourage you to access the meeting prior to the start time. Online check-in will begin at 9:45 a.m., Pacific time, and you should allow approximately 15 minutes for the online check-in procedures.

If you wish to submit a question for the Annual Meeting, you may do so in advance at www.virtualshareholdermeeting.com/INFN2020, or you may type it into the dialog box provided at any point during the virtual meeting (until the floor is closed to questions).

Q: What can I do if I need technical assistance during the Annual Meeting?

A: If you encounter any difficulties accessing the virtual Annual Meeting webcast please call the technical support number that will be posted on the Annual Meeting website log-in page.

Q: What proposals will be voted on at the Annual Meeting?

A: At the Annual Meeting, shareholders will be asked to vote on:

- The election of three Class I directors to serve until the 2023 Annual Meeting of Shareholders or until their successors have been duly elected and qualified, or until his or her earlier death, resignation or removal from the Board;
- The approval of an amendment of the 2016 Plan to (i) increase the number of shares authorized for issuance thereunder by 8,100,000 shares and (ii) effect minor technical revisions and improvements;
- The approval, on an advisory basis, of the compensation of Infinera's NEOs, as described in the Proxy Statement; and
- The ratification of the appointment of Ernst & Young LLP as Infinera's independent registered public accounting firm for the fiscal year ending December 26, 2020.

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, the persons named as proxies will vote the shares represented thereby at their discretion. Adjournments 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 the chairperson of the meeting or approval of the holders of common stock representing a majority of the votes present virtually or by proxy at the Annual Meeting, whether or not a quorum exists, without further notice other than by an announcement at the Annual Meeting.

Q: What is the voting requirement to approve each of the proposals and how does the Board recommend that I vote?

A: *Proposal 1*—Directors are elected by a majority vote, which requires the affirmative vote of a majority of the total votes cast by holders of shares present virtually, or represented by proxy, and entitled to vote for each nominee at the Annual Meeting. You may vote "FOR," "AGAINST" or "ABSTAIN" on this proposal. Abstentions are deemed to be votes cast and have the same effect as a vote "AGAINST" this proposal. Broker non-votes are not deemed to be votes cast and, therefore, are not included in the tabulation of the voting results on this proposal and will not affect the outcome of the vote. **The Board unanimously recommends that you vote your shares "FOR" the nominees listed in Proposal 1**.

Proposal 2—The approval of an amendment of the 2016 Plan to (i) increase the number of shares authorized for issuance thereunder by 8,100,000 shares and (ii) effect minor technical revisions and improvements, requires the affirmative vote of a majority of the total votes cast by holders of shares present virtually, or represented by proxy, and entitled to vote on this proposal at the Annual Meeting. You may vote "FOR," "AGAINST" or "ABSTAIN" on this proposal. Abstentions are deemed to be votes cast and have the same effect as a vote "AGAINST" this proposal. Broker non-votes are not deemed to be votes cast and, therefore, are not included in the tabulation of the voting results on this proposal and will not affect the outcome of the vote. **The Board unanimously recommends that you vote your shares "FOR" Proposal 2**.

Proposal 3—The approval, on an advisory basis, of the compensation of Infinera's NEOs requires the affirmative vote of a majority of the total votes cast by holders of shares present virtually, or represented by proxy, and entitled to vote on this proposal at the Annual Meeting. You may vote "FOR," "AGAINST" or "ABSTAIN" on this proposal. Abstentions are deemed to be votes cast and have the same effect as a vote "AGAINST" this proposal. Broker non-votes are not deemed to be votes cast and, therefore, are not included in the tabulation of the voting results on this proposal and will not affect the outcome of the vote. **The Board unanimously recommends that you vote your shares "FOR" Proposal 3**.

Proposal 4—The ratification of the appointment of Ernst & Young LLP as Infinera's independent registered public accounting firm for the fiscal year ending December 26, 2020, requires the affirmative vote of a majority of the total votes cast by holders of shares present virtually, or represented by proxy, and entitled to vote on this proposal at the Annual Meeting. You may vote "FOR," "AGAINST" or "ABSTAIN" on this proposal. Abstentions are deemed to be votes cast and have the same effect as a vote "AGAINST" this proposal. Broker non-votes, if any, are not deemed to be votes cast and, therefore, are not included in the tabulation of the voting results on this proposal and will not affect the outcome of the vote. **The Board unanimously recommends that you vote your shares "FOR" Proposal 4**.

Stock Ownership

Q: What is the difference between holding shares as a shareholder of record and as a beneficial owner?

A: *Shareholders of Record*—If your shares are registered directly in your name with our transfer agent, Computershare, Inc., you are the shareholder of record with respect to those shares, and this Proxy Statement has been sent directly to you.

Beneficial Owners—If your shares are held through a broker, bank, trustee or other nominee, rather than directly in their own name, you are considered the "beneficial owner" of shares held in "street name." The Proxy Statement has been forwarded to you by your broker, trustee or other nominee who is considered, with respect to those shares, the shareholder of record. As the beneficial owner, you have the right to direct your broker, bank, trustee or other nominee on how to vote your shares. For directions on how to vote shares beneficially held in street name, please refer to the voting instruction card provided by your broker, bank, trustee or other nominee. Because a beneficial owner is not the shareholder of record, you may not vote these shares virtually at the Annual Meeting unless you obtain a legal proxy issued in your name from the broker, bank, trustee or other nominee that holds your shares, giving you the right to vote your shares at the Annual Meeting.

Quorum and Voting

Q: Who is entitled to vote at the Annual Meeting?

A: Shareholders of record of our common stock at the close of business on the Record Date are entitled to receive notice of and to vote their shares at the Annual Meeting. Such shareholders are entitled to cast one vote for each share of common stock held as of the Record Date. As of the close of business on the Record Date, there were 183,197,658 shares of common stock outstanding and entitled to vote at the Annual Meeting. Shares held as of the Record Date include shares that are held directly in your name as the shareholder of record and those shares held for you as a beneficial owner through a broker, bank, trustee or other nominee.

Q: How many shares must be present or represented to conduct business at the Annual Meeting?

A: The presence virtually of the holders of a majority of the shares of our common stock entitled to vote at the Annual Meeting is necessary to constitute a quorum at the Annual Meeting. Such shareholders are counted as present at the meeting if they (i) are present virtually at the Annual Meeting or (ii) have properly submitted a proxy.

Under the General Corporation Law of the State of Delaware, as amended, abstentions and broker non-votes are counted as present and entitled to vote and are included for purposes of determining whether a quorum is present at the Annual Meeting.

Q: What is a broker non-vote and how are they counted at the Annual Meeting?

A: A broker non-vote occurs when the broker holding shares for a beneficial owner does not vote on a non-routine proposal because the broker does not have discretionary voting power with respect to such proposal. Broker non-votes will be counted towards the presence of a quorum, but will not be counted towards the vote total for any proposal.

Q: Which proposals are considered "routine" or "non-routine?"

A: The election of directors (Proposal 1), the amendment of the 2016 Plan (Proposal 2) and the non-binding advisory vote on Infinera's NEO compensation (Proposal 3) are "non-routine" matters for which discretionary voting power does not exist under applicable rules. A broker, bank, trustee or other nominee cannot vote without instructions on non-routine matters, and therefore, broker non-votes may exist in connection with Proposals 1, 2 and 3. Thus, if you hold your shares beneficially in street name and you do not instruct your broker, bank, trustee or other nominee how to vote with respect to Proposals 1, 2 and 3, no votes will be cast on your behalf.

The ratification of Ernst & Young LLP as our independent registered public accounting firm (Proposal 4) is considered a “routine” matter for which discretionary voting power exists under applicable rules. A broker, bank, trustee or other nominee may generally vote on routine matters without instructions from the beneficial owner of the shares being voted, and therefore no broker non-votes are expected to exist in connection with Proposal 4.

Q: How can I vote my shares virtually at the Annual Meeting?

A: *Shareholders of Record*—Shares held in your name as the shareholder of record may be voted virtually at the Annual Meeting, even if previously voted by another method. You will need the 16-digit control number on your proxy card or voting instructions to vote at the Annual Meeting.

Beneficial Owners—Shares held beneficially in street name may be voted virtually at the Annual Meeting only if you obtain a legal proxy issued in your name from the broker, bank, trustee or other nominee that holds your shares, giving you the right to virtually vote the shares at the Annual Meeting. Otherwise, you will not be permitted to virtually vote at the Annual Meeting. You will need the 16-digit control number on your proxy card or voting instructions to vote at the Annual Meeting.

Even if you plan to virtually attend the Annual Meeting, we recommend that you submit your vote as described in this Proxy Statement and below, so that your vote will be counted if you later decide not to attend the Annual Meeting.

Q: How can I vote my shares without virtually attending the Annual Meeting?

A: Whether you hold shares directly as the shareholder of record or beneficially in street name, you may direct how your shares are voted without attending the Annual Meeting. If you are a shareholder of record, you may vote by submitting a proxy (please refer to the voting instructions in this Proxy Statement or below). If you hold shares beneficially in street name, you may vote by submitting voting instructions to your broker, bank, trustee or other nominee (please refer to the voting instructions provided to you by your broker, bank, trustee or other nominee).

Internet—Shareholders of record with Internet access may submit proxies by following the instructions in this Proxy Statement. Shareholders who hold shares beneficially in street name may vote by accessing the website specified in the voting instructions provided by their brokers, banks, trustees or other nominees.

Telephone—Depending on how your shares are held, you may be able to vote by telephone. If this option is available to you, you will receive information explaining this procedure.

Mail—Shareholders who have received a paper copy of a proxy card or voting instruction card by mail may submit their vote by completing, signing and dating their proxy card or voting instruction card where indicated and returning it in the accompanying prepaid envelope.

Q: How will my shares be voted if I submit a proxy via the Internet, by telephone or by mail and do not make specific choices?

A: If you are a shareholder of record or have obtained a proxy voting form from your broker, bank, trustee or other nominee that holds your shares giving you the right to vote the shares, and you submit a proxy via the Internet, by telephone or by mail and do not make voting selections, the shares represented by that proxy will be voted “FOR” the nominees listed in Proposal 1 and “FOR” Proposals 2, 3 and 4. If you are a beneficial owner of shares and your broker, bank, trustee or other nominee does not receive instructions from you about how your shares are to be voted, the shares represented by that proxy will not be voted with respect to Proposals 1, 2 or 3 and will be counted as broker non-votes with respect to these proposals. With respect to Proposal 4, your broker, bank, trustee or other nominee will have the discretion to vote your shares.

Q: Can I change or revoke my vote?

A: Subject to any rules your broker, bank, trustee or other nominee may have, you may change your proxy instructions at any time before your proxy is voted at the Annual Meeting.

Shareholders of Record—If you are a shareholder of record, you may change your vote by (1) filing with our Corporate Secretary, prior to your shares being voted at the Annual Meeting, a written notice of revocation or a duly executed proxy card, in either case dated later than the prior proxy relating to the same shares, or (2) virtually attending the Annual Meeting and voting (although virtual attendance at the Annual Meeting will not, by itself, revoke a proxy). Any written notice of revocation or subsequent proxy card must be received by our Corporate Secretary prior to the taking of the vote at the Annual Meeting. Such written notice of revocation or subsequent proxy card should be hand delivered to our Corporate Secretary or should be sent to our principal executive offices, Attn: Corporate Secretary. A shareholder of record who has voted via the Internet or by telephone may also change his or her vote by making a timely and valid Internet or telephone vote at a later time but prior to 11:59 p.m. Eastern Time, on the day prior to the Annual Meeting.

Beneficial Owners—If you are a beneficial owner of shares held in street name, you may change your vote by (1) submitting new voting instructions by any of the applicable voting methods allowed through your broker, trustee or other nominee, or (2) virtually attending the Annual Meeting and voting if you have obtained a proxy voting form from the broker, trustee or other nominee that holds your shares giving you the right to vote the shares.

Q: Who will bear the cost of soliciting votes for the Annual Meeting?

A: We will bear all expenses of soliciting proxies for the Annual Meeting. We may reimburse brokerage firms, custodians, nominees, fiduciaries and other persons representing beneficial owners of common stock for their reasonable expenses in forwarding solicitation materials to such beneficial owners. Directors, officers and employees of Infinera may also solicit proxies in person or by other means of communication. Such directors, officers and employees will not be additionally compensated, but may be reimbursed for reasonable out-of-pocket expenses in connection with such solicitation. We have engaged the services of Morrow Sodali LLC, 470 West Avenue, Stamford, Connecticut 06902, as our proxy solicitor to aid in the solicitation of proxies from certain brokers, banks, trustees, nominees and other institutional owners. Morrow's fees for this service are estimated to be $12,000 plus expenses.

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

A: We intend to announce preliminary voting results at the Annual Meeting and will publish final results on a Current Report on Form 8-K filed with the SEC.

Q: Are votes confidential? Who counts the votes?

A: Proxy instructions, ballots, and voting tabulations that identify individual shareholders are handled in a manner that protects your voting privacy. We will not disclose the proxy instructions or ballots of individual shareholders, except:

- as necessary to meet applicable legal requirements and to assert or defend claims for or against Infinera;
- to facilitate a successful proxy solicitation;
- if a shareholder makes a written comment on the proxy card or otherwise communicates his or her vote to management; or
- to allow the independent inspector of election to certify the results of the vote.

A representative from Broadridge will serve as the inspector of election.

Additional Information

Q: What should I do if I receive more than one set of proxy materials?

A: If you receive more than one set of proxy materials, your shares are likely registered in more than one name or with more than one broker, bank, trustee or nominee. Please follow the voting instructions on each proxy card or set of voting instructions that you receive to ensure that all of your shares are voted.

Q: How can I access Infinera's proxy materials and Annual Report on Form 10-K?

A: Our proxy materials will be sent to you directly, and all shareholders of record and beneficial owners will have the ability to vote free of charge online with their control number referred to on their proxy card or voting instructions at *www.proxyvote.com*. Our Annual Report on Form 10-K for the fiscal year ended December 28, 2019 is also being mailed to you directly. The 2019 Annual Report is not incorporated into this Proxy Statement and is not considered proxy soliciting material.

Q: What information from this proxy statement is incorporated by reference into certain Company SEC filings?

A: We have made previous filings under the Securities Act of 1933, as amended, and the Exchange Act that incorporate future filings, including this proxy statement, in whole or in part. However, the Compensation Committee Report and the Report of the Audit Committee shall not be incorporated by reference into any such filings.

Q: How can I view or request copies of Infinera's corporate documents and SEC filings?

A: Our website contains our Bylaws, Corporate Governance Guidelines, Board committee charters, Code of Business Conduct and Ethics, and SEC filings. To view these documents, please go to *http://investors.infinera.com/home/default.aspx* and then click on "Committee Charters & Governance Documents" under the "Corporate Governance" heading. To view our SEC filings and Forms 3, 4 and 5 filed by our directors and executive officers, please go *http://investors.infinera.com/home/default.aspx* and then click on "SEC Filings" under the "Financials" heading.

We will promptly deliver free of charge, upon request, a copy of our Corporate Governance Guidelines, Board committee charters or Code of Business Conduct and Ethics to any shareholder requesting a copy. Requests should be directed to Infinera Corporation, c/o Corporate Secretary, 140 Caspian Court, Sunnyvale, California 94089.

We will promptly deliver free of charge, upon request, a copy of the 2019 Annual Report and this Proxy Statement to any shareholder requesting a copy. Requests should be directed to Infinera Corporation, c/o Corporate Secretary, 140 Caspian Court, Sunnyvale, California 94089.

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APPENDIX A—UNAUDITED RECONCILIATIONS FROM GAAP TO NON-GAAP

Infinera Corporation
Unaudited Reconciliations from GAAP to Non-GAAP
(In thousands)

	Years Ended		
	December 28, 2019	December 29, 2018	December 30, 2017
Reconciliation of Revenue:			
U.S. GAAP as reported	$1,298,865	$ 943,379	$ 740,739
Acquisition-related deferred revenue adjustment	9,631	4,582	—
Other customer related chargers	8,100	—	—
Non-GAAP as adjusted	$1,316,596	$ 947,961	$ 740,739
Reconciliation of Gross Profit:			
U.S. GAAP as reported	$ 325,923	$ 321,156	$ 244,000
Acquisition-related deferred revenue adjustment	9,631	4,582	—
Other customer related charges	8,100	—	—
Stock-based compensation	6,449	6,621	7,811
Amortization of acquired intangible assets	32,583	23,476	20,474
Acquisition and integration costs	28,449	—	46
Acquisition-related inventory adjustments	1,778	5,337	—
Restructuring and related	29,935	2,630	19,141
Non-GAAP as adjusted	$ 442,848	$ 363,802	$ 291,472
Reconciliation of Gross Margin:			
U.S. GAAP as reported	25.1%	34.0%	32.9%
Acquisition-related deferred revenue adjustment	0.7%	0.5%	—
Other customer related charges	0.6%	—	—
Stock-based compensation	0.5%	0.7%	1.0%
Amortization of acquired intangible assets	2.4%	2.4%	2.8%
Acquisition and integration costs	2.0%	—	—
Acquisition-related inventory adjustments	0.1%	0.5%	—
Restructuring and other related costs	2.2%	0.3%	2.6%
Non-GAAP as adjusted	33.6%	38.4%	39.3%
Reconciliation of Net Loss from Operations:			
U.S. GAAP as reported	$ (350,230)	$(185,679)	$(183,087)
Acquisition-related deferred revenue adjustment	9,631	4,582	—
Other customer related charges	8,100	—	—
Stock-based compensation	42,779	43,409	45,720
Amortization of acquired intangible assets	59,863	52,772	26,634
Acquisition and integration costs	70,720	15,530	368
Acquisition-related inventory adjustments	1,778	5,337	—
Restructuring and other related costs	70,786	15,142	35,247
Litigation charges	4,100	—	—
Intangible asset impairment	—	—	252
Non-GAAP as adjusted	$ (82,473)	$ (48,907)	$ (74,866)
Reconciliation of Operating Margin:			
U.S. GAAP as reported	-27.0%	-19.7%	-24.7%
Acquisition-related deferred revenue adjustment	0.8%	0.5%	—
Other customer related charges	0.6%	—	—
Stock-based compensation	3.3%	4.6%	6.2%
Amortization of acquired intangible assets	4.6%	5.6%	3.6%
Acquisition and integration costs	5.5%	1.6%	—
Acquisition-related inventory adjustments	0.1%	0.6%	—
Restructuring and other related costs	5.5%	1.6%	4.8%
Litigation charges	0.3%	—	—
Intangible asset impairment	—	—	—
Non-GAAP as adjusted	-6.3%	-5.2%	-10.1%

	Three Months Ended			
	December 28, 2019	September 28, 2019	June 29, 2019	March 30, 2019
Reconciliation of Revenue:				
U.S. GAAP as reported	$384,567	$325,341	$ 296,250	$ 292,707
Acquisition-related deferred revenue adjustment	1,891	2,305	2,530	2,905
Other customer related chargers	—	—	8,100	—
Non-GAAP as adjusted	$386,458	$327,646	$ 306,880	$ 295,612
Reconciliation of Gross Profit:				
U.S. GAAP as reported	$111,406	$ 86,829	$ 61,256	$ 66,432
Acquisition-related deferred revenue adjustment	1,891	2,305	2,530	2,905
Other customer related charges	—	—	8,100	—
Stock-based compensation	1,752	1,778	1,591	1,328
Amortization of acquired intangible assets	8,437	7,796	8,098	8,252
Acquisition and integration costs	7,238	8,447	10,700	2,064
Acquisition-related inventory adjustments	—	—	—	1,778
Restructuring and related	5,407	1,198	1,864	21,466
Non-GAAP as adjusted	$136,131	$108,353	$ 94,139	$ 104,225
Reconciliation of Gross Margin:				
U.S. GAAP as reported	29.0%	26.7%	20.7%	22.7%
Acquisition-related deferred revenue adjustment	0.5%	0.7%	0.8%	1.0%
Other customer related charges	—	—	2.5%	—
Stock-based compensation	0.4%	0.5%	0.4%	0.4%
Amortization of acquired intangible assets	2.1%	2.3%	2.5%	2.8%
Acquisition and integration costs	1.8%	2.5%	3.2%	0.7%
Acquisition-related inventory adjustments	—	—	—	0.6%
Restructuring and other related costs	1.4%	0.4%	0.6%	7.1%
Non-GAAP as adjusted	35.2%	33.1%	30.7%	35.3%
Reconciliation of Net Income/(Loss) from Operations:				
U.S. GAAP as reported	$ (60,871)	$ (69,287)	$(108,384)	$(111,688)
Acquisition-related deferred revenue adjustment	1,891	2,305	2,530	2,905
Other customer related charges	—	—	8,100	—
Stock-based compensation	11,073	9,946	13,047	8,713
Amortization of acquired intangible assets	15,054	14,657	14,843	15,309
Acquisition and integration costs	18,249	20,409	22,864	9,198
Acquisition-related inventory adjustments	—	—	—	1,778
Restructuring and other related costs	23,431	3,366	5,335	38,654
Litigation charges	—	50	4,050	—
Intangible asset impairment	—	—	—	—
Non-GAAP as adjusted	$ 8,827	$ (18,554)	$ (37,615)	$ (35,131)
Reconciliation of Operating Margin:				
U.S. GAAP as reported	-15.8%	-21.3%	-36.6%	-38.2%
Acquisition-related deferred revenue adjustment	0.5%	0.7%	0.9%	1.0%
Other customer related charges	—	—	2.8%	—
Stock-based compensation	2.9%	3.1%	4.5%	3.0%
Amortization of acquired intangible assets	3.9%	4.5%	5.1%	5.3%
Acquisition and integration costs	4.8%	6.3%	7.8%	3.1%
Acquisition-related inventory adjustments	—	—	—	0.6%
Restructuring and other related costs	6.0%	1.0%	1.8%	13.3%
Litigation charges	—	—	1.4%	—
Intangible asset impairment	—	—	—	—
Non-GAAP as adjusted	2.3%	-5.7%	-12.3%	-11.9%

The non-GAAP measures of revenue, gross profit, gross margin, operating income (loss) and operating margin exclude acquisition-related deferred revenue and inventory adjustments, other customer related charges, non-cash stock-based compensation expenses, amortization of acquired intangible assets, acquisition and integration costs, restructuring and other related costs, litigation charges, intangible asset impairment, and certain purchase accounting adjustments related to Infinera's acquisitions. We believe these adjustments are appropriate to enhance an overall understanding of our underlying financial performance and also our prospects for the future and are considered by management for the purpose of making operational decisions. In addition, these results are the primary indicators management uses as a basis for its planning and forecasting of future periods. The presentation of this additional information is not meant to be considered in isolation or as a substitute for revenue, gross margin, net loss from operations or operating margin prepared in accordance with GAAP. Non-GAAP financial measures are not based on a comprehensive set of accounting rules or principles and are subject to limitations.

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APPENDIX B—INFINERA CORPORATION 2016 EQUITY INCENTIVE PLAN

INFINERA CORPORATION

2016 EQUITY INCENTIVE PLAN

(as amended and restated on May 24, 2018, as amended May 23, 2019, and , 2020)

1. Purposes of the Plan. The purposes of this Plan are:

- to attract and retain the best available personnel for positions of substantial responsibility,
- to provide additional incentive to Employees, Directors and Consultants, and
- to promote the success of the Company's business.

The Plan permits the grant of Incentive Stock Options, Nonstatutory Stock Options, Restricted Stock, Restricted Stock Units, Stock Appreciation Rights, Performance Units and Performance Shares.

2. Definitions. As used herein, the following definitions will apply:

(a) "Administrator" means the Board or any of its Committees as will be administering the Plan, in accordance with Section 4 of the Plan.

(b) "Applicable Laws" means the legal and regulatory requirements relating to the administration of equity-based awards, including but not limited to U.S. federal and state corporate laws, U.S. federal and state securities laws, the Code, any stock exchange or quotation system on which the Common Stock is listed or quoted and the applicable laws of any non-U.S. country or jurisdiction where Awards are, or will be, granted under the Plan.

(c) "Award" means, individually or collectively, a grant under the Plan of Options, Stock Appreciation Rights, Restricted Stock, Restricted Stock Units, Performance Units or Performance Shares.

(d) "Award Agreement" means the written or electronic agreement setting forth the terms and provisions applicable to each Award granted under the Plan. The Award Agreement is subject to the terms and conditions of the Plan.

(e) "Board" means the Board of Directors of the Company.

(f) "Change in Control" means the occurrence of any of the following events:

(i) A change in the ownership of the Company which occurs on the date that any one person, or more than one person acting as a group ("Person"), acquires ownership of the stock of the Company that, together with the stock held by such Person, constitutes more than fifty percent (50%) of the total voting power of the stock of the Company; provided, however, that for purposes of this subsection, (A) the acquisition of additional stock by any one Person, who is considered to own more than fifty percent (50%) of the total voting power of the stock of the Company will not be considered a Change in Control, and (B) if the stockholders of the Company immediately before the change in ownership continue to retain, immediately after the change in ownership, in substantially the same proportions as their ownership of shares of the Company's voting stock immediately prior to the change in ownership, the direct or indirect beneficial ownership of fifty percent (50%) or more of the total voting power of the shares of the Company or of the ultimate parent entity of the Company, such event will not be considered a Change in Control; or

(ii) A change in the effective control of the Company which occurs on the date that a majority of members of the Board is replaced during any twelve (12) month period by Directors whose appointment or election is not endorsed by a majority of the members of the Board prior to the date of the appointment or election. For purposes of this clause (ii), if any Person is considered to be in effective control of the Company, the acquisition of additional control of the Company by the same Person will not be considered a Change in Control; or

(iii) A change in the ownership of a substantial portion of the Company’s assets which occurs on the date that any Person acquires (or has acquired during the twelve (12) month period ending on the date of the most recent acquisition by such person or persons) assets from the Company that have a total gross fair market value equal to or more than fifty percent (50%) of the total gross fair market value of all of the assets of the Company immediately prior to such acquisition or acquisitions. For purposes of this subsection (iii), gross fair market value means the value of the assets of the Company, or the value of the assets being disposed of, determined without regard to any liabilities associated with such assets.

For purposes of this definition, persons will be considered to be acting as a group if they are owners of a corporation that enters into a merger, consolidation, purchase or acquisition of stock, or similar business transaction with the Company.

(iv) Notwithstanding the foregoing, a transaction will not be deemed a Change in Control unless the transaction qualifies as a change in control event within the meaning of Section 409A. Further and for the avoidance of doubt, a transaction will not constitute a Change in Control if: (x) its sole purpose is to change the jurisdiction of the Company’s incorporation, or (y) its sole purpose is to create a holding company that will be owned in substantially the same proportions by the persons who held the Company’s securities immediately before such transaction.

(g) “Code” means the Internal Revenue Code of 1986, as amended. Reference to a specific section of the Code or regulation thereunder shall include such section or regulation, any valid regulation promulgated under such section, and any comparable provision of any future legislation or regulation amending, supplementing or superseding such section or regulation.

(h) “Committee” means a committee of Directors or of other individuals satisfying Applicable Laws appointed by the Board, or a duly authorized committee of the Board, in accordance with Section 4 hereof.

(i) “Common Stock” means the common stock of the Company.

(j) “Company” means Infinera Corporation, a Delaware corporation, or any successor thereto.

(k) “Consultant” means any natural person, including an advisor, engaged by the Company or a Parent or Subsidiary to render bona fide services to such entity, provided the services (i) are not in connection with the offer or sale of securities in a capital-raising transaction, and (ii) do not directly promote or maintain a market for the Company’s securities, in each case, within the meaning of Form S-8 promulgated under the Securities Act, and provided, further, that a Consultant will include only those persons to whom the issuance of Shares may be registered under Form S-8 promulgated under the Securities Act.

(l) “Director” means a member of the Board.

(m) “Disability” means total and permanent disability as defined in Section 22(e)(3) of the Code, provided that in the case of Awards other than Incentive Stock Options, the Administrator in its discretion may determine whether a permanent and total disability exists in accordance with uniform and non-discriminatory standards adopted by the Administrator from time to time.

(n) “Employee” means any person, including Officers and Directors, employed by the Company or any Parent or Subsidiary of the Company. Neither service as a Director nor payment of a director’s fee by the Company will be sufficient to constitute “employment” by the Company.

(o) “Exchange Act” means the Securities Exchange Act of 1934, as amended.

(p) “Exchange Program” means a program under which (i) outstanding Awards are surrendered or cancelled in exchange for awards of the same type (which may have higher or lower exercise prices and different terms), awards of a different type, and/or cash, (ii) Participants would have the opportunity to transfer any outstanding Awards to a financial institution or other person or entity selected by the Administrator, and/or (iii) the exercise price of an outstanding Award is increased or reduced. For the avoidance of doubt, as set forth in Section 5(e), the Administrator may not implement an Exchange Program.

(q) "Fair Market Value" means, as of any date, the value of Common Stock determined as follows:

(i) If the Common Stock is listed on any established stock exchange or a national market system, including without limitation the New York Stock Exchange, the NASDAQ Global Select Market, the NASDAQ Global Market or the NASDAQ Capital Market of The NASDAQ Stock Market, its Fair Market Value will be the closing sales price for such stock (or the closing bid, if no sales were reported) as quoted on such exchange or system on the day of determination, as reported in *The Wall Street Journal* or such other source as the Administrator deems reliable;

(ii) If the Common Stock is regularly quoted by a recognized securities dealer but selling prices are not reported, the Fair Market Value of a Share will be the mean between the high bid and low asked prices for the Common Stock on the day of determination (or, if no bids and asks were reported on that date, as applicable, on the last trading date such bids and asks were reported), as reported in *The Wall Street Journal* or such other source as the Administrator deems reliable; or

(iii) In the absence of an established market for the Common Stock, the Fair Market Value will be determined in good faith by the Administrator.

Notwithstanding the foregoing under this Section 2(q), for federal, state and local income tax reporting purposes, fair market value will be determined by the Company (or its delegate) in accordance with uniform and nondiscriminatory standards adopted by it from time to time.

(r) "Fiscal Year" means the fiscal year of the Company.

(s) "Incentive Stock Option" means an Option that by its terms qualifies and otherwise is intended to qualify as an incentive stock option within the meaning of Section 422 of the Code and the regulations promulgated thereunder.

(t) "Initial Value" means (i) with respect to any Option or Stock Appreciation Right, the value of such Option or Stock Appreciation Right calculated in accordance with the Black-Scholes option valuation methodology on the grant date, and (ii) with respect to any Award other than an Option or Stock Appreciation Right, the product of (A) the Fair Market Value of one Share on the grant date of the Award and (B) the aggregate number of Shares subject to the Award, as applicable.

(u) "Inside Director" means a Director who is an Employee.

(v) "Nonstatutory Stock Option" means an Option that by its terms does not qualify or is not intended to qualify as an Incentive Stock Option.

(w) "Officer" means a person who is an officer of the Company within the meaning of Section 16 of the Exchange Act and the rules and regulations promulgated thereunder.

(x) "Option" means a stock option granted pursuant to the Plan.

(y) "Outside Director" means a Director who is not an Employee.

(z) "Parent" means a "parent corporation," whether now or hereafter existing, as defined in Section 424(e) of the Code.

(aa) "Participant" means the holder of an outstanding Award.

(bb) "Performance Goals" means performance goals relating to one or more business criteria, which may provide for a targeted level or levels of achievement including without limitation: (i) revenue; (ii) gross margin; (iii) operating margin; (iv) operating income; (v) pre-tax profit; (vi) earnings before stock-based compensation expense, interest, taxes and depreciation and amortization; (vii) earnings before interest, taxes and depreciation and amortization; (viii) earnings before interest and taxes; (ix) net income; (x) expenses; (xi) new product development; (xii) stock price; (xiii) earnings per share; (xiv) return on stockholder equity; (xv) return on capital; (xvi) return on net assets; (xvii) economic value added; (xviii) market share; (xix) customer service; (xx) customer satisfaction; (xxi) sales; (xxii) total stockholder return; (xxiii) free cash flow; (xxiv) net operating income; (xxv) operating cash flow; (xxvi) return on investment; (xxvii) employee satisfaction; (xxviii) employee retention; (xxix) balance of cash, cash equivalents and marketable securities; (xxx) product development; (xxxi) research and development expenses; (xxxii) completion of an identified special project; (xxxiii) completion of a joint venture or other corporate transaction; (xxxiv) inventory balance; or (xxxv) inventory turnover ratio. Any criteria used may be measured, as applicable, (A) in absolute terms, (B) in combination with another Performance Goal or Goals (for example, but not by way of limitation, as a ratio or matrix), (C) in relative terms (including, but not limited to, results for other periods, passage of time and/or against another company or companies or an index or indices), (D) on a per-share or per-capita basis, (E) against the performance of the Company as a whole or a segment of the Company (including, but not limited to, any combination of the Company and any subsidiary, division, business unit, joint venture and/or other segment), and/or (F) on a pre-tax or after-tax basis. The Performance Goals may differ from Participant to Participant and from Award to Award. The Administrator will determine whether any significant element(s) will be included in or excluded from the calculation of any Performance Goal with respect to any Participant. In all other respects, Performance Goals will be calculated in accordance with the Company's financial statements, generally accepted accounting principles, or under a methodology established by the Administrator prior to the issuance of an Award.

(cc) "Performance Period" means the time period of any Fiscal Year of the Company or such other period as determined by the Administrator in its sole discretion.

(dd) "Performance Share" means an Award denominated in Shares which may be earned in whole or in part upon attainment of Performance Goals or other vesting criteria as the Administrator may determine pursuant to Section 11.

(ee) "Performance Unit" means an Award which may be earned in whole or in part upon attainment of Performance Goals or other vesting criteria as the Administrator may determine and which may be settled for cash, Shares or other securities or a combination of the foregoing pursuant to Section 11.

(ff) "Period of Restriction" means the period during which the transfer of Shares of Restricted Stock are subject to restrictions and therefore, the Shares are subject to a substantial risk of forfeiture. Such restrictions may be based on the passage of time, continued service, the achievement of target levels of performance, the achievement of Performance Goals, or the occurrence of other events as determined by the Administrator.

(gg) "Plan" means this 2016 Equity Incentive Plan, as may be amended from time to time.

(hh) "Restricted Stock" means Shares issued pursuant to a Restricted Stock award under Section 8 of the Plan, or issued pursuant to the early exercise of an Option.

(ii) "Restricted Stock Unit" means a bookkeeping entry representing an amount equal to the Fair Market Value of one Share, granted pursuant to Section 9. Each Restricted Stock Unit represents an unfunded and unsecured obligation of the Company.

(jj) "Rule 16b-3" means Rule 16b-3 of the Exchange Act or any successor to Rule 16b-3, as in effect when discretion is being exercised with respect to the Plan.

(kk) "Securities Act" means the Securities Act of 1933, as amended.

(ll) "Section 16(b)" means Section 16(b) of the Exchange Act.

(mm) "Section 409A" means Section 409A of the Code and the final regulations and any guidance promulgated thereunder, as may be amended from time to time.

(nn) "Service Provider" means an Employee, Director or Consultant.

(oo) "Share" means a share of the Common Stock, as adjusted in accordance with Section 14 of the Plan.

(pp) "Stock Appreciation Right" means an Award, granted alone or in connection with an Option, that pursuant to Section 10 is designated as a Stock Appreciation Right.

(qq) "Subsidiary" means a "subsidiary corporation," whether now or hereafter existing, as defined in Section 424(f) of the Code.

(rr) "Tax Obligations" means tax, social insurance and social security liability obligations and requirements in connection with the Awards, including, without limitation, (i) all federal, state, and local income, employment and any other taxes (including the Participant's Federal Insurance Contributions Act (FICA) obligation) that are required to be withheld by the Company (or Company's Parent or Subsidiary, as applicable), (ii) the Participant's and, to the extent required by the Company (or its Parent or Subsidiary, as applicable), the Company's (or its Parent's or Subsidiary's) fringe benefit tax liability, if any, associated with the grant, vesting, or exercise of an Award or sale of Shares issued under the Award, and (iii) any other taxes or social insurance or social security liabilities or premium the responsibility for which the Participant has, or has agreed to bear, with respect to such Award (or exercise thereof or issuance of Shares or other consideration thereunder).

3. Stock Subject to the Plan.

(a) Stock Subject to the Plan. Subject to the provisions of Section 14 of the Plan, the maximum aggregate number of Shares that may be issued under the Plan is (i) 30,800,000, plus (ii) any Shares subject to awards granted under the Company's 2007 Equity Incentive Plan (the "Existing Plan") that, after the effective date of the Plan, expire, are forfeited or otherwise terminate without having been exercised in full to the extent such awards were exercisable, and Shares issued pursuant to awards granted under the Existing Plan that, after the effective date of the Plan, are forfeited to or repurchased by the Company due to failure to vest, with the maximum number of Shares to be added to the Plan pursuant to clause (ii) equal to 7,700,000 Shares. The Shares may be authorized, but unissued, or reacquired Common Stock.

(b) Lapsed Awards. Shares that actually have been issued under the Plan under any Award will not be returned to the Plan and will not become available for future distribution under the Plan (unless repurchased as specified in this subsection (b) below). If an Option or Stock Appreciation Right Award expires or becomes unexercisable without having been exercised in full, the unexercised Shares which were subject thereto will become available for future grant or sale under the Plan (unless the Plan has terminated). If an Award of Restricted Stock, Restricted Stock Units, Performance Units or Performance Shares (eh, a "Full Value Award") is forfeited or repurchased by the Company due to failure to vest, then the forfeited or repurchased Shares subject thereto will become available for future grant or sale under the Plan (unless the Plan has terminated). With respect to Stock Appreciation Rights settled in Shares, the gross number of Shares covered by the portion of the Award so exercised will cease to be available under the Plan. Shares used to pay the exercise or purchase price of an Award will cease to be available for future grant or sale under the Plan. Shares used to satisfy the Tax Obligations related to an Option or Stock Appreciation Right will not become available for future grant or sale under the Plan. Shares used to satisfy the Tax Obligations related to a Full Value Award will be available for future grant or sale under the Plan. To the extent an Award under the Plan is paid out in cash rather than Shares, such cash payment will not result in reducing the number of Shares available for issuance under the Plan. For purposes of clarification, no Shares purchased by the Company with proceeds received from the exercise of an Option will become available for issuance under this Plan or the Existing Plan. Notwithstanding the foregoing and, subject to adjustment as provided in Section 14, the maximum number of Shares that may be issued upon the exercise of Incentive Stock Options will equal the aggregate Share number stated in Section 3(a), plus, to the extent allowable under Section 422 of the Code and the Treasury Regulations promulgated thereunder, any Shares that become available for issuance under the Plan pursuant to Section 3(b).

(c) Share Reserve. The Company, during the term of this Plan, will at all times reserve and keep available such number of Shares as will be sufficient to satisfy the requirements of the Plan.

4. Administration of the Plan.

(a) Procedure.

(i) Multiple Administrative Bodies. Different Committees with respect to different groups of Service Providers may administer the Plan.

(ii) Rule 16b-3. To the extent desirable to qualify transactions hereunder as exempt under Rule 16b-3, the transactions contemplated hereunder will be structured to satisfy the requirements for exemption under Rule 16b-3.

(iii) Other Administration. Other than as provided above, the Plan will be administered by (A) the Board or (B) a Committee, which committee will be constituted to satisfy Applicable Laws.

(b) Powers of the Administrator. Subject to the provisions of the Plan, and in the case of a Committee, subject to the specific duties delegated by the Board to such Committee, the Administrator will have the authority, in its discretion:

(i) to determine the Fair Market Value;

(ii) to select the Service Providers to whom Awards may be granted hereunder;

(iii) to determine the number of Shares to be covered by each Award granted hereunder;

(iv) to approve forms of Award Agreements for use under the Plan;

(v) to determine the terms and conditions, not inconsistent with the terms of the Plan, of any Award granted hereunder. Such terms and conditions include, but are not limited to, the exercise price, the time or times when Awards may be exercised (which may be based on performance criteria), any vesting acceleration or waiver of forfeiture restrictions, and any restriction or limitation regarding any Award or the Shares relating thereto, based in each case on such factors as the Administrator will determine;

(vi) to construe and interpret the terms of the Plan and Awards granted pursuant to the Plan;

(vii) to prescribe, amend and rescind rules and regulations relating to the Plan, including rules and regulations relating to sub-plans established for the purpose of satisfying applicable foreign laws or for qualifying for favorable tax treatment under applicable foreign laws;

(viii) to modify or amend each Award (subject to Section 5 and Section 19 of the Plan), including but not limited to the discretionary authority to extend the post-termination exercisability period of Awards;

(ix) to allow Participants to satisfy Tax Obligations in such manner as prescribed in Section 15 of the Plan;

(x) to authorize any person to execute on behalf of the Company any instrument required to effect the grant of an Award previously granted by the Administrator;

(xi) to allow a Participant to defer the receipt of the payment of cash or the delivery of Shares that would otherwise be due to such Participant under an Award; and

(xii) to make all other determinations deemed necessary or advisable for administering the Plan.

(c) Effect of Administrator’s Decision. The Administrator’s decisions, determinations and interpretations will be final and binding on all Participants and any other holders of Awards and will be given the maximum deference permitted by law.

5. Limits.

(a) Share Limits. Subject to Section 14, the limits specified below shall be applicable to Awards issued under the Plan:

(i) Limits on Options. No Participant shall receive Options during any Fiscal Year covering in excess of 1,500,000 Shares; provided, however, that in connection with a Participant's initial service as an Employee, the Participant may be granted Options covering up to an additional 1,500,000 Shares.

(ii) Limits on Stock Appreciation Rights. No Participant shall receive Stock Appreciation Rights during any Fiscal Year covering in excess of 1,500,000 Shares; provided, however, that in connection with a Participant's initial service as an Employee, the Participant may be granted Stock Appreciation Rights covering up to an additional 1,500,000 Shares.

(iii) Limits on Restricted Stock. No Participant shall receive Awards of Restricted Stock during any Fiscal Year covering in excess of 1,500,000 Shares; provided, however, that in connection with a Participant's initial service as an Employee, the Participant may be granted an aggregate of up to an additional 1,500,000 Shares of Restricted Stock.

(iv) Limits on Restricted Stock Units. No Participant shall receive Restricted Stock Units during any Fiscal Year covering in excess of 1,500,000 Shares; provided, however, that in connection with a Participant's initial service as an Employee, the Participant may be granted Restricted Stock Units covering an aggregate of up to an additional 1,500,000 Shares.

(v) Limits on Performance Shares. No Participant shall receive Performance Shares during any Fiscal Year covering in excess of 1,500,000 Shares; provided, however, that in connection with a Participant's initial service as an Employee, the Participant may be granted Performance Shares covering up to an additional 1,500,000 Shares.

(vi) Limits on Performance Units. No Participant shall receive Performance Units during any Fiscal Year with an aggregate Initial Value in excess of $7,500,000.

(b) Outside Director Share Limits. No Outside Director may be granted, in any Fiscal Year, Awards (the value of which will be based on their grant date fair value determined in accordance with U.S. generally accepted accounting principles) and any other compensation (including without limitation any cash retainers or fees) that, in the aggregate, exceed $750,000, provided that such amount is increased to $1,000,000 in the Fiscal Year of his or her initial service as an Outside Director. Any Awards or other compensation provided to an individual for his or her services as an Employee, or for his or her services as a Consultant other than an Outside Director, will be excluded for purposes of this Section 5(b).

(c) Vesting Limits.

(i) One-Year Vesting Requirement. Awards granted under the Plan shall vest no earlier than the one (1) year anniversary of the Award's date of grant, provided that the Administrator, in its sole discretion, may provide an Award may accelerate vesting by reason of the Participant's death, Disability or retirement, or a termination of the Participant's service that occurs in connection with a Change in Control, and provided further, that, notwithstanding the foregoing in this sentence, Awards that result in the issuance of an aggregate of up to 5% of the Shares reserved for issuance under Section 3(a) may be granted to Service Providers, or outstanding Awards modified, without regard to such minimum vesting, exercisability and distribution provisions.

(ii) Limited Vesting Acceleration upon a Change in Control. Except (x) as permitted under Section 5(c)(i) and (y) for any Awards made to Outside Directors, the Administrator shall not be permitted to accelerate the vesting of an Award upon a Change in Control other than in the event an Award is not assumed or substituted for as provided for in Section 14(c). For purposes of clarification, the Administrator will be permitted to provide for the acceleration of an Award in connection with a termination of service upon or in connection with a Change in Control.

(d) Incentive Stock Options.

(i) $100,000 Limitation. Notwithstanding any designation of an Option as an Incentive Stock Option, to the extent that the aggregate Fair Market Value of the Shares with respect to which Incentive Stock Options are exercisable for the first time by the Participant during any calendar year (under all plans of the Company and any Parent or Subsidiary) exceeds one hundred thousand dollars ($100,000), the portion of the Options falling within such limit will be Incentive Stock Options and the excess Options will be treated as Nonstatutory Stock Options. For these purposes, Incentive Stock Options will be taken into account in the order in which they were granted. The Fair Market Value of the Shares will be determined as of the time the Option with respect to such Shares is granted.

(ii) Maximum Option Term. In the case of an Incentive Stock Option, the term of an Option will be ten (10) years from the date of grant or such shorter term as may be provided by the Administrator and set forth in the Award Agreement. Moreover, in the case of an Incentive Stock Option granted to a Participant who, at the time the Incentive Stock Option is granted, owns stock representing more than ten percent (10%) of the total combined voting power of all classes of stock of the Company or any Parent or Subsidiary, the term of the Incentive Stock Option will be five (5) years from the date of grant or such shorter term as may be provided in the Award Agreement.

(iii) Option Exercise Price. In the case of an Incentive Stock Option granted to an Employee who, at the time the Incentive Stock Option is granted, owns stock representing more than ten percent (10%) of the voting power of all classes of stock of the Company or any Parent or Subsidiary, the per Share exercise price will be no less than one hundred ten percent (110%) of the Fair Market Value per Share on the date of grant. An Incentive Stock Option granted to any Employee other than an Employee described in immediately preceding sentence, the per Share exercise price will be no less than one hundred percent (100%) of the Fair Market Value per Share on the date of grant. Notwithstanding the foregoing provisions of this subsection (iii), Incentive Stock Options may be granted with a per Share exercise price of less than one hundred percent (100%) of the Fair Market Value per Share on the date of grant pursuant to a transaction described in, and in a manner consistent with, Section 424(a) of the Code.

(e) No Exchange Program or Repricing. The Administrator may not implement an Exchange Program.

(f) Dividends. With respect to any Options and Stock Appreciation Rights, until the Shares are issued (as evidenced by the appropriate entry on the books of the Company or of a duly authorized transfer agent of the Company) thereunder, no right to receive dividends or any other rights as a stockholder will exist with respect to the Shares subject to such Award, including without limitation notwithstanding any exercise of such Award. Further, no adjustment will be made for a dividend or other right for which the record date is prior to the date the Shares are issued under an Option or Stock Appreciation Right, except as provided in Section 14 of the Plan. During any applicable Period of Restriction, Service Providers holding Shares of Restricted Stock will be entitled to receive all dividends and other distributions paid with respect to such Shares, unless the Administrator provides otherwise; provided, however, that any such dividends or distributions payable with respect to such Shares will be subject to the same restrictions on transferability and/or forfeitability as the Shares of Restricted Stock with respect to which they were paid. With respect to Awards of Restricted Stock Units, Performance Units and Performance Shares, until the Shares are issued (as evidenced by the appropriate entry on the books of the Company or a duly authorized transfer agent of the Company), no right to receive dividends or any other rights as a stockholder will exist with respect to the Shares subject to such Award, unless determined otherwise by the Administrator; provided, however, that any such dividends or distributions that the Administrator determines will be payable with respect to such Shares will be subject to the same vesting criteria and forfeitability provisions as the Shares subject to such Award with respect to which they were paid. For the avoidance of doubt, the number of Shares available for issuance under the Plan will not be reduced to reflect any dividends or other distributions that are reinvested into additional Shares or credited as additional Shares subject to or paid with respect to an Award.

6. Eligibility. Nonstatutory Stock Options, Stock Appreciation Rights, Restricted Stock, Restricted Stock Units, Performance Shares and Performance Units may be granted to Service Providers. Incentive Stock Options may be granted only to Employees.

7. Stock Options.

(a) Grant of Options. Subject to the terms and conditions of the Plan, an Option may be granted to Service Providers at any time and from time to time as will be determined by the Administrator, in its sole discretion. Each Option will be designated in the Award Agreement as either an Incentive Stock Option or a Nonstatutory Stock Option.

(b) Number of Shares. The Administrator will have complete discretion to determine the number of Shares subject to Options granted to any Participant, subject to Section 5.

(c) Term of Option. The term of each Option will be determined by the Administrator and stated in the Award Agreement, but in no event shall the term of an Option be more than ten (10) years from the date of grant.

(d) Option Exercise Price and Consideration.

(i) Exercise Price. The per share exercise price for the Shares to be issued pursuant to exercise of an Option will be determined by the Administrator, but shall in no event be less than one hundred percent (100%) of the Fair Market Value per Share on the date of grant, subject to Section 5. Notwithstanding the foregoing, Options may be granted with a per Share exercise price of less than one hundred percent (100%) of the Fair Market Value per Share on the date of grant pursuant to a transaction described in, and in a manner consistent with, Section 424(a) of the Code.

(ii) Waiting Period and Exercise Dates. At the time an Option is granted, the Administrator will fix the period within which the Option may be exercised and will determine any conditions that must be satisfied before the Option may be exercised.

(iii) Form of Consideration. The Administrator will determine the acceptable form of consideration for exercising an Option, including the method of payment. In the case of an Incentive Stock Option, the Administrator will determine the acceptable form of consideration at the time of grant. Such consideration may consist entirely of: (1) cash; (2) check; (3) promissory note, to the extent permitted by Applicable Laws, (4) other Shares, provided that such Shares have a Fair Market Value on the date of surrender equal to the aggregate exercise price of the Shares as to which such Option will be exercised and provided that accepting such Shares will not result in any adverse accounting consequences to the Company, as the Administrator determines in its sole discretion; (5) consideration received by the Company under a broker-assisted (or other) cashless exercise program (whether through a broker or otherwise) implemented by the Company in connection with the Plan; (6) by net exercise; (7) such other consideration and method of payment for the issuance of Shares to the extent permitted by Applicable Laws; or (8) any combination of the foregoing methods of payment.

(e) Exercise of Option.

(i) Procedure for Exercise; Rights as a Stockholder. Any Option granted hereunder will be exercisable according to the terms of the Plan and at such times and under such conditions as determined by the Administrator and set forth in the Award Agreement. An Option may not be exercised for a fraction of a Share.

An Option will be deemed exercised when the Company receives: (i) a notice of exercise (in such form as the Administrator may specify from time to time) from the person entitled to exercise the Option, and (ii) full payment for the Shares with respect to which the Option is exercised (together with applicable withholding taxes). Full payment may consist of any consideration and method of payment authorized by the Administrator and permitted by the Award Agreement and the Plan. Shares issued upon exercise of an Option will be issued in the name of the Participant or, if requested by the Participant, in the name of the Participant and his or her spouse. The Company will issue (or cause to be issued) such Shares promptly after the Option is exercised.

Exercising an Option in any manner will decrease the number of Shares thereafter available, both for purposes of the Plan and for sale under the Option, by the number of Shares as to which the Option is exercised.

(ii) Termination of Relationship as a Service Provider. If a Participant ceases to be a Service Provider, other than as the result of the Participant’s death or Disability, the Participant may exercise his or her

Option within such period of time as is specified in the Award Agreement to the extent that the Option is vested on the date of termination of Participant's status as a Service Provider (but in no event later than the expiration of the term of such Option as set forth in the Award Agreement). In the absence of a specified time in the Award Agreement, the Option will remain exercisable for three (3) months following the termination of Participant's status as a Service Provider, but in no event later than the expiration of the term of such Option as set forth in the Award Agreement. Unless otherwise provided by the Administrator, if on the date of termination of Participant's status as a Service Provider, the Participant is not vested as to his or her entire Option, the Shares covered by the unvested portion of the Option will revert to the Plan. If after termination the Participant does not exercise his or her Option within the time specified by the Administrator, the Option will terminate, and the Shares covered by such Option will revert to the Plan.

(iii) Disability of Participant. If a Participant ceases to be a Service Provider as a result of the Participant's Disability, the Participant may exercise his or her Option within such period of time as is specified in the Award Agreement to the extent the Option is vested on the date of death (but in no event may the Option be exercised later than the expiration of the term of such Option as set forth in the Award Agreement). In the absence of a specified time in the Award Agreement, the Option will remain exercisable for twelve (12) months following termination of Participant's status as a Service Provider, but in no event later than the expiration of the term of such Option as set forth in the Award Agreement. Unless otherwise provided by the Administrator, if on the date of termination of Participant's status as a Service Provider, the Participant is not vested as to his or her entire Option, the Shares covered by the unvested portion of the Option will revert to the Plan. If after termination the Participant does not exercise his or her Option within the time specified herein, the Option will terminate, and the Shares covered by such Option will revert to the Plan.

(iv) Death of Participant. If a Participant dies while a Service Provider, the Option may be exercised following the Participant's death within such period of time as is specified in the Award Agreement to the extent the Option is vested on the date of termination of Participant's status as a Service Provider (but in no event later than the expiration of the term of such Option as set forth in the Award Agreement). In the absence of a specified time in the Award Agreement, the Option will remain exercisable for twelve (12) months following termination of Participant's status as a Service Provider, but in no event may the Option be exercised later than the expiration of the term of such Option as set forth in the Award Agreement. Unless otherwise provided by the Administrator, if at the time of death Participant is not vested as to his or her entire Option, the Shares covered by the unvested portion of the Option will immediately revert to the Plan. If the Option is not so exercised within the time specified herein, the Option will terminate, and the Shares covered by such Option will revert to the Plan.

In the event that the Participant dies while a Service Provider, but before the expiration of the Participant's Option as set forth in subsections (iii) or (iv), as applicable, all or part of the Option (to the extent vested) may be exercised (prior to expiration) by the Participant's designated beneficiary, provided such beneficiary has been properly designated prior to Participant's death in a form acceptable to the Administrator and to the extent permitted by Applicable Law. In the absence of such designated beneficiary (or to the extent not permitted by Applicable Law), such Option may be exercised by the personal representative of the Participant's estate or by the person(s) to whom the Option is transferred pursuant to the Participant's will or in accordance with the laws of descent and distribution.

8. Restricted Stock.

(a) Grant of Restricted Stock. Subject to the terms and provisions of the Plan, the Administrator, at any time and from time to time, may grant Shares of Restricted Stock to Service Providers in such amounts as the Administrator, in its sole discretion, will determine.

(b) Restricted Stock Agreement. Each Award of Restricted Stock will be evidenced by an Award Agreement that will specify the Period of Restriction (if any), the number of Shares granted, and such other terms and conditions as the Administrator, in its sole discretion, will determine. Unless the Administrator determines otherwise, the Company as escrow agent will hold Shares of Restricted Stock until the restrictions on such Shares have lapsed.

(c) Transferability. Except as provided in this Section 8 or the Award Agreement, Shares of Restricted Stock may not be sold, transferred, pledged, assigned, or otherwise alienated or hypothecated until the end of the applicable Period of Restriction.

(d) Other Restrictions. The Administrator, in its sole discretion, may impose such other restrictions on Shares of Restricted Stock as it may deem advisable or appropriate.

(e) Removal of Restrictions. Except as otherwise provided in this Section 8, Shares of Restricted Stock covered by each Restricted Stock grant made under the Plan will be released from escrow as soon as practicable after the last day of the Period of Restriction or at such other time as the Administrator may determine. Subject to the vesting limitations under Section 5, the Administrator, in its discretion, may accelerate the time at which any restrictions will lapse or be removed.

(f) Voting Rights. During the Period of Restriction, Service Providers holding Shares of Restricted Stock granted hereunder may exercise full voting rights with respect to those Shares, unless the Administrator determines otherwise.

(g) Return of Restricted Stock to Company. On the date set forth in the Award Agreement, the Restricted Stock for which restrictions have not lapsed will revert to the Company and again will become available for grant under the Plan.

9. Restricted Stock Units.

(a) Grant. Restricted Stock Units may be granted at any time and from time to time as determined by the Administrator. Each Restricted Stock Unit grant will be evidenced by an Award Agreement that will specify such terms and conditions as the Administrator in its sole discretion determines, including all terms, conditions, and restrictions related to the grant, the number of Restricted Stock Units and the form of payout, which, subject to Section 9(d), may be left to the discretion of the Administrator.

(b) Vesting Criteria and Other Terms. The Administrator will set vesting criteria in its discretion, which, depending on the extent to which the criteria are met, will determine the number of Restricted Stock Units that will be paid out to the Participant. The Administrator may set vesting criteria based upon the achievement of Company-wide, divisional, business unit, or individual goals (including, but not limited to, continued employment or service), applicable federal or state securities laws or any other basis determined by the Administrator in its sole discretion.

(c) Earning Restricted Stock Units. Upon meeting the applicable vesting criteria, the Participant will be entitled to receive a payout as determined by the Administrator. Notwithstanding the foregoing, subject to the vesting limitations under Section 5, at any time after the grant of Restricted Stock Units, the Administrator, in its sole discretion, may reduce or waive any vesting criteria that must be met to receive a payout.

(d) Form and Timing of Payment. Payment of earned Restricted Stock Units will be made as soon as practicable after the date(s) determined by the Administrator and set forth in the Award Agreement. The Administrator, in its sole discretion, may pay earned Restricted Stock Units in cash, Shares, or a combination of both.

(e) Cancellation. On the date set forth in the Award Agreement, all unearned Restricted Stock Units will be forfeited to the Company.

10. Stock Appreciation Rights.

(a) Grant of Stock Appreciation Rights. Subject to the terms and conditions of the Plan, a Stock Appreciation Right may be granted to Service Providers at any time and from time to time as will be determined by the Administrator, in its sole discretion.

(b) Number of Shares. The Administrator will have complete discretion to determine the number of Stock Appreciation Rights granted to any Service Provider.

(c) Exercise Price and Other Terms. The per share exercise price for the Shares to be issued pursuant to exercise of a Stock Appreciation Right will be determined by the Administrator and will be no less than one hundred percent (100%) of the Fair Market Value per Share on the date of grant. Otherwise, the Administrator, subject to the provisions of the Plan, will have complete discretion to determine the terms and conditions of Stock Appreciation Rights granted under the Plan.

(d) Stock Appreciation Right Agreement. Each Stock Appreciation Right grant will be evidenced by an Award Agreement that will specify the exercise price, the term of the Stock Appreciation Right, the conditions of exercise, and such other terms and conditions as the Administrator, in its sole discretion, will determine.

(e) Expiration of Stock Appreciation Rights. A Stock Appreciation Right granted under the Plan will expire upon the date determined by the Administrator, in its sole discretion, and set forth in the Award Agreement. Notwithstanding the foregoing, the rules of Section 7(c) relating to the maximum term and Section 7(e) relating to exercise also will apply to Stock Appreciation Rights.

(f) Payment of Stock Appreciation Right Amount. Upon exercise of a Stock Appreciation Right, a Participant will be entitled to receive payment from the Company in an amount determined by multiplying:

(i) The difference between the Fair Market Value of a Share on the date of exercise over the exercise price; times

(ii) The number of Shares with respect to which the Stock Appreciation Right is exercised.

At the discretion of the Administrator, the payment upon Stock Appreciation Right exercise may be in cash, in Shares of equivalent value, or in some combination thereof.

11. Performance Units and Performance Shares.

(a) Grant of Performance Units/Shares. Performance Units and Performance Shares may be granted to Service Providers at any time and from time to time, as will be determined by the Administrator, in its sole discretion. The Administrator will have complete discretion in determining the number of Performance Units and Performance Shares granted to each Participant.

(b) Value of Performance Units/Shares. Each Performance Unit will have an initial value that is established by the Administrator on or before the date of grant. Each Performance Share will have an initial value equal to the Fair Market Value of a Share on the date of grant.

(c) Performance Objectives and Other Terms. The Administrator will set performance objectives or other vesting provisions (including, without limitation, continued status as a Service Provider) in its discretion which, depending on the extent to which they are met, will determine the number or value of Performance Units/Shares that will be paid out to the Participant. Each Award of Performance Units/Shares will be evidenced by an Award Agreement that will specify the Performance Period, and such other terms and conditions as the Administrator, in its sole discretion, will determine. The Administrator may set performance objectives based upon the achievement of Company-wide, divisional, business unit or individual goals (including, but not limited to, continued employment or service), applicable federal or state securities laws, or any other basis determined by the Administrator in its discretion.

(d) Earning of Performance Units/Shares. After the applicable Performance Period has ended, the holder of Performance Units/Shares will be entitled to receive a payout of the number of Performance Units/Shares earned by the Participant over the Performance Period, to be determined as a function of the extent to which the corresponding performance objectives or other vesting provisions have been achieved. After the grant of a Performance Unit/Share, subject to the vesting limitations under Section 5, the Administrator, in its sole discretion, may reduce or waive any performance objectives or other vesting provisions for such Performance Unit/Share.

(e) Form and Timing of Payment of Performance Units/Shares. Payment of earned Performance Units/Shares will be made as soon as practicable after the expiration of the applicable Performance Period. The Administrator, in its sole discretion, may pay earned Performance Units/Shares in the form of cash, in Shares (which have an aggregate Fair Market Value equal to the value of the earned Performance Units/Shares at the close of the applicable Performance Period) or in a combination thereof.

(f) Cancellation of Performance Units/Shares. On the date set forth in the Award Agreement, all unearned or unvested Performance Units/Shares will be forfeited to the Company, and again will be available for grant under the Plan.

12. Service Provider Status.

(a) Leaves of Absence/Transfer Between Locations. Unless the Administrator provides otherwise, vesting of Awards granted hereunder will be suspended during any unpaid leave of absence. A Service Provider will not cease to be an Employee or Director in the case of (i) any leave of absence approved by the Company or (ii) transfers between locations of the Company or between the Company, its Parent, or any Subsidiary. For purposes of Incentive Stock Options, no leave of absence may exceed three (3) months, unless reemployment upon expiration of such leave is guaranteed by statute or contract. If reemployment upon expiration of a leave of absence approved by the Company is not so guaranteed, then six (6) months following the first (1st) day of such leave any Incentive Stock Option held by the Participant will cease to be treated as an Incentive Stock Option and will be treated for tax purposes as a Nonstatutory Stock Option.

13. Transferability of Awards. Unless determined otherwise by the Administrator, an Award may not be sold, pledged, assigned, hypothecated, transferred, or disposed of in any manner other than by will or by the laws of descent or distribution and may be exercised, during the lifetime of the Participant, only by the Participant. If the Administrator makes an Award transferable, such Award will contain such additional terms and conditions as the Administrator deems appropriate.

14. Adjustments; Dissolution or Liquidation; Merger or Change in Control.

(a) Adjustments. In the event that any dividend or other distribution (whether in the form of cash, Shares, other securities, or other property), recapitalization, stock split, reverse stock split, reorganization, reincorporation, reclassification, merger, consolidation, split-up, spin-off, combination, repurchase, or exchange of Shares or other securities of the Company, or other change in the corporate structure of the Company affecting the Shares occurs, the Administrator, in order to prevent diminution or enlargement of the benefits or potential benefits intended to be made available under the Plan, will adjust the number and class of Shares that may be delivered under the Plan and/or the number, class, and price of Shares covered by each outstanding Award, and the numerical Share limits in Sections 3 and 5 of the Plan.

(b) Dissolution or Liquidation. In the event of the proposed dissolution or liquidation of the Company, the Administrator will notify each Participant as soon as practicable prior to the effective date of such proposed transaction. To the extent it has not been previously exercised, an Award will terminate immediately prior to the consummation of such proposed action.

(c) Change in Control. In the event of a merger of the Company with or into another corporation or other entity or a Change in Control, each outstanding Award will be treated as the Administrator determines, in accordance with the following (i) Awards will be assumed or an equivalent option or right substituted by the acquiring or succeeding corporation or a Parent or Subsidiary thereof, (ii) upon written notice to a Participant and subject to the next paragraph, that the Participant's Awards will terminate upon or immediately prior to the consummation of such merger or Change in Control; (iii) subject to the next paragraph, (A) the termination of an Award in exchange for an amount of cash and/or property, if any, equal to the amount that would have been attained upon the exercise of such Award or realization of the Participant's rights as of the date of the occurrence of the transaction (and, for the avoidance of doubt, if as of the date of the occurrence of the transaction the Administrator determines in good faith that no amount would have been attained upon the exercise of such Award or realization of the Participant's rights, then such Award may be terminated by the Company without payment), or (B) the replacement of such Award with other rights or property selected by the Administrator in its sole discretion; or (iv) any combination of the foregoing. The Administrator will not be required to treat all Awards, all Awards held by a Participant, or all Awards of the same type, similarly in the transaction.

In the event that the successor corporation does not assume or substitute for the Award (and for the avoidance of doubt, notwithstanding the vesting limitations under Section 5) (or portion of the Award), (A) the Participant will fully vest in and have the right to exercise such outstanding Option and Stock Appreciation Right, including Shares as to which such Award would not otherwise be vested or exercisable, (B) all restrictions on such Restricted Stock and Restricted Stock Units will lapse, and (C) with respect to such Award with performance-based vesting, all performance goals or other vesting criteria will be deemed achieved based on actual performance measured through the last date that the Award remains outstanding (or such earlier date, as determined by the Administrator, in its sole discretion), with any performance period shortened proportionately and applicable performance goals or other vesting criteria adjusted proportionately to reflect the shortened performance period (or to the extent applicable, the value of the consideration to be received by the Company's stockholders in connection with the merger or Change in Control), as determined by the Administrator, in its sole discretion. In addition, if an Option or Stock Appreciation Right is not assumed or substituted in the event of a merger or Change in Control, the Administrator will notify the Participant in writing or electronically that the Option or Stock Appreciation Right will be exercisable for a period of time determined by the Administrator in its sole discretion, and the Option or Stock Appreciation Right will terminate upon the expiration of such period.

For the purposes of this subsection (c), an Award will be considered assumed if, following the merger or Change in Control, the Award confers the right to purchase or receive, for each Share subject to the Award immediately prior to the merger or Change in Control, the consideration (whether stock, cash, or other securities or property) received in the merger or Change in Control by holders of Common Stock for each Share held on the effective date of the transaction (and if holders were offered a choice of consideration, the type of consideration chosen by the holders of a majority of the outstanding Shares); provided, however, that if such consideration received in the merger or Change in Control is not solely common stock of the successor corporation or its Parent, the Administrator may, with the consent of the successor corporation, provide for the consideration to be received upon the exercise of an Option or Stock Appreciation Right or upon the payout of a Restricted Stock Unit, Performance Unit or Performance Share, for each Share subject to such Award, to be solely common stock of the successor corporation or its Parent equal in fair market value to the per share consideration received by holders of Common Stock in the merger or Change in Control.

Notwithstanding anything in this Section 14(c) to the contrary, an Award that vests, is earned or paid-out upon the satisfaction of one or more performance goals will not be considered assumed if the Company or its successor modifies any of such performance goals without the Participant's consent; provided, however, a modification to such performance goals only to reflect the successor corporation's post-Change in Control corporate structure will not be deemed to invalidate an otherwise valid Award assumption.

Notwithstanding anything in this Section 14(c) to the contrary, if a payment under an Award Agreement is subject to Section 409A and if the change in control definition contained in the Award Agreement does not comply with the definition of "change in control" for purposes of a distribution under Section 409A, then any payment of an amount that otherwise is accelerated under this Section will be delayed until the earliest time that such payment would be permissible under Section 409A without triggering any penalties applicable under Section 409A.

15. Tax.

(a) Withholding Requirements. Prior to the delivery of any Shares or cash pursuant to an Award (or exercise thereof) or such earlier time as any Tax Obligations are due, the Company will have the power and the right to deduct or withhold, or require a Participant to remit to the Company, an amount sufficient to satisfy all Tax Obligations with respect to such Award (or exercise thereof).

(b) Withholding Arrangements. The Administrator, in its sole discretion and pursuant to such procedures as it may specify from time to time, may permit a Participant to satisfy such Tax Obligation, in whole or in part by (without limitation) (a) paying cash, (b) having the Company withhold otherwise deliverable cash or Shares having a Fair Market Value equal to the minimum statutory amount required to be withheld, (c) delivering to the Company already-owned Shares having a Fair Market Value equal to the minimum statutory amount required to be withheld, provided the delivery of such Shares will not result in adverse accounting consequences as the Administrator determines in its sole discretion, or (d) selling a sufficient number of Shares otherwise deliverable to the Participant through such means as the Administrator may determine in its sole discretion (whether through a broker or otherwise) equal to the amount required to be withheld. The Fair Market Value of the Shares to be withheld or delivered will be determined as of the date that such Shares are withheld or delivered, as applicable.

(c) Compliance with Section 409A. Awards will be designed and operated in such a manner that they are either exempt from the application of, or comply with, the requirements of Section 409A such that the grant, payment, settlement or deferral will not be subject to the additional tax or interest applicable under Section 409A, except as otherwise determined in the sole discretion of the Administrator. The Plan and each Award Agreement under the Plan is intended to meet the requirements of Section 409A and will be construed and interpreted in accordance with such intent, except as otherwise determined in the sole discretion of the Administrator. To the extent that an Award or payment, or the settlement or deferral thereof, is subject to Section 409A the Award will be granted, paid, settled or deferred in a manner that will meet the requirements of Section 409A, such that the grant, payment, settlement or deferral will not be subject to the additional tax or interest applicable under Section 409A. Notwithstanding the foregoing, in no event will the Company or any Parent, Subsidiary or other affiliate of the Company have any liability or obligation to reimburse, indemnify, or hold harmless any Participant for any taxes, interest, or penalties imposed, or other costs incurred, as a result of Section 409A.

16. No Effect on Employment or Service. Neither the Plan nor any Award will confer upon a Participant any right with respect to continuing the Participant's relationship as a Service Provider with the Company or any Parent or Subsidiary, nor will they interfere in any way with the Participant's right or the right of the Company or any Parent or Subsidiary, as applicable, to terminate such relationship at any time, with or without cause, to the extent permitted by Applicable Laws.

17. Date of Grant. The date of grant of an Award will be, for all purposes, the date on which the Administrator makes the determination granting such Award, or such other later date as is determined by the Administrator. Notice of the determination will be provided to each Participant within a reasonable time after the date of such grant.

18. Term of Plan. Subject to Section 23 of the Plan, the Plan will become effective upon approval of the Plan by the stockholders of the Company. It will continue in effect for a term of ten (10) years from the date of such stockholder approval, unless terminated earlier under Section 19 of the Plan.

19. Amendment and Termination of the Plan.

(a) Amendment and Termination. The Administrator may at any time amend, alter, suspend or terminate the Plan.

(b) Stockholder Approval. The Company will obtain stockholder approval of any Plan amendment to the extent necessary and desirable to comply with Applicable Laws.

(c) Effect of Amendment or Termination. No amendment, alteration, suspension or termination of the Plan will impair the rights of any Participant, unless mutually agreed otherwise between the Participant and the Administrator, which agreement must be in writing and signed by the Participant and the Company. Termination of the Plan will not affect the Administrator's ability to exercise the powers granted to it hereunder with respect to Awards granted under the Plan prior to the date of such termination.

20. Forfeiture Events. The Administrator may specify in an Award Agreement that the Participant's rights, payments, and benefits with respect to an Award will be subject to reduction, cancellation, forfeiture, or recoupment upon the occurrence of certain specified events, in addition to any otherwise applicable vesting or performance conditions of an Award. Notwithstanding any contrary provisions to the contrary under this Plan, an Award shall be subject to the Company's clawback policy as may be established and/or amended from time to time (the "Clawback Policy"). The Administrator may require a Participant to forfeit, return or reimburse the Company all or a portion of the Award and any amounts paid thereunder pursuant to the terms of the Clawback Policy or as necessary or appropriate to comply with Applicable Laws.

21. Conditions upon Issuance of Shares.

(a) Legal Compliance. Shares will not be issued pursuant to the exercise of an Award unless the exercise of such Award and the issuance and delivery of such Shares will comply with Applicable Laws and will be further subject to the approval of counsel for the Company with respect to such compliance.

(b) Investment Representations. As a condition to the exercise of an Award, the Company may require the person exercising such Award to represent and warrant at the time of any such exercise that the Shares are being purchased only for investment and without any present intention to sell or distribute such Shares if, in the opinion of counsel for the Company, such a representation is required.

22. Inability to Obtain Authority. The inability of the Company to obtain authority from any regulatory body having jurisdiction or to complete or comply with the requirements of any registration or other qualification of the Shares under any state, federal or foreign law or under the rules and regulations of the Securities and Exchange Commission, the stock exchange on which Shares of the same class are then listed, or any other governmental or regulatory body, which authority, registration, qualification or rule compliance is deemed by the Company's counsel to be necessary or advisable for the issuance and sale of any Shares hereunder, will relieve the Company of any liability in respect of the failure to issue or sell such Shares as to which such requisite authority, registration, qualification or rule compliance will not have been obtained.

23. Stockholder Approval. The Plan will be subject to approval by the stockholders of the Company within twelve (12) months after the date the Plan is adopted by the Board. Such stockholder approval will be obtained in the manner and to the degree required under Applicable Laws.

24. Captions. Captions are provided herein for convenience only, and will not serve as a basis for interpretation or construction of the Plan.

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

Form 10-K

☒ **ANNUAL REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934**

For the fiscal year ended December 28, 2019

OR

☐ **TRANSITION REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934**

For the transition period from to

Commission file number: 001-33486

Infinera Corporation
(Exact name of registrant as specified in its charter)

Delaware	**77-0560433**
(State or other jurisdiction of incorporation or organization)	**(IRS Employer Identification No.)**

140 Caspian Court
Sunnyvale, CA 94089
(Address of principal executive offices, including zip code)
(408) 572-5200
(Registrant's telephone number, including area code)Securities registered pursuant to Section 12(g) of the Act: None

Securities registered pursuant to Section 12(b) of the Act:

Title of each class	Trading Symbol	Name of exchange on which registered
Common shares, par value $0.001 per share	**INFN**	**The Nasdaq Global Select Market**

Indicate by check mark if the registrant is a well-known seasoned issuer, as defined in Rule 405 of the Securities Act. Yes ☒ No ☐

Indicate by check mark if the registrant is not required to file reports pursuant to Section 13 or 15(d) of the Act. Yes ☐ No ☒

Indicate by check mark whether the registrant (1) has filed all reports required to be filed by Section 13 or 15(d) of the Securities Exchange Act of 1934 during the preceding 12 months (or for such shorter period that the registrant was required to file such reports), and (2) has been subject to such filing requirements for the past 90 days. Yes ☒ No ☐

Indicate by check mark whether the registrant has submitted electronically every Interactive Data File required to be submitted pursuant to Rule 405 of Regulation S-T (§232.405 of this chapter) during the preceding 12 months (or for such shorter period that the registrant was required to submit such files). Yes ☒ No ☐

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, a smaller reporting company or an emerging growth company. See definitions of "large accelerated filer," "accelerated filer," "smaller reporting company" and "emerging growth company" in Rule 12b-2 of the Exchange Act. (Check one):

Large Accelerated Filer	☐	Accelerated filer	☒
Non-accelerated filer	☐	Smaller reporting company	☐
		Emerging growth company	☐

If an emerging growth company, indicate by check mark if the registrant has elected not to use the extended transition period for complying with any new or revised financial accounting standards provided pursuant to Section 13(a) of the Exchange Act. ☐

Indicate by check mark whether the registrant is a shell company (as defined in Rule 12b-2 of the Exchange Act). Yes ☐ No ☒

The aggregate market value of the registrant's common stock, $0.001 par value per share, held by non-affiliates of the registrant on June 29, 2019, the last business day of the registrant's most recently completed second fiscal quarter, was approximately $372,288,790 (based on the closing sales price of the registrant's common stock on that date). Shares of the registrant's common stock held by each officer and director and each person who owns more than 10% or more of the outstanding common stock of the registrant have been excluded in that such persons may be deemed to be affiliates. This determination of affiliate status is not necessarily a conclusive determination for other purposes. As of February 21, 2020, 183,026,317 shares of the registrant's common stock, $0.001 par value per share, were issued and outstanding.

DOCUMENTS INCORPORATED BY REFERENCE

Portions of the registrant's definitive proxy statement relating to its 2020 Annual Meeting of Stockholders (the "2020 Proxy Statement") are incorporated by reference into Part III of this Annual Report on Form 10-K where indicated. The 2020 Proxy Statement will be filed with the U.S. Securities and Exchange Commission within 120 days after the end of the fiscal year to which this report relates.

INFINERA CORPORATION

ANNUAL REPORT ON FORM 10-K

For the Fiscal Year Ended December 28, 2019

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Part I

ITEM 1. BUSINESS

Overview

Infinera Corporation ("we," "us," "our" or "Infinera") is a global supplier of networking solutions comprised of networking equipment, software and services. Our portfolio of solutions includes optical transport platforms, converged packet-optical transport platforms, optical line systems, disaggregated router platforms, a suite of networking and automation software offerings, and support and professional services.

Our customers include telecommunications service providers, internet content providers ("ICPs"), cable providers, wholesale carriers, research and education institutions, large enterprises and government entities. Our networking solutions enable our customers to deliver business and consumer communications services. Our comprehensive portfolio of networking solutions also enables our customers to scale their transport networks as end-user services and applications continue to drive growth in demand for network bandwidth. These end-user services and applications include, but are not limited to, high-speed internet access, business Ethernet services, 4G/5G mobile broadband, cloud-based services, high-definition video streaming services, virtual and augmented reality and the Internet of Things ("IoT").

Our systems are highly scalable, flexible and designed with open networking principles for ease of deployment. We build our systems using a combination of internally manufactured and third-party components. Our portfolio includes systems that leverage our innovative optical engine technology, comprised of large-scale photonic integrated circuits ("PICs") and digital signal processors ("DSPs"). We optimize the manufacturing process by using indium phosphide to build our PICs, which enables the integration of hundreds of optical functions onto a set of semiconductor chips. This large-scale integration of our PICs and advanced DSPs allows us to deliver high-performance transport networking platforms with features that customers care about the most, including cost per bit, low power consumption and space savings. In addition, we design our optical engines to increase the capacity and reach performance of our products by leveraging coherent optical transmission. We believe our vertical integration strategy becomes increasingly more valuable as our customers transition to 800 gigabits per second ("Gb/s") per wavelength transmission speeds and beyond, as the combination of our optical integration, DSP, and tightly integrated packaging enables leading optical performance at higher optical speeds. Over time, we plan to integrate our optical engine technology into a broader set of transport platforms in order to enhance customer value and lower production costs.

Over the past several years, we expanded our portfolio of solutions, evolving from our initial focus on the long-haul and subsea optical transport markets to offering a more complete suite of packet-optical networking solutions that address multiple markets within the end-to-end transport infrastructure. These markets include metro access, metro aggregation and switching, data center interconnect ("DCI"), and long-haul and subsea transport.

We have grown our portfolio through internal development as well as acquisitions. In 2014, we introduced the Infinera Cloud Xpress to address the emerging DCI market opportunity. In 2015, we entered the metro market with the acquisition of Transmode AB ("Transmode"), a leader in metro packet-optical applications. In October 2018, we expanded our product portfolio and customer base through the acquisition of Telecom Holding Parent LLC ("Coriant"), a privately held global supplier of open network solutions for the largest global network operators (the "Acquisition"). The Acquisition has helped position us as one of the largest providers of vertically integrated transport networking solutions in the world and enhanced our ability to serve a global customer base and accelerated the delivery of the innovative solutions our customers demand. The Acquisition has also enabled us to expand the breadth of customer applications we can address, including metro aggregation and switching, disaggregated routing, and software-enabled multi-layer network management and control.

Our high-speed optical transport platforms are differentiated by the Infinite Capacity Engine (ICE), our optical engine technology. ICE enables different subsystems that can be customized for a variety of network applications in different transport markets, including metro, DCI, long-haul and subsea. Our latest generation of optical engine technology delivers multi-terabit opto-electronic subsystems powered by our fourth-generation PIC and latest generation FlexCoherent DSP (the combination of which we market as "ICE4").

As part of the Acquisition, we expanded our high-speed optical transport portfolio with 600 Gb/s transmission capabilities powered by our CloudWave T technology, which enabled us to expand the high-speed transmission applications we can address.

Our products are designed to be managed by a suite of software solutions that enable end-to-end common network management, multi-layer service orchestration, and automated operations. We also provide software-enabled programmability that offers differentiated capabilities such as Instant Bandwidth. Combined with our differentiated hardware solutions, Instant Bandwidth enables our customers to purchase and activate bandwidth as needed through our unique software licensing feature set. This, in turn, allows our customers to accomplish two key objectives: (1) limit their initial network startup costs and investments; and (2) instantly activate new bandwidth as their customers' and their own network needs evolve.

We believe our end-to-end portfolio of solutions benefits our customers by providing a unique combination of highly scalable capacity and features that address various applications and ultimately simplify and automate packet-optical network operations.

We were incorporated in December 2000 and originally operated under the name "Zepton Networks." We are incorporated in the State of Delaware. Our principal executive offices are located at 140 Caspian Court, Sunnyvale, CA 94089. Our telephone number is (408) 572-5200. "Infinera," "Infinera DTN-X," "FlexCoherent," "Infinera Groove," "Infinera mTera," "Infinera DRX," "Infinera Transcend" and the Infinera logo, are trademarks or service marks of Infinera Corporation in the United States, certain other countries and/or the European Union. Any other trademarks or trade names mentioned are the property of their respective owners.

Industry Background

Optical transport networking equipment carries digital information using light waves over fiber optic cables. With the advent of wavelength division multiplexing ("WDM") systems, data is transmitted by using multiple wavelengths of light using different frequencies or colors over a single optical fiber. Customers deploy WDM systems to carry information between continents, across countries, between cities and within metropolitan areas, and in some cases all the way to the end-user. Fiber optic networks are generally capable of carrying most types of communications traffic. We believe that a number of trends in the communications industry are driving demand for large amounts of network bandwidth and ultimately will increase demand for packet-optical transport networking systems and software. These trends include:

- growth of cloud services;
- growth of over-the-top services and high-definition video streaming;
- growth of mobile broadband services, including 4G and emerging 5G services;
- increasing use of connected virtual and augmented reality devices; and
- the IoT, which continues to drive massive growth in the number of network-connected devices.

As network traffic grows, customers add transmission capacity to existing optical networks or deploy new systems to address bandwidth demands and offer expanded services to end-users.

We believe we are in the midst of two significant shifts in transport network architectures that impact the markets we serve. The first is the bifurcation of the traditional transport market into either a cloud-based model or a more traditional carrier model. Cloud-based architectures are characterized by transport networks optimized to handle the massive growth of server-to-server traffic between data center sites. To manage server-to-server traffic growth, our customers seek open, scalable and disaggregated transport solutions designed to accommodate point-to-point, high-capacity traffic patterns. These customers require solutions that are cost-optimized for low cost per bit, low power consumption, reduced footprint and ease of deployment. In contrast, traditional service providers require high capacity solutions with more integrated network platforms, which can provide multi-service capabilities and aggregate data flows and can perform traffic add/drop at various points across their networks. These customers require protection schemes and a larger variety of interfaces to address their end customer needs. Our solutions serve both the point-to-point applications driven by increasing data center traffic and the more traditional mesh-oriented switched transport networks.

A second shift is happening at the edge of the network, where fiber is increasingly being deployed closer to the end-user. This trend is frequently referred to as "Fiber Deep," and primarily occurs in two types of access networks: 4G/5G mobile transport networks and next-generation cable and multiple system operator ("MSO") networks. Both of these trends require cost-efficient scalability, higher density and lower power per bit networking devices with integrated packet switching capabilities.

In all of these transport applications, we believe our customers seek the following solutions to increase their revenue, expand their service offerings and lower the total cost of operations:

- high-bandwidth solutions that scale optical transmission capacity to meet increasing bandwidth demand while providing efficiency through service granularity;

- efficient solutions with the right mix of disaggregated and integrated systems that optimize performance and increase reliability while reducing physical space and power consumption, leading to lower operational and capital expenses;
- easy-to-use solutions that are highly programmable, open, and automated, which help reduce the time and complexity of deploying new transmission bandwidth;
- improved integration between Ethernet or Internet Protocol equipment such as switches or routers, and optical transport networking equipment; and
- strong encryption at the transport layer.

Strategy

Our goal is to be the preeminent provider of end-to-end transport networking solutions in the world by delivering the highest performance and lowest total cost solutions for our customers. Key aspects of our strategy include:

- *Leveraging our vertically integrated solutions to deliver lowest total cost network solutions.* We will continue to provide our customers differentiated value by leveraging our vertically integrated optical engine. This value includes significant cost advantages that our innovative PIC and DSP technology enable, including service agility, spectral efficiency, optical performance leadership and reliability, industry-leading optical scalability, and high-density and ultra-power efficient platforms. Our strategy is to continue to evolve our unique optical technology with higher speed and increasingly efficient solutions, integrating our optical engine across a broader end-to-end portfolio set and extending this innovation toward the edge of the network.
- *Driving cost structure optimization and achieving cost advantages of scale.* Leveraging scale as part of our vertical integration strategy, which includes integration of our optical engine across a broader set of platforms, enables us to achieve cost advantages and cost structure efficiencies that enhance our ability to continue to invest in research and development in our optical engine and end-to-end portfolio, as well as drive profitability. In particular, we believe our vertically integrated manufacturing capabilities serve as a competitive advantage from a technology and supply chain perspective, and enable a lower cost structure and thus, higher profitability. To further drive cost structure optimization, we are transforming our supply chain to enable us to move from a fixed cost structure to an increasingly outsourced model that will allow for enhanced flexibility in our delivery capabilities to better support customers, while optimizing our cost leverage.
- *Offering comprehensive networking solutions and expanding our go-to-market reach.* We believe a broad and integrated solutions portfolio spanning multi-layer technologies and optimized for edge-to-core transport markets is critical to helping our customers most cost effectively provide services with new 5G, distributed access architecture, DCI, cloud and business services. By expanding and enhancing our solutions portfolio and leveraging application-optimized capabilities and disruptive innovation, we are able to expand our go-to-market reach and address a broader set of our customers' transport applications, from core network scalability to packet- and application-optimized metro transport.
- *Delivering a superior customer experience.* Our success will continue to be driven by our commitment to providing a superior experience to all customers. In addition to product delivery capability that efficiently and predictably delivers innovative technology and high-quality products to market, we bring value to our customers by providing end-to-end solutions with differentiation that includes usage-based bandwidth provisioning, service agility and ease-of-use that accelerates time-to-revenue. Additionally, our global customer services team is committed to making our customers successful by providing the highest quality support services that help our customers deploy, operate and maintain their networks. We believe our technology leadership combined with our ability to provide the most reliable products and a differentiated customer experience contribute to customer success and represent major differentiators.
- *Utilizing software-driven automation to deliver differentiated solutions.* We believe we lead the industry in ease of use and automation, both integrated into our system design and facilitated by our software capabilities. We continue to invest in our differentiated technologies, including enhancing capabilities of Instant Bandwidth offerings and introducing automation and programmability capabilities. We are extending management and control capabilities across our entire product portfolio with the addition of a new orchestration solution. This new solution enables customers to utilize end-to-end network resources and the automation of multi-layer, multi-domain and multi-vendor networks. Additionally, based on our customers' desire for more programmable networks, we have added open application programming interfaces ("APIs") to our solutions to enable our customers to create more agile and customized automated operations.

Customers

Our customer verticals include:

- Tier-1 carriers for domestic and international networks;
- Tier-2 and Tier-3 carriers;
- ICP and data center operators;
- cable providers and MSOs;
- wholesale carriers;
- submarine network operators;
- large enterprise customers;
- research and education institutions; and
- government entities.

We sell our products directly to our end-user customers and to channel partners that sell on our behalf. We do not have long-term sales commitments from our customers. One customer accounted for approximately 13% of our revenue in each of 2019 and 2018. This same customer completed a merger with another customer in 2017, and these two customers accounted for approximately 6% and 12% of our revenue in 2017, respectively. One other customer accounted for approximately 15% of our revenue in 2018. No other customers accounted for over 10% of our revenue in 2019, 2018 or 2017.

Technology

We were founded on a vision of enabling an infinite pool of intelligent bandwidth powered by software-enabled on-demand service provisioning. We have focused our efforts and capital on developing application-optimized platforms that enable customers to create rich end-user experiences delivered through efficient, high-bandwidth packet-optical transport characterized by the following attributes:

- *Scalable.* The proliferation of data centers, rise of cloud computing, increasing consumption of video and growth in mobile access is fundamentally changing traffic characteristics in operator networks. We currently deliver multi-terabit class coherent, sliceable super-channels, which allow a massive pool of bandwidth to be provisioned in a single operation.
- *Flexible.* In addition to providing our customers end-to-end solutions, we offer a mix of integrated and disaggregated platforms to reduce complexity and enable flexibility as transport network architectures evolve. There are varying customer preferences as some customers continue to favor integrated multi-service mesh networks while others, such as ICPs, favor disaggregated platforms that address high-capacity point-to-point connections.
- *Open.* Network operators are facing intensifying competition to meet customer demand for immediate bandwidth and better visibility into the network. Our networking solutions feature disaggregated and highly programmable platforms with software-defined networking ("SDN") APIs enabling networks to be open, which simplifies end-to-end, multi-layer service provisioning and network control.
- *Automated*. The demand for reducing the cost of operations as networks scale increases the need for software-enabled automation capabilities in the transport layer of the network. We currently deliver a suite of software solutions that provide a radical reduction in complexity and improved customer satisfaction with time-saving management and automation tools. Our solutions, coupled with a practical approach to network automation, are designed to make it easier to achieve measurable improvements in network and operational efficiency, as well as service agility.

Infinera Optical Engines

We believe our optical engines, with the latest available version being ICE4, are key to our value proposition and a competitive advantage to our system solutions. Technologically, we are able to deliver multi-terabit class coherent super-channels through PICs in systems that significantly exceed reliability standards. Additionally, our DSPs enable network operators to utilize coherent technologies to enable higher data capacity transmissions over existing optical fiber infrastructure. We have integrated advanced coherent technologies onto our FlexCoherent DSP in ICE4, such as cutting-edge Nyquist subcarriers and soft-decision forward error correction gain sharing techniques. Financially, we believe our technology approach enables improved manufacturing economics for optical networking, allowing future optical transport cost reductions to be viably sustained on a cost curve defined by volume manufacturing efficiencies and greater functional integration. These advantages allow us to develop new cost-effective architectures that enable our customers to solve their business needs.

In 2019, we announced our sixth-generation Infinite Capacity Engine (“ICE6”), which is designed to support high-capacity optical transmission with dual-channel 800 Gb/s and leading optical performance. ICE6 builds on the market success of ICE4 and Instant Bandwidth with a 1.6 terabits per second ("Tb/s") optical engine, providing a path for network operators to meet the ongoing growth of bandwidth and increasingly dynamic, unpredictable traffic flow. ICE6 combines our sixth-generation PIC with our internally developed 7 nanometer FlexCoherent DSP technology. Platforms powered by ICE6 will be commercially available in the second half of 2020.

Infinera Super-Channels and Sliceable Photonics

We offer customers flexibility in deploying WDM by using single or multiple channels simultaneously. Infinera’s XT and Cloud Xpress Family of products, for example, are designed to support multiple channels, each up to 200 Gb/s capacity, in a single line card or unit depending on the platform form factor. This pool of bandwidth can either be managed as a single super-channel, with up to 1.2 Tb/s that can be deployed in a single operation, or sliced into smaller increments to allow operators more flexibility. Super-channels result in competitive advantages leading to lower operational costs and long-term system reliability, as well as significant reductions in installation time. Our ICE4 technology combines the benefits of super-channels with the capability of being able to slice capacity into smaller unit increments such as 100 Gb/s. Each increment can be tuned and routed in multiple separate directions, with each fully tuned to its own flexible grid frequency as well as having its own coherent modulation profile. This significantly reduces the number of modules required in networks, resulting in lower total cost of ownership.

Infinera Instant Bandwidth

Infinera Instant Bandwidth enables customers to license super-channel bandwidth in smaller increments such as 100 Gb/s. With Instant Bandwidth technology, which is available on the Infinera XTC Series, XT Series, XTS Series, Cloud Xpress Family and XTM Series platforms, customers can provision additional transmission capacity on demand without the deployment of any incremental equipment. Our Instant Bandwidth technology is uniquely enabled by our hardware, providing customers the ability to adopt a success-based business model for network growth.

Infinera CloudWave T Optics

Infinera CloudWave T Optics is a coherent detection interface technology leveraged by the Infinera Groove G30 that features a flexible sled-based architecture designed to support pay-as-you-grow network scalability. The CloudWave T Optics solution leverages technologies acquired through the Acquisition and is based on third-party components that provide rapid go-to-market capabilities for 600 Gb/s transmission. The CloudWave T solution also enables low initial costs, reduces sparing costs, and supports cost-effective growth as capacity demands increase over time.

Infinera Auto-Lambda

The cost of manual operations in packet-optical networks has a significant impact to a network operator's total cost of ownership. Our Auto-Lambda feature provides a unique solution for deploying access and aggregation networks. It enables network operators to simply plug DWDM optics into aggregation and access nodes, which allows the packet-optical network element to automatically tune each of the optical signals to the appropriate wavelength. The result is a dramatic reduction in the number of truck rolls and the amount of effort required to deploy high-capacity access and aggregation networks, and a simultaneous reduction in deployment and configuration errors.

Infinera Disaggregated Routing

Compared to traditional closed and proprietary chassis-based routers, our open and disaggregated routing technology reduces vendor lock-in, speeds innovation, lowers costs and removes the chassis backplane and number of slots as barriers to cost-optimized scaling. Our disaggregated router solution is comprised of hardware-independent, carrier-class routing software, which we market as the Converged Network Operating System (“CNOS”), and the Infinera DRX Series of packet switching white boxes that support capacities from 300 Gb/s to 9.6 Tb/s in one or two rack unit (“RU”) form factor platforms.

Software-enabled Network Automation

Leveraging open network architectures based on SDN principles, the Infinera Transcend Software Suite provides a platform for advanced network automation that reduces operational costs, optimizes deployed network assets, speeds time to revenue and maximizes network and service availability. Intent-based automation translates service requests into optimized multi-layer network configurations while closed loop automation proactively monitors network state and service performance and, when appropriate, takes actions to assure service quality. Additional highlights include DevOps-style programmability, open interfaces and graphical user interface-based portals.

Products and Services

Our hardware product portfolio consists of optical line systems, packet-optical platforms, compact modular platforms and network routers. Software products include the Infinera Transcend Software Suite, which includes SDN and network management software, and our CNOS routing software. These products address the metro, long-haul and subsea network markets from end-to-end. DCI is a subset of these markets. We also provide customer support services, including professional service offerings designed to help customers optimize their network assets and migrate legacy services.

The high-speed transport network infrastructure is comprised of multiple technology layers that require intelligent interworking and coordination between layers to ensure efficient delivery of end-user services. These technology layers include Layer 0 (WDM), Layer 1 (optical transport network (“OTN”), SONET/SDH), Layer 2 (Carrier Ethernet), Layer 2.5 (MPLS-TP) and Layer 3 (Internet Protocol). Our product portfolio includes solutions that span all of these transport network layers. Our product portfolio also includes multi-layer network management and automation software that helps simplify operational tasks and accelerate provisioning of end-user services across multiple transport market domains, including metro, long-haul and subsea.

Optical Line Systems

Infinera Groove Series

The Infinera Groove Series of modular, sled-based platforms includes integrated optical line system capabilities optimized to support a variety of transport network applications. With a compact and flexible architectural design, the Groove solution supports up to 600 Gb/s per wavelength to deliver cost-optimized optical reach in metro and long-haul applications, enabling rapid capacity increases as network traffic grows. We will be introducing expansions to the Groove Series in 2020, including the addition of our 800 Gb/s per wavelength ICE6 optical engine.

Infinera 7300 Series

The Infinera 7300 Series is an SDN-ready coherent optical transport system. Supporting the latest optical technology, the 7300 Series addresses the needs of regional, long-haul, and ultra-long-haul optical networking, including long, unrepeatered single-span and festoon subsea networks. The 7300 enables network operators to achieve the highest network resiliency with fast optical protection switching and the use of autonomous and SDN-controlled restoration capabilities.

Infinera FlexILS Open Optical Line System

The Infinera FlexILS open optical line system connects various Infinera and third-party terminal equipment platforms over long-distance fiber optic cable while providing switching, multiplexing, amplification and management channels. The FlexILS solution is designed to support over 50 Tb/s of fiber capacity when used with the Infinera platforms over extended C-band and L-band. The FlexILS also supports reconfigurable optical add-drop multiplexer (“ROADM”) functionality with a flexible grid architecture and provides unconstrained optical switching by eliminating the restrictions of fixed wavelengths by port or direction. This platform is designed to provide open APIs interfacing with SDN control for multi-layer switching when combined with other platforms featuring WDM, OTN and packet switching.

Packet-Optical Platforms

Infinera 7090 Series

The Infinera 7090 Packet Transport Platforms provide both Multiprotocol Label Switching ("MPLS")-Transport Profile ("MPLS-TP") and Carrier Ethernet-based options, addressing applications including business Ethernet services, migration from TDM to packet, and residential and mobile backhaul. The 7090 Series includes MPLS-TP platforms with capacities ranging from 5 Gb/s to 960 Gb/s and Carrier Ethernet-based platforms that provide a range of compact gigabit Ethernet (“GbE”) and 10 GbE Ethernet access devices.

Infinera XTM Series

The Infinera XTM Series packet-optical transport platform enables high-performance metro connectivity solutions with service-aware capabilities optimized for 5G, Fiber Deep, business services and other metro transport applications. The XTM Series offers superior density, lower power consumption and higher scalability for multi-service metro access and aggregation networks, including integrated Layer 1 and Layer 2 support and Time Sensitive Networking features required for 5G mobile x-haul applications. The platform is designed for application-rich packet-optical metro networks providing cable, mobile, broadband and business services that require 10 Gb/s, 100 Gb/s or 200 Gb/s wavelengths with differentiated performance.

Infinera 7100 Series

Infinera 7100 Series of packet-optical transport platforms are right-sized and support a flexible mix of transponders, muxponders, packet switching, OTN switching, SONET/SDH switching, and ROADM-based optical line systems, providing compact and flexible transport for metro networks. The 7100 Series includes the 7100 Nano, a 5RU platform optimized for metro transport and the 7100 Pico, a 2RU platform that extends services to the metro edge and enables metro access applications. The 7100 Series also includes the PSX-3S, a 1RU 376 Gb/s packet switch optimized for aggregation and access applications.

Infinera mTera Series

The Infinera mTera Universal Transport Platform is a flexible and efficient network transport solution supporting scalable grooming and an innovative protocol-agnostic switch fabric in which each and every port on virtually every card can be software-configured between OTN and Ethernet. The mTera Series includes a compact 8-slot, 4 Tb/s shelf and a higher capacity 14-slot, 7 Tb/s shelf, with paired 14-slot shelves able to deliver 12 Tb/s of electrical switching. The mTera Series combines SDN-ready, advanced ROADM capabilities and support for the universal switching of OTN, packet and SONET/SDH traffic at the electrical layer.

Infinera XTC Series

The Infinera XTC Series includes multi-terabit packet optical transport platforms that integrate digital OTN switching and optical WDM transmission. The XTC Series delivers converged packet, OTN, and WDM for metro core, regional, long-haul, and subsea applications. The XTC Series features ICE4, Instant Bandwidth, and massively simple operations to drive cost reduction and speed time to revenue. These platforms also support a broad range of Ethernet and OTN client interfaces for flexibility and are designed for metro, long-haul and subsea networks.

Compact Modular Platforms

Infinera Cloud Xpress Family

The Infinera Cloud Xpress Family is designed to meet the varying needs of ICPs, communication service providers, internet exchange service providers, enterprises and other large-scale data center operators. The first generation of the Cloud Xpress has a 500 Gb/s WDM super-channel output in 2RUs. Our second generation, the Cloud Xpress 2, released in June 2017, leverages the ICE4 optical engine, and has a 1.2 Tb/s super-channel output in 1RU. These platforms are designed with a rack-and-stack form factor and utilize a software approach that enables them to easily plug into existing cloud provisioning systems using open SDN APIs, an approach similar to the server and storage infrastructure deployed in the cloud.

Infinera Groove Series

The Infinera Groove Series of highly compact, modular, and sled-based platforms includes integrated muxponder capabilities optimized to support a variety of transport network applications. With a compact and flexible architectural design, the Groove solution supports up to 600 Gb/s per wavelength to deliver cost-optimized optical reach in metro and long-haul applications, enabling rapid capacity increases as network traffic grows. The Groove muxponder solution supports deployment over virtually any optical line system, ensuring that network operators always have access to best-of-breed solutions.

Infinera XT Series

The Infinera XT Series of compact, open and disaggregated platforms, powered by our ICE4, delivers up to 2.4 Tb/s of line-side capacity for metro, DCI, regional and long-haul networks in compact 1RU and 4RU form factors, with ultra-long-haul and submarine reach. These platforms are designed to power cloud scale network services over metro, DCI, long-haul and subsea networks.

Network Routers

Infinera DRX Series

The Infinera DRX Series of disaggregated routers is designed to help network operators reduce capital expenditures and accelerate innovation by minimizing vendor lock-in, while also reducing operating expenses with open SDN-enabled network automation. The DRX Series includes carrier-class 1RU and 2RU white boxes purpose-built for disaggregated router applications including 5G backhaul and Fiber Deep. As an open networking solution, the DRX Series leverages Infinera CNOS routing software as well as third-party hardware-independent network operating systems. While the capacity of individual DRX devices ranges from 300 Gb/s to 9.6 Tb/s, stacking and leaf-spine architectures enabled by CNOS provide for much larger node capacities. Carrier-class capabilities of the DRX Series include advanced synchronization, equipment redundancy and temperature hardened options.

Infinera 8600 Series

The Infinera 8600 Series of SDN-ready Internet Protocol/MPLS routers provides compact, cost-effective and power-efficient solutions for cell sites, metro core and aggregation applications. By boosting network performance, integrating advanced synchronization and enabling new fixed mobile services, the 8600 Series helps network operators ensure a high-quality user experience in 3G, 4G, fixed mobile convergence and emerging 5G networks.

Software and Services

Transcend Software Suite

Leveraging open architectures based on SDN principles, the Infinera Transcend Software Suite includes a multi-layer and multi-domain orchestrator, multi-vendor SDN domain controllers, network managers, and open, standards-based network management capabilities with granular control across network elements at micro and macro levels. The Transcend Software Suite provides a platform for automation that reduces operational costs, optimizes network assets, speeds time to revenue, and maximizes network and service availability. Intent-based automation translates service requests into optimized multi-layer (L0-L3) network configurations while closed loop automation proactively monitors network state and service performance and, when appropriate, takes actions to assure service quality. Additional highlights include DevOps-style programmability, open interfaces, and graphical user interface-based portals.

Infinera CNOS

Infinera CNOS is a hardware-independent network operating system that leverages field-proven 8600 Internet Protocol/MPLS software widely deployed by leading Tier-1 carriers. Infinera CNOS is designed to run on the Infinera DRX platform or on third-party packet switching white boxes to provide a scalable disaggregated router solution. This solution is designed to enable network operators to reduce capital expenses and accelerate innovation by minimizing vendor lock-in, while also reducing operational expenses with SDN-enabled automation and the ability to scale cost effectively with stacking and leaf-spine architectures.

Customer Support Services

In connection with our product offerings, we provide a comprehensive range of support services for all hardware and software products. These support services cover all phases of network ownership, from the initial installation through day-to-day maintenance activities and professional services. Our support services are designed to efficiently manage and maintain customer network operations in the face of today's ever-increasing demands for lower operational costs and minimized downtime.

Our support organization continues to scale and provide world-class services that successfully support customers around the world. In addition, we continue to expand our services portfolio to meet the evolving needs of our customers.

Competition

Our current technologies and platforms support the metro, DCI, long-haul and subsea markets. The packet-optical networking equipment market is highly competitive and competition in the markets we serve is based on any one or a combination of the following factors:

- price and other commercial terms;
- functionality;
- existing business and customer relationships;
- the ability of products and services to meet customers' immediate and future network requirements;
- power consumption;
- heat dissipation;
- form factor or density;
- installation and operational simplicity;
- quality and reliability;
- service and support;
- security and encryption requirements;
- scalability and investment protection; and
- product lead times.

Competition in the packet-optical equipment market is intense. In the long-haul market, our main competitors include WDM systems suppliers such as Ciena, Huawei, Nokia and ZTE. In the metro market, we face the same competitors as in long-haul, plus Cisco, ADVA Optical Networking and Ribbon Communications, among others. In the DCI market we also face competition from vendors that are selling optical components directly to customers as opposed to WDM systems. In addition to our current competitors, other companies have, or may in the future, develop products that are, or could be, competitive with our products. We also may encounter competitor consolidation in the markets in which we compete, which could lead to a changing competitive landscape, capabilities and market share, and could impact our results of operations.

Some of our competitors have substantially greater name recognition, technical, financial and marketing resources, and better-established relationships with potential customers than we have. Many of our competitors have more resources and more experience in developing or acquiring new products and technologies, and in creating market awareness for those products and technologies. In addition, many of our competitors have the financial resources to offer competitive products at aggressive pricing levels that could prevent us from competing effectively. Further, many of our competitors have built long-standing relationships with some of our prospective and existing customers and have the ability to provide financing to customers and could, therefore, have an inherent advantage in selling products to those customers.

Sales and Marketing

We market and sell our products and related support services primarily through our direct sales force, supported by marketing and product management personnel. We also use distribution or support partners to enter new markets or when requested by a potential customer. Our sales team has significant experience with the buying process and sales cycles typical of high-value telecommunications products.

The sales process for our products entails discussions with prospective customers, analyzing their networks and identifying how they can utilize our systems capabilities within their networks. This process requires developing strong customer relationships and leveraging our sales force and customer support capabilities.

Over the course of the sales cycle, potential customers often test our products before buying. Prior to commercial deployment, the customer will generally perform a field trial of our products. Upon successful completion, the customer generally accepts the products installed in its network and may continue with commercial deployment of additional products. We anticipate that our sales cycle, from initial contact with a prospective customer through the signing of a purchase agreement may, in some cases, take several quarters.

Direct Sales Force. Our sales team sells directly to service providers worldwide and is organized geographically around the following markets: (i) United States and Canada ("North America"); (ii) Latin America and South America ("LATAM"); (iii) Europe, Middle East and Africa ("EMEA"); and (iv) Asia Pacific and Japan ("APAC").

Within each geographic area, we maintain specific teams or personnel that focus on a particular region, country, customer or market vertical.

Indirect Sales Force. We employ business consultants and resale and logistics partners to assist in our sales efforts, primarily in new regions for us whereby these partners have deep knowledge of typical business practices and strong relationships with key local operators. We expect to work with business partners to assist our customers in the sale, deployment and maintenance of our systems and have entered into distribution and resale agreements to facilitate the sale and support of our products.

Marketing and Product Management. Our product management team is responsible for defining the product features and go-to-market plan required to maximize our success in the marketplace. Product management supports our sales efforts with product and application expertise. Our corporate marketing team works to create demand for our products by communicating our value proposition and differentiation through direct customer interaction, public relations, attendance at tradeshows and other events, as well as internet programs and other marketing channels.

Research and Development

Continued investment in research and development is critical to our business. To this end, we have a team of engineers with expertise in various fields, including systems, sub-systems, software and components. Our research and development efforts are currently focused in Sunnyvale, California; Allentown, Pennsylvania; Annapolis, Maryland; Bangalore, India; Kanata, Canada; Stockholm, Sweden; Munich, Germany; Lisbon, Portugal; Shanghai, PRC; Espoo, Finland; and Naperville, Illinois. We utilize a mix of internal resources and supplement our staffing with development personnel provided by third parties on a contract basis. We have invested significant time and financial resources into the enhancement of existing products and the development of new products. We will continue to expand our product offerings and the capabilities of existing products in the future and plan to dedicate significant resources to these continued research and development efforts. We are continually increasing the scalability and software features of our current platforms. As part of the integration efforts related to the Acquisition, we are integrating the legacy Infinera and Coriant products into a seamless end-to-end portfolio; and we are investing in leveraging the vertical integration capabilities of Infinera across a broader portion of our platforms. We are also working to develop new generations of optical engines at a faster cadence than we have historically in order to bring new products to market more rapidly and meet customer demand. We believe these efforts will enhance our competitiveness in the markets we currently serve and also allow us to address adjacent markets to fuel our future growth.

Employees

As of December 28, 2019, we had 3,261 employees. A total of 2,061 of those employees were located outside of the United States. None of our U.S. employees are subject to a collective bargaining agreement. Employees in certain foreign jurisdictions may be represented by local workers' councils and/or collective bargaining agreements, as may be customary or required in those jurisdictions. We have not experienced any work stoppages, and we consider our employee relationships to be good.

Manufacturing

We have invested significant time and capital to develop and improve the manufacturing processes we use to produce and package our products. This includes significant investments in personnel, equipment and the facilities needed to manufacture and package our products in California and Pennsylvania. We also have invested in automating our manufacturing process and in training and maintaining the quality of our manufacturing workforce. As a leader in the development of photonic integration, our manufacturing processes have been developed over several years and are protected through a combination of patents, trade secrets and contractual protections. We believe that the investments we have made towards the manufacturing and packaging of our products provide us with a significant competitive advantage. We also believe that our current manufacturing facilities, including our fabrication facility for our PICs in California and our module manufacturing facility in Pennsylvania, can accommodate an increase in production capacity as our business continues to grow.

We also use contract manufacturers to assemble portions of our products. Each contract manufacturer procures components necessary to assemble products according to our specifications and bills of material. For elements of our business where we outsource, we perform rigorous in-house quality control testing to ensure the reliability of our products. Our supply chain risk mitigation strategies are continuous and institutionalized in our supply chain design for external manufacturing and for procurement of components. We currently use four contract manufacturers in several different countries, including China, Malaysia, Mexico, Hungary and Thailand, and we maintain the capability to redirect select manufacturing activities to U.S. qualified factories of three electronic manufacturing services partners.

We expect all suppliers to comply with our Supplier Code of Conduct, which addresses the rights of workers to safe and healthy working conditions, environmental responsibility, and compliance with applicable laws.

Backlog

As of December 28, 2019 and December 29, 2018, our total order backlog was approximately $430.0 million and $374.3 million, respectively. Our backlog represents purchase orders received from customers for future product shipments and services to be provided in future periods. More than half of our total order backlog is related to services, comprised primarily of annual maintenance contracts. Our backlog is subject to future events that could cause the amount or timing of the related revenue to change, and, in certain cases, may be canceled without penalty. Orders in backlog may be fulfilled several quarters following order receipt and may relate to multi-year support service obligations. As a result, we believe that backlog should not be viewed as an accurate indicator of future operating results for any particular period. A backlogged order may not result in revenue in a particular period, and the actual revenue may not be equal to our backlog amounts. Our presentation of backlog may not be comparable with that of other companies in our industry.

Intellectual Property

We believe our success depends upon our ability to protect our core technology and intellectual property. To accomplish this, we rely on a combination of intellectual property rights, including patents, trade secrets, copyrights and trademarks, as well as customary contractual protections.

Our optical engine technology, including our PIC, DSP, module and related technologies, are protected through a combination of patents, trade secrets and contractual protections. However, there can be no assurances that these protections will be sufficient to provide us with a competitive advantage or that others have not or will not reverse engineer our designs or discover, develop or disclose the same or similar designs and manufacturing processes.

As of December 28, 2019, we held 1,122 U.S. patents and 767 international patents expiring between 2019 and 2038, and held 166 U.S. and 165 foreign pending patent applications. We do not know whether any of our pending patent applications will result in the issuance of patents or whether the examination process will require us to narrow our claims.

We may not receive any competitive advantages from the rights granted under our patents and other intellectual property. Any patents granted to us may be contested, circumvented or invalidated over the course of our business, and we may not be able to prevent third parties from infringing these patents. Therefore, the impact of these patents cannot be predicted with certainty.

We believe that the frequency of assertions of patent infringement is increasing as patent holders, including entities that are not in our industry and who purchase patents as an investment or to monetize such rights by obtaining royalties, use such actions as a competitive tactic as well as a source of additional revenue. For example, we are currently involved in litigation for alleged patent infringement. See Item 3. “Legal Proceedings” for additional information regarding these lawsuits. Any claim of infringement from a third party, even those without merit, could cause us to incur substantial costs defending against such claims, and could distract our management from running our business. Furthermore, a party making such a claim, if successful, could secure a judgment that requires us to pay substantial damages or could include an injunction or other court order that could prevent us from offering our products. In addition, we might be required to seek a license for the use of such intellectual property, which may not be available on commercially reasonable terms or at all. Alternatively, we may be required to develop non-infringing technology, which would require significant effort and expense and may ultimately not be successful.

In addition to trade secret and patent protections, we generally control access to and the use of our proprietary software and other confidential information. This protection is accomplished through a combination of internal and external controls, including contractual protections with employees, contractors, customers and partners, and through a combination of U.S. and international copyright laws.

We license some of our software pursuant to agreements that impose restrictions on our customers’ ability to use such software, such as prohibiting reverse engineering and limiting the use of copies. We also seek to avoid disclosure of our intellectual property by relying on non-disclosure and assignment of intellectual property agreements with our employees and consultants that acknowledge our exclusive ownership of all intellectual property developed by the individual during the course of his or her work with us. The agreements also require that each person maintain the confidentiality of all proprietary information disclosed to them. Other parties may not comply with the terms of their agreements with us, and we may not be able to enforce our rights adequately against these parties. We also rely on contractual rights to establish and protect our proprietary rights in our products.

We incorporate free and open source licensed software into our products. Although we monitor our use of such open source software closely, the terms of many open source licenses have not been interpreted by U.S. courts, and there is a risk that such licenses could be construed in a manner that could impose unanticipated conditions or restrictions on our ability to commercialize our products. In addition, non-compliance with open source software license terms and conditions could subject us to potential liability, including intellectual property infringement and/or contractual claims. In such event, we could be required to seek licenses from third parties in order to continue offering our products, to re-engineer our products or to discontinue the sale of our products in the event re-engineering cannot be accomplished in a timely manner, any of which could adversely affect our business, operating results and financial condition.

Environmental Matters

We are committed to maintaining compliance with all environmental laws and regulations applicable to our operations, products and services. Our business and operations are subject to various federal, state, local and foreign laws and regulations that have been adopted with respect to the environment, including the Waste Electrical and Electronic Equipment Directive ("WEEE"), Directive on the Restriction of the Use of Certain Hazardous Substances in Electrical and Electronic Equipment ("RoHS"), and Registration, Evaluation, Authorization, and Restriction of Chemicals ("REACH") regulations adopted by the European Union. Environmental regulation is increasing and we expect that our operations will be subject to additional environmental compliance requirements, which may expose us to additional costs. We are also subject to disclosure requirements related to the presence of “conflict minerals” in our products. To date, our compliance costs relating to environmental regulations have not resulted in a material adverse effect on our business, results of operations or financial condition.

Information about our Executive Officers

Our executive officers and their ages and positions as of December 28, 2019, are set forth below:

Name	Age	Position
Thomas J. Fallon	58	Chief Executive Officer and Director
Nancy Erba	53	Chief Financial Officer
David W. Heard	51	Chief Operating Officer
David L. Teichmann	63	Chief Legal Officer and Corporate Secretary
Robert J. Jandro	64	Senior Vice President, Worldwide Sales

Thomas J. Fallon has served as our Chief Executive Officer since January 2010 and as a member of our board of directors since July 2009. Mr. Fallon also served as our President from January 2010 to June 2013, and as our Chief Operating Officer from October 2006 to December 2009. From April 2004 to September 2006, Mr. Fallon served as our Vice President of Engineering and Operations. From August 2003 to March 2004, Mr. Fallon was Vice President, Corporate Quality and Development Operations at Cisco Systems, Inc., a networking and telecommunications company. From March 1991 to August 2003, Mr. Fallon served in a variety of functions at Cisco, including General Manager of the Optical Transport Business Unit and Vice President of Service Provider Manufacturing. Prior to joining Cisco, Mr. Fallon also served in various manufacturing roles at Sun Microsystems and Hewlett Packard. Mr. Fallon currently serves on one other public company board, Hercules Capital, Inc., a specialty finance company. Mr. Fallon also serves on the Engineering Advisory Board of the Cockrell School at the University of Texas. Mr. Fallon holds B.S.M.E. and M.B.A. degrees from the University of Texas at Austin.

Nancy Erba has served as our Chief Financial Officer since August 2019 after joining us as Senior Vice President, Strategic Finance earlier in the same month. Prior to joining us, from September 2016 to March 2019, Ms. Erba served as Chief Financial Officer of Immersion Corporation, a leader in touch feedback technology. From February 2015 to October 2015, Ms. Erba was Vice President, Financial Planning and Analysis of Seagate Technology plc, a data storage company. Prior executive roles at Seagate Technology include Division CFO and Vice President of Finance for Strategic Growth Initiatives from 2013 to 2015; Vice President, Business Operations and Planning from 2009 to 2013; Division CFO and Vice President of Finance of the Consumer Solutions Division from 2008 to 2009; and Vice President, Corporate Development from 2006 to 2008. Ms. Erba currently serves on the board of directors of PDF Solutions, Inc., a software and engineering services company. Ms. Erba holds an M.B.A. from Baylor University and a B.A. in mathematics from Smith College.

David W. Heard has served as our Chief Operating Officer since October 2018. Prior to that, Mr. Heard served as our General Manager, Products and Solutions, since June 2017. Prior to joining us, Mr. Heard served as a private consultant from 2015 to June 2017. From 2010 to 2015, Mr. Heard served as President of Network and Service Enablement at JDS Uniphase. From 2007 to 2010, Mr. Heard served as Chief Operating Officer at BigBand Networks (now part of Arris). From 2004 to 2006, Mr. Heard served as President and Chief Executive Officer at Somera (now part of Jabil). From 2003 to 2004, Mr. Heard served as President and General Manager Switching Division at Tekelec (now part of Oracle). From 1995 to 2003, Mr. Heard served in a number of leadership roles at Santera Systems Spatial Networks and at Lucent Technologies (both now part of Nokia). Mr. Heard holds an M.B.A. from the University of Dayton, an M.S. in management from Stanford Graduate School of Business, where he was a Sloan Fellow, and a B.A. in production and operations management from Ohio State University.

David L. Teichmann has served as our Chief Legal Officer and Secretary since April 2019. Prior to joining us, Mr. Teichmann served as Executive Vice President, General Counsel and Corporate Secretary of Oclaro, Inc., a maker of optical components and modules for the long-haul, metro and data center markets, from January 2014 until its acquisition by Lumentum in December 2018. From 2007 to 2012, he served as the Executive Vice President, General Counsel and Corporate Secretary of Trident Microsystems, Inc., a public fabless semiconductor company that sold television and set top box integrated circuits. From August 1998 to February 2006, he served as the Senior Vice President, General Counsel and Secretary of GoRemote Internet Communications, Inc., a secure managed global remote access solutions provider, guiding the company through its initial public offering in 1999 and its acquisition by iPass, Inc. in 2006. Mr. Teichmann held various senior legal counsel positions from 1989 to 2006 in Europe, Asia Pacific, Latin America and Canada and began his career with the Fenwick & West law firm. Mr. Teichmann holds a J.D. from the William S. Richardson School of Law at the University of Hawaii, an M.A. in law and diplomacy from the Fletcher School of Law and Diplomacy, and a B.A. in political science from Trinity College.

Robert J. Jandro has served as our Senior Vice President, Worldwide Sales since May 2013 until January 2020. Prior to joining us, Mr. Jandro served as Vice President of Business Development of Openwater Software, Inc., a large data and analytics cloud company, from January 2008 to August 2012. From February 2004 to November 2006, Mr. Jandro served as Chief Executive Officer and President of Nsite Software, Inc., an early cloud company acquired by Business Objects. From March 2000 to August 2002, Mr. Jandro served as Executive Vice President of Global Sales and Services for ONI Systems, an optical networking company. Prior to that, Mr. Jandro worked at Oracle where he last served as the Group Vice President of Oracle's Communications and Utilities Industries. Mr. Jandro holds an M.S. in management from Northwestern University's Kellogg Graduate School of Management and a B.S. in business from the University of Missouri-St. Louis. On January 3, 2020, Mr. Jandro informed us of his decision to retire from his position as our Senior Vice President, Worldwide Sales, effective immediately.

Available Information

Our website address is *http://www.infinera.com*. Information contained on our website or any website referred to in this Form 10-K is not incorporated by reference unless expressly noted. We file reports with the Securities and Exchange Commission ("SEC"), which we make available on our website free of charge. These reports include Annual Reports on Form 10-K, Quarterly Reports on Form 10-Q, Current Reports on Form 8-K and amendments to such reports, each of which is provided on our website as soon as reasonably practicable after we electronically file such materials with or furnish them to the SEC.

ITEM 1A. RISK FACTORS

Investing in our securities involves a high degree of risk and a description of the risks and uncertainties associated with our business is set forth below. You should carefully consider such risks and uncertainties, together with the other information contained in this Annual Report on Form 10-K and in our other public filings. Because of the following factors, as well as other variables affecting our operating results, past financial performance should not be considered as a reliable indicator of future performance and investors should not use historical trends to anticipate results or trends in future periods. If any of such risks and uncertainties actually occurs, our business, financial condition or operating results could differ materially from the plans, projections and other forward-looking statements included in the section titled "Management's Discussion and Analysis of Financial Condition and Results of Operations" and elsewhere in this Annual Report on Form 10-K and in our other public filings, which could cause the market price of our common stock to decline, perhaps significantly.

Risks Related to Our Business and Our Common Stock

Our quarterly results may vary significantly from period to period, which could make our future results difficult to predict and could cause our operating results to fall below investor, analyst or our expectations.

Our quarterly results and, in particular, our revenue, gross margins, operating expenses, operating margins and net income (loss), have historically varied significantly from period to period and may continue to do so in the future. As a result, comparing our operating results on a period-to-period basis may not be meaningful. Our budgeted expense levels are based, in large part, on our expectations of future revenue and the development efforts associated with that future revenue. Consequently, if our revenue does not meet projected levels in the short-term, our inventory levels, cost of goods sold and operating expenses would be high relative to revenue, resulting in potential operating losses. For example, in each of the prior ten quarters, we have had operating losses, most recently the result of higher operating expenses related to the Acquisition and lower gross margins.

Factors that may contribute to fluctuations in our quarterly results, many of which are outside our control and may be difficult to predict, include:

- fluctuations in demand, sales cycles and prices for products and services, including discounts given in response to competitive pricing pressures, as well as the timing of purchases by our key customers;
- changes in customers' budgets for optical transport network purchases and changes or variability in their purchasing cycles;
- fluctuations in our customer, product or geographic mix, including the impact of new customer deployments, which typically carry lower gross margins, and customer consolidation, which may affect our ability to grow revenue;
- the timing and acceptance of our new product releases and our competitors' new product releases;
- how quickly, or whether at all, the markets in which we operate adopt our solutions;
- our ability to increase volumes and yields on products manufactured in our internal manufacturing facilities;
- delays in operations we may continue to experience during the course of utilizing our new enterprise resource planning ("ERP") system, which we implemented in August 2019, including unintended disruptions in our ability to deliver and bill for customer shipments, project our inventory requirements, and manage our supply chain, including our hardware servicing operations;
- our ability to successfully restructure our operations within our anticipated time frame and realize our anticipated savings;
- the quality and timing of delivery of key components from suppliers, including any delays in the supply of components that may result from the effects of the coronavirus;

- order cancellations, reductions or delays in delivery schedules by our customers;
- any delay in collecting or failure to collect accounts receivable;
- our ability to control costs, including our operating expenses and the costs and availability of components we purchase for our products;
- any significant changes in the competitive dynamics of the markets we serve, including any new entrants, new technologies, or customer or competitor consolidation;
- readiness of customer sites for installation of our products as well as the availability of third-party service partners to provide contract engineering and installation services for us;
- the timing of revenue recognition and revenue deferrals;
- any future changes in U.S. generally accepted accounting principles ("U.S. GAAP") or new interpretations of existing accounting rules;
- the impact of a significant natural disaster, such as an earthquake, severe weather, or tsunami or other flooding, as well as interruptions or shortages in the supply of utilities such as water and electricity, in a key location such as our Northern California facilities, which is located near major earthquake fault lines and in a designated flood zone; and
- general economic and political conditions in domestic and international markets, including those related to the upcoming presidential election in the United States.

Many factors affecting our results of operations are beyond our control and make it difficult to predict our results for a particular quarter and beyond. If our revenue or operating results do not meet the expectations of investors or securities analysts or fall below any guidance we provide to the market, the price of our common stock may decline substantially.

Any delays in the development, introduction or acceptance of our new products or in releasing enhancements to our existing products may harm our business.

Our products are based on complex technologies, including, in many cases, the development of next-generation PICs, DSPs and specialized application-specific integrated circuits ("ASICs"), each of which are key components of our optical engines. In addition, we may also depend on technologies from outside suppliers, all of which may cause us to experience unanticipated delays in developing, improving, manufacturing or deploying our products. The development process for our optical engines is lengthy, and any modifications entail significant development cost and risks.

At any given time, various new product introductions and enhancements to our existing products are in the development phase and are not yet ready for commercial manufacturing or deployment. We rely on third parties, some of which are relatively early stage companies, to develop, manufacture and deliver components for our next-generation products, which can often require custom development. The development process from laboratory prototype to customer trials, and subsequently to general availability, involves a significant number of simultaneous efforts. These efforts often must be completed in a timely and coordinated manner so that they may be incorporated into the product development cycle for our systems, and include:

- completion of product development, including the development and completion of our next-generation optical engines, and the completion of associated module development;
- the qualification and multiple sourcing of critical components;
- validation of manufacturing methods and processes;
- extensive quality assurance and reliability testing and staffing of testing infrastructure;
- validation of software; and
- establishment of systems integration and systems test validation requirements.

Each of these steps, in turn, presents risks of failure, rework or delay, any one of which could decrease the speed and scope of product introduction and marketplace acceptance of our products. New generations of our optical engines as well as intensive software testing are important to the timely introduction of new products and enhancements to our existing products, and are subject to these development risks. In addition, unexpected intellectual property disputes, failure of critical design elements, limited or constrained engineering resources, and a host of other development execution risks may delay, or even prevent, the introduction of new products or enhancements to our existing products. If we do not develop and successfully introduce or enhance products in a timely manner, including the successful development of our next generation optical engine, our competitive position will suffer.

As we transition customers to new products, we face significant risk that our new products may not be accepted by our current or new customers. To the extent that we fail to introduce new and innovative products that are adopted by customers, we could fail to obtain an adequate return on these investments and could lose market share to our competitors, which could be difficult or impossible to regain. Similarly, we may face decreased revenue, gross margins and profitability due to a rapid decline in sales of current products as customers hold spending to focus purchases on new product platforms. We could incur significant costs in completing the transition, including costs of inventory write-downs of the current product as customers transition to new product platforms. In addition, products or technologies developed by others may render our products noncompetitive or obsolete and result in significant reduction in orders from our customers and the loss of existing and prospective customers.

Our ability to increase our revenue will depend upon continued growth of demand by consumers and businesses for additional network capacity and on the level and timing of capital spending by our customers.

Our future success depends on factors that increase the amount of data transmitted over communications networks and the growth of optical transport networks to meet the increased demand for optical capacity. These factors include the growth of mobile, video and cloud-based services, increased broadband connectivity and the continuing adoption of high-capacity, revenue-generating services. If demand for such bandwidth does not continue, or slows down, the market for optical transport networking equipment may not continue to grow and our product sales would be negatively impacted.

In addition, demand for our products depends on the level and timing of capital spending in optical networks by service providers as they construct, expand and upgrade the capacity of their optical networks. Capital spending is cyclical in our industry and spending by customers can change on short notice. Any future decisions by our customers to reduce capital spending, whether caused by lower customer demand or weakening economic conditions, changes in government regulations relating to telecommunications and data networks, customer or other reasons, could have a material adverse effect on our business, results of operations and financial condition.

We may be unable to generate the cash flow necessary to make anticipated capital expenditures, to service our debt or grow our business.

We may not be able to generate sufficient cash flow from operations to make anticipated capital expenditures, to enable us to service our debt or to grow our business. For example, in each of the fiscal quarters since the completion of the Acquisition, we have had a net loss and negative cash flows and we may continue to incur losses in future quarters. Our ability to pay our expenses, service our debt and fund planned capital expenditures will depend on our future performance, which will be affected by general economic, competitive, legislative, political, regulatory, public health issues and other factors beyond our control, and our ability to continue to realize synergies and anticipated cost savings. If we are unable to generate sufficient cash flow from operations or to borrow sufficient funds in the future to service our debt or to make anticipated capital expenditures, we may be required to sell assets, reduce capital expenditures or evaluate alternatives for efficiently funding our capital expenditures and ongoing operations, including the issuance of equity, equity-linked and debt securities. For example, in August 2019 and as supplemented in December 2019, we entered into a credit facility with Wells Fargo Bank and BMO Harris Bank N.A. to provide additional working capital flexibility to manage our business. For additional risks related to the $402.5 million of 2.125% convertible senior notes due September 1, 2024 (the “2024 Notes”) please see “Risk Related to our 2024 Notes” below.

We are dependent on sole source and limited source suppliers for several key components, and if we fail to obtain these components on a timely basis, we will not meet our customers' product delivery requirements.

We currently purchase several key components for our products from sole or limited sources. In particular, we rely on our own production of certain components of our products, such as PICs, and on third parties, including sole source and limited source suppliers, for certain of the components of our products, including ASICs, field-programmable gate arrays, processors, and other semiconductor and optical components. We have increased our reliance on third parties to develop and manufacture components for certain products, some of which require custom development. We purchase most of these components on a purchase order basis and generally only have long-term contracts with these sole source or limited source suppliers. If any of our sole source or limited source suppliers suffer from capacity constraints, lower than expected yields, deployment delays, work stoppages or any other reduction or disruption in output, they may be unable to meet our delivery schedule which could result in lost revenue, additional product costs and deployment delays that could harm our business and customer relationships. In addition, these same suppliers may decide to no longer manufacture or support specific components necessary for some of our legacy products, which could lead to our inability to fulfill demand without increased engineering and material costs necessary to replace such components. Further, our suppliers could enter into exclusive arrangements with our competitors, refuse to sell their products or components to us at commercially reasonable prices or at all, go out of business or discontinue their relationships with us. We may be unable to develop alternative sources for these components within a suitable time frame to be able to operate our business, or at all.

The loss of a source of supply, or lack of sufficient availability of key components, could require us to redesign products that use such components, which could result in lost revenue, additional product costs and deployment delays that could harm our business and customer relationships. For example, the recent outbreak of the coronavirus in China may cause a disruption of the global supply chain for certain components necessary for our products and it is unknown the magnitude of or how long any such impact may continue. Due to cross dependencies, any supply chain disruptions could negatively impact the demand for our products in the short term. In addition, if our contract manufacturers do not receive critical components in a timely manner to build our products, then we would not be able to ship certain products in a timely manner and would, therefore, be unable to meet our prospective customers' product delivery requirements. In the past, we have experienced delivery delays because of lack of availability of components or reliability issues with components that we were purchasing. In addition, some of our suppliers have gone out of business, merged with another supplier, or limited their supply of components to us, which may cause us to experience longer than normal lead times, supply delays and increased prices. We may in the future experience a shortage of certain components as a result of our own manufacturing issues, manufacturing issues at our suppliers or contract manufacturers, capacity problems experienced by our suppliers or contract manufacturers, strong demand in the industry for such components, or other disruptions in our supply chain. In addition, disruptions to global macroeconomic conditions may create pressure on us and our suppliers to accurately project overall component demand and manufacturing capacity. These supplier disruptions may continue to occur in the future, which could limit our ability to produce our products and cause us to fail to meet a customer's delivery requirements. Any failure to meet our customers' product delivery requirements could harm our reputation and our customer relationships, either of which would harm our business and operating results.

Our gross margin may fluctuate from period to period and may be adversely affected by a number of factors, some of which are beyond our control.

Our gross margin fluctuates from period to period and varies by customer and by product. Over the past eight fiscal quarters, our gross margin has ranged from 20.7% to 40.5%. Our gross margin is likely to continue to fluctuate and will be affected by a number of factors, including:

- the mix of the types of customers purchasing our products as well as the product mix;
- the initial products released powered by our next-generation technologies generate lower margin initially, as per unit production costs for initial units tend to be higher and experience more variability in production yields;
- the pace at which we deploy solutions powered by our next generation technologies, which could lead to higher excess or obsolete inventory;

- the mix of products sold to customers that benefit from vertical integration as compared to products that include a higher percentage of third-party components;
- significant new deployments to existing and new customers, often with a higher portion of lower margin common equipment as we deploy network footprint;
- aggressive pricing tactics by our competitors;
- changes in our manufacturing costs, including fluctuations in yields and production volumes;
- pricing and commercial terms designed to secure long-term customer relationships, as well as commercial deals to transition certain customers to our new products;
- consolidation amongst our suppliers, which may increase prices of components for our products;
- the volume of Instant Bandwidth-enabled solutions sold, and capacity licenses activated;
- price discounts negotiated by our customers;
- charges for excess or obsolete inventory;
- changes in the price or availability of components for our products, including the possible effect of new or increased tariffs on the prices of raw materials used in such components; and
- changes in warranty related costs.

It is likely that the average unit prices of our products will decrease over time in response to competitive pricing pressures. In addition, some of our customer contracts contain clauses that require us to annually decrease the sales price of our products to these customers. In response, we will need to reduce the cost of our products through manufacturing efficiencies, design improvements and cost reductions from our supply partners. If these efforts are not successful or if we are unable to reduce our costs by more than the reduction in the price of our products, our gross margin will decline, causing our operating results to decline. Fluctuations in gross margin may make it difficult to manage our business and achieve or maintain profitability.

Actions that we are taking to restructure our business to cut costs in order to align our operating structure with current opportunities may not be as effective as anticipated.

In December 2018, we implemented a restructuring initiative (the “2018 Restructuring Plan”) as part of a comprehensive review of our operations and ongoing integration synergies in order to optimize resources for future growth, improve efficiencies and address redundancies following the Acquisition. As part of the 2018 Restructuring Plan, we sought to reduce expenses, streamline the organization, and reallocate resources to align more closely with our needs going forward. While we expect to realize efficiencies from these actions, these activities might not produce the full efficiency and cost reduction benefits we expect. For example, in the third quarter of 2019, we completed the transfer of our manufacturing operations in Berlin, Germany to a contract manufacturer. We may not fully realize all the projected cost savings from the closure of this site or other sites, which would harm our business. In addition, any disruptions in the smooth transition to a third-party manufacturer could damage customer relations and harm our ability to achieve our financial plans.

Further, any anticipated benefits from the 2018 Restructuring Plan may be realized later than expected or not at all, and the ongoing costs of implementing these measures may be greater than anticipated. While we believe significant synergies have been achieved, our ability to continue to drive further synergies in the amounts and time frames expected are subject to a number of risks, which may or may not be realized, as well as the incurrence of other costs in our operations that may offset all or a portion of such synergies and other factors outside our control. As a consequence, we may not be able to realize all of these synergies within the time frame expected or at all, or the amounts of such synergies could be significantly reduced, and we may incur additional and/or unexpected costs to realize these additional synergies. In addition, as a result of the restructuring, our ability to execute on product development, address key market opportunities and/or meet customer demand, could be materially and adversely affected.

We are dependent on a small number of key customers for a significant portion of our revenue from period to period and the loss of, or a significant reduction in, orders from one or more of our key customers would reduce our revenue and harm our operating results.

While our revenue and customer base have become more diversified over the past few years, today a relatively small number of customers account for a large percentage of our revenue from period to period. For example, for fiscal 2019, our top ten customers accounted for approximately 46% of our total revenue. For the fiscal year 2018, our top ten customers accounted for approximately 54% of our total revenue. Our business will likely be harmed if any of our key customers are acquired, do not generate as much revenue as we forecast, stop purchasing from us, delay anticipated product purchases, or substantially reduce their orders to us. In addition, our business will be harmed if we fail to maintain our competitive advantage with our key customers or do not add new larger customers over time. We continue to expect a relatively small number of customers to continue to account for a large percentage of revenue from period to period. However, customer consolidation could reduce the number of key customers that generate a significant percentage of our revenue and may increase the risks relating to dependence on a small number of customers.

Our ability to continue to generate revenue from our key customers will depend on our ability to maintain strong relationships with these customers and introduce competitive new products at competitive prices. In most cases, our sales are made to these customers pursuant to standard purchase agreements, which may be canceled or reduced readily, rather than long-term purchase commitments that would require these customers to purchase any minimum or guaranteed volumes orders. In the event of a cancellation or reduction of an order, we may not have enough time to reduce operating expenses to minimize the effect of the lost revenue on our business. Our operating results will continue to depend on our ability to sell our products to our key customers. In addition, we must regularly compete for and win business with existing and new customers across all of our customer segments.

Aggressive business tactics by our competitors may harm our business.

The markets in which we compete are extremely competitive and this often results in aggressive business tactics by our competitors, including:

- aggressively pricing their optical transport products and other portfolio products, including offering significant one-time discounts and guaranteed future price decreases;
- offering optical products at a substantial discount or for free when bundled together with broader technology purchases, such as router or wireless equipment purchases;
- providing financing, marketing and advertising assistance to customers; and
- influencing customer requirements to emphasize different product capabilities, which better suit their products.

The level of competition and pricing pressure tend to increase when competing for larger high-profile opportunities or during periods of economic weakness when there are fewer network build-out projects. If we fail to compete successfully against our current and future competitors, or if our current or future competitors continue or expand their aggressive business tactics, including those described above, demand for our products could decline, we could experience delays or cancellations of customer orders, and/or we could be required to reduce our prices to compete in the market.

Increased consolidation among our customers and suppliers in the communications networking industry has had, and could continue to have, an adverse effect on our business and results of operations.

We have seen increased consolidation in the communications networking industry over the past few years, which has adversely affected our business and results of operations. For example, several of our customers have consolidated in the past. During 2016, Charter Communications completed its acquisition of Time Warner Cable, Inc. and Altice completed its acquisition of Cablevision. During 2017, Verizon completed its acquisition of XO Communications and CenturyLink completed its acquisition of Level 3 Communications. Customer consolidation has led to changes in buying patterns, slowdowns in spending, redeployment of existing equipment and re-architecture of parts of existing networks or future networks, as the combined companies evaluate the needs of the combined business. Moreover, the significant purchasing power of these large companies can increase pricing and competitive pressures for us, including the potential for decreases in our average selling prices. If one of our customers is acquired by another company that does not rely on us to provide it with products or relies on another provider of similar products, we may lose that customer's business. Such consolidation may further reduce the number of customers that generate a significant percentage of our revenue and may exacerbate the risks relating to dependence on a small number of customers. Any of the foregoing results will adversely affect our business, financial condition and results of operations.

In addition, our suppliers in the communications networking industry have recently continued to consolidate. For example, in the fourth quarter of 2018, Lumentum completed its acquisition of Oclaro and, in the third quarter of 2019, II-VI completed its acquisition of Finisar. Supplier consolidation may lead to increased prices of components for our products, deployment delays and/or a disruption in output. In addition, such consolidation may exacerbate the risks relating to our dependence on a small number of suppliers for certain components and materials that are required to manufacture our products.

If we lose key personnel or fail to attract and retain additional qualified personnel when needed, our business may be harmed.

Our success depends to a significant degree upon the continued contributions of our key management, engineering, sales and marketing, and finance personnel, many of whom would be difficult to replace. For example, senior members of our engineering team have unique technical experience that would be difficult to replace. Because our products are complex, we must hire and retain highly trained customer service and support personnel to ensure that the deployment of our products does not result in network disruption for our customers. We believe our future success will depend in large part upon our ability to identify, attract and retain highly skilled personnel and competition for these individuals is intense in our industry, especially in the San Francisco Bay Area where we are headquartered and, increasingly, in certain cities and regions where we have operations outside the United States as well. In addition, we may not succeed in identifying, attracting and retaining appropriate personnel. The loss of the services of any of our key personnel, the inability to identify, attract or retain qualified personnel in the future or delays in hiring qualified personnel, particularly engineers and sales personnel, could make it difficult for us to manage our business and meet key objectives, such as timely product introductions. In addition, we do not have long-term employment contracts or key person life insurance covering any of our key personnel. If we are unable to attract and retain qualified personnel, we may be unable to manage our business effectively, and our results of operations could suffer.

Product performance problems, including undetected errors in our hardware or software, or deployment delays could harm our business and reputation.

The development and production of products with high technology content is complicated and often involves problems with hardware, software, components and manufacturing methods. Complex hardware and software systems, such as our products, can often contain undetected errors or bugs when first introduced or as new versions are released. In addition, errors associated with components we purchase from third parties, including customized components, may be difficult to resolve. We have experienced issues in the past in connection with our products, including failures due to the receipt of faulty components from our suppliers and performance issues related to software updates. From time to time we have had to replace certain components, provide software remedies or other remediation in response to errors or bugs, and we may have to do so again in the future. In addition, performance issues can be heightened during periods where we are developing and introducing multiple new products to the market, as any performance issues we encounter in one technology or product could impact the performance or timing of delivery of other products. Our products may suffer degradation of performance and reliability over time. Also, as a result of the Acquisition, we will be adding, augmenting, and modifying significant parts of our combined portfolio with network management and network automation software and features. These efforts may introduce new software bugs or network level reliability issues that are not known at this time, which could cause us to lose customers and fail to add new customers.

If reliability, quality, security or network monitoring problems develop, a number of negative effects on our business could result, including:

- reduced orders from existing customers;
- declining interest from potential customers;
- delays in our ability to recognize revenue or in collecting accounts receivables;
- costs associated with fixing hardware or software defects or replacing products;
- high service and warranty expenses;
- delays in shipments;
- high inventory excess and obsolescence expense;
- high levels of product returns;
- diversion of our engineering personnel from our product development efforts; and
- payment of liquidated damages, performance guarantees or similar penalties.

Because we outsource the manufacturing of certain components of our products, we may also be subject to product performance problems as a result of the acts or omissions of third parties.

From time to time, we encounter interruptions or delays in the activation of our products at a customer’s site. These interruptions or delays may result from product performance problems or from issues with installation and activation, some of which are outside our control. If we experience significant interruptions or delays that we cannot promptly resolve, the associated revenue for these installations may be delayed or confidence in our products could be undermined, which could cause us to lose customers, fail to add new customers, and consequently harm our financial results.

The markets in which we compete are highly competitive and we may not be able to compete effectively.

Competition in the packet-optical equipment market is intense. Our main competitors include WDM system suppliers, such as ADVA Optical Networking, Ciena Corporation, Cisco Systems, ECI, Huawei Technologies Co., Ltd., Nokia and ZTE. In addition, there are several other companies that offer one or more products that partially compete with our offerings.

Competition in the markets we serve is based on any one or a combination of the following factors:

- price and other commercial terms;
- functionality;
- existing business and customer relationships;
- the ability of products and services to meet customers’ immediate and future network requirements;
- power consumption;
- heat dissipation;
- form factor or density;
- installation and operational simplicity;
- quality and reliability;
- service and support;

- security and encryption requirements;
- scalability and investment protection; and
- product lead times.

In addition to our current competitors, other companies have, or may in the future develop, products that are or could be competitive with our products. We also could encounter competitor consolidation in the markets in which we compete, which could lead to a changing competitive landscape, capabilities and market share, and could impact our results of operations. For example, in the third quarter of fiscal 2019, Cisco Systems announced its intention to acquire optical communications supplier Acacia Communications.

Some of our competitors have substantially greater name recognition, technical, financial and marketing resources, and better-established relationships with potential customers than we have. Many of our competitors have more resources and more experience in developing or acquiring new products and technologies, and in creating market awareness for those products and technologies. In addition, many of our competitors have the financial resources to offer competitive products at aggressive pricing levels that could prevent us from competing effectively. Further, many of our competitors have built long-standing relationships with some of our prospective and existing customers and have the ability to provide financing to customers and could, therefore, have an inherent advantage in selling products to those customers.

We also compete with low-cost producers that can increase pricing pressure on us and a number of smaller companies that provide competition for a specific product, customer segment or geographic market. In addition, we may also face increased competition from system and component companies that develop products based on off-the-shelf hardware that offers the latest commercially available technologies. Due to the narrower focus of their efforts, these competitors may achieve commercial availability of their products more quickly than we can and may provide attractive alternatives to our customers.

We rely on various third-party service partners to help complement our global operations, and failure to adequately manage these relationships could adversely impact our financial results and relationships with customers.

We rely on a number of third-party service partners, both domestic and international, to complement our global operations. We rely upon these partners for certain installation, maintenance, logistics and support functions. In addition, as our customers increasingly seek to rely on vendors to perform additional services relating to the design, construction and operation of their networks, the scope of work performed by our service partners is likely to increase and may include areas where we have less experience providing or managing such services. We must successfully identify, assess, train and certify qualified service partners in order to ensure the proper installation, deployment and maintenance of our products. The vetting and certification of these partners can be costly and time-consuming, and certain partners may not have the same operational history, financial resources and scale as we have. Moreover, certain service partners may provide similar services for other companies, including our competitors. We may not be able to manage our relationships with our service partners effectively, and we cannot be certain that they will be able to deliver services in the manner or time required, that we will be able to maintain the continuity of their services, or that they will adhere to our approach to ethical business practices. We may also be exposed to a number of risks or challenges relating to the performance of our service partners, including:

- delays in recognizing revenue;
- liability for injuries to persons, damage to property or other claims relating to the actions or omissions of our service partners;
- our services revenue and gross margin may be adversely affected; and
- our relationships with customers could suffer.

If we do not effectively manage our relationships with third-party service partners, or if they fail to perform these services in the manner or time required, our financial results and relationships with our customers could be adversely affected.

We must respond to rapid technological change and comply with evolving industry standards and requirements for our products to be successful.

The optical transport networking equipment market is characterized by rapid technological change, changes in customer requirements and evolving industry standards. We continually invest in research and development to sustain or enhance our existing products, but the introduction of new communications technologies and the emergence of new industry standards or requirements could render our products obsolete. Further, in developing our products, we have made, and will continue to make, assumptions with respect to which standards or requirements will be adopted by our customers and competitors. If the standards or requirements adopted by our prospective customers are different from those on which we have focused our efforts, market acceptance of our products would be reduced or delayed, and our business would be harmed.

We are continuing to invest a significant portion of our research and development efforts in the development of our next-generation products. We expect our competitors will continue to improve the performance of their existing products and introduce new products and technologies and to influence customers' buying criteria so as to emphasize product capabilities that we do not, or may not, possess. To be competitive, we must anticipate future customer requirements and continue to invest significant resources in research and development, sales and marketing, and customer support. If we do not anticipate these future customer requirements and invest in the technologies necessary to enable us to have and to sell the appropriate solutions, it may limit our competitive position and future sales, which would have an adverse effect on our business and financial condition. We may not have sufficient resources to make these investments and we may not be able to make the technological advances necessary to be competitive.

The manufacturing process for our optical engine, and the assembly of our finished products, is very complex. The partial or complete loss of any of our manufacturing facilities, a reduction in yields of our PICs or an inability to scale capacity to meet customer demands could harm our business.

The manufacturing process for our optical engine, including the PICs, DSPs and specialized ASICs, and the assembly of our finished products, is very complex. In the event that any of our manufacturing facilities utilized to build these components and assemble our finished products were fully or partially destroyed, or shut down, as a result of a natural disaster, work stoppage or otherwise, it could severely limit our ability to sell our products. Because of the complex nature of our manufacturing facilities, such loss would take a considerable amount of time to repair or replace. The partial or complete loss of any of our manufacturing facilities, or an event causing the interruption in our use of any such facilities, whether as a result of a natural disaster, work stoppage or otherwise, for any extended period of time would cause our business, financial condition and operating results to be harmed.

Minor deviations in the PIC manufacturing process can cause substantial decreases in yields and, in some cases, cause production to be suspended. In the past, we have had significant variances in our PIC yields, including production interruptions and suspensions and may have continued yield variances, including additional interruptions or suspensions in the future. Lower than expected yields from our PIC manufacturing process or defects, integration issues or other performance problems in our products could limit our ability to satisfy customer demand requirements, and could damage customer relations and cause business reputation problems, harming our business and operating results.

Our inability to obtain sufficient manufacturing capacity to meet demand, either in our own facilities or through foundry or similar arrangements with third parties, could harm our relationships with our customers, our business and our results of operations.

If we fail to accurately forecast our manufacturing requirements or customer demand, we could incur additional costs, including inventory write-downs or equipment write-offs, which would adversely affect our business and results of operations.

We generate forecasts of future demand for our products several months prior to the scheduled delivery to our prospective customers. This requires us to make significant investments before we know if corresponding revenue will be recognized. Lead times for materials and components, including ASICs, that we need to order for the manufacture of our products vary significantly and depend on factors such as the specific supplier, contract terms and demand for each component at a given time. In the past, we have experienced lengthened in lead times for certain components. If the lead times for components are lengthened, we may be required to purchase increased levels of such components to satisfy our delivery commitments to our customers. In addition, we must manage our inventory to ensure we continue to meet our commitments as we introduce new products or make enhancements to our existing products.

If we overestimate market demand for our products and, as a result, increase our inventory in anticipation of customer orders that do not materialize, we will have excess inventory, which could result in increased risk of obsolescence and significant inventory write-downs. Furthermore, this will result in reduced production volumes and our fixed costs will be spread across fewer units, increasing our per unit costs. If we underestimate demand for our products, we will have inadequate inventory, which could slow down or interrupt the manufacturing of our products and result in delays in shipments our ability to recognize revenue and the potential loss of customers to competitors. In addition, we may be unable to meet our supply commitments to customers, which could result in a loss of certain customer opportunities or a breach of our customer agreements resulting in payment of damages.

If our contract manufacturers do not perform as we expect, our business may be harmed.

We rely on third-party contract manufacturers to perform a portion of the manufacturing of our products, and our future success will depend on our ability to have sufficient volumes of our products manufactured in a cost-effective and quality-controlled manner. We have engaged third parties to manufacture certain elements of our products at multiple contract manufacturing sites located around the world but do not have long-term agreements in place with some of our manufacturers and suppliers that will guarantee product availability, or the continuation of particular pricing or payment terms. There are a number of risks associated with our dependence on contract manufacturers, including:

- reduced control over delivery schedules, particularly for international contract manufacturing sites;
- reliance on the quality assurance procedures of third parties;
- potential uncertainty regarding manufacturing yields and costs;
- potential lack of adequate capacity during periods of high demand;
- limited warranties on components;
- potential misappropriation of our intellectual property; and
- potential manufacturing disruptions (including disruptions caused by geopolitical events, military actions, work stoppages, natural disasters or international health emergencies such as the coronavirus).

Any of these risks could impair our ability to fulfill orders. Any delays by our contract manufacturers may cause us to be unable to meet the delivery requirements of our customers, which could decrease customer satisfaction and harm our product sales. In addition, if our contract manufacturers are unable or unwilling to continue manufacturing our products or components of our products in required volumes or our relationship with any of our contract manufacturers is discontinued for any reason, we would be required to identify and qualify alternative manufacturers, which could cause us to be unable to meet our supply requirements to our customers and result in the breach of our customer agreements. Qualifying a new contract manufacturer and commencing volume production is expensive and time-consuming and if we are required to change or qualify a new contract manufacturer, we could lose revenue and damage our customer relationships.

Our large customers have substantial negotiating leverage, which may cause us to agree to terms and conditions that result in lower average selling prices and potentially increased cost of sales leading to lower gross margin, each of which would harm our results of operations.

Many of our customers are large service providers and ICPs that have substantial purchasing power and leverage in negotiating contractual arrangements with us. In addition, customer consolidation in the past few years has created combined companies that are even larger and have greater negotiating leverage. Our customers have sought and may continue to seek advantageous pricing, payment and other commercial terms. We have agreed and may continue to agree to unfavorable commercial terms with these customers, including the potential of reducing the average selling price of our products, increasing cost of sales or agreeing to extended payment terms in response to these commercial requirements or competitive pricing pressures. To maintain acceptable operating results, we will need to comply with these commercial terms, develop and introduce new products and product enhancements on a timely basis, and continue to reduce our costs, which could affect our results of operations.

Our sales cycle can be long and unpredictable, which could result in an unexpected revenue shortfall in any given quarter.

Our products can have a lengthy sales cycle, which can extend from six to twelve months and may take even longer for larger prospective customers. Our prospective customers conduct significant evaluation, testing, implementation and acceptance procedures before they purchase our products. We incur substantial sales and marketing expenses and expend significant management effort during this time, regardless of whether we make a sale.

Because the purchase of our equipment involves substantial cost, most of our customers wait to purchase our equipment until they are ready to deploy it in their network. As a result, it is difficult for us to accurately predict the timing of future purchases by our customers. In addition, product purchases are often subject to budget constraints, multiple approvals and unplanned administrative processing and other delays, including the need for the customer to obtain external financing. If sales expected from customers for a particular quarter are not realized in that quarter or at all, our revenue will be negatively impacted.

If we need additional capital in the future, it may not be available to us on favorable terms, or at all.

Our business requires significant capital. For example, in August 2019 we completed a credit facility with Wells Fargo to provide additional capital to manage our business, and in December 2019, we increased the amount we could borrow under the credit facility. We have historically relied on outside debt or equity financing as well as cash flow from operations to fund our operations, capital expenditures and expansion. We may require additional capital from equity or equity-linked financing, debt financing or other financings in the future to fund our operations, respond to competitive pressures or strategic opportunities or to refinance our existing debt obligations. In the event that we require additional capital, we may not be able to secure timely additional financing on favorable terms, or at all. The terms of any additional financing may place limits on our financial and operating flexibility. If we raise additional funds through further issuances of equity, convertible debt securities or other securities convertible into equity, our existing stockholders could suffer dilution in their percentage ownership of our company, and any new securities we issue could have rights, preferences and privileges senior to those of holders of our common stock. If we are unable to obtain adequate financing or financing on terms satisfactory to us, if and when we require it, our ability to grow or support our business and to respond to business challenges could be limited and our business will be harmed.

If we fail to protect our intellectual property rights, our competitive position could be harmed, or we could incur significant expense to enforce our rights.

We depend on our ability to protect our proprietary technology. We rely on a combination of methods to protect our intellectual property, including limiting access to certain information, and utilizing trade secret, patent, copyright and trademark laws and confidentiality agreements with employees and third parties, all of which offer only limited protection. The steps we have taken to protect our proprietary rights may be inadequate to preclude misappropriation or unauthorized disclosure of our proprietary information or infringement of our intellectual property rights, and our ability to police such misappropriation, unauthorized disclosure or infringement is uncertain, particularly in countries outside of the United States. This is likely to become an increasingly important issue if we expand our operations and product development into countries that provide a lower level of intellectual property protection. We do not know whether any of our pending patent applications will result in the issuance of patents or whether the examination process will require us to narrow our claims, and even if patents are issued, they may be contested, circumvented or invalidated. Moreover, the rights granted under any issued patents may not provide us with a competitive advantage, and, as with any technology, competitors may be able to develop similar or superior technologies to our own now or in the future.

Protecting against the unauthorized use of our products, trademarks and other proprietary rights is expensive, difficult, time consuming and, in some cases, impossible. Litigation may be necessary in the future to enforce or defend our intellectual property rights, to protect our trade secrets or to determine the validity or scope of the proprietary rights of others. Such litigation could result in substantial cost and diversion of management resources, either of which could harm our business, financial condition and operating results. Furthermore, many of our current and potential competitors have the ability to dedicate substantially greater resources to enforce their intellectual property rights than we do. Accordingly, despite our efforts, we may not be able to prevent third parties from infringing upon or misappropriating our intellectual property.

Claims by others that we infringe their intellectual property could harm our business.

Our industry is characterized by the existence of a large number of patents and frequent claims and related litigation regarding patent and other intellectual property rights. In particular, many leading companies in the optical transport networking industry, including our competitors, have extensive patent portfolios with respect to optical transport networking technology. In addition, non-practicing patent holding companies seek to monetize patents they have purchased or otherwise obtained. We expect that infringement claims may increase as the number of products and competitors in our market increases and overlaps in technology implementation occur. From time to time, third parties may assert exclusive patent, copyright, trademark and other intellectual property rights to technologies and related standards that are important to our business or seek to invalidate the proprietary rights that we hold. Competitors or other third parties have asserted, and may continue to assert claims or initiate litigation or other proceedings against us or our manufacturers, suppliers or customers alleging infringement of their proprietary rights, or seeking to invalidate our proprietary rights, with respect to our products and technology. In addition, in the past we have had certain patent licenses with third parties that have not been renewed, and if we cannot successfully renew these licenses, we could face claims of infringement. In the event that we are unsuccessful in defending against any such claims, or any resulting lawsuits or proceedings, we could incur liability for damages and/or have valuable proprietary rights invalidated. For additional information regarding certain of the legal proceedings in which we are involved, see Part I, Item 3, "Legal Proceedings."

Any claim of infringement from a third party, even one without merit, could cause us to incur substantial costs defending against the claim, and could distract our management from running our business. Furthermore, a party making such a claim, if successful, could secure a judgment that requires us to pay substantial damages or could include an injunction or other court order that could prevent us from offering our products. In addition, we might be required to seek a license for the use of such intellectual property, which may not be available on commercially reasonable terms or at all. Alternatively, we may be required to develop non-infringing technology, which would require significant effort and expense and may ultimately not be successful. Any of these events could harm our business, financial condition and operating results. Competitors and other third parties have and may continue to assert infringement claims against our customers and sales partners. Any of these claims would require us to initiate or defend potentially protracted and costly litigation on their behalf, regardless of the merits of these claims, because we generally indemnify our customers and sales partners from claims of infringement of proprietary rights of third parties. If any of these claims succeed, we may be forced to pay damages on behalf of our customers or sales partners, which could have an adverse effect on our business, financial condition and operating results.

We may also be required to indemnify some customers under our contracts if a third party alleges, or a court finds, that our products have infringed upon the proprietary rights of other parties. From time to time, we have agreed to indemnify certain customers for claims made against our products, where such claims allege infringement of third-party intellectual property rights, including, but not limited to, patents, registered trademarks and/or copyrights. If we are required to make a significant payment under any of our indemnification obligations, our result of operations may be harmed.

We incorporate free and open source licensed software into our products. Although we monitor our use of such open source software closely, the terms of many open source licenses have not been interpreted by U.S. courts, and there is a risk that such licenses could be construed in a manner that could impose unanticipated conditions or restrictions on our ability to commercialize our products. In addition, non-compliance with open source software license terms and conditions could subject us to potential liability, including intellectual property infringement and/or contract claims. In such events, we may be required to seek licenses from third parties in order to continue offering our products, to re-engineer our products or to discontinue the sale of our products in the event re-engineering cannot be accomplished in a timely manner, any of which could adversely affect our business, operating results and financial condition.

The trading price of our common stock has been volatile and is likely to be volatile in the future.

The trading prices of our common stock and the securities of other technology companies have been and may continue to be highly volatile. Factors affecting the trading price of our common stock include:

- variations in our operating results;
- announcements of technological innovations, new services or service enhancements, strategic alliances or agreements by us or by our competitors;
- the gain or loss of customers;
- recruitment or departure of key personnel;
- changes in the estimates of our future operating results or external guidance on those results or changes in recommendations or business expectations by any securities analysts that elect to follow our common stock;
- mergers and acquisitions by us, by our competitors or by our customers;
- market conditions in our industry, the industries of our customers and the economy as a whole, including global trade tariffs; and
- adoption or modification of regulations, policies, procedures or programs applicable to our business.

In addition, if the market for technology stocks or the broader stock market experience a loss of investor confidence, the trading price of our common stock could decline for reasons unrelated to our business, financial condition or operating results. The trading price of our common stock might also decline in reaction to events that affect other companies in our industry even if these events do not directly affect us. Each of these factors, among others, could harm the value of your investment in our common stock. Some companies that have had volatile market prices for their securities have had securities class action lawsuits filed against them. If a suit were filed against us, regardless of its merits or outcome, it could result in substantial costs and divert management’s attention and resources.

Unfavorable macroeconomic and market conditions may adversely affect our industry, business and financial results.

In the past, unfavorable macroeconomic and market conditions have resulted in sustained periods of decreased demand for optical communications products. These conditions may also result in the tightening of credit markets, which may limit or delay our customers' ability to obtain necessary financing for their purchases of our products. A lack of liquidity in the capital markets or the continued uncertainty in the global economic environment may cause our customers to delay or cancel their purchases, increase the time they take to pay or default on their payment obligations, each of which would negatively affect our business and operating results. Weakness and uncertainty in the global economy could cause some of our customers to become illiquid, delay payments or adversely affect our collection of their accounts, which could result in a higher level of bad debt expense. In addition, currency fluctuations could negatively affect our international customers' ability or desire to purchase our products.

Challenging economic conditions have from time to time contributed to slowdowns in the telecommunications industry in which we operate. Such slowdowns may result in:

- reduced demand for our products as a result of constraints on capital spending by our customers;
- increased price competition for our products, not only from our competitors, but also as a result of our customer's or potential customer's utilization of inventoried or underutilized products, which could put additional downward pressure on our near-term gross profits;
- risk of excess or obsolete inventories;
- our customers facing financial difficulties, including bankruptcy;
- excess manufacturing capacity and higher associated overhead costs as a percentage of revenue; and
- more limited ability to accurately forecast our business and future financial performance.

A lack of liquidity and economic uncertainty may adversely affect our suppliers or the terms on which we purchase products from these suppliers. It may also cause some of our suppliers to become illiquid. Any of these impacts could limit our ability to obtain components for our products from these suppliers and could adversely impact our supply chain or the delivery schedule to our customers. This also could require us to purchase more expensive components, or re-design our products, which could cause increases in the cost of our products and delays in the manufacturing and delivery of our products. Such events could harm our gross margin and harm our reputation and our customer relationships, either of which could harm our business and operating results.

Our international sales and operations subject us to additional risks that may harm our operating results.

Sales of our products into international markets continue to be an important part of our business. During the fiscal 2019, fiscal 2018 and fiscal 2017, we derived approximately 52%, 49% and 42%, respectively, of our revenue from customers outside of the United States. We expect that significant management attention and financial resources will be required for our international activities over the foreseeable future as we continue to operate in international markets. In some countries, our success in selling our products and growing revenue will depend in part on our ability to form relationships with local partners. Our inability to identify appropriate partners or reach mutually satisfactory arrangements for international sales of our products could impact our ability to maintain or increase international market demand for our products. In addition, many of the companies we compete against internationally have greater name recognition and a more substantial sales and marketing presence.

We have sales and support personnel in numerous countries worldwide. In addition, we have established development centers in Canada, China, Finland, Germany, India, Portugal and Sweden. There is no assurance that our reliance upon development resources in international locations will enable us to achieve meaningful cost reductions or greater resource efficiency. As a result of the Acquisition, we now have sales and support personnel in a greater number of geographical locations throughout APAC (including China) and EMEA (with offices in the Middle East).

As a result of having global operations, the sudden disruption of the supply chain and/or the manufacture of our customer’s components caused by events outside of our control could impact our results of operations by impairing our ability to timely and efficiently deliver our products or provide installation and maintenance services to our customers. For example, the recent outbreak of the coronavirus in China and other geographic areas may cause a disruption of the global supply chain for certain components necessary for our products and could threaten the health and safety of our employees.

Our international operations are subject to inherent risks, and our future results could be adversely affected by a variety of factors, many of which are outside of our control, including:

- greater difficulty in collecting accounts receivable and longer collection periods;
- difficulties of managing and staffing international offices, and the increased travel, infrastructure and legal compliance costs associated with multiple international locations;
- political, social and economic instability, including wars, terrorism, political unrest, boycotts, curtailment of trade and other business restrictions;
- tariff and trade barriers and other regulatory requirements or contractual limitations on our ability to sell or develop our products in certain foreign markets;
- less effective protection of intellectual property than is afforded to us in the United States or other developed countries;
- local laws and practices that favor local companies, including business practices that we are prohibited from engaging in by the Foreign Corrupt Practices Act and other anti-corruption laws and regulations;
- potentially adverse tax consequences; and
- effects of changes in currency exchange rates, particularly relative increases in the exchange rate of the U.S. dollar versus other currencies that could negatively affect our financial results and cash flows.

International customers may also require that we comply with certain testing or customization of our products to conform to local standards. The product development costs to test or customize our products could be extensive and a material expense for us.

Our international operations are subject to increasingly complex foreign and U.S. laws and regulations, including but not limited to anti-corruption laws, such as the Foreign Corrupt Practices Act and the UK Bribery Act and equivalent laws in other jurisdictions, antitrust or competition laws, and data privacy laws, among others. Violations of these laws and regulations could result in fines and penalties, criminal sanctions against us, our officers, or our employees, prohibitions on the conduct of our business and on our ability to offer our products and services in one or more countries, and could also materially affect our reputation, our international expansion efforts, our ability to attract and retain employees, our business, and our operating results. Although we have implemented policies, procedures and training designed to ensure compliance with these laws and regulations, there can be no complete assurance that any individual employee, contractor or agent will not violate our policies. Additionally, the costs of complying with these laws (including the costs of investigations, auditing and monitoring) could also adversely affect our current or future business.

As we continue to expand our business globally, our success will depend, in large part, on our ability to effectively anticipate and manage these and other risks and expenses associated with our international operations. For example, political instability and uncertainty in the European Union and, in particular, the United Kingdom's pending exit from the E.U. (Brexit) as well as other countries potentially choosing to exit the E.U., could slow economic growth in the region, affect foreign exchange rates, and could further discourage near-term economic activity, including our customers delaying purchases of our products. Our failure to manage any of these risks successfully could harm our international operations and reduce our international sales, and business generally, adversely affecting our business, financial condition and results of operations.

We may be adversely affected by fluctuations in currency exchange rates.

A portion of our sales and expenses stem from countries outside of the United States, and are in currencies other than U.S. dollars, and therefore subject to foreign currency fluctuation. Accordingly, fluctuations in foreign currency rates could have a material impact on our financial results in future periods. We may enter into other financial contracts to reduce the impact of foreign currency fluctuations. We currently enter into foreign currency exchange forward contracts to reduce the impact of foreign currency fluctuations on accounts receivable, and also to reduce the volatility of cash flows primarily related to forecasted foreign currency revenue and expenses. These forward contracts reduce the impact of currency exchange rate movements on certain transactions, but do not cover all foreign-denominated transactions and therefore do not entirely eliminate the impact of fluctuations in exchange rates that could negatively affect our results of operations and financial condition.

Our effective tax rate may increase or fluctuate, which could increase our income tax expense and reduce our net income.

Our effective tax rate can be adversely affected by several factors, many of which are outside of our control, including:

- changes in the valuation of our deferred tax assets and liabilities, and in deferred tax valuation allowances;
- changes in the relative proportions of revenue and income before taxes in the various jurisdictions in which we operate that have differing statutory tax rates;
- changing tax laws, regulations, rates and interpretations in multiple jurisdictions in which we operate;
- changes to the financial accounting rules for income taxes;
- the tax effects of acquisitions, including the effects of integrating intellectual property; and
- the resolution of issues arising from tax audits.

The United States enacted significant tax reform under the Tax Cuts and Jobs Act of 2017 (the “Tax Act”). The U.S. Department of Treasury has broad authority to issue regulations and interpretative guidance that may significantly impact how we will apply the law, which could affect our results of operations in the period issued. Many countries and organizations such as the Organization for Economic Cooperation and Development are actively considering changes to existing tax laws or have proposed or enacted new laws that could increase our tax obligations in countries where we do business or cause us to change the way we operate our business. Any changes in federal, state or international tax laws or tax rulings could adversely affect our effective tax rate and our results of operations.

If we fail to maintain effective internal control over financial reporting in the future, the accuracy and timing of our financial reporting may be adversely affected.

We are required to comply with Section 404 of the Sarbanes-Oxley Act of 2002. The provisions of the act require, among other things, that we maintain effective internal control over financial reporting and disclosure controls and procedures. Preparing our financial statements involves a number of complex processes, many of which are done manually and are dependent upon individual data input or review. These processes include, but are not limited to, calculating revenue, deferred revenue and inventory costs. While we continue to automate our processes and enhance our review and put in place controls to reduce the likelihood for errors, we expect that for the foreseeable future, many of our processes will remain manually intensive and thus subject to human error. In addition, if we are unable to implement key operation controls around pricing, spending and other financial processes, we may not be able to improve our financial performance or sufficiently scale to support the growth of our business.

Prior to the Acquisition, we maintained separate internal controls over financial reporting with different financial reporting processes and different ERP systems, and Coriant, as a private company, was not required to comply with Section 404 of the Sarbanes-Oxley Act of 2002. In August 2019, we migrated to an integrated ERP system. As a result of the integration, we may encounter difficulties and unanticipated issues due to the complexity of the business processes and technical challenges faced by moving to a single ERP system. If we are unable to successfully manage our integrated ERP system, and maintain effective internal control over financial reporting of the combined company, we may fail to prevent or detect material misstatements in our financial statements, in which case investors may lose confidence in the accuracy and completeness of our financial reports and the market price of our securities may decline. Additionally, integration of our ERP system may cause time delays and impact our ability to undertake financial reporting in a timely manner. For example, we required additional time to complete our quarter-end closing procedures for the three months ended September 28, 2019 due to issues encountered as part of the integration of three separate global instances into a single ERP system.

Any acquisitions we make could disrupt our business and harm our financial condition and operations.

We have made strategic acquisitions of businesses, technologies and other assets in the past, including most recently the Acquisition. In order to make acquisitions, we may use cash, issue equity that could dilute our current stockholders, or incur debt or assume indebtedness. If we are unable to achieve the anticipated strategic benefits of such acquisitions, it could adversely affect our business, financial condition and results of operations. In addition, the market price of our common stock could be adversely affected if the integration or the anticipated financial and strategic benefits of such acquisitions are not realized as rapidly as, or to the extent anticipated by investors and securities analysts.

Acquisitions can also result in adverse tax consequences, warranty or product liability exposure related to acquired assets, additional stock-based compensation expense, and write-up of acquired inventory to fair value. In addition, we may record goodwill and other purchased intangible assets in connection with an acquisition and incur impairment charges in the future. If our actual results, or the plans and estimates used in future impairment analyses, are less favorable than the original estimates used to assess the recoverability of these assets, we could incur additional impairment charges.

Acquisitions also involve numerous risks that could disrupt our ongoing business and distract our management team, including:

- problems integrating the acquired operations, technologies or products with our own;
- diversion of management’s attention from our core business;
- adverse effects on existing business relationships with suppliers and customers;
- risks associated with entering new markets; and
- loss of key employees.

Our failure to adequately manage the risks associated with an acquisition could have an adverse effect on our business, financial condition and operating results.

Unforeseen health, safety and environmental costs and restrictions could harm our business.

We are subject to various federal, state, local, foreign and international laws and regulations governing health, safety and the environment. In particular, our manufacturing operations use substances that are regulated by such laws and regulations, including WEEE, RoHS and REACH regulations adopted by the European Union. From time to time, the European Union restricts or considers restricting certain substances under these Directives. For example, indium phosphide is currently being considered for restriction under RoHS. Any restriction of indium phosphide or any other substance integral to our systems could materially adversely affect our business, financial condition and operating results. In addition, if we experience a problem with complying with these laws and regulations, it could cause an interruption or delay in our manufacturing operations or it could cause us to incur liabilities or costs related to health, safety or environmental remediation or compliance. We could also be subject to liability if we do not handle these substances in compliance with safety standards for handling, storage and transportation and applicable laws and regulations. If we experience a problem or fail to comply with such safety standards or laws and regulations, our business, financial condition and operating results may be harmed.

We are subject to governmental regulations that could adversely affect our business.

We are subject to governmental regulations that could adversely affect our business. This includes U.S. and foreign trade control laws that may limit where and to whom we sell our products as well as the impact of new or revised environmental rules and regulations or other social initiatives on how we manufacture our products. Trade control laws may also limit our ability to conduct product development activities in certain countries and restrict the handling of our U.S. export-controlled technology. In addition, various countries regulate the import of certain technologies and have enacted laws that could limit our ability to distribute our products and certain product features or could limit our customers' ability to implement our products in those countries. Changes in our products or changes in U.S. and foreign import and export regulations may create delays in the introduction of our products in international markets, prevent our customers with international operations from deploying our products throughout their global systems or, in some cases, prevent the import and export of our products to certain countries altogether. Any change in import and export regulations or related legislation, shift in approach to the enforcement or scope of existing regulations, or change in the countries, persons or technologies impacted by such regulations, could result in decreased use of our products by, or in our decreased ability to export or sell our products to, existing or potential customers with international operations. Failure to comply with these and similar laws on a timely basis, or at all, or any limitation on our ability to develop, export or sell our products would adversely affect our business, financial condition and operating results.

The Federal Communications Commission ("FCC") has jurisdiction over the entire U.S. communications industry and, as a result, our products and our U.S. customers are subject to FCC rules and regulations. In December 2017, the FCC voted to roll back its 2015 order regulating broadband internet service providers as telecommunications service carriers under Title II of the Telecommunications Act. This decision repeals net neutrality regulations that prohibit blocking, degrading or prioritizing certain types of internet traffic and restores the light touch regulatory treatment of broadband service in place prior to 2015. Changes in regulatory requirements or uncertainty associated with the regulatory environment could delay or impede investment in network infrastructures. Similarly, changes in regulatory tariff requirements or other regulations relating to pricing or terms of carriage on communications networks could slow the development or expansion of network infrastructures and adversely affect our business, operating results, and financial condition. For example, in 2018 and 2019, the United States imposed tariffs on a large variety of products originating from China, including some on components that are supplied to us from China. Depending upon the duration and implementation of these and future tariffs, as well as our ability to mitigate their impact, these tariffs could materially affect our business, including in the form of increased cost of goods sold, increased pricing for customers, and reduced sales. At this time, it remains unclear what additional actions, if any, will be taken by the governments of the United States or China with respect to such trade and tariff matters.

In addition, international regulatory standards could impair our ability to develop products for international customers in the future. Moreover, many jurisdictions, including the United States, the EU and other regions, are evaluating or have implemented regulations relating to cybersecurity, privacy and data protection, which can affect the market and requirements for networking and communications equipment. For example, in May 2018, the General Data Protection Regulation (the "GDPR") came into effect, superseding then-current EU data protection regulations. The GDPR imposes stringent data handling requirements on companies that receive or process personal data of residents of the EU, and non-compliance with the GDPR could result in significant penalties, including data protection audits and heavy fines. Any failure to obtain the required approvals or comply with such laws and regulations could harm our business and operating results.

Natural disasters, terrorist attacks or other catastrophic events could harm our operations.

Our headquarters and the majority of our infrastructure, including our PIC fabrication manufacturing facility, are located in Northern California, an area that is susceptible to earthquakes, floods and other natural disasters. Further, a terrorist attack aimed at Northern California or at the United States energy or telecommunications infrastructure could hinder or delay the development and sale of our products. In the event that an earthquake, terrorist attack or other man-made or natural catastrophe were to destroy any part of our facilities, or certain of our contract manufacturers' facilities, destroy or disrupt vital infrastructure systems or interrupt our operations for any extended period of time, our business, financial condition and operating results would be harmed.

Security incidents, such as data breaches and cyber-attacks, could compromise our intellectual property and proprietary or confidential information and cause significant damage to our business and reputation.

In the ordinary course of our business, we maintain sensitive data on our networks, including data related to our intellectual property and data related to our business, customers and business partners, which is considered proprietary or confidential information, and includes certain personal information and other data relating to our employees and others. We believe that companies in the technology industry have been increasingly subject to a wide variety of security incidents, cyber-attacks and other attempts to gain unauthorized access. While the secure maintenance of this information is critical to our business and reputation, our network and storage applications, and those systems and other business applications maintained by our third-party providers, may be subject to unauthorized access by hackers or breached due to operator error, malfeasance or other system disruptions. It may be difficult to anticipate or immediately detect such security incidents or data breaches and the damage caused as a result. Accordingly, a data breach, cyber-attack, or any other unauthorized access or disclosure of our information or other information that we or our third-party vendors maintain, could compromise our intellectual property and reveal proprietary or confidential business information. While we continually work to safeguard our internal network systems and validate the security of our third-party providers to mitigate these potential risks, including through information security policies and employee awareness and training, there is no assurance that such actions will be sufficient to prevent cyber-attacks or security breaches. We have been subjected in the past to a range of incidents including phishing, emails purporting to come from an executive or vendor seeking payment requests, and communications from look-alike corporate domains. While these have not had a material effect on our business or our network security to date, security incidents involving access or improper use of our systems, networks or products could compromise confidential or otherwise protected information, destroy or corrupt data, or otherwise disrupt our operations. These security incidents could cause us to incur significant costs and expenses to remediate and otherwise respond to the incident, subject us to regulatory actions and investigations, disrupt key business operations, open us up to liability, and divert attention of management and key information technology resources, any of which could cause significant harm to our business and reputation. Even the perception of inadequate security may damage our reputation and negatively impact our business. Further, we could be required to expend significant capital and other resources to address any data security incident or breach and in an effort to prevent future security incidents and breaches.

Anti-takeover provisions in our charter documents and Delaware law could discourage, delay or prevent a change in control of our company and may affect the trading price of our common stock.

We are a Delaware corporation and the anti-takeover provisions of the Delaware General Corporation Law, which apply to us, may discourage, delay or prevent a change in control by prohibiting us from engaging in a business combination with an interested stockholder for a period of three years after the person becomes an interested stockholder, even if a change of control would be beneficial to our existing stockholders. In addition, our amended and restated certificate of incorporation and amended and restated bylaws may discourage, delay or prevent a change in our management or control over us that stockholders may consider favorable. Our amended and restated certificate of incorporation and amended and restated bylaws:

- authorize the issuance of “blank check” convertible preferred stock that could be issued by our board of directors to thwart a takeover attempt;
- establish a classified board of directors, as a result of which the successors to the directors whose terms have expired will be elected to serve from the time of election and qualification until the third annual meeting following their election;
- require that directors only be removed from office for cause;
- provide that vacancies on the board of directors, including newly created directorships, may be filled only by a majority vote of directors then in office rather than by stockholders;
- prevent stockholders from calling special meetings; and

- prohibit stockholder action by written consent, requiring all actions to be taken at a meeting of the stockholders.

Risks Related to our 2024 Notes

Our debt obligations may adversely affect our ability to raise additional capital and will be a burden on our future cash resources, particularly if we elect to settle these obligations in cash upon conversion or upon maturity or required repurchase.

In September 2018, we issued the 2024 Notes, which will mature on September 1, 2024, unless earlier repurchased by us or converted. The degree to which we are leveraged could have important consequences, including, but not limited to, the following:

- our ability to obtain additional financing in the future for working capital, capital expenditures, acquisitions, litigation, general corporate or other purposes may be limited; and

- a substantial portion of our future cash balance may be dedicated to the payment of the principal of our indebtedness as we have stated the intention to pay the principal amount of the 2024 Notes in cash upon conversion or when otherwise due, such that we would not have those funds available for use in our business.

Our ability to meet our payment obligations under our debt instruments, including the 2024 Notes, depends on our future cash flow performance. This, to some extent, is subject to general economic, financial, competitive, legislative and regulatory factors, as well as other factors that may be beyond our control. There can be no assurance that our business will generate positive cash flow from operations, or that additional capital will be available to us, in an amount sufficient to enable us to meet our debt payment obligations and to fund other liquidity needs. For example, in each of the fiscal quarters after the Acquisition, the combined company had a significant net loss and negative cash flows. If we are unable to generate sufficient cash flow to service our debt obligations, we may need to refinance or restructure our debt, sell assets, reduce or delay capital investments, or seek to raise additional capital. If we are unable to implement one or more of these alternatives, we may be unable to meet our debt payment obligations. As a result, we may be more vulnerable to economic downturns, less able to withstand competitive pressures and less flexible in responding to changing business and economic conditions.

We may issue additional shares of our common stock in connection with conversions of the 2024 Notes, and thereby dilute our existing stockholders and potentially adversely affect the market price of our common stock.

In the event that some or all of the 2024 Notes are converted and we elect to deliver shares of common stock, the ownership interests of existing stockholders will be diluted, and any sales in the public market of any shares of our common stock issuable upon such conversion could adversely affect the prevailing market price of our common stock. In addition, the anticipated conversion of the 2024 Notes could depress the market price of our common stock.

The fundamental change provisions of the 2024 Notes may delay or prevent an otherwise beneficial takeover attempt of us.

If a fundamental change, such as an acquisition of our company, occurs prior to the maturity of the 2024 Notes, holders of the 2024 Notes will have the right, at their option, to require us to repurchase all or a portion of their 2024 Notes. In addition, if such fundamental change also constitutes a make-whole fundamental change, the conversion rate for the 2024 Notes may be increased upon conversion of the 2024 Notes in connection with such make-whole fundamental change. Any increase in the conversion rate will be determined based on the date on which the make-whole fundamental change occurs or becomes effective and the price paid (or deemed paid) per share of our common stock in such transaction. Any such increase will be dilutive to our existing stockholders. Our obligation to repurchase 2024 Notes or increase the conversion rate upon the occurrence of a make-whole fundamental change may, in certain circumstances, delay or prevent a takeover of us that might otherwise be beneficial to our stockholders.

The capped call transactions may affect the value of the 2024 Notes and our common stock.

In connection with the issuance of the 2024 Notes, we entered into capped call transactions with the "option counterparties." The capped call transactions are expected generally to reduce or offset the potential dilution upon conversion of the 2024 Notes and/or offset any cash payments we are required to make in excess of the principal amount of converted 2024 Notes, as the case may be, with such reduction and/or offset subject to a cap.

From time to time, the option counterparties or their respective affiliates may modify their hedge positions by entering into or unwinding various derivatives with respect to our common stock and/or purchasing or selling our common stock or other securities of ours in secondary market transactions prior to the maturity of the 2024 Notes. This activity could also cause or avoid an increase or a decrease in the market price of our common stock.

We are subject to counterparty risk with respect to the capped call transactions.

The option counterparties to the capped call transactions are financial institutions, and we will be subject to the risk that any or all of them might default under the capped call transactions. Our exposure to the credit risk of the counterparties will not be secured by any collateral. Past global economic conditions have resulted in the actual or perceived failure or financial difficulties of many financial institutions. If an option counterparty becomes subject to insolvency proceedings, we will become an unsecured creditor in those proceedings with a claim equal to our exposure at the time under the capped call transactions with such option counterparty. Our exposure will depend on many factors but, generally, an increase in our exposure will be correlated to an increase in the market price and in the volatility of our common stock. In addition, upon a default by an option counterparty, we may suffer adverse tax consequences and more dilution than we currently anticipate with respect to our common stock. We can provide no assurance as to the financial stability or viability of the option counterparties.

ITEM 1B. UNRESOLVED STAFF COMMENTS

Not applicable.

ITEM 2. PROPERTIES

Our headquarters are located in Sunnyvale, California, which consist of approximately 321,000 square feet under lease. In 2020, we will move our headquarters to San Jose, California, which will consist of approximately 82,000 square feet under lease.

In addition to the leased building in Sunnyvale, California, we also lease approximately 1,223,000 square feet of office spaces for research and development centers and for sales, service and support in various countries within (i) North America; (ii) LATAM; (iii) EMEA; and (iv) APAC.

All of these leases expire between 2019 and 2031. We also own a facility in Allentown, Pennsylvania. We intend to adjust the facility space to meet our requirements and we believe that suitable additional or substitute space will be available as needed to accommodate our business needs for our operations. We believe that our existing facilities are adequate to meet our business needs through the next 12 months.

ITEM 3. LEGAL PROCEEDINGS

Oyster Optics LLC I

On November 23, 2016, Oyster Optics, LLP ("Oyster Optics") filed a complaint against us in the United States District Court for the Eastern District of Texas. The complaint asserts infringement of U.S. Patent Nos. 6,469,816, 6,476,952, 6,594,055, 7,099,592, 7,620,327 (the "'327 patent"), 8,374,511 (the "'511 patent") and 8,913,898 (the "'898 patent"). Collectively, the asserted patents are referred to herein as the "Oyster Optics patents in suit." The complaint seeks unspecified damages and a permanent injunction. We filed our answer to Oyster Optics' complaint on February 3, 2017. We filed two petitions for Inter Partes Review ("IPR") of the '898 patent with the U.S. Patent and Trademark Office ("USPTO"). Other defendants have filed IPR petitions in connection with the remaining Oyster Optics patents in suit. The USPTO instituted two IPRs of the '511 patent and two IPRs of the '898 patent but denied IPR petitions in connection with the '327 patent.

A first Markman decision issued on December 5, 2017 and fact discovery closed on December 22, 2017. Oyster Optics dropped the '511 and '898 patents, leaving only a few claims in the '327 patent at issue in the case.

Oyster Optics LLC II

On May 15, 2018, Oyster Optics filed a new patent infringement complaint in the United States District Court for the Eastern District of Texas, naming us as a defendant. In its new complaint, Oyster Optics alleges infringement of the '327 patent, '898 patent and U.S. Patent No. 9,749,040. On June 8, 2018, the court granted the parties' joint motion to sever and consolidate the first-filed lawsuit with the later filed case. We filed our answer to the new complaint on July 16, 2018. On October 26, 2018, we filed an amended answer to include a license defense based on a license agreement dated June 28, 2018 by and between Oyster Optics and several subsidiaries of Coriant (now one of our affiliated subsidiaries). We also filed a motion for summary judgment based on the license defense on November 29, 2018. On June 25, 2019, the Court granted our motion for summary judgment and on June 28, 2019, the court entered a final judgment for us. On July 22, 2019, Oyster Optics filed an appeal of the court's decision with the Court of Appeals for the Federal Circuit. We believe that we do not infringe any valid and enforceable claim of the Oyster Optics patents in suit and intend to defend this action vigorously. We are currently unable to predict the outcome of this litigation at this time and therefore cannot determine the likelihood of loss nor estimate a range of possible loss.

Oyster Optics LLC III

On July 29, 2019, Oyster Optics filed a third complaint against us, Coriant (USA) Inc., Coriant North America, LLC and Coriant Operations, Inc. in the United States District Court for the Eastern District of Texas. The complaint asserts infringement of U.S. Patent No. 6,665,500 (the "Oyster III patent in suit"). The complaint seeks unspecified damages and a permanent injunction. On October 7, 2019, we filed our answer to the complaint asserting among other things, counterclaims and defenses based on non-infringement, invalidity, and a license to the Oyster III patent in suit. On October 28, 2019, Oyster filed an amended complaint. On December 3, 2019, we filed a motion to dismiss certain claims based on certain allegations made by Oyster in their amended complaint. On December 27, 2019, we filed IPR petitions with the USPTO, in which we requested the USPTO to invalidate the asserted claims of the Oyster III patent in suit. We believe that we do not infringe any valid and enforceable claim of the Oyster III patent in suit and intend to defend this action vigorously. We are unable to predict the outcome of this litigation at this time and therefore cannot reasonably estimate the possible loss or range of loss, if any, arising from this matter.

Oyster Optics LLC IV

On August 26, 2019, Oyster Optics filed a fourth complaint against us in the Superior Court of California, Santa Clara County ("Oyster IV"). On November 5, 2019, the Oyster IV lawsuit was dismissed.

Civil Investigative Demand

On June 8, 2017, a Civil Investigative Demand was issued to Coriant pursuant to a False Claims Act investigation by the U.S. government as to whether there has been any violation of 31 U.S.C. §3729. Coriant provided documents and other responses to the U.S. government, and we will continue to cooperate in the ongoing investigation.

In addition to the matters described above, we are subject to various legal proceedings, claims and litigation arising in the ordinary course of business. While the outcome of these matters is currently not determinable, we do not expect that the ultimate costs to resolve these matters will have a material effect on our consolidated financial position, results of operations or cash flows.

ITEM 4. MINE SAFETY DISCLOSURES

Not Applicable.

PART II

ITEM 5. MARKET FOR REGISTRANT'S COMMON EQUITY, RELATED STOCKHOLDER MATTERS AND ISSUER PURCHASES OF EQUITY SECURITIES

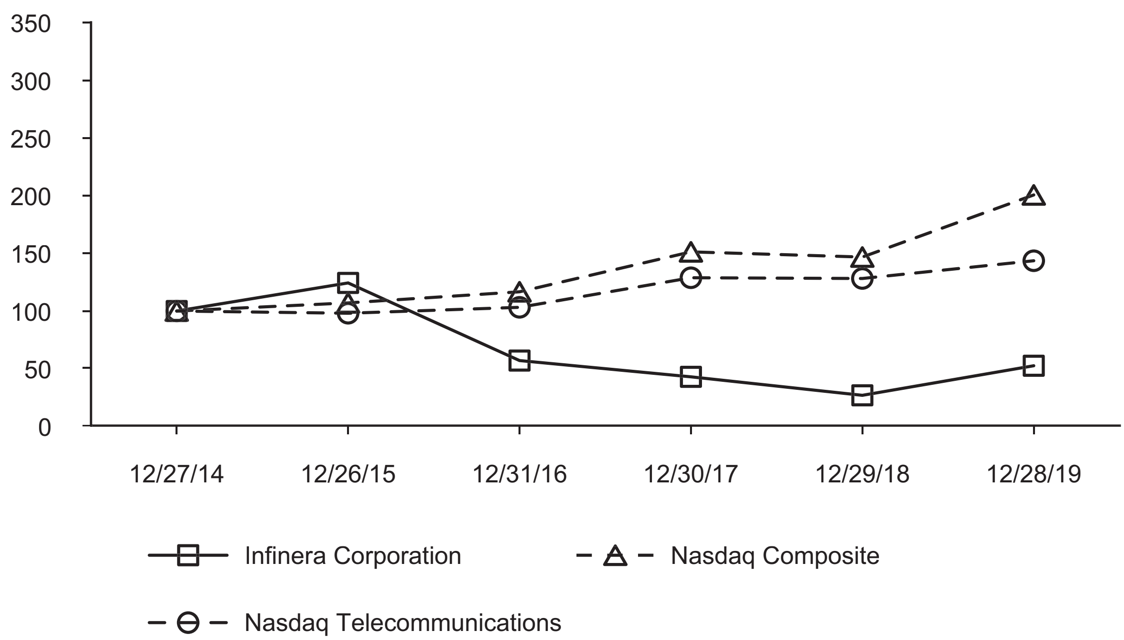
Our common stock is listed on the Nasdaq Global Select Market under the symbol "INFN." As of February 19, 2020, there were 91 registered holders of record of our common stock. A substantially greater number of holders of our common stock are "street name" or beneficial holders, whose shares are held by banks, brokers and other financial institutions.

We have not paid any cash dividends on our common stock and do not intend to pay any cash dividends on our common stock in the near future.

STOCK PERFORMANCE GRAPH

The following graph compares the cumulative five-year total return provided stockholders on our common stock relative to the cumulative total returns of the Nasdaq Composite Index and the Nasdaq Telecommunications Index. An investment of $100 (with reinvestment of all dividends, if any) is assumed to have been made in our common stock and in each of the indexes on December 27, 2014 and its relative performance is tracked through December 28, 2019. The Nasdaq Telecommunications Index contains securities of Nasdaq-listed companies classified according to the Industry Classification Benchmark as Telecommunications and Telecommunications Equipment. They include providers of fixed-line and mobile telephone services, and makers and distributors of high-technology communication products. This graph is not deemed to be "filed" with the SEC or subject to the liabilities of Section 18 of the Securities Exchange Act of 1934, as amended (the "Exchange Act"), and the graph shall not be deemed to be incorporated by reference into any prior or subsequent filing by us under the Securities Act of 1933, as amended, or the Exchange Act.

COMPARISON OF FIVE YEAR CUMULATIVE TOTAL RETURN*
Among Infinera Corporation, the Nasdaq Composite Index,
and the Nasdaq Telecommunications Index



*Assumes $100 invested on December 27, 2014 in our common stock or December 31, 2014 in the Nasdaq Composite Index and the Nasdaq Telecommunications Index, with reinvestment of all dividends, if any. Indexes calculated on month-end basis.

ITEM 6. SELECTED FINANCIAL DATA

You should read the following selected consolidated historical financial data below in conjunction with the section titled "Management's Discussion and Analysis of Financial Condition and Results of Operations" and the consolidated financial statements, related notes and other financial information included elsewhere in this Annual Report on Form 10-K.

We derived the statements of operations data for the years ended December 28, 2019, December 29, 2018 and December 30, 2017 and the balance sheet data as of December 28, 2019 and December 29, 2018 from our audited consolidated financial statements and related notes, which are included elsewhere in this Annual Report on Form 10-K. We derived the statements of operations data for the years ended December 31, 2016 and December 26, 2015 and the balance sheet data as of December 30, 2017, December 31, 2016, and December 26, 2015 from our audited consolidated financial statements and related notes, which are not included in this Annual Report on Form 10-K. We have not declared or distributed any cash dividends.

	Years Ended				
	December 28, 2019 [1]	December 29, 2018[2]	December 30, 2017	December 31, 2016	December 26, 2015
	(In thousands, except per share data)				
Revenue	$ 1,298,865	$ 943,379	$ 740,739	$ 870,135	$ 886,714
Gross profit	$ 325,923	$ 321,156	$ 244,000	$ 393,718	$ 403,477
Net income (loss)	$ (386,618)	$ (214,295)	$ (194,506)	$ (24,430)	$ 50,950
Net income (loss) attributable to Infinera Corporation	$ (386,618)	$ (214,295)	$ (194,506)	$ (23,927)	$ 51,413
Net income (loss) per common share attributable to Infinera Corporation:					
Basic	$ (2.16)	$ (1.36)	$ (1.32)	$ (0.17)	$ 0.39
Diluted	$ (2.16)	$ (1.36)	$ (1.32)	$ (0.17)	$ 0.36
Weighted average number of shares used in computing basic and diluted net income (loss) per common share:					
Basic	178,984	157,748	147,878	142,989	133,259
Diluted	178,984	157,748	147,878	142,989	143,171
Total cash and cash equivalents, investments and restricted cash	$ 132,797	$ 268,848	$ 305,211	$ 367,056	$ 370,979
Intangible assets, net	$ 170,346	$ 233,119	$ 92,188	$ 108,475	$ 156,319
Goodwill	$ 249,848	$ 227,231	$ 195,615	$ 176,760	$ 191,560
Total assets	$ 1,628,338	$ 1,801,270	$ 1,117,670	$ 1,198,583	$ 1,226,294
Short-term debt	$ 31,673	$ —	$ 144,928	$ —	$ —
Long-term debt, net	$ 323,678	$ 266,929	$ —	$ 133,586	$ 125,440
Long-term financing lease obligation	$ 2,394	$ 193,538	$ —	$ —	$ —
Common stock and additional paid-in capital	$ 1,741,065	$ 1,686,091	$ 1,417,192	$ 1,354,227	$ 1,300,441
Infinera stockholders' equity	$ 386,535	$ 703,821	$ 665,365	$ 762,328	$ 762,151
Noncontrolling interest	$ —	$ —	$ —	$ —	$ 14,910
Total stockholders' equity	$ 386,535	$ 703,821	$ 665,365	$ 762,328	$ 777,061

(1) Effective December 30, 2018, we adopted Accounting Standards Update No. 2016-02, “Leases (Topic 842)” (“Topic 842”), using the alternative modified transition method. Results for the reporting periods beginning December 30, 2018 are presented under Topic 842, while prior period amounts are not adjusted and continue to be reported in accordance with our historical accounting under Accounting Standards Codification (“ASC”) Topic 840, “Leases.”

(2) Effective December 31, 2017, we adopted Accounting Standards Update No. 2014-09, "Revenue from Contracts with Customers (Topic 606)” (“Topic 606”), using the modified retrospective method applied to those contracts that were not completed as of December 31, 2017. Results for the reporting periods after December 31, 2017 are presented under Topic 606, while prior period amounts are not adjusted and continue to be reported in accordance with our historical accounting under ASC Topic 605, “Revenue Recognition” (“Topic 605”).

ITEM 7. MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS

This Annual Report on Form 10-K contains "forward-looking statements" that involve risks and uncertainties, as well as assumptions that, if they never materialize or prove incorrect, could cause our results to differ materially from those expressed or implied by such forward-looking statements. Such forward-looking statements include our expectations regarding revenue, gross margin, expenses, cash flows and other financial items; any statements of the plans, strategies and objectives of management for future operations and personnel; expectations related to the Acquisition; factors that may affect our future operating results; anticipated customer activity; statements about the benefits of our products and product features; statements concerning new products or services, including new product features and delivery dates; statements related to capital expenditures; statements related to future economic conditions, performance, market growth or our sales cycle; statements related to the 2024 Notes or our credit facility; statements related to the effects of the coronavirus on our supply chain and ability to meet customer demand; statements related to the effects of litigation on our financial position, results of operations or cash flows; statements related to the timing and impact of transfer pricing reserves or our effective tax rate; statements regarding the Tax Act; statements regarding our restructuring plans; statements as to industry trends and other matters that do not relate strictly to historical facts or statements of assumptions underlying any of the foregoing. These statements are often identified by the use of words such as "anticipate," "believe," "continue," "could," "estimate," "expect," "intend," "may," or "will," and similar expressions or variations. These statements are based on the beliefs and assumptions of our management based on information currently available to management. Such forward-looking statements are subject to risks, uncertainties and other factors that could cause actual results and the timing of certain events to differ materially from future results expressed or implied by such forward-looking statements. Factors that could cause or contribute to such differences include, but are not limited to, those identified below, and those discussed in the section titled "Risk Factors" included in Part I, Item 1A of this Annual Report on Form 10-K. You should review these risk factors for a more complete understanding of the risks associated with an investment in our securities. Such forward-looking statements speak only as of the date of this report. We disclaim any obligation to update any forward-looking statements to reflect events or circumstances after the date of such statements. The following discussion and analysis should be read in conjunction with our "Selected Financial Data" included in Part II, Item 6 of this Annual Report on Form 10-K and consolidated financial statements and notes thereto included elsewhere in this Annual Report on Form 10-K.

Overview

We are a global supplier of networking solutions comprised of networking equipment, software and services. Our portfolio of solutions includes optical transport platforms, converged packet-optical transport platforms, optical line systems, disaggregated router platforms, and a suite of networking and automation software offerings, and support and professional services.

Our customers include telecommunications service providers, ICPs, cable providers, wholesale carriers, research and education institutions, large enterprises and government entities. Our networking solutions enable our customers to deliver business and consumer communications services. Our comprehensive portfolio of networking solutions also enables our customers to scale their transport networks as end-user services and applications continue to drive growth in demand for network bandwidth. These end-user services and applications include, but are not limited to, high-speed internet access, business Ethernet services, 4G/5G mobile broadband, cloud-based services, high-definition video streaming services, virtual and augmented reality and the Internet of Things ("IoT").

Our systems are highly scalable, flexible and designed with open networking principles for ease of deployment. We build our systems using a combination of internally manufactured and third-party components. Our portfolio includes systems that leverage our innovative optical engine technology, comprised of large-scale PICs and digital signal processors DSPs. We optimize the manufacturing process by using indium phosphide to build our PICs, which enables the integration of hundreds of optical functions onto a set of semiconductor chips. This large-scale integration of our PICs and advanced DSPs allows us to deliver high-performance transport networking platforms with features that customers care about the most, including cost per bit, low power consumption and space savings. In addition, we design our optical engines to increase the capacity and reach performance of our products by leveraging coherent optical transmission. We believe our vertical integration strategy becomes increasingly more valuable as our customers transition to 800 Gb/s per wavelength transmission speeds and beyond, as the combination of our optical integration, DSP, and tightly integrated packaging enables a leading optical performance at higher optical speeds. Over time, we plan to integrate our optical engine technology into a broader set of transport platforms in order to enhance customer value and lower production costs.

Over the past several years, we expanded our portfolio of solutions, evolving from our initial focus on the long-haul and subsea optical transport markets to offering a more complete suite of packet-optical networking solutions that address multiple markets within the end-to-end transport infrastructure. These markets include metro access, metro aggregation and switching, and DCI, and long-haul and subsea transport.

We have grown our portfolio through internal development as well as acquisitions. In 2014, we introduced the Infinera Cloud Xpress to address the emerging DCI market opportunity. In 2015, we entered the metro market with the acquisition of Transmode. In October 2018, we expanded our product portfolio and customer base through the Acquisition. The Acquisition has helped position us as one of the largest providers of vertically integrated transport networking solutions in the world and enhanced our ability to serve a global customer base and accelerated the delivery of the innovative solutions our customers demand. The Acquisition has also enabled us to expand the breadth of customer applications we can address, including metro aggregation and switching, disaggregated routing, and software-enabled multi-layer network management and control.

Our high-speed optical transport platforms are differentiated by the Infinite Capacity Engine (ICE), our optical engine technology. ICE enables different subsystems that can be customized for a variety of network applications in different transport markets, including metro, DCI, long-haul and subsea. Our latest generation of available optical engine technology delivers multi-terabit opto-electronic subsystems powered by our fourth-generation PIC and latest generation FlexCoherent DSP (the combination of which we market as “ICE4”).

As part of the Acquisition, we expanded our high-speed optical transport portfolio with 600 Gb/s transmission capabilities powered by our CloudWave T technology, which enabled us to expand the high-speed transmission applications we can address.

Our products are designed to be managed by a suite of software solutions that enable end-to-end common network management, multi-layer service orchestration, and automated operations. We also provide software-enabled programmability that offers differentiated capabilities such as Instant Bandwidth. Combined with our differentiated hardware solutions, Instant Bandwidth enables our customers to purchase and activate bandwidth as needed through our unique software licensing feature set. This, in turn, allows our customers to accomplish two key objectives: (1) limit their initial network startup costs and investments; and (2) instantly activate new bandwidth as their customers’ and their own network needs evolve.

We believe our end-to-end portfolio of solutions benefits our customers by providing a unique combination of highly scalable capacity and features that address various applications and ultimately simplify and automate packet-optical network operations.

Financial and Business Highlights

Total revenue was $1,298.9 million in 2019 as compared to $943.4 million in 2018, a 38% increase. The key driver of this increase was the addition of Coriant for the full fiscal year of 2019. In 2019, we benefitted from the addition of the Coriant portfolio and customer base and enjoyed continued traction from our ICE4 products. Also supporting revenue growth in 2019 was an uptick in spending from a large ICP customer, particularly in the second half of the year. In 2020, we see several prospective opportunities to grow revenue whether by expanding relationships at existing customers or winning new customers by continuing to drive adoption of our products. Our results will depend on overall market conditions and, as is typical, quarter-over-quarter revenue could be volatile, affected by customer buying patterns, supply chain disruptions and the timing of customer network deployments.

Gross margin declined to 25% in 2019 from 34% in 2018. This decline was largely the result of lower margins from the acquired Coriant business, general product and customer mix, increased integration costs and increased amortization of intangible assets. Over the course of 2019, gross margins steadily increased, driven by improved pricing discipline on products acquired in the Acquisition and reductions of our fixed cost structure, which included headcount reductions and out-sourcing of certain service and manufacturing capabilities. In addition, increased revenue in the second half of 2019, coupled with our improved cost structure helped to drive higher gross margins in the second half of 2019. In 2020, we intend to continue to make improvements to our fixed cost structure and continue to drive pricing discipline. With our ICE6 platform expected in the second half of 2020, we intend to expand our vertical integration capabilities across more of our product portfolio, which we expect will lower our cost structure and drive continued margin improvement over time.

Operating expenses in 2019 grew to $676.2 million from $506.8 million, a 33% increase. This increase was primarily due to the Acquisition and higher costs associated with our integration and restructuring efforts in 2019. Over the course of 2019, operating expenses as a percentage of revenue dropped significantly as we started to benefit from synergies related to reducing headcount, combining systems and decreasing our real estate footprint. In 2020, we intend to continue to optimize our cost structure, balancing the need to manage costs with investing sufficiently in technology innovation and operations.

One customer accounted for approximately 13% of our revenue in each of 2019 and 2018. This same customer completed a merger with another customer in 2017, and these two customers accounted for approximately 6% and 12% of our revenue in 2017, respectively. One other customer accounted for approximately 15% of our revenue in 2018. No other customers accounted for over 10% of our revenue in 2019, 2018 or 2017.

We primarily sell our products through our direct sales force, with the remainder sold indirectly through channel partners. We derived 79%, 89% and 94% of our revenue from direct sales to customers in 2019, 2018 and 2017, respectively. We expect to continue generating the substantial majority of our revenue from direct sales in the future.

We are headquartered in Sunnyvale, California, with employees located throughout North America, LATAM, EMEA and APAC (including China).

Results of Operations

The results of operations for 2019 reflect the inclusion of the Coriant business, which was acquired on October 1, 2018, for the full fiscal year. The following sets forth, for the periods presented, certain consolidated statements of operations information (in thousands, except percentages):

	Years Ended					
	December 28, 2019	% of total revenue	December 29, 2018	% of total revenue	Change	% Change
Revenue:						
Product	$ 1,011,488	78%	$ 763,555	81%	$ 247,933	32%
Services	287,377	22%	179,824	19%	107,553	60%
Total revenue	$ 1,298,865	100%	$ 943,379	100%	$ 355,486	38%
Cost of revenue:						
Product	$ 735,059	57%	$ 517,765	55%	$ 217,294	42%
Services	146,916	11%	78,353	8%	68,563	88%
Amortization of intangible assets	32,583	3%	23,475	2%	9,108	39%
Acquisition and integration costs	28,449	2%	—	—%	28,449	NMF *
Restructuring and related	29,935	2%	2,630	—%	27,305	1,038%
Total cost of revenue	$ 972,942	75%	$ 622,223	66%	$ 350,719	56%
Gross profit	$ 325,923	25.0%	$ 321,156	34.0%	$ 4,767	1%

*NMF - not meaningful

	Years Ended					
	December 29, 2018	% of total revenue	December 30, 2017	% of total revenue	Change	% Change
Revenue:						
Product	$ 763,555	81%	$ 610,535	82%	$ 153,020	25 %
Services	179,824	19%	130,204	18%	49,620	38 %
Total revenue	$ 943,379	100%	$ 740,739	100%	$ 202,640	27 %
Cost of revenue:						
Product	$ 517,765	55%	$ 406,644	55%	$ 111,121	27 %
Services	78,353	8%	50,480	7%	27,873	55 %
Amortization of intangible assets	23,475	2%	20,474	3%	3,001	15 %
Acquisition and integration costs	—	—%	—	—%	—	NMF*
Restructuring and related	2,630	—%	19,141	3%	(16,511)	(86)%
Total cost of revenue	$ 622,223	66%	$ 496,739	67%	$ 125,484	25 %
Gross profit	$ 321,156	34.0%	$ 244,000	32.9%	$ 77,156	32 %

*NMF - not meaningful

Revenue

2019 Compared to 2018. Product revenue increased by $247.9 million, or 32%, in 2019 from 2018, primarily attributable to the inclusion of Coriant’s revenue for all of 2019 as compared to only the fourth quarter of 2018. Revenue growth was also driven by strong year over year growth from a large ICP, a large domestic Tier 1 and a large Tier 1 in Europe. Overall growth was partially offset by a decline from our largest cable customer, compared to a very strong 2018.

Services revenue increased by $107.6 million, or 60%, in 2019 from 2018, primarily attributable to the inclusion of Coriant's services revenue for all of 2019 as compared to only the fourth quarter of 2018. Services revenue was slightly offset by lower revenue from our largest cable customer.

2018 Compared to 2017. Product revenue increased by $153.0 million, or 25%, in 2018 from 2017, primarily attributable to the inclusion of Coriant’s revenue for the fourth quarter of 2018, increased demand for our next-generation ICE4 products and strong spending from our largest cable customer. In 2018, we experienced growth from all of our major customer verticals: Tier-1s, ICPs and cable. Additionally, our product revenue benefited by $10.7 million from the adoption of Topic 606 during 2018.

Services revenue increased by $49.6 million, or 38%, in 2018 from 2017, primarily attributable to the inclusion of Coriant's services revenue for the fourth quarter of 2018, and partially offset by the negative impact of $3.9 million from the adoption of Topic 606 during 2018. In 2018, we continued to experience growth in on-going maintenance services due to our growing installed base in customer networks.

We currently expect that revenue in the first quarter of 2020 will decline relative to the fourth quarter of 2019. The first quarter in our industry tends to be negatively impacted by seasonality as it takes time for customers to finalize their annual plans for capital expenditures. Revenue could potentially be further impacted in particular due to the uncertainty surrounding the evolving coronavirus situation.

Revenue by geographic region is based on the shipping address of the customer. The following table summarizes our revenue by geography and sales channel for the periods presented (in thousands, except percentages):

	Years Ended					
	December 28, 2019	% of total revenue	December 29, 2018	% of total revenue	Change	% Change
Total revenue by geography						
Domestic	$ 628,075	48%	$ 476,784	51%	$ 151,291	32%
International	670,790	52%	466,595	49%	204,195	44%
	$ 1,298,865	100%	$ 943,379	100%	$ 355,486	38%
Total revenue by sales channel						
Direct	$ 1,032,527	79%	$ 838,931	89%	$ 193,596	23%
Indirect	266,338	21%	104,448	11%	161,890	155%
	$ 1,298,865	100%	$ 943,379	100%	$ 355,486	38%

	Years Ended					
	December 29, 2018	% of total revenue	December 30, 2017	% of total revenue	Change	% Change
Total revenue by geography						
Domestic	$ 476,784	51%	$ 428,592	58%	$ 48,192	11%
International	466,595	49%	312,147	42%	154,448	49%
	$ 943,379	100%	$ 740,739	100%	$ 202,640	27%
Total revenue by sales channel						
Direct	$ 838,931	89%	$ 693,472	94%	$ 145,459	21%
Indirect	104,448	11%	47,267	6%	57,181	121%
	$ 943,379	100%	$ 740,739	100%	$ 202,640	27%

2019 Compared to 2018. Domestic revenue increased by $151.3 million, or 32%, in 2019 compared to 2018, primarily attributable to the inclusion of Coriant’s revenue for all of 2019 as compared to only the fourth quarter of 2018. In 2019 we saw a significant increase in spending from a large ICP, which has adopted our Groove platform, and a large Tier 1, which has been a long-term customer. Growth was partially offset by lower spending from cable operators in 2019, compared to a very strong 2018.

International revenue increased by $204.2 million, or 44%, in 2019 compared to 2018, primarily attributable to the inclusion of Coriant’s revenue for all of 2019 as compared to only the fourth quarter of 2018. Additionally, we also benefited from increased ICE4 sales to a large European Tier 1.

2018 Compared to 2017. Domestic revenue increased by $48.2 million, or 11%, in 2018 compared to 2017, primarily due to a significant increase in spending from cable operators for the first half of 2018, success with our ICE4 platform and the inclusion of Coriant's revenue since the Acquisition.

International revenue increased by $154.4 million, or 49%, in 2018 compared to 2017, primarily due to the inclusion of Coriant's revenue. Additionally, we also benefited from increased ICE4 sales and U.S.-based ICPs network deployments in both EMEA and APAC regions.

Cost of Revenue and Gross Margin

2019 Compared to 2018. Gross margin decreased to 25% in 2019 from 34% in 2018. This decline was primarily due to the mix of products acquired from the Acquisition, as Coriant products historically had a lower margin. As the time of the Acquisition, Coriant carried a higher cost structure largely due to not being vertically integrated. Integration and restructuring expenses also contributed to the gross margin decline. Over the course of 2019, we were able to improve margins by improving pricing discipline and executing on our integration strategy of lowering our cost structure by reducing headcount and transitioning costs to lower cost regions and variable cost models.

2018 Compared to 2017. Gross margin increased to 34% in 2018 from 32.9% in 2017. This improvement was primarily attributable to benefits of our vertically-integrated operating model, driven by higher revenue spread across our largely fixed cost structure and improved cost structure of our new ICE4 technology due to the increased levels of integration. Additionally, in 2018, we incurred substantially less costs related to bridging customers to our new ICE4 technology and from initially higher costs of early production units from our new ICE4 products. The increased gross margin in 2018 was offset by lower margins from the Coriant business and increased amortization of intangible assets.

In any given quarter, gross margins can fluctuate based on a number of factors, including the mix of footprint versus fill, product mix, customer mix and overall volume.

We currently expect that gross margin in the first quarter of 2020 will decline slightly versus the fourth quarter of 2019 largely due to customer and product mix, and lower revenue expectations relative to our fixed cost structure for costs of goods sold. We intend to continue to take steps to lower our cost structure, and thus improve gross margin, over the course of 2020.

Amortization of Intangible Assets

2019 Compared to 2018. Amortization of intangible assets increased by $9.1 million in 2019 from 2018 primarily due to a full year of amortization expense on intangible assets acquired from Coriant.

2018 Compared to 2017. Amortization of intangible assets increased by $3.0 million in 2018 from 2017 as a result of the Acquisition.

Acquisition and Integration Costs

2019 Compared to 2018. Acquisition and integration costs increased by $28.4 million in 2019 from 2018 as a result of the Acquisition. Costs in 2019 were predominantly integration related, which included the transition of our Berlin manufacturing activities to a contract manufacturer, start-up costs around a new European distribution center, and contractors and employees focused on integration-specific activities.

See Note 7, “Business Combination” to the Notes to Consolidated Financial Statements for more information on the Acquisition.

Restructuring and Related

2019 Compared to 2018. In 2019, within cost of revenue, we incurred $29.9 million in restructuring and other related costs, including $26.6 million of severance and related costs and $2.2 million of asset impairment charges and $1.2 million of impaired facilities charges. These charges were primarily associated with the closure of our Berlin, Germany site and the reduction of headcount at our Munich, Germany site.

2018 Compared to 2017. In 2018, within cost of revenue, we incurred $2.6 million in restructuring and other related costs and it includes all of severance-related costs.

See Note 10, “Restructuring and Other Related Costs” to the Notes to Consolidated Financial Statements for more information on our restructuring plans.

Operating Expenses

The following table summarizes our operating expenses for the periods presented (in thousands, except percentages):

	Years Ended					
	December 28, 2019	% of total revenue	December 29, 2018	% of total revenue	Change	% Change
Research and development	$ 287,977	22%	$ 244,302	26%	$ 43,675	18 %
Sales and marketing	151,423	12%	124,238	13%	27,185	22 %
General and administrative	126,351	10%	80,957	9%	45,394	56 %
Amortization of intangible assets	27,280	2%	29,296	3%	(2,016)	(7)%
Acquisition and integration costs	42,271	3%	15,530	2%	26,741	172 %
Restructuring and related	40,851	3%	12,512	1%	28,339	226 %
Total operating expenses	$ 676,153	52%	$ 506,835	54%	$ 169,318	33 %

	Years Ended					
	December 29, 2018	% of total revenue	December 30, 2017	% of total revenue	Change	% Change
Research and development	$ 244,302	26%	$ 224,368	30%	$ 19,934	9 %
Sales and marketing	124,238	13%	109,511	15%	14,727	13 %
General and administrative	80,957	9%	70,620	10%	10,337	15 %
Amortization of intangible assets	29,296	3%	6,160	1%	23,136	NMF*
Acquisition and integration costs	15,530	2%	322	—%	15,208	NMF*
Restructuring and related	12,512	1%	16,106	2%	(3,594)	(22)%
Total operating expenses	$ 506,835	54%	$ 427,087	58%	$ 79,748	19 %

*NMF - not meaningful

The following table summarizes the stock-based compensation expense included in our operating expenses for the periods presented (in thousands):

	Years Ended		
	December 28, 2019	December 29, 2018	December 30, 2017
Research and development	$ 17,457	$ 16,270	$ 15,845
Sales and marketing	8,413	10,869	11,288
General and administration	10,460	9,649	10,776
Total	$ 36,330	$ 36,788	$ 37,909

Research and Development Expenses

2019 Compared to 2018. Research and development expenses increased by $43.7 million, or 18%, in 2019 from 2018, primarily due to increased headcount as a result of the Acquisition. Over the course of 2019, R&D expenses grew at a slower rate than revenue, largely due to reducing headcount and lower spending in equipment and materials as we started to benefit from company-wide cost reduction and integration efforts.

2018 Compared to 2017. Research and development expenses increased by $19.9 million, or 9%, in 2018 from 2017, primarily due to increased headcount as a result of the Acquisition. Excluding the additional expenses from the Coriant business, research and development costs would have decreased due to lower headcount costs and lower spending in equipment and materials, in conjunction with company-wide cost reduction efforts.

Sales and Marketing Expenses

2019 Compared to 2018. Sales and marketing expenses increased by $27.2 million, or 22%, in 2019 from 2018, primarily due to the inclusion of the Coriant business and higher commission expense as a result of higher revenue. Sales and marketing expenses grew at a slower rate than revenue due to reducing headcount and lower demo and trial spend in conjunction with company-wide cost reduction and integration efforts.

2018 Compared to 2017. Sales and marketing expenses increased by $14.7 million, or 13%, in 2018 from 2017, primarily due to the inclusion of the Coriant business and an increase in recruiting and relocation expenses. Excluding the additional expenses from the Coriant business, sales expenses would have been slightly higher due to increased commissions expenses relative to revenue growth in 2018. Marketing expenses would have been a slight decrease as a result of a reduction in personnel-related costs due to reduced headcount and lower program spend in conjunction with company-wide cost reduction efforts.

General and Administrative Expenses

2019 Compared to 2018. General and administrative expenses increased by $45.4 million, or 56%, in 2019 from 2018, primarily due to the inclusion of headcount associated expenses from the Coriant business and higher outside professional services. General and administrative expenses grew faster than revenue to ensure we had sufficient infrastructure and operations to support the larger company.

2018 Compared to 2017. General and administrative expenses increased by $10.3 million, or 15%, in 2018 from 2017, primarily due to the inclusion of the Coriant business offset by a decrease in personnel-related costs due to lower headcount attributable to company-wide cost reduction efforts.

Amortization of Intangible Assets

2019 Compared to 2018. Amortization of intangible assets decreased by $2.0 million in 2019 from 2018, primarily due to higher amortization of backlog in 2018 compared to 2019 offset by higher amortization of customer relationship intangible assets in 2019 as a result of the Acquisition.

2018 Compared to 2017. Amortization of intangible assets increased by $23.1 million in 2018 from 2017 as a result of the Acquisition.

Acquisition and Integration Costs

2019 Compared to 2018. Acquisition and integration costs increased by $26.7 million in 2019 from 2018 as a result of the Acquisition. Costs in 2019 were predominantly integration-related including the convergence of three ERP systems into one new corporate ERP system, other systems-related integration activities, and costs related to contractors and headcount focused on integration-specific activities.

See Note 7, “Business Combination” to the Notes to Consolidated Financial Statements for more information on the Acquisition.

2018 Compared to 2017. Acquisition and integration costs increased by $15.2 million in 2018 from 2017 as a result of the Acquisition. Acquisition and integration costs consist of legal, financial, employee-related costs and other professional fees.

Restructuring and Related

2019 Compared to 2018. In 2019, within operating expenses, we incurred $40.9 million in restructuring and other related costs, including $25.3 million of severance and related costs and $14.7 million of impaired facilities charges. These charges were primarily associated with the closure of our Berlin, Germany site, the reduction of headcount at our Munich, Germany site and impairment of a facility in Naperville, Illinois.

2018 Compared to 2017. In 2018, within operating expenses, we incurred $12.5 million in restructuring and other related costs, including $10.4 million of severance and related costs and $2.6 million of an impairment for a software license, offset by a credit of $0.5 million to adjust the sublease of impaired facilities. We expect to complete the majority of the actions related to the 2018 Restructuring Plan by the end of 2019.

See Note 10, "Restructuring and Other Related Costs" to the Notes to Consolidated Financial Statements for more information on our restructuring plans.

Other Income (Expense), Net

	Years Ended		
	December 28, 2019	December 29, 2018	December 30, 2017
	(In thousands)		
Interest income	$ 1,139	$ 2,428	$ 3,328
Interest expense	(31,657)	(22,049)	(14,017)
Other gain (loss), net	(2,907)	(9,650)	(2,160)
Total other income (expense), net	$ (33,425)	$ (29,271)	$ (12,849)

2019 Compared to 2018. Interest income decreased $1.3 million in 2019 from 2018, primarily due to a lower average investment balance during the year. Interest expense for 2019 increased by $9.6 million due to $18.6 million of additional interest and amortization related to the 2024 Notes issued in September 2018, $0.3 million of interest on cash collateral obtained in March 2019, $0.5 million of interest on a financing assistance arrangement obtained in May 2019, $1.1 million of interest and other related charges related to the Credit Facility (as defined under "Liquidity and Capital Resources-Liquidity" below) obtained in August 2019, and $1.7 million of other interest charges. The increase to interest expense was offset by a reduction of $6.5 million related to financing lease obligations, which we assumed in connection with the Acquisition and were reclassified in 2019 on adoption of the new leasing standard, and $6.2 million interest on 2018 Notes that matured in 2018. Other gain (loss), net, primarily consisted of a $3.7 million loss primarily related to foreign exchange related transactions and a $1.1 million gain on the sale of non-marketable equity investments.

2018 Compared to 2017. Interest income decreased $0.9 million in 2018 from 2017, primarily due to a lower average investment balance, partially offset by a higher return on investments. Interest expense for 2018 increased $8.0 million due to $6.6 million related to financing lease obligations, which we assumed in connection with the Acquisition, $0.5 million of interest accrual on cash collateral from a third-party institution and $0.9 million of higher amortization related to the 2024 Notes. Other gain (loss), net, primarily consisted of a $5.1 million impairment charge related to our non-marketable equity investment, $3.0 million loss primarily related to foreign exchange related transactions and a $2.5 million acquisition funding commitment fee related to the Acquisition. This was offset by a $1.1 million gain on the sale of non-marketable equity investments.

Provision for/(Benefit From) Income Taxes

We recognized an income tax expense of $(3.0) million on a loss before income taxes of $383.7 million, an income tax benefit of $0.7 million on a loss before income taxes of $215.0 million, and an income tax benefit of $1.4 million on a loss before income taxes of $195.9 million in 2019, 2018 and 2017, respectively. The resulting effective tax rates were (0.8)%, 0.3% and 0.7% for 2019, 2018 and 2017, respectively. The 2019 and 2018 effective tax rates differ from the expected statutory rate of 21% based on our ability to benefit from our U.S. loss carryforwards, offset by state income taxes, non-deductible stock-based compensation expenses and foreign taxes provided on foreign subsidiary earnings. The increase in 2019 income tax provision compared to 2018 is due to additional foreign earnings from the Acquisition. The lower 2018 income tax benefit compared to 2017 primarily relates to lower corporate income tax rate due to the Tax Act and lower stock-based compensations as a result of the Acquisition.

Because of our U.S. operating loss in 2019, significant loss carryforward position, and corresponding valuation allowance in all years, we have not been subject to federal or state tax on our U.S. income because of the availability of loss carryforwards. If these losses and other tax attributes become fully utilized, our taxes will increase significantly to a more normalized, expected rate on U.S. earnings. The release of transfer pricing reserves in the future will have a beneficial impact to tax expense, but the timing of the impact depends on factors such as expiration of the statute of limitations or settlements with tax authorities. No significant releases are expected in the near future based on information available at this time.

In determining future taxable income, we make assumptions to forecast federal, state and international operating income, the reversal of temporary differences, and the implementation of any feasible and prudent tax planning strategies. The assumptions require significant judgment regarding the forecasts of future taxable income, and are consistent with our income forecasts used to manage our business.

Liquidity and Capital Resources

	Years Ended		
	December 28, 2019	December 29, 2018	December 30, 2017
		(In thousands)	
Net cash flow provided by (used in):			
Operating activities	$ (167,350)	$ (99,083)	$ (21,925)
Investing activities	$ (12,609)	$ 12,624	$ (54,849)
Financing activities	$ 71,910	$ 207,889	$ 16,486

	Years Ended	
	December 28, 2019	December 29, 2018
	(In thousands)	
Cash and cash equivalents	$ 109,201	$ 202,954
Investments	—	26,511
Restricted cash	23,596	39,383
	$ 132,797	$ 268,848

All short term and long term investments were liquidated as of December 28, 2019. Cash and cash equivalents and short term investments as of December 28, 2018 consisted of highly-liquid investments in certificates of deposits, money market funds, commercial paper, U.S. agency notes, corporate bonds and U.S. treasuries. Our restricted cash balance amounts are primarily pledged as collateral for certain standby letters of credit related to customer performance guarantees, value added tax licenses and property leases. Additionally, our restricted cash balance as of December 29, 2018 also included funds in escrow related to the cash consideration associated with the Acquisition.

Operating Activities

Net cash used in operating activities was $167.4 million for 2019, as compared to net cash used in operating activities of $99.1 million for 2018 and net cash used in operating activities of $21.9 million for 2017.

Net loss for 2019 was $386.6 million, which included non-cash charges of $227.5 million, compared to a net loss for 2018 of $214.3 million, which included non-cash charges of $172.4 million. Net loss for 2017 was $194.5 million, which included non-cash charges of $154.9 million. Net cash used in working capital was $8.3 million for 2019. Accounts receivables increased by $35.4 million attributable to higher revenue levels during 2019 and the timing of invoicing and collections. Inventory levels increased by $42.8 million to address strong customer demand for our ICE4 products, and additional inventory to support our manufacturing transition and integration efforts. Prepaid and other assets increased by $93.6 million primarily due to timing of tax payments, and increase in customer contract assets. Accounts payable increased by $83.3 million primarily to support integration initiatives and the increase in inventory. Accrued liabilities and other expenses increased by $54.7 million primarily due to increased compensation-related expenses and timing of tax payments. Deferred revenue increased by $25.7 million due to maintenance renewals on our growing installed base, which are typically contracted on an annual or multi-year basis.

Net cash used in working capital was $57.2 million for 2018. Accounts receivables increased by $21.1 million attributable to higher revenue levels during 2018 and timing of invoicing and collections. Inventory levels increased by $8.6 million to address strong customer demand for our next-generation ICE4 products, while inventory levels of our prior generation products decreased. Accounts payable decreased by $0.5 million primarily due to the timing of payments and inventory purchases. Accrued liabilities and other expenses decreased by $21.5 million primarily due to reduced levels of compensation-related accruals. Additionally, this decrease was attributable to the reduction of customer right of returns, net of an increase in customer prepayments due to our adoption of Topic 606. Deferred revenue increased by $8.0 million due to maintenance renewals on our growing installed base, which are typically contracted on an annual or multi-year basis, net of adjustments related to our adoption of Topic 606.

Net cash provided by working capital was $17.6 million for 2017. Accounts receivables decreased by $25.8 million attributable to lower revenue levels during 2017. Inventory levels decreased by $2.7 million reflecting inventory reduction and product rationalization efforts. Accounts payable decreased by $4.8 million primarily due to reduced inventory purchases and timing of payments. Accrued liabilities and other expenses decreased $14.4 million primarily due to reduced levels of compensation-related accruals and decreased accrued warranty primarily due to changes in estimated repair and replacement costs, along with improved failure rates. Deferred revenue increased $16.4 million attributable to commercial arrangements with customers to transition to new products and continued growth in on-going support services for our installed base, which are typically contracted on an annual or multi-year basis.

Investing Activities

Net cash used in investing activities for 2019 was $12.6 million. Investing activities during 2019 included the net escrow payment of $10.0 million in connection with the Acquisition, and net proceeds of $26.6 million associated with sales, maturities and purchases of investments during the year. In addition, we spent $30.2 million on capital expenditures and received additional proceeds on the sale of our non-marketable equity investments of $1.0 million.

Net cash provided by investing activities for 2018 was $12.6 million. Investing activities during 2018 included the net payment of $102.9 million in connection with the Acquisition, and net proceeds of $152.2 million associated with sales, maturities and purchases of investments during the year. In addition, we spent $37.7 million on capital expenditures and received additional proceeds on the sale of our non-marketable equity investments of $1.1 million.

Net cash used in investing activities for 2017 was $54.8 million, including $58.0 million of capital expenditures, of which $12.4 million was due to our purchase of our module manufacturing facility in Pennsylvania in May 2017. Partially offsetting those spend activities were net proceeds of $3.2 million associated with purchases, sales, maturities and calls of investments during the year.

Financing Activities

Net cash provided by financing activities was $71.9 million and $207.9 million for 2019 and 2018, respectively, and net cash provided by financing activities was $16.5 million for 2017. Financing activities in 2019 included proceeds of $8.6 million from issuance of debt associated with mortgaging one of our facilities, $48.1 million from a new revolving line of credit obtained in August 2019 and subsequently amended in December 2019 (as described under “Liquidity and Capital Resources-Liquidity” below) and $24.3 million under a financing assistance arrangement with third-party contract manufacturer. Financing activities during 2019 also included $20.0 million for the repayment of the revolving line of credit. The period also included net proceeds from the issuance of shares under our 2007 Employee Stock Purchase Plan (the “ESPP”) and the exercise of stock options. These proceeds were offset by the minimum tax withholdings paid on behalf of certain employees for net share settlements of restricted stock units (“RSUs”).

Net cash provided by financing activities was $207.9 million and $16.5 million for 2018 and 2017, respectively. Financing activities in 2018 included proceeds from the issuance of the 2024 Notes of $391.4 million, offset by the payment for capped call transactions related to the 2024 Notes of $48.9 million. Financing activities during 2018 also included $150.0 million for the repayment of the 2018 Notes, which matured on June 1, 2018. Additionally, we made principal payments on capital lease obligations of $1.2 million during the period. The period also included net proceeds from the issuance of shares under the ESPP and the exercise of stock options. These proceeds were offset by the minimum tax withholdings paid on behalf of certain employees for net share settlements of restricted stock units RSUs.

Financing activities in 2017 included $18.0 million in net proceeds from the issuance of shares under our ESPP and the exercise of stock options. Proceeds were offset by the minimum tax withholdings paid on behalf of certain employees for net share settlements of RSUs. Additionally, during 2017, in association with the compulsory acquisition proceedings in accordance with Swedish law, we paid $0.5 million to the minority shareholders of Transmode based on the final determination of the arbitration tribunal.

Liquidity

We believe that our current cash, cash equivalents, along with the Credit Facility (as defined and described below) we entered into with Wells Fargo Bank, National Association, and BMO Harris Bank N.A. will be sufficient to meet our anticipated cash needs for working capital and capital expenditures, payments under the financing assistance arrangement with third-party contract manufacturer, and the interest payments on the 2024 Notes and Credit Facility for at least 12 months. If these sources of cash are insufficient to satisfy our liquidity requirements, we may require additional capital from equity or debt financings to fund our operations, to respond to competitive pressures or strategic opportunities, or otherwise. In addition, we are continuously evaluating alternatives for efficiently funding our capital expenditures and ongoing operations. We may, from time to time engage in a variety of financing transactions for such purposes. We may not be able to secure timely additional financing on favorable terms, or at all. The terms of any additional financings may place limits on our financial and operating flexibility. If we raise additional funds through further issuances of equity or equity-linked securities, our existing stockholders could suffer dilution in their percentage ownership of us, and any new securities we issue could have rights, preferences and privileges senior to those of holders of our common stock.

On August 1, 2019, we entered into a Credit Agreement (the "Credit Agreement") with Wells Fargo Bank. The Credit Agreement provides for a senior secured asset-based revolving credit facility of up to $100 million (the "Credit Facility"), which we may draw upon from time to time. We may increase the total commitments under the Credit Facility by up to an additional $50 million, subject to certain conditions. The Credit Agreement provides for a $50 million letter of credit sub-facility and a $10 million swing loan sub-facility.

On December 23, 2019, we exercised our option to increase the total commitments under the Credit Facility and entered into an Increase Joinder and Amendment Number One to Credit Agreement (the “Amendment”), with BMO Harris Bank N.A. and Wells Fargo Bank, as administrative agent. The amendment increased the total commitments under the Credit Facility to $150 million.

The proceeds of the loans under the Credit Agreement, as amended by the Amendment (the “Amended Credit Agreement”) may be used to pay the fees, costs and expenses incurred in connection with the Amended Credit Agreement and for working capital and general corporate purposes. The Credit Facility matures, and all outstanding loans become due and payable, on March 5, 2024. Availability under the Credit Facility is based upon periodic borrowing base certifications valuing certain inventory and accounts receivable, as reduced by certain reserves. The Credit Facility is secured by first-priority security interest (subject to certain exceptions) in inventory, certain related assets, specified deposit accounts, and certain other accounts in certain domestic subsidiaries.

Loans under the Amended Credit Agreement bear interest, at our option, at either a rate based on the London Interbank Offered Rate (“LIBOR”) for the applicable interest period or a base rate, in each case plus a margin. The margin ranges from 2.00% to 2.50% for LIBOR rate loans and 1.00% to 1.50% for base rate loans, depending on the utilization of the Credit Facility. The commitment fee payable on the unused portion of the Credit Facility ranges from 0.375% to 0.625% per annum, also based on the current utilization of the Credit Facility. Letters of credit issued pursuant to the Credit Facility will accrue a fee at a per annum rate equal to the applicable LIBOR rate margin times the average amount of the letter of credit usage during the immediately preceding quarter in addition to the fronting fees, commissions and other fees.

As of December 28, 2019, we have outstanding borrowings of $30 million due in March 2024 and related interest due monthly. For more information regarding the Credit Facility, see Note 13, “Debt” to the Notes to Consolidated Financial Statements.

In September 2018, we issued the 2024 Notes, which will mature on September 1, 2024, unless earlier repurchased, redeemed or converted. Interest is payable semi-annually in arrears on March 1 and September 1 of each year, which commenced on March 1, 2019. The net proceeds from the 2024 Notes issuance were approximately $391.4 million, of which approximately $48.9 million was used to pay the cost of the capped call transactions. We also used a portion of the remaining net proceeds to fund the cash portion of the purchase price of the Acquisition, including fees and expenses relating thereto, and intend to use the remaining net proceeds for general corporate purposes.

Upon conversion, it is our intention to pay cash equal to the lesser of the aggregate principal amount or the conversion value of the 2024 Notes. For any remaining conversion obligation, we intend to pay or deliver, as the case may be, cash, shares of our common stock, or a combination of cash and shares of our common stock, at our election. As of December 28, 2019, long-term debt, net, was $285.7 million, which represents the liability component of the $402.5 million principal balance, net of $116.8 million of unamortized debt discount and debt issuance costs. The debt discount and debt issuance costs are currently being amortized over the remaining term until maturity of the 2024 Notes on September 1, 2024. To the extent that the holders of the 2024 Notes request conversion during an early conversion window, we may require funds for repayment of such 2024 Notes prior to their maturity date.

As of December 28, 2019, contractual obligations related to the 2024 Notes are payments of $8.6 million due each year from 2020 through 2023 and $411.1 million due in 2024. These amounts represent principal and interest cash payments over the term of the 2024 Notes. Any future redemption or conversion of the Notes could impact the amount or timing of our cash payments. For more information regarding the 2024 Notes, see Note 13, “Debt” to the Notes to Consolidated Financial Statements.

As of December 28, 2019, we had $109.2 million of cash, cash equivalents including $68.7 million of cash and cash equivalents held by our foreign subsidiaries. Our policy with respect to undistributed foreign subsidiaries' earnings is to consider those earnings to be indefinitely reinvested. As a result of the Tax Act, if and when funds are actually distributed in the form of dividends or otherwise, we expect minimal tax consequences, except for foreign withholding taxes, which would be applicable in some jurisdictions.

Contractual Obligations

The following is a summary of our contractual obligations as of December 28, 2019:

		Payments Due by Period			
	Total	**Less than 1 year**	**1 - 3 years**	**3 - 5 years**	**More than 5 years**
			(In thousands)		
Purchase obligations[1]	$ 258,177	$ 255,427	$ 2,707	$ 43	$ —
Operating leases[2]	117,014	24,717	33,753	22,420	36,124
Convertible senior notes, including interest	445,265	8,553	17,106	419,606	—
Financing lease obligations[3]	4,109	1,563	2,140	406	—
Asset backed loan	30,525	525	—	30,000	—
Financing assistance agreement, including interest	31,809	31,809	—	—	—
Mortgage Payable, including interest	10,090	841	1,683	7,566	—
Total contractual obligations[4][5]	$ 896,989	$ 323,435	$ 57,389	$ 480,041	$ 36,124

(1) We have service agreements with our major production suppliers under which we are committed to purchase certain parts.

(2) We lease facilities under non-cancelable operating lease agreements. These leases have varying terms that range from one to 11 years, and contain leasehold improvement incentives, rent holidays and escalation clauses. In addition, some of these leases have renewal options for up to five years. We also have contractual commitments to remove leasehold improvements and return certain properties to a specified condition when the leases terminate. At the inception of a lease with such conditions, we record an asset retirement obligation liability and a corresponding capital asset in an amount equal to the estimated fair value of the obligation. Leasehold improvements are amortized using the straight-line method over the shorter of the lease term or estimated useful life of the asset. An assumption of lease renewal where a renewal option exists is used only when the renewal has been determined to be reasonably assured. The estimated useful life of leasehold improvements is one to 11 years. See Note 14, "Commitments and Contingencies" to the Notes to Consolidated Financial Statements for more information.

(3) We have two finance leases for manufacturing and other equipment. The financing lease assets will continue to be amortized and payments due will be made over the lease terms, which range from 3 to 5 years. See Note 9, "Balance Sheet Details" to the Notes to Consolidated Financial Statements for more information.

(4) Tax liabilities of $4.1 million related to uncertain tax positions are not included in the table because we cannot reliably estimate the timing and amount of future payments, if any.

(5) In 2020, we expect to make contributions of $3.5 million to cover benefit payments to plan participants. Expected future payments to our pension and post-employment plan are excluded from the contractual obligation table because they do not represent contractual cash outflow as they are dependent on various factors. See Note 19, "Employee Benefit and Pension Plans" to the Notes to Consolidated Financial Statements for more information.

We had $27.9 million of standby letters of credit and bank guarantees outstanding as of December 28, 2019. These consisted of $14.2 million related to customer performance guarantees, $5.9 million related to property leases, $6.8 million related to Coriant pre-acquisition restructuring plans, $0.4 million of value-added tax and customs' licenses, $0.5 million related to credit cards and $0.1 million for other liabilities. Of the aforementioned standby letters of credit and bank guarantees outstanding, $4.1 million was backed by cash collateral from a third-party institution, and the Company accrues 2.25% annual fee and 0.13% annual fronting fee on the average LOC balances outstanding on the cash collateral.

We had $30.0 million of standby letters of credit and bank guarantees outstanding as of December 29, 2018. These consisted of $23.4 million related to customer performance guarantees, $2.9 million related to property leases, $1.8 million related to Coriant pre-acquisition restructuring plans, $1.4 million of value-added tax and customs' licenses and $0.5 million related to credit cards. Of the aforementioned standby letters of credit and bank guarantees outstanding, $13.4 million was backed by cash collateral from a third-party institution, and we accrued 5% annual interest on the outstanding cash collateral.

Off-Balance Sheet Arrangements

As of December 28, 2019, we did not have any relationships with unconsolidated entities or financial partnerships, such as entities often referred to as structured finance or special purpose entities, which would have been established for the purpose of facilitating off-balance sheet arrangements or other contractually narrow or limited purposes.

Critical Accounting Policies and Estimates

Our consolidated financial statements are prepared in accordance with U.S. GAAP. These accounting principles require us to make certain estimates, assumptions and judgments that can affect the reported amounts of assets and liabilities and disclosure of contingent assets and liabilities as of the date of the consolidated financial statements, as well as the reported amounts of revenue and expenses during the periods presented. See Note 2, “Significant Accounting Policies” to the Notes to Consolidated Financial Statements, which is included in Part II, Item 8 of this Annual Report on Form 10-K. Financial Statements and Supplementary Data, which describes our significant accounting policies and methods used in preparation of our consolidated financial statements. Management believes that the estimates, assumptions and judgments upon which they rely are reasonable based upon information available to them at the time that these estimates and judgments are made. To the extent there are material differences between these estimates and actual results, our consolidated financial statements will be affected.

We believe our critical accounting policies and estimates are those related to revenue recognition, stock-based compensation, employee benefit and pension plans, accounting for income taxes, inventory valuation, accrued warranty, business combination, amortization of intangible assets, and impairment of intangibles and goodwill. Management considers these policies critical because they are both important to the portrayal of our financial condition and results of operations, and they require management to make judgments and estimates about inherently uncertain matters.

Revenue Recognition

Effective December 31, 2017, we adopted Topic 606, using the modified retrospective method applied to those contracts that were not completed as of December 31, 2017. Results for the reporting periods after December 31, 2017 are presented under Topic 606, while prior period amounts are not adjusted and continue to be reported in accordance with our historical accounting under Topic 605.

We recognize revenue when control of the promised goods or services is transferred to our customers, in an amount that reflects the consideration we expect to be entitled to in exchange for those goods or services.

We determine revenue recognition by applying the following five-step approach:

- identification of the contract, or contracts, with a customer;
- identification of the performance obligations in the contract;
- determination of the transaction price;
- allocation of the transaction price to the performance obligations in the contract; and
- recognition of revenue when, or as, we satisfy a performance obligation.

Many of our product sales are sold in combination with installation and deployment services along with initial hardware and software support. Our product sales are also sold at times with spares management, on-site hardware replacement services, network operations management, software subscription services, extended hardware warranty and training. Initial software and hardware support services are generally delivered over a one-year period in connection with the initial purchase. Software warranty provides customers with maintenance releases during the warranty support period and hardware warranty provides replacement or repair of equipment that fails to perform in line with specifications. Software subscription services include software warranty and additionally provides customers with rights to receive unspecified software product upgrades released during the support period.

Spares management and on-site hardware replacement services include the replacement of defective units at customer sites in accordance with specified service level agreements. Network operations management includes the day-to-day operation of a customer's network. These services are generally delivered on an annual basis. We evaluate each promised good and service in a contract to determine whether it represents a distinct performance obligation or should be accounted for as a combined performance obligation.

Services revenue includes software subscription services, installation and deployment services, spares management, on-site hardware replacement services, network operations management, extended hardware warranty and training. Revenue from software subscription services, spares management, on-site hardware replacement services, network operations management and extended hardware warranty contracts is deferred and is recognized ratably over the contractual support period, which is generally one year, as services are provided over the course of the entire period. Revenue related to training and installation and deployment services is recognized upon completion of the services.

Contracts and customer purchase orders are generally used to determine the existence of an arrangement. In addition, shipping documents and customer acceptances, when applicable, are used to verify delivery and transfer of title. We typically satisfy our performance obligations upon shipment or delivery of product depending on the contractual terms. Payment terms to customers generally range from net 30 to 120 days from invoice, which are considered to be standard payment terms. We assess our ability to collect from our customers based primarily on the creditworthiness and past payment history of the customer.

Customer product returns are generally approved on a case by case basis. Specific reserve provisions are made based upon a specific review of all the approved product returns where the customer has yet to return the products to generate the related sales return credit at the end of a period. Estimated sales returns are recorded as a reduction to revenue.

For sales to resellers, the same revenue recognition criteria apply. It is our practice to identify an end-user prior to shipment to a reseller. We do not offer rights of return or price protection to our resellers.

We report revenue net of any required taxes collected from customers and remitted to government authorities, with the collected taxes recorded as current liabilities until remitted to the relevant government authority.

Customer Purchase Commitments

We sell software licenses that provide customers the ability to purchase incremental bandwidth capacity on an already-deployed piece of hardware. Instant Bandwidth-enabled systems generally include a specific initial capacity and incremental capacity can be added by the purchase of Instant Bandwidth licenses. Instant Bandwidth licenses are considered distinct performance obligations because customers can provision additional transmission capacity on demand without the deployment of any incremental equipment.

Some contracts commit the customer to purchase incremental Instant Bandwidth licenses within a specified time frame from the initial shipment of the Instant Bandwidth-enabled hardware. The time frame varies by customer and generally ranges between 12 to 24 months. If the customer does not purchase the additional capacity within the time frame as stated in the contract, we have the right to deliver and invoice such Instant Bandwidth licenses to the customer. Under Topic 605, the additional incremental licenses were not included as an element of the initial arrangement because fees for the future purchases were not fixed. Under Topic 606, future committed licenses are considered to be additional performance obligations when a minimum purchase obligation is present, as evidenced by enforceable rights and obligations. As such, we are required to estimate the variable consideration for future Instant Bandwidth licenses as part of determining the contract transaction price.

Contract Termination Rights

The contract term is determined on the basis of the period over which the parties to the contract have present enforceable rights and obligations. Certain customer contracts include a termination for convenience clause that allows the customer to terminate services without penalty, upon advance notification. For such contracts, the service duration is limited to the non-cancelable portion of the contract.

Variable Consideration

The consideration associated with customer contracts is generally fixed. Variable consideration includes discounts, rebates, refunds, credits, incentives, penalties, or other similar items. The amount of consideration that can vary is not a substantial portion of total consideration.

Variable consideration estimates are re-assessed at each reporting period until a final outcome is determined. The changes to the original transaction price due to a change in estimated variable consideration will be applied on a retrospective basis, with the adjustment recorded in the period in which the change occurs.

Stand-alone Selling Price

Stand-alone selling price is the price at which an entity would sell a good or service on a stand-alone (or separate) basis at contract inception. Under this model, the observable price of a good or service sold separately provides the best evidence of stand-alone selling price. However, in certain situations, stand-alone selling prices will not be readily observable and the entity must estimate the stand-alone selling price.

When allocating on a relative stand-alone selling price basis, any discount provided in the contract is generally allocated proportionately to all of the performance obligations in the contract.

The majority of products and services offered by us have readily observable selling prices. For products and services that do not, we generally estimate stand-alone selling price using the market assessment approach based on expected selling price and adjust those prices as necessary to reflect our costs and margins. As part of our stand-alone selling price policy, we review product pricing on a periodic basis to identify any significant changes and revise our expected stand-alone selling price assumptions as appropriate.

Capitalization of Costs to Obtain a Contract

We have assessed the treatment of costs to obtain or fulfill a contract with a customer. Sales commissions have historically been expensed as incurred. Under Topic 606, we capitalize sales commissions related to multi-year service contracts, which are paid for upfront and amortize the asset over the period of benefit, which is the service period. Sales commissions paid on service contract renewals, are commensurate with the sales commissions paid on the initial contracts.

Transaction Price Allocated to the Remaining Performance Obligation

Our remaining performance obligations represent the transaction price allocated to performance obligations that are unsatisfied or partially satisfied, as of period end, consisting of deferred revenue and backlog. Our backlog represents purchase orders received from customers for future product shipments and services that are unsatisfied or partially satisfied as of period end. Our backlog is subject to future events that could cause the amount or timing of the related revenue to change, and, in certain cases, may be canceled without penalty. Orders in backlog may be fulfilled several quarters following receipt or may relate to multi-year support service obligations.

Stock-Based Compensation

Stock-based compensation cost is measured at the grant date based on the fair value of the award and is recognized as expense over the requisite service period (generally the vesting period) under the straight-line amortization method. During the third fiscal quarter beginning on June 26, 2016, we elected to early adopt ASU 2016-09 and elected to change our accounting policy to account for forfeitures when they occur on a modified retrospective basis.

We estimate the fair value of the rights to acquire stock under the ESPP using the Black-Scholes option pricing formula. The ESPP provides for consecutive six-month offering periods and we use our own historical volatility data in the valuation of shares that are purchased under the ESPP.

We account for the fair value of RSUs using the closing market price of our common stock on the date of grant. For new-hire grants, RSUs typically vest ratably on an annual basis over four years. For annual refresh grants, RSUs typically vest ratably on an annual basis over two, three or four years.

We granted performance shares (“PSUs”) to our executive officers and senior management in 2017 and 2018. The PSUs granted during 2017 and 2018 to our executive officers and senior management are based on total stockholder return (“TSR”) of our common stock price relative to the TSR of the individual companies listed in the S&P North American Technology Multimedia Networking Index (SPGIIPTR) (the “S&P Networking Index”) over the span of one year, two years and three years. The number of shares to be issued upon vesting of these PSUs range from zero to two times the target number of PSUs granted depending on our performance against the individual companies listed in the SPGIIPTR. This performance metric is classified as a market condition.

PSUs granted to our executive officers and senior management during 2019 are based on performance criteria related to a specific financial target over the span of a three-year performance period. These PSUs may become eligible for vesting to begin before the end of the three year performance period, if the applicable financial target is met. The number of shares to be issued upon vesting of these PSUs is capped at the target number of PSUs granted. We assess the achievement status of these PSUs on a quarterly basis and record the related stock-based compensation expenses based on the estimated achievement payout.

We use a Monte Carlo simulation model to determine the fair value of PSUs on the date of grant. The Monte Carlo simulation model is based on a discounted cash flow approach, with the simulation of a large number of possible stock price outcomes for our stock and the target composite index. The use of the Monte Carlo simulation model requires the input of a number of assumptions including expected volatility of our stock price, expected volatility of a target composite index, correlation between changes in our stock price and changes in the target composite index, risk-free interest rate, and expected dividends as applicable. Expected volatility of our stock is based on the weighted-average historical volatility of our stock. Expected volatility of the target composite index is based on the historical and implied data. Correlation is based on the historical relationship between our stock price and the target composite index average. The risk-free interest rate is based upon the treasury zero-coupon yield appropriate for the term of the PSU as of the grant date. Our expected dividend yield is zero as we do not expect to pay dividends in the future. The expected dividend yield for the target composite index is the annual dividend yield expressed as a percentage of the composite average of the target composite index on the grant date.

In addition, we have granted other PSUs to certain employees that only vest upon the achievement of specific operational performance criteria. We assess the achievement status of these PSUs on a quarterly basis and record the related stock-based compensation expenses based on the estimated achievement payout.

Employee Benefit and Pension Plans

We operate a number of post-employment plans in Germany, as well as smaller post-employment plans in other countries, including both defined contribution and defined benefit plans. Benefit cost obligations pertaining to these plans are based on assumptions for the discount rate, expected return on plan assets, mortality rates, expected salary increases, health care cost trend rates and attrition rates. The discount rate assumption is based on current investment yields of high-quality fixed-income securities with maturities similar to the expected benefits payment period. Mortality rates help predict the expected life of plan participants. The expected increase in the compensation levels assumption reflects our actual experience and future expectations. The expected long-term return on plan assets is determined based on asset allocations, historical portfolio results, historical asset correlations and management's expected returns for each asset class. We evaluate our expected return assumptions annually including reviewing current capital market assumptions to assess the reasonableness of the expected long-term return on plan assets. We update the expected long-term return on assets when we observe a sufficient level of evidence that would suggest the long-term expected return has changed.

Accounting for Income Taxes

As part of the process of preparing our consolidated financial statements, we are required to estimate our taxes in each of the jurisdictions in which we operate. We estimate actual current tax expense together with assessing temporary differences resulting from different treatment of items, such as accruals and allowances not currently deductible for tax purposes. These differences result in deferred tax assets and liabilities, which are included in our consolidated balance sheets. In general, deferred tax assets represent future tax benefits to be received when certain expenses previously recognized in our consolidated statements of operations become deductible expenses under applicable income tax laws or loss, or credit carryforwards are utilized. Accordingly, realization of our deferred tax assets is dependent on future taxable income within the respective jurisdictions against which these deductions, losses and credits can be utilized within the applicable future periods.

We must assess the likelihood that some portion or all of our deferred tax assets will be recovered from future taxable income within the respective jurisdictions, and to the extent we believe that recovery does not meet the “more-likely-than-not” standard, it must establish a valuation allowance. The ultimate realization of deferred tax assets is dependent upon the generation of future taxable income during the periods in which those temporary differences become deductible. Management judgment is required in determining its provision for income taxes, its deferred tax assets and liabilities and any valuation allowance recorded against our net deferred tax assets. In evaluating the need for a full or partial valuation allowance, all positive and negative evidence must be considered, including our forecast of taxable income over the applicable carryforward periods, its current financial performance, its market environment, and other factors. Based on the available objective evidence, at December 28, 2019, management believes it is not more likely than not that the domestic net deferred tax assets will be realizable in the foreseeable future. Accordingly, the domestic net deferred tax assets are subject to a full valuation allowance. To the extent that we determine that deferred tax assets are realizable on a more likely than not basis, and an adjustment is needed, that adjustment will be recorded in the period that the determination is made.

Inventory Valuation

Inventories consist of raw materials, work-in-process and finished goods and are stated at standard cost adjusted to approximate the lower of actual cost or net realizable value. Costs are recognized utilizing the first-in, first-out method. Net realizable value is based upon an estimated selling price reduced by the estimated cost of disposal. The determination of market value involves numerous judgments including estimated average selling prices based upon recent sales volumes, industry trends, existing customer orders, current contract price, future demand and pricing and technological obsolescence of our products.

Inventory that is obsolete or in excess of our forecasted demand or is anticipated to be sold at a loss is written down to its estimated net realizable value based on historical usage and expected demand. In valuing our inventory costs and deferred inventory costs, we considered whether the net realizable value of inventory delivered or expected to be delivered at less than cost, primarily comprised of common equipment, had declined.

We concluded that, in the instances where the net realizable value of inventory delivered or expected to be delivered was less than cost, it was appropriate to value the inventory costs and deferred inventory costs at cost or net realizable value, whichever is lower, thereby recognizing the cost of the reduction in net realizable value of inventory in the period in which the reduction occurred or can be reasonably estimated. We have, therefore, recognized inventory write-downs as necessary in each period in order to reflect inventory at the lower of actual cost or net realizable value.

We consider whether we should accrue losses on firm purchase commitments related to inventory items. Given that the net realizable value of common equipment is below contractual purchase price, we have also recorded losses on these firm purchase commitments in the period in which the commitment is made. When the inventory parts related to these firm purchase commitments are received, that inventory is recorded at the purchase price less the accrual for the loss on the purchase commitment.

Accrued Warranty

In our contracts with our customers, we warrant that our products will operate substantially in conformity with product specifications. Hardware warranties provide the purchaser with protection in the event that the product does not perform to product specifications. During the warranty period, the purchaser's sole and exclusive remedy in the event of such defect or failure to perform is limited to the correction of the defect or failure by repair, refurbishment or replacement, at our sole option and expense. Our hardware warranty periods generally range from one to five years from date of acceptance for hardware and our software warranty is 90 days. Upon delivery of our products, we provide for the estimated cost to repair or replace products that may be returned under warranty. The hardware warranty accrual is based on actual estimated future returns and cost of repair rates and the application of those estimated rates to our in-warranty installed base. The provision for warranty claims fluctuates depending upon the installed base of products and the failure rates and costs of repair associated with these products under warranty. Furthermore, our costs of repair vary based on repair volume and our ability to repair, rather than replace, defective units, as well as our ability to utilize used units to fulfill warranty obligations. In the event that actual product failure rates and costs to repair differ from our estimates, revisions to the warranty provision are required. In addition, from time to time, specific hardware warranty accruals may be made if unforeseen technical problems arise with specific products. We regularly assess the adequacy of our recorded warranty liabilities and adjust the amounts as necessary.

Business Combination

Accounting for acquisitions requires management to estimate the fair value of the assets and liabilities assumed, which requires management to make significant estimates, judgments, and assumptions that could materially affect the timing or amounts recognized in our financial statements. These assumptions and estimates include our use of the asset and the appropriate discount rates. Our significant estimates can include, but are not limited to, the future cash flows, the appropriate weighted cost of capital, and discount rates, as well as the estimated useful life of intangible assets, deferred tax assets and liabilities, uncertain tax positions, and tax-related valuation allowance, which are initially estimated as of the acquisition date. While we use our best estimates and assumptions to accurately value assets acquired and liabilities assumed at the acquisition date, the estimates are inherently uncertain and subject to refinement. In addition, unanticipated events and circumstances may occur that may affect the accuracy or validity of such estimates. As a result, during the measurement period, which may be up to one year following the acquisition date, if new information is obtained about facts and circumstances that existed as of the acquisition date, we may record adjustments to the fair value of these assets and liabilities, with the corresponding offset to goodwill.

Amortization of Intangible Assets

Intangible assets with finite lives are carried at cost, less accumulated amortization. Amortization is computed over the estimated useful lives of the respective assets. In-process research and development represents the fair value of incomplete research and development projects that have not reached technological feasibility as of the date of acquisition. Initially, these assets are not subject to amortization. Once projects have been completed they are transferred to developed technology, which are subject to amortization, while assets related to projects that have been abandoned are impaired and expensed to research and development.

Impairment of Intangible Assets and Goodwill

Goodwill represents the excess of the purchase price of an acquired business over the fair value of the identifiable assets acquired and liabilities assumed. We test for impairment of goodwill on an annual basis in the fourth quarter and at any other time when events occur or circumstances indicate that the carrying amount of goodwill may not be recoverable. We have the option to first assess qualitative factors to determine whether it is necessary to perform the quantitative goodwill impairment test. If we determine that as a result of the qualitative assessment that it is more likely than not (i.e., greater than 50% likelihood) that the fair value of a reporting unit is less than its carrying amount, then the quantitative test is required or it can directly perform the quantitative analysis. Beginning the first quarter of 2019, we adopted Accounting Standards Update No. 2017-04, “Simplifying the Test for Goodwill Impairment”, which eliminated Step 2 of the goodwill impairment test, which requires a hypothetical purchase price allocation. As a result of adoption of this new standard an entity should recognize an impairment charge for the amount by which the carrying amount exceeds the reporting unit’s fair value; however, the loss recognized should not exceed the total amount of goodwill allocated to that reporting unit.

We evaluate events and changes in circumstances that could indicate carrying amounts of purchased intangible assets may not be recoverable. When such events or changes in circumstances occur, we assess the recoverability of these assets by determining whether or not the carrying amount will be recovered through undiscounted expected future cash flows. If the total of the future undiscounted cash flows is less than the carrying amount of an asset, we record an impairment loss for the amount by which the carrying amount of the asset exceeds the fair value of the asset.

Recent Accounting Pronouncements

See Note 2, “Significant Accounting Policies” to the Notes to Consolidated Financial Statements for a full description of recent accounting pronouncements including the respective expected dates of adoptions and effects on us.

ITEM 7A. QUANTITATIVE AND QUALITATIVE DISCLOSURES ABOUT MARKET RISK

Foreign Currency Risk

We operate in international markets, which expose us to market risk associated with foreign currency exchange rate fluctuations between the U.S. dollar and various foreign currencies, the most significant of which are the euro and Swedish kronor ("SEK"). Historically, the majority of our revenue contracts are denominated in U.S. dollars, with the most significant exception being in Europe, where we invoice primarily in euros and SEK. Additionally, a portion of our expenses, primarily the cost of personnel for research and development, sales and sales support to deliver technical support on our products and professional services, and the cost to manufacture, are denominated in foreign currencies, primarily the Indian rupee, the euro, the SEK and the British pound. As a result of the Acquisition, we have increased our exposure to a broader set of currencies. Revenue resulting from selling in local currencies and costs incurred in local currencies are exposed to foreign currency exchange rate fluctuations that can affect our operating income. As exchange rates vary, operating income may differ from expectations.

We currently enter into foreign currency exchange forward contracts to reduce the impact of currency exchange rate movements on certain transactions, but do not cover all foreign-denominated transactions and therefore do not entirely eliminate the impact of fluctuations in exchange rates that could negatively affect our results of operations and financial condition.

We enter into foreign currency exchange forward contracts to reduce the impact of foreign currency fluctuations on accounts receivable and restricted cash denominated in euros and British pounds. As a result, we do not expect a significant impact to our results from a change in exchange rates on foreign denominated accounts receivable balances and restricted cash in the near-term. Gains and losses on these contracts are intended to offset the impact of foreign exchange rate fluctuations on the underlying foreign currency denominated accounts receivables and restricted cash. Accordingly, the effect of an immediate 10% adverse change in foreign exchange rates on these transactions during 2019 would not be material to our results of operations.

During 2019, we also entered into foreign currency exchange contracts to reduce the volatility of cash flows primarily related to forecasted revenues and expenses denominated in euros, British pounds. The contracts are generally settled for U.S. dollars, euros and British pounds at maturity under an average rate method agreed to at inception of the contracts. The gains and losses on these foreign currency derivatives are recorded to the consolidated statement of operations line item, in the current period, to which the item that is being economically hedged is recorded. The effect of an immediate 10% adverse change in foreign exchange rates on these transactions during 2019 would not be material to our results of operations.

Interest Rate Sensitivity

We had cash and cash equivalents, investments, and restricted cash totaling $132.8 million and $268.8 million as of December 28, 2019 and December 29, 2018, respectively. As of December 28, 2019, we have liquidated all our investments. The unrestricted cash and cash equivalents are held for working capital purposes. We do not enter into investments for speculative purposes. We are also exposed to interest rate risk in connection with our variable interest rate borrowings. The effect of an immediate 10% adverse change in interest rates would not be material to our results of operations.

Market Risk and Market Interest Risk

Holders may convert the 2024 Notes prior to maturity upon the occurrence of certain circumstances. Upon conversion, we will pay or deliver, as the case may be, cash, shares of our common stock or a combination of cash and shares of our common stock, at our election. If our common stock price is above the initial conversion price of $9.87 upon conversion or at maturity, the amount of cash or shares of common stock required to pay the conversion premium is not fixed and would increase if our common stock price increases.

As of December 28, 2019, the fair value of the 2024 Notes was $417.2 million. The fair value was determined based on the quoted bid price of the 2024 Notes in an over-the-counter market on December 27, 2019. The 2024 Notes are classified as Level 2 of the fair value hierarchy. The fair value of the 2024 Notes is subject to interest rate risk, market risk and other factors due to the convertible feature. The fair value of the 2024 Notes will generally increase as interest rates fall and decrease as interest rates rise. In addition, the fair value of the 2024 Notes will generally increase as our common stock price increases and will generally decrease as our common stock price declines in value. The interest and market value changes affect the fair value of the 2024 Notes but do not impact our financial position, cash flows or results of operations due to the fixed nature of the debt obligation. Additionally, we do not carry the 2024 Notes at fair value. We present the fair value of the 2024 Notes for required disclosure purposes only.

See Note 13, “Debt” to the Notes to Consolidated Financial Statements for further information.

ITEM 8. FINANCIAL STATEMENTS AND SUPPLEMENTARY DATA

INDEX TO CONSOLIDATED FINANCIAL STATEMENTS

Report of Ernst & Young LLP, Independent Registered Public Accounting Firm

To the Stockholders and Board of Directors of Infinera Corporation

Opinion on the Financial Statements

We have audited the accompanying consolidated balance sheets of Infinera Corporation (the Company) as of December 28, 2019 and December 29, 2018, the related consolidated statements of operations, comprehensive income (loss), stockholders' equity and cash flows for each of the three years in the period ended December 28, 2019, and the related notes and the financial statement schedule listed in the Index at Item 15(a) (collectively referred to as the "consolidated financial statements"). In our opinion, the consolidated financial statements present fairly, in all material respects, the financial position of the Company at December 28, 2019 and December 29, 2018, and the results of its operations and its cash flows for each of the three years in the period ended December 28, 2019, in conformity with U.S. generally accepted accounting principles.

We also have audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States) (PCAOB), the Company's internal control over financial reporting as of December 28, 2019, based on criteria established in Internal Control-Integrated Framework issued by the Committee of Sponsoring Organizations of the Treadway Commission (2013 framework) and our report dated March 4, 2020 expressed an unqualified opinion thereon.

Adoption of New Accounting Standard

As discussed in Notes 2 and 4 to the consolidated financial statements, the Company changed its method of accounting for revenue recognition in the year ended December 29, 2018 due to the adoption of ASU No. 2014-09, *Revenue from Contracts with Customers (Topic 606)*.

Basis for Opinion

These financial statements are the responsibility of the Company's management. Our responsibility is to express an opinion on the Company's financial statements based on our audits. We are a public accounting firm registered with the PCAOB and are required to be independent with respect to the Company in accordance with the U.S. federal securities laws and the applicable rules and regulations of the Securities and Exchange Commission and the PCAOB.

We conducted our audits in accordance with the standards of the PCAOB. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement, whether due to error or fraud. Our audits included performing procedures to assess the risks of material misstatement of the financial statements, whether due to error or fraud, and performing procedures that respond to those risks. Such procedures included examining, on a test basis, evidence regarding the amounts and disclosures in the financial statements. Our audits also included evaluating the accounting principles used and significant estimates made by management, as well as evaluating the overall presentation of the financial statements. We believe that our audits provide a reasonable basis for our opinion.

/s/ Ernst & Young LLP

We have served as the Company's auditor since 2001.

San Jose, California
March 4, 2020

Report of Ernst & Young LLP, Independent Registered Public Accounting Firm

To the Stockholders and the Board of Directors of Infinera Corporation

Opinion on Internal Control over Financial Reporting

We have audited Infinera Corporation's internal control over financial reporting as of December 28, 2019, based on criteria established in Internal Control-Integrated Framework issued by the Committee of Sponsoring Organizations of the Treadway Commission (2013 framework) (the COSO criteria). In our opinion, Infinera Corporation (the Company) maintained, in all material respects, effective internal control over financial reporting as of December 28, 2019, based on the COSO criteria.

We also have audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States) (PCAOB), the consolidated balance sheets as of December 28, 2019 and December 29, 2018, the related consolidated statements of operations, comprehensive income (loss), stockholders' equity and cash flows for each of the three years in the period ended December 28, 2019, and the related notes and the financial statement schedule listed in the Index at Item 15(a) (collectively referred to as the "consolidated financial statements") and our report dated March 4, 2020 expressed an unqualified opinion thereon.

Basis for Opinion

The Company's management is responsible for maintaining effective internal control over financial reporting and for its assessment of the effectiveness of internal control over financial reporting included in the accompanying Management's Report on Internal Control over Financial Reporting. Our responsibility is to express an opinion on the Company's internal control over financial reporting based on our audit. We are a public accounting firm registered with the PCAOB and are required to be independent with respect to the Company in accordance with the U.S. federal securities laws and the applicable rules and regulations of the Securities and Exchange Commission and the PCAOB.

We conducted our audit in accordance with the standards of the PCAOB. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether effective internal control over financial reporting was maintained in all material respects.

Our audit included obtaining an understanding of internal control over financial reporting, assessing the risk that a material weakness exists, testing and evaluating the design and operating effectiveness of internal control based on the assessed risk, and performing such other procedures as we considered necessary in the circumstances. We believe that our audit provides a reasonable basis for our opinion.

Definition and Limitations of Internal Control Over Financial Reporting

A company's internal control over financial reporting is a process designed to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles. A company's internal control over financial reporting includes those policies and procedures that (1) pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect the transactions and dispositions of the assets of the company; (2) provide reasonable assurance that transactions are recorded as necessary to permit preparation of financial statements in accordance with generally accepted accounting principles, and that receipts and expenditures of the company are being made only in accordance with authorizations of management and directors of the company; and (3) provide reasonable assurance regarding prevention or timely detection of unauthorized acquisition, use, or disposition of the company's assets that could have a material effect on the financial statements.

Because of its inherent limitations, internal control over financial reporting may not prevent or detect misstatements. Also, projections of any evaluation of effectiveness to future periods are subject to the risk that controls may become inadequate because of changes in conditions, or that the degree of compliance with the policies or procedures may deteriorate.

/s/ Ernst & Young LLP

San Jose, California
March 4, 2020

INFINERA CORPORATION

CONSOLIDATED BALANCE SHEETS
(In thousands, except par values)

	December 28, 2019	December 29, 2018
ASSETS		
Current assets:		
Cash and cash equivalents	$ 109,201	$ 202,954
Short-term investments	—	26,511
Short-term restricted cash	4,339	13,229
Accounts receivable, net of allowance for doubtful accounts of $4,005 in 2019 and $1,821 in 2018	349,645	317,115
Inventory	340,429	311,888
Prepaid expenses and other current assets	139,217	85,400
Total current assets	942,831	957,097
Property, plant and equipment, net	150,793	342,820
Operating lease right-of-use assets	68,081	—
Intangible assets, net	170,346	233,119
Goodwill	249,848	227,231
Long-term restricted cash	19,257	26,154
Other non-current assets	27,182	14,849
Total assets	$ 1,628,338	$ 1,801,270
LIABILITIES AND STOCKHOLDERS' EQUITY		
Current liabilities:		
Accounts payable	$ 273,397	$ 191,187
Accrued expenses and other current liabilities	193,168	131,891
Accrued compensation and related benefits	92,221	71,152
Short-term debt, net	31,673	—
Accrued warranty	21,107	20,103
Deferred revenue	103,753	88,534
Total current liabilities	715,319	502,867
Long-term debt, net	323,678	266,929
Long-term financing lease obligation	2,394	193,538
Accrued warranty, non-current	22,241	20,918
Deferred revenue, non-current	36,067	31,768
Deferred tax liability	8,700	13,347
Operating lease liabilities	64,210	—
Other long-term liabilities	69,194	68,082
Commitments and contingencies (Note 14)		
Stockholders' equity:		
Preferred stock, $0.001 par value Authorized shares—25,000 and no shares issued and outstanding	—	—
Common stock, $0.001 par value Authorized shares—500,000 in 2019 and 500,000 in 2018 Issued and outstanding shares—181,134 in 2019 and 175,452 in 2018	181	175
Additional paid-in capital	1,740,884	1,685,916
Accumulated other comprehensive income (loss)	(34,639)	(25,300)
Accumulated deficit	(1,319,891)	(956,970)
Total stockholders' equity	386,535	703,821
Total liabilities and stockholders' equity	$ 1,628,338	$ 1,801,270

The accompanying notes are an integral part of these consolidated financial statements.

INFINERA CORPORATION

CONSOLIDATED STATEMENTS OF OPERATIONS
(In thousands, except per share data)

	Years Ended		
	December 28, 2019	December 29, 2018	December 30, 2017
Revenue:			
Product	$ 1,011,488	$ 763,555	$ 610,535
Services	287,377	179,824	130,204
Total revenue	1,298,865	943,379	740,739
Cost of revenue:			
Cost of product	735,059	517,765	406,644
Cost of services	146,916	78,353	50,480
Amortization of intangible assets	32,583	23,475	20,474
Acquisition and integration costs	28,449	—	—
Restructuring and related	29,935	2,630	19,141
Total cost of revenue	972,942	622,223	496,739
Gross profit	325,923	321,156	244,000
Operating expenses:			
Research and development	287,977	244,302	224,368
Sales and marketing	151,423	124,238	109,511
General and administrative	126,351	80,957	70,620
Amortization of intangible assets	27,280	29,296	6,160
Acquisition and integration costs	42,271	15,530	322
Restructuring and related	40,851	12,512	16,106
Total operating expenses	676,153	506,835	427,087
Loss from operations	(350,230)	(185,679)	(183,087)
Other income (expense), net:			
Interest income	1,139	2,428	3,328
Interest expense	(31,657)	(22,049)	(14,017)
Other gain (loss), net	(2,907)	(9,650)	(2,160)
Total other income (expense), net	(33,425)	(29,271)	(12,849)
Loss before income taxes	(383,655)	(214,950)	(195,936)
Provision for/(benefit) from income taxes	2,963	(655)	(1,430)
Net loss	(386,618)	(214,295)	(194,506)
Net loss per common share:			
Basic	$ (2.16)	$ (1.36)	$ (1.32)
Diluted	$ (2.16)	$ (1.36)	$ (1.32)
Weighted average shares used in computing net loss per common share:			
Basic	178,984	157,748	147,878
Diluted	178,984	157,748	147,878

The accompanying notes are an integral part of these consolidated financial statements.

INFINERA CORPORATION

CONSOLIDATED STATEMENTS OF COMPREHENSIVE INCOME (LOSS)
(In thousands)

	Years Ended		
	December 28, 2019	December 29, 2018	December 30, 2017
Net loss	$ (386,618)	$ (214,295)	$ (194,506)
Other comprehensive income (loss):			
Net unrealized gain (loss) on investments	91	327	(209)
Foreign currency translation adjustment	(9,376)	(26,483)	34,787
Tax effect on items related to available-for-sale investments	—	(85)	—
Actuarial loss on pension liabilities	(54)	(5,313)	—
Net change in accumulated other comprehensive income (loss)	(9,339)	(31,554)	34,578
Comprehensive loss	$ (395,957)	$ (245,849)	$ (159,928)

The accompanying notes are an integral part of these consolidated financial statements.

INFINERA CORPORATION

CONSOLIDATED STATEMENTS OF STOCKHOLDERS' EQUITY
For the Years Ended December 28, 2019, December 29, 2018 and December 30, 2017
(In thousands)

	Common Stock		Additional Paid-in Capital	Accumulated Other Comprehensive	Accumulated Deficit	Total Stockholders' Equity
	Shares	Amount				
Balance at December 31, 2016	145,021	$ 145	$1,354,082	$ (28,324)	$ (563,575)	$ 762,328
Stock options exercised	196	—	1,525	—	—	1,525
ESPP shares issued	2,140	2	16,409	—	—	16,411
Shares withheld for tax obligations	(110)	—	(1,034)	—	—	(1,034)
Restricted stock units released	2,224	2	(2)	—	—	—
Stock-based compensation	—	—	46,063	—	—	46,063
Other comprehensive income	—	—	—	34,578	—	34,578
Net loss	—	—	—	—	(194,506)	(194,506)
Balance at December 30, 2017	149,471	$ 149	$1,417,043	$ 6,254	$ (758,081)	$ 665,365
Stock options exercised	229	—	1,701	—	—	1,701
ESPP shares issued	2,189	2	15,990	—	—	15,992
Shares withheld for tax obligations	(109)	—	(1,144)	—	—	(1,144)
Restricted stock units released	2,697	3	(3)	—	—	—
Issuance of common stock related to acquisition	20,975	21	129,607	—	—	129,628
Stock-based compensation	—	—	42,905	—	—	42,905
Conversion option related to convertible senior notes, net of allocated costs	—	—	128,726	—	—	128,726
Capped call	—	—	(48,909)	—	—	(48,909)
Cumulative-effect adjustment from adoption of ASU 2016-09	—	—	—	—	15,406	15,406
Other comprehensive loss	—	—	—	(31,554)	—	(31,554)
Net loss	—	—	—	—	(214,295)	(214,295)
Balance at December 29, 2018	175,452	$ 175	$1,685,916	$ (25,300)	$ (956,970)	$ 703,821
ESPP shares issued	2,897	3	12,049	—	—	12,052
Shares withheld for tax obligations	(98)	—	(425)	—	—	(425)
Restricted stock units released	2,883	3	(3)	—	—	—
Stock-based compensation	—	—	43,347	—	—	43,347
Cumulative-effect adjustment from adoption of Topic 842	—	—	—	—	23,697	23,697
Other comprehensive loss	—	—	—	(9,339)	—	(9,339)
Net loss	—	—	—	—	(386,618)	(386,618)
Balance at December 28, 2019	181,134	$ 181	$1,740,884	$ (34,639)	$ (1,319,891)	$ 386,535

The accompanying notes are an integral part of these consolidated financial statements.

INFINERA CORPORATION

CONSOLIDATED STATEMENTS OF CASH FLOWS

(In thousands)

	Years Ended		
	December 28, 2019	December 29, 2018	December 30, 2017
Cash Flows from Operating Activities:			
Net loss	$ (386,618)	$ (214,295)	$ (194,506)
Adjustments to reconcile net loss to net cash provided by (used in) operating activities:			
Depreciation and amortization	119,824	100,494	65,997
Non-cash restructuring and other related	13,937	7,291	29,237
Amortization of debt discount and issuance costs	19,162	11,161	11,342
Interest accretion related to financing lease obligation	—	4,694	—
Operating lease expense	31,141	—	—
Impairment of non-marketable equity investment	—	5,110	1,890
Stock-based compensation expense	43,294	43,410	45,720
Other, net	178	254	755
Changes in assets and liabilities:			
Accounts receivable	(35,395)	(21,111)	25,849
Inventory	(42,840)	(8,617)	2,727
Prepaid expenses and other assets	(93,621)	(13,458)	(8,194)
Accounts payable	83,272	(520)	(4,763)
Accrued liabilities and other expenses	54,658	(21,490)	(14,395)
Deferred revenue	25,658	7,994	16,416
Net cash used in operating activities	(167,350)	(99,083)	(21,925)
Cash Flows from Investing Activities:			
Purchase of available-for-sale investments	—	(2,986)	(160,215)
Proceeds from sales of available-for-sale investments	1,499	53,039	10,531
Proceeds from maturities of investments	25,085	102,112	152,876
Acquisition of business, net of cash acquired	(10,000)	(102,899)	—
Proceeds from sale of non-marketable equity investments	1,009	1,050	—
Purchase of property and equipment, net	(30,202)	(37,692)	(58,041)
Net cash provided by (used in) investing activities	(12,609)	12,624	(54,849)
Cash Flows from Financing Activities:			
Proceeds from issuance of 2024 Notes	—	391,431	—
Proceeds from mortgage payable	8,584	—	—
Proceeds from short-term borrowings	24,310	—	—
Proceeds from revolving line of credit	48,125	—	—
Purchase of capped call transactions	—	(48,880)	—
Repayment of revolving line of credit	(20,000)	—	—
Repayment of mortgage payable	(300)	(150,000)	—
Payment of debt issuance cost	(273)	—	—
Principal payments on financing lease obligations	(163)	(1,211)	—
Acquisition of non-controlling interest	—	—	(471)
Proceeds from issuance of common stock	12,053	17,693	17,991
Minimum tax withholding paid on behalf of employees for net share settlement	(426)	(1,144)	(1,034)
Net cash provided by financing activities	71,910	207,889	16,486
Effect of exchange rate changes on cash	(1,491)	(579)	4,194
Net change in cash and cash equivalents	(109,540)	120,851	(56,094)
Cash, cash equivalents and restricted cash at beginning of period	242,337	121,486	177,580
Cash, cash equivalents and restricted cash at end of period[(1)]	$ 132,797	$ 242,337	$ 121,486

Supplemental disclosures of cash flow information:						
Cash paid for income taxes, net of refunds	$	16,944	$	6,692	$	5,690
Cash paid for interest	$	9,564	$	3,554	$	2,639
Supplemental schedule of non-cash investing and financing activities:						
Transfer of inventory to fixed assets	$	2,961	$	3,787	$	4,950
Common stock issued in connection with acquisition	$	—	$	129,628	$	—
Third-party manufacturer funding for transfer expenses incurred	$	6,960	$	—	$	—
Unpaid debt issuance cost	$	2,493	$	—	$	—

(1) Reconciliation of cash, cash equivalents and restricted cash to the consolidated balance sheets:

	December 29, 2019		December 29, 2018		December 30, 2017	
			(In thousands)			
Cash and cash equivalents	$	109,201	$	202,954	$	116,345
Short-term restricted cash		4,339		13,229		544
Long-term restricted cash		19,257		26,154		4,597
Total cash, cash equivalents and restricted cash	$	132,797	$	242,337	$	121,486

The accompanying notes are an integral part of these consolidated financial statements.

INFINERA CORPORATION

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

1. Organization and Basis of Presentation

Infinera Corporation (“Infinera” or the “Company”), headquartered in Sunnyvale, California, was founded in December 2000 and incorporated in the State of Delaware. Infinera is a global supplier of networking solutions comprised of networking equipment, software and services. The Company's portfolio of solutions includes optical transport platforms, converged packet-optical transport platforms, optical line systems and disaggregated router platforms, and a suite of networking and automation software offerings.

During the fourth quarter of 2018, the Company completed the acquisition of all the outstanding limited liability company interests (the “Units”) of Telecom Holding Parent LLC (“Coriant”), a Delaware limited liability company and wholly-owned subsidiary of Coriant Investor LLC, a Delaware limited liability company (“Seller”), pursuant to the Unit Purchase Agreement (the “Purchase Agreement”) by and among the Company, Seller and Oaktree Optical Holdings, L.P., a Delaware limited partnership (“Lender”) (the “Acquisition”). The Acquisition was accounted for as a business combination, and accordingly, the Company's consolidated financial statements include the operating results of Coriant from October 1, 2018, the date the acquisition closed (the “Acquisition Date”).

The Company operates and reports financial results on a fiscal year of 52 or 53 weeks ending on the last Saturday of December in each year. Accordingly, fiscal years 2019, 2018 and 2017 were 52-week years that ended on December 28, 2019, December 29, 2018 and December 30, 2017 respectively. The next 53-week year will end on December 31, 2022.

The accompanying consolidated financial statements have been prepared in conformity with U.S. generally accepted accounting principles (“GAAP”). The consolidated financial statements include all adjustments necessary for a fair presentation of the Company's annual results. All adjustments are of a normal recurring nature. Certain prior period amounts have been reclassified to conform to the Company's current period presentation.

The consolidated financial statements include the accounts for the Company and its subsidiaries and affiliates in the Company which the Company has a controlling financial interest or is the primary beneficiary. All inter-company balances and transactions have been eliminated.

2. Significant Accounting Policies

Use of Estimates

The preparation of consolidated financial statements in conformity with GAAP requires management to make certain estimates, assumptions and judgments that can affect the reported amounts of assets and liabilities and disclosure of contingent assets and liabilities as of the date of the consolidated financial statements, as well as the reported amounts of revenue and expenses during the reporting periods. Such management estimates include, but not limited to the stand-alone selling price for the Company's products and services, stock-based compensation, inventory valuation, accrued warranty, fair value of assets acquired and liabilities assumed in a business combinations and accounting for income taxes. Other estimates, assumptions and judgments made by management include restructuring and other related costs, manufacturing partner and supplier liabilities, allowances for sales returns, allowances for doubtful accounts, pension benefit cost and obligations, useful life of acquired intangibles and recoverability of property, plant and equipment, cease-use loss related to facility exit, fair value measurement of the debt component of the convertible senior notes, and loss contingencies. The Company bases its assumptions on historical experience and also on assumptions that it believes are reasonable. Actual results could differ materially from those estimates.

Revenue Recognition

Effective December 31, 2017, the Company adopted Accounting Standards Update No. 2014-09, "Revenue from Contracts with Customers (Topic 606)" ("Topic 606"), using the modified retrospective method applied to those contracts that were not completed as of December 31, 2017. Results for the reporting periods after December 31, 2017 are presented under Topic 606, while prior period amounts are not adjusted and continue to be reported in accordance with the Company's historical accounting under Accounting Standards Codification ("ASC") Topic 605, "Revenue Recognition" ("Topic 605").

The Company recognizes revenue when control of the promised goods or services is transferred to its customers, in an amount that reflects the consideration the Company expects to be entitled to in exchange for those goods or services.

The Company determines revenue recognition by applying the following five-step approach:

- identification of the contract, or contracts, with a customer;
- identification of the performance obligations in the contract;
- determination of the transaction price;
- allocation of the transaction price to the performance obligations in the contract; and
- recognition of revenue when, or as, the Company satisfies a performance obligation.

Many of the Company's product sales are sold in combination with installation and deployment services along with initial hardware and software support. The Company's product sales are also sold at times with spares management, on-site hardware replacement services, network operations management, software subscription services, extended hardware warranty and training. Initial software and hardware support services are generally delivered over a one-year period in connection with the initial purchase. Software warranty provides customers with maintenance releases during the warranty support period and hardware warranty provides replacement or repair of equipment that fails to perform in line with specifications. Software subscription services include software warranty and additionally provides customers with rights to receive unspecified software product upgrades released during the support period.

Spares management and on-site hardware replacement services include the replacement of defective units at customer sites in accordance with specified service level agreements. Network operations management includes the day-to-day operation of a customer's network. These services are generally delivered on an annual basis. The Company evaluates each promised good and service in a contract to determine whether it represents a distinct performance obligation or should be accounted for as a combined performance obligation.

Services revenue includes software subscription services, installation and deployment services, spares management, on-site hardware replacement services, network operations management, extended hardware warranty and training. Revenue from software subscription services, spares management, on-site hardware replacement services, network operations management and extended hardware warranty contracts is deferred and is recognized ratably over the contractual support period, which is generally one year, as services are provided over the course of the entire period. Revenue related to training and installation and deployment services is recognized upon completion of the services.

Contracts and customer purchase orders are generally used to determine the existence of an arrangement. In addition, shipping documents and customer acceptances, when applicable, are used to verify delivery and transfer of title. The Company typically satisfies its performance obligations upon shipment or delivery of product depending on the contractual terms. Payment terms to customers generally range from net 30 to 120 days from invoice, which are considered to be standard payment terms. The Company assesses its ability to collect from its customers based primarily on the creditworthiness and past payment history of the customer.

Customer product returns are generally approved on a case by case basis. Specific reserve provisions are made based upon a specific review of all the approved product returns where the customer has yet to return the products to generate the related sales return credit at the end of a period. Estimated sales returns are recorded as a reduction to revenue.

For sales to resellers, the same revenue recognition criteria apply. It is the Company's practice to identify an end-user prior to shipment to a reseller. The Company does not offer rights of return or price protection to its resellers.

The Company reports revenue net of any required taxes collected from customers and remitted to government authorities, with the collected taxes recorded as current liabilities until remitted to the relevant government authority.

Customer Purchase Commitments

The Company sells software licenses that provide customers the ability to purchase incremental bandwidth capacity on an already-deployed piece of hardware. Infinera Instant Bandwidth-enabled systems generally include a specific initial capacity and incremental capacity can be added by the purchase of Instant Bandwidth licenses. Instant Bandwidth licenses are considered distinct performance obligations because customers can provision additional transmission capacity on demand without the deployment of any incremental equipment.

Some contracts commit the customer to purchase incremental Instant Bandwidth licenses within a specified time frame from the initial shipment of the Instant Bandwidth-enabled hardware. The time frame varies by customer and generally ranges between 12 to 24 months. If the customer does not purchase the additional capacity within the time frame as stated in the contract, the Company has the right to deliver and invoice such Instant Bandwidth licenses to the customer. Under ASC 605, the additional incremental licenses were not included as an element of the initial arrangement because fees for the future purchases were not fixed. Under Topic 606, future committed licenses are considered to be additional performance obligations when a minimum purchase obligation is present, as evidenced by enforceable rights and obligations. As such, the Company is required to estimate the variable consideration for future Instant Bandwidth licenses as part of determining the contract transaction price.

Contract Termination Rights

The contract term is determined on the basis of the period over which the parties to the contract have present enforceable rights and obligations. Certain customer contracts include a termination for convenience clause that allows the customer to terminate services without penalty, upon advance notification. For such contracts, the service duration is limited to the non-cancelable portion of the contract.

Variable Consideration

The consideration associated with customer contracts is generally fixed. Variable consideration includes discounts, rebates, refunds, credits, incentives, penalties, or other similar items. The amount of consideration that can vary is not a substantial portion of total consideration.

Variable consideration estimates are re-assessed at each reporting period until a final outcome is determined. The changes to the original transaction price due to a change in estimated variable consideration will be applied on a retrospective basis, with the adjustment recorded in the period in which the change occurs.

Stand-alone Selling Price

Stand-alone selling price is the price at which an entity would sell a good or service on a stand-alone (or separate) basis at contract inception. Under this model, the observable price of a good or service sold separately provides the best evidence of stand-alone selling price. However, in certain situations, stand-alone selling prices will not be readily observable and the entity must estimate the stand-alone selling price.

When allocating on a relative stand-alone selling price basis, any discount provided in the contract is generally allocated proportionately to all of the performance obligations in the contract.

The majority of products and services offered by the Company have readily observable selling prices. For products and services that do not, the Company generally estimates stand-alone selling price using the market assessment approach based on expected selling price and adjust those prices as necessary to reflect the Company's costs and margins. As part of its stand-alone selling price policy, the Company reviews product pricing on a periodic basis to identify any significant changes and revise its expected stand-alone selling price assumptions as appropriate.

Shipping and Handling

The Company treats shipping and handling activities as costs to fulfill the Company's promise to transfer products. Shipping and handling fees billed to customers are recorded as a reduction to cost of product.

Capitalization of Costs to Obtain a Contract

The Company has assessed the treatment of costs to obtain or fulfill a contract with a customer. Sales commissions have historically been expensed as incurred. Under Topic 606, the Company capitalizes sales commissions related to multi-year service contracts, which are paid for upfront, and amortizes the asset over the period of benefit, which is the service period. Sales commissions paid on service contract renewals, are commensurate with the sales commissions paid on the initial contracts.

Transaction Price Allocated to the Remaining Performance Obligation

The Company's remaining performance obligations represent the transaction price allocated to performance obligations that are unsatisfied or partially satisfied as of period end, consisting of deferred revenue and backlog. The Company's backlog represents purchase orders received from customers for future product shipments and services that are unsatisfied or partially satisfied as of period end. The Company's backlog is subject to future events that could cause the amount or timing of the related revenue to change, and, in certain cases, may be canceled without penalty. Orders in backlog may be fulfilled several quarters following receipt or may relate to multi-year support service obligations.

Stock-Based Compensation

Stock-based compensation cost is measured at the grant date based on the fair value of the award and is recognized as expense over the requisite service period (generally the vesting period) under the straight-line amortization method. During the third fiscal quarter beginning on June 26, 2016, the Company elected to early adopt ASU 2016-09 and elected to change its accounting policy to account for forfeitures when they occur on a modified retrospective basis.

The Company estimates the fair value of the rights to acquire stock under its 2007 Employee Stock Purchase Plan (the "ESPP") using the Black-Scholes option pricing formula. The ESPP provides for consecutive six-month offering periods and the Company uses its own historical volatility data in the valuation of shares that are purchased under the ESPP.

The Company accounts for the fair value of restricted stock units ("RSUs") using the closing market price of the Company's common stock on the date of grant. For new-hire grants, RSUs typically vest ratably on an annual basis over four years. For annual refresh grants, RSUs typically vest ratably on an annual basis over two, three or four years.

The Company granted performance shares ("PSUs") to its executive officers and senior management in 2017 and 2018. The PSUs granted during 2017 and 2018 to the Company's executive officers and senior management are based on total stockholder return ("TSR") of the Company's common stock price relative to the TSR of the individual companies listed in the S&P North American Technology Multimedia Networking Index (SPGIIPTR) (the "S&P Networking Index") over the span of one year, two years and three years. The number of shares to be issued upon vesting of these PSUs range from zero to two times the target number of PSUs granted depending on the Company's performance against the individual companies listed in the SPGIIPTR. This performance metric is classified as a market condition.

PSUs granted to the Company's executive officers and senior management during 2019 are based on performance criteria related to a specific financial target over the span of a three-year performance period. These PSUs may become eligible for vesting to begin before the end of the three year performance period, if the applicable financial target is met. The number of shares to be issued upon vesting of these PSUs is capped at the target number of PSUs granted. The Company assesses the achievement status of these PSUs on a quarterly basis and records the related stock-based compensation expenses based on the estimated achievement payout.

The Company uses a Monte Carlo simulation model to determine the fair value of PSUs on the date of grant. The Monte Carlo simulation model is based on a discounted cash flow approach, with the simulation of a large number of possible stock price outcomes for the Company's stock and the target composite index. The use of the Monte Carlo simulation model requires the input of a number of assumptions including expected volatility of the Company's stock price, expected volatility of a target composite index, correlation between changes in the Company's stock price and changes in the target composite index, risk-free interest rate, and expected dividends as applicable. Expected volatility of the Company's stock is based on the weighted-average historical volatility of its stock. Expected volatility of the target composite index is based on the historical and implied data. Correlation is based on the historical relationship between the Company's stock price and the target composite index average. The risk-free interest rate is based upon the treasury zero-coupon yield appropriate for the term of the PSU as of the grant date. The expected dividend yield is zero for the Company as it does not expect to pay dividends in the future. The expected dividend yield for the target composite index is the annual dividend yield expressed as a percentage of the composite average of the target composite index on the grant date.

In addition, the Company granted other PSUs to certain employees that only vest upon the achievement of specific operational performance criteria. The Company assesses the achievement status of these PSUs on a quarterly basis and records the related stock-based compensation expenses based on the estimated achievement payout.

Employee Benefit and Pension Plans

The Company operates a number of post-employment plans in Germany, as well as smaller post-employment plans in other countries, including both defined contribution and defined benefit plans. Benefit cost and obligations pertaining to these plans are based on assumptions for the discount rate, expected return on plan assets, mortality rates, expected salary increases, health care cost trend rates and attrition rates. The discount rate assumption is based on current investment yields of high-quality fixed-income securities with maturities similar to the expected benefits payment period. Mortality rates help predict the expected life of plan participants. The expected increase in the compensation levels assumption reflects the Company's actual experience and future expectations. The expected long-term return on plan assets is determined based on asset allocations, historical portfolio results, historical asset correlations and management’s expected returns for each asset class. The Company evaluates its expected return assumptions annually including reviewing current capital market assumptions to assess the reasonableness of the expected long-term return on plan assets. The Company updates the expected long-term return on assets when the Company observes a sufficient level of evidence that would suggest the long-term expected return has changed.

Research and Development

All costs to develop the Company’s hardware products are expensed as incurred. Software development costs are capitalized beginning when a product’s technological feasibility has been established and ending when a product is available for general release to customers. Generally, the Company’s software products are released soon after technological feasibility has been established. As a result, costs subsequent to achieving technological feasibility have not been significant and all software development costs have been expensed as incurred.

Advertising

All advertising costs are expensed as incurred. Advertising expenses in 2019, 2018 and 2017 were $1.5 million, $0.9 million and $1.8 million, respectively.

Accounting for Income Taxes

As part of the process of preparing the Company's consolidated financial statements, the Company is required to estimate its taxes in each of the jurisdictions in which it operates. The Company estimates actual current tax expense together with assessing temporary differences resulting from different treatment of items, such as accruals and allowances not currently deductible for tax purposes. These differences result in deferred tax assets and liabilities, which are included in its consolidated balance sheets. In general, deferred tax assets represent future tax benefits to be received when certain expenses previously recognized in its consolidated statements of operations become deductible expenses under applicable income tax laws or loss, or credit carryforwards are utilized. Accordingly, realization of the Company's deferred tax assets is dependent on future taxable income within the respective jurisdictions against which these deductions, losses and credits can be utilized within the applicable future periods.

The Company must assess the likelihood that some portion or all of its deferred tax assets will be recovered from future taxable income within the respective jurisdictions, and to the extent the Company believes that recovery does not meet the “more-likely-than-not” standard, it must establish a valuation allowance. The ultimate realization of deferred tax assets is dependent upon the generation of future taxable income during the periods in which those temporary differences become deductible. Management judgment is required in determining the Company’s provision for income taxes, the Company’s deferred tax assets and liabilities, and any valuation allowance recorded against the Company’s net deferred tax assets. In evaluating the need for a full or partial valuation allowance, all positive and negative evidence must be considered, including the Company's forecast of taxable income over the applicable carryforward periods, its current financial performance, its market environment, and other factors. Based on the available objective evidence, at December 28, 2019, the Company believes it is not more likely than not that the domestic net deferred tax assets will be realizable in the foreseeable future. Accordingly, the domestic net deferred tax assets are subject to a full valuation allowance. To the extent that the Company determines that deferred tax assets are realizable on a more likely than not basis, and an adjustment is needed, that adjustment will be recorded in the period that the determination is made.

Foreign Currency Translation and Transactions

The Company considers the functional currencies of its foreign subsidiaries to be the local currency. Assets and liabilities recorded in foreign currencies are translated at the exchange rate as of the balance sheet date, and costs and expenses are translated at average exchange rates in effect during the period. Equity transactions are translated using historical exchange rates. The effects of foreign currency translation adjustments are recorded as a separate component of accumulated other comprehensive income (loss) in the accompanying consolidated balance sheets.

For all non-functional currency account balances, the re-measurement of such balances to the functional currency will result in either a foreign exchange transaction gain or loss, which is recorded to other gain (loss), net, in the same period that the re-measurement occurred. Aggregate foreign exchange transactions recorded in 2019, 2018 and 2017 were losses of $3.7 million, $2.5 million and $0.3 million, respectively.

The Company enters into foreign currency exchange forward contracts to reduce the impact of foreign exchange fluctuations on earnings from accounts receivable balances denominated in euros and British pounds, and restricted cash denominated in euros.

The Company also enters into foreign currency exchange contracts to reduce the volatility of cash flows primarily related to forecasted revenues and expenses denominated in Euros, British pounds. The contracts are generally settled for U.S. dollars, Euros and British pounds at maturity under an average rate method agreed to at inception of the contracts. The gains and losses on these foreign currency derivatives are recorded to the consolidated statement of operations line item, in the current period, to which the item that is being economically hedged is recorded.

Cash, Cash Equivalents and Short-term and Long-term Investments

The Company considers all highly liquid instruments with an original maturity at the date of purchase of 90 days or less to be cash equivalents. These instruments may include cash, money market funds, commercial paper and U.S. treasuries. The Company also maintains a portion of its cash in bank deposit accounts which, at times, may exceed federally insured limits. The Company has not experienced any losses in such accounts.

Cash, cash equivalents and short-term investments consist of highly-liquid investments in certificates of deposits, money market funds, commercial paper, U.S. agency notes, corporate bonds and U.S. treasuries. Long-term investments primarily consist of certificates of deposits, commercial paper, U.S. agency notes, corporate bonds and U.S. treasuries. The Company considers all debt instruments with original maturities at the date of purchase greater than 90 days and remaining time to maturity of one year or less to be short-term investments. The Company classifies debt instruments with remaining maturities greater than one year as long-term investments, unless the Company intends to settle its holdings within one year or less and in such case it is considered to be short-term investments. The Company determines the appropriate classification of its marketable securities at the time of purchase and re-evaluates such designations as of each balance sheet date.

Available-for-sale investments are stated at fair market value with unrealized gains and losses recorded in accumulated other comprehensive income (loss) in the Company’s consolidated balance sheets. The

Company evaluates its available-for-sale marketable debt securities for other-than-temporary impairments and records any credit loss portion in other income (expense), net, in the Company's consolidated statements of operations. The amortized cost of debt securities is adjusted for amortization of premiums and accretion of discounts to maturity and for any credit losses incurred on these securities. Gains and losses are recognized when realized in the Company's consolidated statements of operations under the specific identification method.

As of December 28, 2019 all short-term and long-term investments were liquidated.

Fair Value Measurement

Pursuant to the accounting guidance for fair value measurements and its subsequent updates, fair value is defined as the price that would be received from selling an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date. When determining the fair value measurements for assets and liabilities required or permitted to be recorded at fair value, the Company considers the principal or most advantageous market in which it would transact and it considers assumptions that market participants would use when pricing the asset or liability.

Valuation techniques used by the Company are based upon observable and unobservable inputs. Observable or market inputs reflect market data obtained from independent sources, while unobservable inputs reflect the Company's assumptions about market participant assumptions based on the best information available. Observable inputs are the preferred source of values. These two types of inputs create the following fair value hierarchy:

Level 1	–	Quoted prices in active markets for identical assets or liabilities.
Level 2	–	Quoted prices for similar instruments in active markets, quoted prices for identical or similar instruments in markets that are not active, and model-based valuation techniques for which all significant assumptions are observable in the market or can be corroborated by observable market data for substantially the full term of the assets or liabilities.
Level 3	–	Prices or valuations that require management inputs that are both significant to the fair value measurement and unobservable.

The Company measures its cash equivalents, foreign currency exchange forward contracts, and debt securities at fair value and classifies its securities in accordance with the fair value hierarchy on a recurring basis. The Company's money market funds and U.S. treasuries are classified within Level 1 of the fair value hierarchy and are valued based on quoted prices in active markets for identical securities.

The Company classifies the following assets within Level 2 of the fair value hierarchy as follows:

U.S. Agency Notes

The Company reviews trading activity and pricing for its U.S. agency notes as of the measurement date. When sufficient quoted pricing for identical securities is not available, the Company uses market pricing and other observable market inputs for similar securities obtained from a number of industry standard data providers. These inputs represent quoted prices for similar assets in active markets or these inputs have been derived from observable market data.

Corporate Bonds

The Company reviews trading activity and pricing for each of the corporate bond securities in its portfolio as of the measurement date and determines if pricing data of sufficient frequency and volume in an active market exists in order to support Level 1 classification of these securities. If sufficient quoted pricing for identical securities is not available, the Company obtains market pricing and other observable market inputs for similar securities from a number of industry standard data providers. In instances where multiple prices exist for similar securities, these prices are used as inputs into a distribution-curve to determine the fair market value at period end.

As of December 28, 2019 all short-term and long-term investments were liquidated.

Foreign Currency Exchange Forward Contracts

As discussed in Note 6, “Derivative Instruments" to the Notes to Consolidated Financial Statements, the Company mainly holds non-speculative foreign exchange forward contracts to hedge certain foreign currency exchange exposures. The Company estimates the fair values of derivatives based on quoted market prices or pricing models using current market rates. Where applicable, these models project future cash flows and discount the future amounts to a present value using market-based observable inputs including interest rate curves, credit risk, foreign exchange rates, and forward and spot prices for currencies.

Pension

As a result of the Acquisition, the Company acquired a number of post-employment plans in Germany, as well as a number of smaller post-employment plans in other countries, including both defined contribution and defined benefit plans. The defined benefit plans expose the Company to actuarial risks such as investment risk, interest rate risk, life expectancy risk and salary risk. The characteristics of the defined benefit plans and the risks associated with them vary depending on legal, fiscal, and economic requirements.

The Company classifies the following assets and liabilities within Level 3 of the fair value hierarchy and applies fair value accounting on a non-recurring basis, only if impairment is indicated:

Facilities-related Charges

The Company estimates the fair value of its facilities-related charges associated with the 2017 Restructuring Plan and 2018 Restructuring Plan (each as defined in Note 10, “Restructuring and Other Related Costs” to the Notes to Consolidated Financial Statements), based on estimated future discounted cash flows and unobservable inputs, which included the amount and timing of estimated sublease rental receipts that the Company could reasonably obtain over the remaining lease term and the discount rate.

Accounts Receivable and Allowances for Doubtful Accounts

Accounts receivable are recorded at the invoiced amount and do not bear interest. The Company reviews its aging by category to identify significant customers or invoices with known dispute or collectability issues. The Company makes judgments as to its ability to collect outstanding receivables based on various factors including ongoing customer credit evaluations and historical collection experience. The Company provides an allowance for receivable amounts that are potentially uncollectible and when receivables are determined to be uncollectible, amounts are written off.

Allowances for Sales Returns

Customer product returns are approved on a case by case basis. Specific reserve provisions are made based upon a specific review of all the approved product returns where the customer has yet to return the products to generate the related sales return credit at the end of a period. Estimated sales returns are provided for as a reduction to revenue. At December 28, 2019, December 29, 2018 and December 30, 2017, revenue was reduced for estimated sales returns by $3.5 million, $4.3 million and $0.9 million, respectively.

Concentration of Risk

Financial instruments that are potentially subject to concentrations of credit risk consist primarily of cash and cash equivalents, restricted cash and accounts receivable.

The risk with respect to accounts receivable is mitigated by ongoing credit evaluations that the Company performs on its customers. As the Company continues to expand its sales internationally, it may experience increased levels of customer credit risk associated with those regions. Collateral is generally not required for accounts receivable but may be used in the future to mitigate credit risk associated with customers located in certain geographical regions.

As of December 28, 2019, one customer accounted for over 10% of the Company's net accounts receivable balance. As of December 29, 2018, no customers accounted for over 10% of the Company's net accounts receivable balance.

To date, a few of the Company’s customers have accounted for a significant portion of its revenue. One customer accounted for approximately 13% of the Company's revenue in each of 2019 and 2018. This same customer completed a merger with another customer in 2017, and these two customers accounted for approximately 6% and 12% of the Company's revenue in 2017, respectively. One other customer accounted for approximately 15% of the Company's revenue in 2018. No other customers accounted for over 10% of the Company's revenue in 2019, 2018 or 2017.

The Company depends on sole source or limited source suppliers for several key components and raw materials. The Company generally purchases these sole source or limited source components and raw materials through standard purchase orders and does not have long-term contracts with many of these limited-source suppliers. While the Company seeks to maintain sufficient reserve stock of such components and raw materials, the Company’s business and results of operations could be adversely affected if any of its sole source or limited source suppliers suffer from capacity constraints, lower than expected yields, deployment delays, work stoppages or any other reduction or disruption in output.

Derivative Instruments

The Company is exposed to foreign currency exchange rate fluctuations in the normal course of its business. As part of its risk management strategy, the Company uses derivative instruments, specifically forward contracts, to reduce the impact of foreign exchange fluctuations on earnings. The forward contracts are with one high-quality institution and the Company monitors the creditworthiness of the counter parties consistently. The Company’s objective is to offset gains and losses resulting from these exposures with gains and losses on the derivative contracts used to hedge them, thereby reducing volatility of earnings or protecting fair values of assets. None of the Company’s derivative instruments contain credit-risk related contingent features, any rights to reclaim cash collateral or any obligation to return cash collateral. The Company does not have any leveraged derivatives. The Company does not use derivative contracts for trading or speculative purposes.

The Company enters into foreign currency exchange forward contracts to manage its exposure to fluctuations in foreign exchange rates that arise primarily from its euro and British pound denominated receivables and euro denominated restricted cash balance amounts that are pledged as collateral for certain standby letters of credit. Gains and losses on these contracts are intended to offset the impact of foreign exchange rate changes on the underlying foreign currency denominated accounts receivables and restricted cash, and therefore, do not subject the Company to material balance sheet risk. The Company also enters into foreign currency exchange contracts to reduce the volatility of cash flows primarily related to forecasted revenues and expenses denominated in Euros and British pounds. These contracts are generally settled for U.S. dollars, euros and British pounds at maturity under an average rate method agreed to at inception of the contracts. The forward contracts are with one high-quality institution and the Company consistently monitors the creditworthiness of the counterparty.

The Company has entered into factoring agreements, to sell certain receivables to unrelated third-party financial institutions. These transactions are accounted for in accordance with ASC Topic 860, “Transfers and Servicing” (“ASC 860”). ASC 860 and result in a reduction in accounts receivable because the agreements transfer effective control over and risk related to the receivables to the buyers. The Company's factoring agreements do not allow for recourse in the event of uncollectability, and the Company does not retain any interest in the underlying accounts receivable once sold.

Inventory Valuation

Inventories consist of raw materials, work-in-process and finished goods and are stated at standard cost adjusted to approximate the lower of actual cost or net realizable value. Costs are recognized utilizing the first-in, first-out method. Net realizable value is based upon an estimated selling price reduced by the estimated cost of disposal. The determination of market value involves numerous judgments including estimated average selling prices based upon recent sales volumes, industry trends, existing customer orders, current contract price, future demand and pricing and technological obsolescence of the Company’s products.

Inventory that is obsolete or in excess of the Company’s forecasted demand or is anticipated to be sold at a loss is written down to its estimated net realizable value based on historical usage and expected demand. In valuing its inventory costs and deferred inventory costs, the Company considered whether the net realizable value of inventory delivered or expected to be delivered at less than cost, primarily comprised of common equipment, had declined. The Company concluded that, in the instances where the net realizable value of inventory delivered or expected to be delivered was less than cost, it was appropriate to value the inventory costs and deferred inventory costs at cost or net realizable value, whichever is lower, thereby recognizing the cost of the reduction in net realizable value of inventory in the period in which the reduction occurred or can be reasonably estimated. The Company has, therefore, recognized inventory write-downs as necessary in each period in order to reflect inventory at the lower of actual cost or net realizable value.

The Company considers whether it should accrue losses on firm purchase commitments related to inventory items. Given that the net realizable value of common equipment is below contractual purchase price, the Company has also recorded losses on these firm purchase commitments in the period in which the commitment is made. When the inventory parts related to these firm purchase commitments are received, that inventory is recorded at the purchase price less the accrual for the loss on the purchase commitment.

Property, Plant and Equipment

Property, plant and equipment are stated at cost. This includes enterprise-level business software that the Company customizes to meet its specific operational needs. Depreciation is calculated using the straight-line method over the estimated useful lives of the respective assets. Leasehold improvements are amortized using the straight-line method over the shorter of the lease term or estimated useful life of the asset. An assumption of lease renewal where a renewal option exists is used only when the renewal has been determined to be reasonably certain. Repair and maintenance costs are expensed as incurred. The estimated useful life for each asset category is as follows:

	Estimated Useful Lives
Building	20 to 41 years
Laboratory and manufacturing equipment	1.5 to 10 years
Furniture and fixtures	3 to 10 years
Computer hardware and software	1.5 to 7 years
Leasehold and building improvements	1 to 11 years

The Company reviews long-lived assets for impairment whenever events or changes in circumstances indicate that the carrying amount of these assets may not be recoverable or that the useful life is shorter than originally estimated. If impairment indicators are present and the projected future undiscounted cash flows are less than the carrying value of the assets, the carrying values are reduced to the estimated fair value. If assets are determined to be recoverable, but the useful lives are shorter than originally estimated, the carrying value of the assets is depreciated over the newly determined remaining useful lives.

Accrued Warranty

In the Company's contracts with its customers, the Company warrants that its products will operate substantially in conformity with product specifications. Hardware warranties provide the purchaser with protection in the event that the product does not perform to product specifications. During the warranty period, the purchaser’s sole and exclusive remedy in the event of such defect or failure to perform is limited to the correction of the defect or failure by repair, refurbishment or replacement, at the Company’s sole option and expense. The Company's hardware warranty periods generally range from one to five years from date of acceptance for hardware and the Company's software warranty is 90 days. Upon delivery of the Company's products, the Company provides for the estimated cost to repair or replace products that may be returned under warranty. The hardware warranty accrual is based on actual historical returns and cost of repair experience and the application of those historical rates to the Company's in-warranty installed base. The provision for warranty claims fluctuates depending upon the installed base of products and the failure rates and costs of repair associated with these products under warranty. Furthermore, the Company's costs of repair vary based on repair volume and its ability to repair, rather than replace, defective units. In the event that actual product failure rates and costs to repair differ from the Company's estimates, revisions to the warranty provision are required. In addition, from time to time, specific hardware warranty accruals may be made if unforeseen technical problems arise with specific products. The Company regularly assesses the adequacy of its recorded warranty liabilities and adjusts the amounts as necessary.

Business Combination

Accounting for acquisitions requires the Company's management to estimate the fair value of the assets and liabilities assumed, which requires management to make significant estimates, judgments, and assumptions that could materially affect the timing or amounts recognized in its financial statements. These assumptions and estimates include the Company’s use of the asset and the appropriate discount rates. The Company’s significant estimates can include, but are not limited to, the future cash flows, the appropriate weighted cost of capital, and discount rates, as well as the estimated useful life of intangible assets, deferred tax assets and liabilities, uncertain tax positions, and tax-related valuation allowance, which are initially estimated as of the acquisition date. While the Company uses its best estimates and assumptions to accurately value assets acquired and liabilities assumed at the acquisition date, the estimates are inherently uncertain and subject to refinement. In addition, unanticipated events and circumstances may occur that may affect the accuracy or validity of such estimates. As a result, during the measurement period, which may be up to one year following the acquisition date, if new information is obtained about facts and circumstances that existed as of the acquisition date, the Company may record adjustments to the fair value of these assets and liabilities, with the corresponding offset to goodwill.

Amortization of Intangible Assets

Intangible assets with finite lives are carried at cost, less accumulated amortization. Amortization is computed over the estimated useful lives of the respective assets. In-process research and development represents the fair value of incomplete research and development projects that have not reached technological feasibility as of the date of acquisition. Initially, these assets are not subject to amortization. Once projects have been completed they are transferred to developed technology, which are subject to amortization, while assets related to projects that have been abandoned are impaired and expensed to research and development.

Impairment of Intangible Assets and Goodwill

Goodwill represents the excess of the purchase price of an acquired business over the fair value of the identifiable assets acquired and liabilities assumed. The Company tests for impairment of goodwill on an annual basis in the fourth quarter and at any other time when events occur or circumstances indicate that the carrying amount of goodwill may not be recoverable. The Company has the option to first assess qualitative factors to determine whether it is necessary to perform the quantitative goodwill impairment test. If the Company determines that as a result of the qualitative assessment that it is more likely than not (i.e., greater than 50% likelihood) that the fair value of a reporting unit is less than its carrying amount, then the quantitative test is required or it can directly perform the quantitative analysis. Beginning the first quarter of 2019, the Company adopted Accounting Standards Update No. 2017-04, “Simplifying the Test for Goodwill Impairment” (“ASU 2017-04”), which eliminated Step 2 of the goodwill impairment test, which requires a hypothetical purchase price allocation. As a result of adoption of this new standard an entity should recognize an impairment charge for the amount by which the carrying amount exceeds the reporting unit’s fair value; however, the loss recognized should not exceed the total amount of goodwill allocated to that reporting unit.

The Company evaluates events and changes in circumstances that could indicate carrying amounts of purchased intangible assets may not be recoverable. When such events or changes in circumstances occur, the Company assesses the recoverability of these assets by determining whether or not the carrying amount will be recovered through undiscounted expected future cash flows. If the total of the future undiscounted cash flows is less than the carrying amount of an asset, the Company records an impairment loss for the amount by which the carrying amount of the asset exceeds the fair value of the asset.

Leases

Effective December 30, 2018, the Company adopted Accounting Standards Update No. 2016-02, “Leases (Topic 842)” (“Topic 842”) utilizing the modified retrospective transition method, which requires a cumulative-effect adjustment, if any, to the opening balance of retained earnings to be recognized on the date of adoption with prior periods not restated.

The Company leases facilities under non-cancelable operating lease agreements. These leases have varying terms that range from one to 11 years and contain leasehold improvement incentives, rent holidays and escalation clauses. In addition, some of these leases have renewal options for up to five years.

The Company determines if an arrangement contains a lease at inception. Operating leases are included in operating lease ROU assets, accrued expenses and operating lease liabilities on the Company's consolidated balance sheets. Finance leases are included in property, plant and equipment, accrued expenses and finance lease liabilities on the Company's consolidated balance sheets.

Operating lease ROU assets and operating lease liabilities are recognized based on the present value of the future minimum lease payments over the lease term at commencement date. As most of the Company's leases do not provide an implicit rate, the Company uses its incremental borrowing rate based on the information available at commencement date in determining the present value of future payments. Operating lease ROU assets also include any lease payments made and exclude lease incentives and initial direct costs incurred. Variable lease payments are expensed as incurred and are not included within the ROU asset and lease liability calculation. Variable lease payments primarily include reimbursements of costs incurred by lessors for common area maintenance and utilities. The Company's lease terms may include options to extend or terminate the lease when it is reasonably certain that the Company will exercise that option. Lease expense for minimum lease payments is recognized on a straight-line basis over the lease term. The Company rents or subleases certain real estate under agreements that are classified as operating leases.

Leases with an initial term of 12 months or less are not recorded on the balance sheet. The Company recognizes lease expense for these leases on a straight-line basis over the lease term. The Company does not account for lease components (e.g., fixed payments including rent) separately from the non-lease components (e.g., common-area maintenance costs).

Upon abandoning or committing to a plan to abandon a leased property in the short term before the lease term expires, the Company assesses the fair value of its remaining obligation under the lease and records an impairment of the ROU asset, if needed. The impairment loss is calculated as the present value of the amount by which the remaining lease obligation, adjusted for the effects of any one-time costs to sublease, exceeds the estimated sublease rentals that could be reasonably obtained. The estimated sublease rentals consider Company's ability and intent to sublease the space. The significant assumptions used in the Company's discounted cash flow model include the amount and timing of estimated sublease rental receipts and the discount rate which involve a number of risks and uncertainties, some of which are beyond control, including future real estate market conditions and the Company's ability to successfully enter into subleases or termination agreements with terms as favorable as those assumed when arriving at its estimates. The Company monitors these estimates and assumptions on at least a quarterly basis for changes in circumstances and any corresponding adjustments to the accrual are recorded in its statement of operations in the period when such changes are known.

The loss recorded or to be recorded may change significantly as a result of the re-measurement of the liability, if the timing or amount of estimated cash flows change.

Restructuring and Other Related Costs

The Company records costs associated with exit activities related to restructuring plans in accordance with ASC 420, “Exit or Disposal Cost Obligations.” Liabilities for costs associated with an exit or disposal activity are recognized in the period in which the liability is incurred. The timing of the associated cash payments is dependent upon the type of exit cost and extends over an approximately four-year period. The Company records restructuring cost liabilities in “Accrued Expenses” and "Other Long-term Liabilities" in the Consolidated Balance Sheet.

Restructuring costs include employee and contract termination costs, facility consolidation and closure costs, equipment write-downs and inventory write-downs. One-time termination benefits are recognized as a liability at estimated fair value when the approved plan of termination has been communicated to employees, unless employees must provide future service, in which case the benefits are recognized ratably over the future service period. Ongoing termination benefits arrangements are recognized as a liability at estimated fair value when the amount of such benefits becomes estimable and payment is probable.

Restructuring charges require significant estimates and assumptions, including estimates made for employee separation costs and other contract termination charges. Management estimates involve a number of risks and uncertainties, some of which are beyond control, including the Company's ability to successfully enter into termination agreements with employees and others with terms as favorable as those assumed when arriving at its estimates. The Company monitors these estimates and assumptions on at least a quarterly basis for changes in circumstances and any corresponding adjustments to the accrual are recorded in its statement of operations in the period when such changes are known.

Recent Accounting Pronouncements

Accounting Pronouncements Recently Adopted

In July 2019, the Financial Accounting Standards Board (the “FASB”) issued Accounting Standards Update No. 2019-07, "Codification Updates to SEC Sections" (“ASU 2019-07”). This update amends various SEC paragraphs pursuant to the issuance of SEC Final Rule Releases No. 33-10532, Disclosure Update and Simplification, and Nos. 33-10231 and 33-10442, Investment Company Reporting Modernization. One of the changes that ASU 2019-07 requires is a presentation of changes in stockholders’ equity in the form of a reconciliation, either as a separate financial statement or in the notes to the financial statements, for the current and comparative year-to-date interim periods. The Company presented changes in stockholders' equity as separate financial statements for the current and comparative year-to-date interim periods beginning on December 30, 2018. The additional elements of ASU 2019-07 did not have a material impact on the Company's Consolidated Financial Statements. This guidance was effective immediately upon issuance.

In August 2018, the FASB issued Accounting Standards Update No. 2018-15, “Customer's Accounting for Implementation Costs Incurred in a Cloud Computing Arrangement That Is a Service Contract” (“ASU 2018-15”). This update provides guidance for determining if a cloud computing arrangement is within the scope of internal-use software guidance, and would require capitalization of certain implementation costs. The Company adopted ASU 2018-15 on a prospective basis in the first quarter of 2019. The Company's adoption of ASU 2018-15 during its first quarter of 2019 did not have a significant impact on its consolidated financial statements.

In June 2018, the FASB issued Accounting Standards Update No. 2018-07, “Improvements to Non-employee Share-Based Payment Accounting” (“ASU 2018-07”), which simplifies the accounting for share-based payments granted to non-employees for goods and services. Under ASU 2018-07, certain guidance on such payments to non-employees is aligned with the requirements for share-based payments granted to employees. The Company's adoption of ASU 2017-09 during its first quarter of 2019 did not have a significant impact on its consolidated financial statements.

In February 2018, the FASB issued an accounting standard update No. 2018-02 that allows a reclassification from accumulated other comprehensive income to retained earnings for stranded tax effects resulting from the Tax Cuts and Jobs Act (“TCJA”). This accounting standard update eliminates the stranded tax effects from the TCJA and improves the usefulness of information reported to users of the Company’s financial statements. This standard is effective for public companies for fiscal years beginning after December 15, 2018, including interim periods within those fiscal years. The adoption of this guidance does not have a material impact on the Company’s financial statements.

In January 2017, the FASB issued Accounting Standards Update No. 2017-04, “Simplifying the Test for Goodwill Impairment” (“ASU 2017-04”). This update eliminates Step 2 of the goodwill impairment test, which requires a hypothetical purchase price allocation. A goodwill impairment will now be the amount by which a reporting unit’s carrying value exceeds its fair value, not to exceed the carrying amount of goodwill. The same one-step impairment test will be applied to goodwill at all reporting units, even those with zero or negative carrying amounts. Entities will be required to disclose the amount of goodwill at reporting units with zero or negative carrying amounts. The Company elected to early adopt the standard prospectively during its first quarter of 2019 and the adoption of the standard did not have any impact on its consolidated financial statements.

In February 2016, the FASB issued Topic 842, which amends the existing accounting standards for leases. This new standard requires lessees to record a right-of-use asset and a corresponding lease liability on the balance sheet (with the exception of short-term leases). For lessees, leases will continue to be classified as either operating or financing in the income statement. The Company adopted Topic 842 in the first quarter of 2019 utilizing the modified retrospective transition method through a cumulative-effect adjustment at the beginning of the first quarter of 2019. The Company elected the package of practical expedients permitted under the transition guidance, which allowed the Company to carryforward its historical lease classification, assessment on whether a contract was or contains a lease, and initial direct costs for leases that existed prior to December 30, 2018. The Company also elected to combine its lease and non-lease components and not recognize right-of-use ("ROU") assets and lease liabilities for leases with an initial term of 12 months or less. The Company did not elect to apply the hindsight practical expedient when determining lease terms and assessing impairment of ROU assets.

Accounting Pronouncements Not Yet Effective

In December 2019, FASB issued Accounting Standards Update No. 2019-12, Simplifying the Accounting for Income Taxes ("ASU 2019-12"), as part of its simplification initiative. ASU 2019-12 removes certain exceptions from ASC 740, Income Taxes, including (i) the exception to the incremental approach for intra period tax allocation when there is a loss from continuing operations and income or a gain from other items such as discontinued operations or other comprehensive income., (ii) the exception to accounting for outside basis differences of equity method investments and foreign subsidiaries, and (iii) the exception to limit tax benefit recognized in interim period in cases when the year-to-date losses exceeds anticipated losses. ASU 2019-12 also simplifies GAAP in several other areas of ASC 740 such as (i) franchise taxes and other taxes partially based on income, (ii) step-up in tax basis goodwill considered part of a business combination in which the book goodwill was originally recognized or should be considered a separate transaction, (iii) separate financial statements of entities not subject to tax, and (iv) interim recognition of enactment of tax laws or rate changes. ASU 2019-12 is effective for the Company for fiscal years (and interim periods within those fiscal years) beginning after December 15, 2020, with early adoption permitted. The Company has elected to not early adopt ASU 2019-12 as of December 28, 2019. . The Company is currently evaluating the impact the adoption of ASU 2019-12 would have on its consolidated financial statements.

In August 2018, the FASB issued Accounting Standards Update No. 2018-14, "Compensation - Retirement Benefits - Defined Benefit Plans - General (Subtopic 715-20): Disclosure Framework - Changes to the Disclosure Requirements for Defined Benefit Plans" ("ASU 2018-14"). This update eliminates, adds and modifies certain disclosure requirements for employers that sponsor defined benefit pension or other post-retirement plans. ASU 2018-14 is effective for the Company in its first quarter of 2021, with early adoption permitted. The Company is currently evaluating the impact the adoption of ASU 2018-14 would have on its consolidated financial statements.

In August 2018, the FASB issued Accounting Standards Update No. 2018-13, "Fair Value Measurement (Topic 820): Disclosure Framework - Changes to the Disclosure Requirements for Fair Value Measurement" ("ASU 2018-13"). This update eliminates, adds and modifies certain disclosure requirements for fair value measurements. ASU 2018-13 is effective for the Company in its first quarter of 2020. The Company does not expect the adoption of ASU 2018-13 to have a material impact on its consolidated financial statements.

In June 2016, the FASB issued Accounting Standards Update No. 2016-13, "Financial Instruments - Credit Losses (Topic 326): Measurement of Credit Losses on Financial Instruments" ("ASU 2016-13") further amended by Accounting Standards Update No. 2019-04 issued in April 2019, Accounting Standards Update No. 2019-05 issued in May 2019, Accounting Standards Update No. 2019-10 issued in November 2019 and Accounting Standards Update No. 2019-11 issued in November 2019 which require measurement and recognition of expected credit losses for financial assets held. This guidance is effective for the Company in its first quarter of fiscal 2020 and early adoption is permitted. This standard impacts the Company's accounting for allowances for doubtful accounts and other assets that may be subject to credit risk. In preparation for the adoption of this standard, the Company will update its credit loss models as needed. The Company is currently evaluating the impact the adoption of ASU 2016-13 would have on its consolidated financial statements.

3. Leases

Adoption of Topic 842

Effective December 30, 2018, the Company adopted Topic 842 utilizing the modified retrospective transition method, which requires a cumulative-effect adjustment, if any, to the opening balance of retained earnings to be recognized on the date of adoption with prior periods not restated.

The primary impact for the Company was the balance sheet recognition of operating lease ROU assets and operating lease liabilities. In addition, the Company's financing lease obligations that historically did not qualify for sale leaseback accounting under ASC 840-40, "Leases - Sale-Leaseback Transactions" ("ASC 840-40") now meet the criteria for sale under Topic 842 and are recorded as operating leases. As a result, the Company reclassified financing liabilities of $198.3 million from accrued expenses and long-term financing lease obligations and assets of $174.6 million from property, plant and equipment, net, to $23.7 million accumulated deficit adjustment reflecting the cumulative effect of an accounting change related to the sale-leasebacks.

The following table summarizes the impacts of adopting Topic 842 on the Company's consolidated balance sheet as of December 29, 2018 (in thousands):

	As Reported Balance as of December 29, 2018	Adjustments due to Topic 842	As Adjusted Balance as of December 29, 2018
Assets			
Property, plant and equipment, net	$ 342,820	$ (174,386)	$ 168,434
Operating lease right-of-use assets	$ —	$ 78,855	$ 78,855
Other non-current assets	$ 14,849	$ (4,884)	$ 9,965
Liabilities			
Accrued expenses and other current liabilities	$ 131,891	$ (7,343)	$ 124,548
Long-term financing lease obligation	$ 193,538	$ (193,538)	$ —
Other long-term liabilities	$ 68,082	$ (4,907)	$ 63,175
Operating lease liabilities - short-term	$ —	$ 19,209	$ 19,209
Operating lease liabilities - long-term	$ —	$ 62,467	$ 62,467
Equity			
Accumulated deficit	$ 956,970	$ (23,697)	$ 933,273

The Company has operating leases for real estate and automobiles. During the year ended December 28, 2019, operating lease expense was approximately $41.5 million (including $15.9 million of accelerated rent expense due to restructuring resulting in abandonment of lease facilities). Variable lease cost, short-term lease cost and sublease income were immaterial during the year ended December 28, 2019. As of December 28, 2019, $18.1 million was included in accrued expenses and other current liabilities and $64.2 million as long term operating lease liabilities.

The following table presents maturity of lease liabilities under the Company's non-cancelable operating leases as of December 28, 2019 (in thousands):

2020	$	24,717
2021		18,265
2022		15,488
2023		12,208
2024		10,212
Thereafter		36,124
Total lease payments	$	117,014
Less: interest[1]		34,698
Present value of lease liabilities	$	82,316

(1) Calculated using the interest rate for each lease.

The following table presents supplemental information for the year ended December 28, 2019 (in thousands, except for weighted average and percentage data):

Weighted average remaining lease term		7.38
Weighted average discount rate		9.10%
Cash paid for amounts included in the measurement of lease liabilities	$	27,027
Operating cash flow from operating leases		
Leased assets obtained in exchange for new operating lease liabilities	$	21,847

ASC 840-40 Disclosures

The following table presents future minimum lease payments related to the non-cancelable portion of operating leases as of December 29, 2018 (in thousands):

	2019	2020	2021	2022	2023	Thereafter	Total
Operating lease payments	$ 18,352	$ 14,047	$ 7,888	$ 5,926	$ 4,905	$ 18,303	$ 69,421

Financing Lease Obligations

During the year ended December 28, 2019, the Company entered into finance lease arrangements for manufacturing and facility related equipments. The lease term ranged from 3 to 5 years with option to purchase at the end of the term. Finance lease cost was approximately $0.5 million for the twelve months ended December 28, 2019 out of which $0.4 million was amortization of right of use asset and $0.1 million was interest cost. As of December 28, 2019, $1.4 million was included in accrued expenses and other current liabilities and $2.4 million as long term finance lease obligation related to these equipment finance lease arrangements.

The following table presents maturity of lease liability under the Company's finance leases as of December 28, 2019 (in thousands):

2020	$	1,563
2021		1,204
2022		936
2023		406
Thereafter		—
Total lease payments	$	4,109
Less: interest		335
Present value of lease liabilities	$	3,774

The following table presents supplemental information for the twelve months ended December 28, 2019 (in thousands, except for weighted average and percentage data):

Weighted average remaining lease term		3.03
Weighted average discount rate		7.00%
Cash paid for amounts included in the measurement of lease liabilities	$	163
Operating cash flow from operating leases		
Leased assets obtained in exchange for new finance lease liabilities	$	4,258

The Company evaluated two sale-leaseback transactions that were assumed by the Company in the Acquisition (as defined in Note 7, "Business Combination" to the Notes to Consolidated Financial Statements). It was determined that these transactions did not qualify for sale-leaseback accounting under ASC 840-40.

The Company leases a facility (land and all attached real property) in Naperville, Illinois that was sold to a third party and subsequently leased back. This was determined to be a failed sale-leaseback due to a $31.5 million imposition reimbursement payment to be made over 10 years, which was linked to the total building income generated each year. As a result of purchase accounting, the financing lease obligation was recorded at the present value of the remaining lease payments and expected value of the facility at the end of the occupancy period. The financing lease obligation will continue to be amortized over the remaining period of the lease term under ASC 840-40. The assets will continue to be depreciated over their remaining useful lives under ASC 840-40.

Additionally, the Company leases a facility (land and all attached real property) in Espoo, Finland, which was sold to a third party and subsequently leased back. The lease was determined to be a failed sale-leaseback due to the deposit being considered a form of collateral. The amount of the deposit was equal to one year of rental payments, whereas typical deposits are approximately two to three months of rental payments. As a result of purchase accounting, the financing lease obligation was recorded at the present value of the remaining lease payments and expected value of the facility at the end of the occupancy period. The financing lease obligation will continue to be amortized over the remaining period of the lease term under ASC 840-40. The assets will continue to be depreciated over their remaining useful lives.

In conjunction with the adoption of the new lease accounting standard in the first quarter of 2019, the transactions qualified for sale-leaseback accounting under Topic 842, as control of the underlying assets was transferred to the lessor. As such, the balances of fixed assets, accrued expenses and other long-term liabilities as of the transition date related to the Naperville, Illinois and Espoo, Finland leases were reclassified to accumulated deficit as a cumulative effect of an accounting change.

4. Revenue Recognition

Effective December 31, 2017, the Company adopted Topic 606, using the modified retrospective method applied to those contracts that were not completed as of December 31, 2017. Results for the reporting periods after December 31, 2017 are presented under Topic 606, while prior period amounts are not adjusted and continue to be reported in accordance with the Company's historical accounting under Topic 605.

Capitalization of Costs to Obtain a Contract

The ending balance of the Company’s capitalized costs to obtain a contract as of December 28, 2019 and December 29, 2018 were $0.2 million and $0.4 million, respectively. The Company's amortization expense was not material for the year ended December 28, 2019 and December 29, 2018, respectively.

Disaggregation of Revenue

The following table presents the Company's revenue disaggregated by revenue source (in thousands):

	Years Ended		
	December 28, 2019	December 29, 2018	December 30, 2017(1)
Product	$ 1,011,488	$ 763,555	$ 610,535
Services	287,377	179,824	130,204
Total revenue	$ 1,298,865	$ 943,379	$ 740,739

(1) Prior period amounts have not been adjusted under the modified retrospective method of adopting Topic 606.

The Company sells its products directly to customers who are predominantly service providers and to channel partners that sell on its behalf. The following tables present the Company's revenue disaggregated by geography, based on the shipping address of the customer and by sales channel (in thousands):

	Years Ended		
	December 28, 2019	December 29, 2018	December 30, 2017(1)
United States	$ 628,075	$ 476,784	$ 428,592
Other Americas	93,251	44,581	20,070
Europe, Middle East and Africa	418,333	309,989	234,972
Asia Pacific	159,206	112,025	57,105
Total revenue	$ 1,298,865	$ 943,379	$ 740,739

	Years Ended		
	December 28, 2019	December 29, 2018	December 30, 2017(1)
Direct	$ 1,032,527	$ 838,931	$ 693,472
Indirect	266,338	104,448	47,267
Total revenue	$ 1,298,865	$ 943,379	$ 740,739

(1) Prior period amounts have not been adjusted under the modified retrospective method of adopting Topic 606.

Contract Balances

The following table provides information about receivables, contract assets and contract liabilities from contracts with customers (in thousands):

	December 28, 2019	December 29, 2018
Accounts receivable, net	$ 349,645	$ 317,115
Contract assets	$ 22,814	$ 24,981
Deferred revenue	$ 139,820	$ 120,302

Revenue recognized for the year ended December 28, 2019 and December 29, 2018 that was included in the deferred revenue balance at the beginning of the reporting period was $119.9 million and $44.4 million, respectively. Changes in the contract asset and liability balances during year ended December 28, 2019 were not materially impacted by other factors. Changes in the contract asset and liability balances during the year ended December 29, 2018 were primarily impacted by the Acquisition during the fourth quarter of 2018.

Transaction Price Allocated to the Remaining Performance Obligation

The following table includes estimated revenue expected to be recognized in the future related to performance obligations that are unsatisfied (or partially satisfied) at the end of the reporting period (in thousands):

	2020	2021	2022	2023	2024	Thereafter	Total
Revenue expected to be recognized in the future as of December 28, 2019	$ 488,149	$ 37,579	$ 12,449	$ 6,361	$ 1,596	$ 811	$ 546,945

Impacts on Financial Statements

The following tables summarize the impact of adopting Topic 606 on the Company's consolidated statement of operations for the year ended December 29, 2018 and the Company's consolidated balance sheet as of December 31, 2017 (in thousands):

	Year Ended December 29, 2018		
	As Reported	Adjustments	Balances Without Adoption of Topic 606
Income Statement			
Revenue			
Product	$ 763,555	$ (10,680)	$ 752,875
Services	179,824	3,946	183,770
	$ 943,379	$ (6,734)	$ 936,645
Costs and expenses			
Cost of revenue	$ 622,223	$ 1,687	$ 623,910
Net loss	$ (214,295)	$ (8,421)	$ (222,716)
Net loss per share - basic and diluted	$ (1.36)	$ (0.05)	$ (1.41)

The increase in revenue from the adoption of Topic 606 was primarily related to an increase in product revenue for certain customers as a result of recognition upon transfer of control in advance of milestone invoicing. The adoption of Topic 606 did not have a material impact to the Company's consolidated financial statements for the year ended December 29, 2018.

5. Fair Value Measurements

The following tables represent the Company’s fair value hierarchy for its marketable securities measured at fair value on a recurring basis (in thousands):

	As of December 28, 2019			As of December 29, 2018		
	Fair Value Measured Using			Fair Value Measured Using		
	Level 1	Level 2	Total	Level 1	Level 2	Total
Assets						
Money market funds	$ —	$ —	$ —	$ 10,347	$ —	$ 10,347
Corporate bonds	—	—	—	—	23,512	23,512
U.S. agency notes	—	—	—	—	2,999	2,999
U.S. treasuries	—	—	—	23,987	—	23,987
Total assets	$ —	$ —	$ —	$ 34,334	$ 26,511	$ 60,845
Liabilities						
Foreign currency exchange forward contracts	$ —	$ (159)	$ (159)	$ —	$ (91)	$ (91)

During 2019 and 2018, there were no transfers of assets or liabilities between Level 1 and Level 2. As of December 29, 2018, none of the Company's existing securities were classified as Level 3 securities.

The Company classifies certain facilities-related charges within Level 3 of the fair value hierarchy and applies fair value accounting on a nonrecurring basis when impairment indicators exist or upon the existence of observable fair values. The fair values are classified as Level 3 measurements due to the significance of unobservable inputs. These analysis require management to make assumptions and estimates regarding industry and economic factors, future operating results and discount rates.

Facilities-related Charges

In connection with the 2018 Restructuring Plan (as defined in Note 10, "Restructuring and Other Related Costs" to the Notes to Consolidated Financial Statements), the Company calculated the fair value of the $15.9 million in facilities-related charges based on estimated future discounted cash flows and classified the fair value as a Level 3 measurement due to the significance of unobservable inputs, which included the amount and timing of estimated sublease rental receipts that the Company could reasonably obtain over the remaining lease term and the discount rate. See Note 10, "Restructuring and Other Related Costs" to the Notes to Consolidated Financial Statements for more information on the 2018 Restructuring Plan.

Cash and Cash Equivalents

Cash, cash equivalents and investments were as follows (in thousands):

	December 28, 2019			
	Adjusted Amortized Cost	Gross Unrealized Gains	Gross Unrealized Losses	Fair Value
Cash	$ 109,201	$ —	$ —	$ 109,201
Total cash	$ 109,201	$ —	$ —	$ 109,201

	December 29, 2018			
	Adjusted Amortized Cost	Gross Unrealized Gains	Gross Unrealized Losses	Fair Value
Cash	$ 168,620	$ —	$ —	$ 168,620
Money market funds	10,347	—	—	10,347
U.S. treasuries	23,986	1	—	23,987
Total cash and cash equivalents	$ 202,953	$ 1	$ —	$ 202,954
U.S. agency notes	3,000	—	(1)	2,999
Corporate bonds	23,603	—	(91)	23,512
Total short-term investments	$ 26,603	$ —	$ (92)	$ 26,511
Total cash, cash equivalents and investments	$ 229,556	$ 1	$ (92)	$ 229,465

As of December 28, 2019, the Company has liquidated all its investments. Gross realized gains and losses on short-term and long-term investments were insignificant for all periods. The specific identification method is used to account for gains and losses on available-for-sale investments.

As of December 28, 2019, the Company had $109.2 million of cash including $68.7 million of cash held by its foreign subsidiaries. The Company's cash in foreign locations is used for operational and investing activities in those locations, and the Company does not currently have the need or the intent to repatriate those funds to the United States.

6. Derivative Instruments

Foreign Currency Exchange Forward Contracts

The Company transacts business in various foreign currencies and has international sales, cost of sales, and expenses denominated in foreign currencies, and carries foreign-currency-denominated monetary assets and liabilities, subjecting the Company to foreign currency risk. The Company's primary foreign currency risk management objective is to protect the U.S. dollar value of future cash flows and minimize the volatility of reported earnings. The Company utilizes foreign currency forward contracts, primarily short term in nature.

Historically, the Company enters into foreign currency exchange forward contracts to manage its exposure to fluctuation in foreign exchange rates that arise from its euro and British pound denominated receivables and restricted cash balances. Gains and losses on these contracts are intended to offset the impact of foreign exchange rate fluctuations on the underlying foreign currency denominated accounts receivables and restricted cash, and therefore, do not subject the Company to material balance sheet risk.

The Company also enters into foreign currency exchange contracts to reduce the volatility of cash flows primarily related to forecasted revenues and expenses denominated in euros, British pounds. The contracts are generally settled for U.S. dollars, euros and British pounds at maturity under an average rate method agreed to at inception of the contracts. The gains and losses on these foreign currency derivatives are recorded to the consolidated statement of operations line item, in the current period, to which the item that is being economically hedged is recorded.

As of December 28, 2019 and December 29, 2018, the Company posted $0.9 million and 0.9 million, respectively of collateral on its derivative instruments to cover potential credit risk exposure. This amount is classified as other long-term restricted cash on the accompanying consolidated balance sheets.

The before-tax effect of foreign currency exchange forward contracts was a gain of $0.5 million and 0.7 million for 2019 and 2018 respectively, and a loss of $3.5 million in 2017, included in other gain (loss), net, in the consolidated statements of operations. In each of these periods, the impact of the gross gains and losses were offset by foreign exchange rate fluctuations on the underlying foreign currency denominated amounts.

As of December 29, 2018, the Company did not designate foreign currency exchange forward contracts as hedges for accounting purposes and accordingly, changes in the fair value are recorded in the accompanying consolidated statements of operations. These contracts were with one high-quality institution and the Company consistently monitors the creditworthiness of the counterparties.

The fair value of derivative instruments not designated as hedging instruments in the Company's consolidated balance sheets was as follows (in thousands):

	As of December 28, 2019			As of December 29, 2018		
	Gross Notional[(1)]	Prepaid Expenses and Other Assets	Other Accrued Liabilities	Gross Notional[(1)]	Prepaid Expenses and Other Assets	Other Accrued Liabilities
Foreign currency exchange forward contracts						
Related to euro denominated receivables	$ 27,566	$ —	$ (159)	$ 40,068	$ —	$ (52)
Related to British pound denominated receivables	—	—	—	6,412	—	(38)
Related to euro denominated restricted cash	—	—	—	240	—	(1)
Total	$ 27,566	$ —	$ (159)	$ 46,720	$ —	$ (91)

(1) Represents the face amounts of forward contracts that were outstanding as of the period noted.

Accounts Receivable Factoring

The Company sells certain designated trade account receivables based on factoring arrangements to a large international banking institution. Pursuant to the terms of the arrangements, the Company accounts for these transactions in accordance with ASC 860. The Company's factor purchases trade accounts receivables on a non-recourse basis and without any further obligations. Trade accounts receivables balances sold are removed from the consolidated balance sheets and cash received are reflected as cash provided by operating activities in the consolidated statements of cash flow. The difference between the fair value of the Company's trade receivables and the proceeds received is recorded as interest expense in the Company's consolidated statements of operations, and for the year ended December 28, 2019 and December 29, 2018, the Company's recognized factoring related interest expense was approximately $0.6 million and $0.1 million, respectively. The gross amount of trade accounts receivables sold totaled approximately $84.8 million and $12.6 million for the year ended December 28, 2019 and December 29, 2018 respectively. Prior to the Acquisition, the Company had not entered into any factoring arrangements.

7. Business Combination

On the Acquisition Date, the Company acquired 100% ownership of Coriant. The Acquisition positions the Company as one of the largest providers of vertically integrated transport networking solutions in the world, enhances the Company's ability to serve a global customer base and accelerates delivery of the innovative solutions its customers demand. This Acquisition also positions the Company to expand the breadth of customer applications it can address, including metro aggregation and switching, disaggregated transport and routing, and software-enabled multi-layer network management and control. The Acquisition was accounted for under the acquisition method of accounting in accordance with ASC Topic 805, “Business Combinations” and consisted of the following (in thousands, except shares):

Cash	$	154,192
Equity consideration[(1)]		129,628
Total	$	283,820

(1) Based on the closing price of the Company's common stock of $6.18 on October 1, 2018, the $129.6 million equity consideration represents the fair value of 21 million shares of the Company's common stock issued to Coriant shareholders in accordance with the Purchase Agreement.

The Company financed the cash portion of the purchase price of the Acquisition with the net proceeds from its offering of the $402.5 million of 2.125% convertible senior notes due September 1, 2024 (the “2024 Notes”). See Note 13, “Debt” to the Notes to Consolidated Financial Statements for more information.

In 2018, the Company expensed acquisition-related costs in the amount of $8.3 million in operating expenses.

The Company allocated the fair value of the purchase price of the acquisition to the tangible and intangible
assets acquired as well as liabilities assumed, based on their estimated fair values. The excess of the purchase price over the fair values of these identifiable assets and liabilities was recorded as goodwill.

The Company prepared an initial determination of the fair value of assets acquired and liabilities assumed as of the Acquisition Date using preliminary information. In accordance with Topic 805, during the measurement period an acquirer retrospectively adjusts the provisional amounts recognized at the Acquisition Date to reflect information obtained about facts and circumstances that existed as of the Acquisition Date that, if known, would have affected the measurement of the amounts recognized as of the Acquisition Date. The Company has recognized measurement period adjustments during the fiscal year 2019 to the fair value of certain assets acquired and liabilities assumed with the acquisition of Coriant, which resulted in a $30.9 million increase to goodwill. The adjustments were recorded as a result of additional information obtained during the year ended December 28, 2019 about facts and circumstances that existed as of the date of acquisition. The measurement period adjustments were primarily related to adjustments to income taxes, inventory, acquired liabilities, deferred revenue, accounts receivable and others. The measurement period adjustments included tax adjustments related to uncertain tax positions, realization of certain income taxes receivable, tax attributes and deferred tax asset valuation allowances. This resulted from additional information collected and analysis performed including preparation, filing and assessment of tax returns in certain jurisdictions. The Company also recorded adjustments to fair value of inventory as the Company received additional information and performed analysis to finalize the estimated values.

The Company does not believe that the measurement period adjustments had a material impact on its consolidated statements of operations, balance sheets or cash flows in any periods previously reported.

The following table summarizes the Company's allocation of the purchase consideration based on the fair value of assets acquired and liabilities assumed at the Acquisition Date (in thousands):

	Amounts Recognized as of Acquisition Date	Measurement Period Adjustments	Total
Cash and cash equivalents	$ 15,549	$ —	$ 15,549
Restricted cash	25,743	—	25,743
Accounts receivable	170,466	(2,153)	168,313
Inventory	96,067	(10,433)	85,634
Property, plant and equipment, net	217,991	—	217,991
Other assets	39,145	(5,083)	34,062
Intangible assets, net	200,700	—	200,700
Goodwill	48,235	30,916	79,151
Financing lease obligation	(194,700)	—	(194,700)
Deferred revenue	(43,502)	5,264	(38,238)
Other liabilities	(291,874)	(18,511)	(310,385)
Total net assets	$ 283,820	$ —	$ 283,820

The following table presents details of the identifiable assets acquired at the Acquisition Date (in thousands):

	Fair Value	Estimated Useful Life (Years)
Customer relationships and backlog	$ 111,400	8
Developed technology	70,550	5
In-process technology	17,750	n/a
Trade name	1,000	1
Total	$ 200,700	

Goodwill generated from this business combination is primarily attributable to the synergies from combining
the operations of Coriant with that of the Company, which resulted in strengthening the Company's ability to serve a global customer base and accelerate delivery of product solutions. The goodwill recorded in the Acquisition is not expected to be deductible for income tax purposes.

8. Goodwill and Intangible Assets

Goodwill

Goodwill is recorded when the purchase price of an acquisition exceeds the fair value of the net tangible and identified intangible assets acquired.

The following table presents details of the Company's goodwill for the year ended December 28, 2019 (in thousands):

Balance as of December 29, 2018	$ 227,231
Foreign currency translation adjustments	(8,299)
Measurement period adjustments	30,916
Balance as of December 28, 2019	$ 249,848

The gross carrying amount of goodwill may change due to the effects of foreign currency fluctuations as a portion of these assets are denominated in foreign currency. To date, the Company has zero accumulated impairment loss on goodwill.

Intangible Assets

The following table presents details of the Company's intangible assets as of December 28, 2019 and December 29, 2018 (in thousands):

	December 28, 2019			
	Gross Carrying Amount	Accumulated Amortization	Net Carrying Amount	Weighted Average Remaining Useful Life (In Years)
Intangible assets with finite lives:				
Trade names	$ 1,000	$ (1,000)	$ —	NMF*
Customer relationships and backlog	155,942	(68,119)	87,823	5.8
Developed technology	179,593	(97,070)	82,523	3.5
Total intangible assets	$ 336,535	$ (166,189)	$ 170,346	

**NMF = Not meaningful*

	December 29, 2018			
	Gross Carrying Amount	Accumulated Amortization	Net Carrying Amount	Weighted Average Remaining Useful Life (In Years)
Intangible assets with finite lives:				
Trade names	$ 1,000	$ (250)	$ 750	NMF*
Customer relationships and backlog	158,110	(42,478)	115,632	6.5
Developed technology	166,355	(67,368)	98,987	3.8
Total intangible assets with finite lives	$ 325,465	$ (110,096)	$ 215,369	
Acquired in-process technology	17,750	—	17,750	
Total intangible assets	$ 343,215	$ (110,096)	$ 233,119	

**NMF = Not meaningful*

In connection with the Acquisition, the Company acquired intangible assets for a total of $200.7 million, which is included in the gross carrying amount of intangible assets as of each of the periods ended December 28, 2019 and December 29, 2018. See Note 7, "Business Combination" to the Notes to Consolidated Financial Statements for more information.

The gross carrying amount of intangible assets and the related amortization expense of intangible assets may change due to the effects of foreign currency fluctuations as a portion of these assets are denominated in foreign currency. Amortization expense was $59.9 million and $52.8 million for the years ended December 28, 2019 and December 29, 2018, respectively.

Intangible assets are carried at cost less accumulated amortization. Amortization expenses are recorded to the appropriate cost and expense categories. During the year ended December 28, 2019, the Company transferred $17.8 million of its in-process technology to developed technology, which is being amortized over a useful life of five years.

The following table summarizes the Company's estimated future amortization expense of intangible assets with finite lives as of December 28, 2019 (in thousands):

	Fiscal Years					
	Total	**2020**	**2021**	**2022**	**2023**	**2024 and Thereafter**
Total future amortization expense	$ 170,346	$ 47,681	$ 35,275	$ 32,755	$ 26,876	$ 27,759

9. Balance Sheet Details

Restricted Cash

The Company's restricted cash balance is held in deposit accounts at various banks globally. These amounts primarily collateralize the Company's issuances of standby letters of credit and bank guarantees.

The following table provides details of selected balance sheet items (in thousands):

	December 28, 2019	December 29, 2018
Inventory:		
Raw materials	$ 47,474	$ 74,435
Work in process	48,842	57,232
Finished goods	244,113	180,221
Total	$ 340,429	$ 311,888
Property, plant and equipment, net:		
Computer hardware	$ 36,086	$ 15,633
Computer software[1]	45,428	40,923
Laboratory and manufacturing equipment[2]	313,081	304,889
Land and building	12,349	187,184
Furniture and fixtures	2,845	2,587
Leasehold and building improvements[3]	52,263	46,038
Construction in progress	27,946	32,997
Subtotal	$ 489,998	$ 630,251
Less accumulated depreciation and amortization[4]	(339,205)	(287,431)
Total	$ 150,793	$ 342,820
Accrued expenses:		
Loss contingency related to non-cancelable purchase commitments	$ 24,812	$ 26,042
Professional and other consulting fees	12,296	10,442
Taxes payable	65,815	23,249
Accrued rebate and customer prepay liability	4,390	14,301
Restructuring accrual	26,076	13,097
Acquisition-related funds in escrow	—	10,000
Short-term financing lease obligation	1,380	4,718
Short-term operating lease liability	18,106	—
Other accrued expenses and other current liabilities	40,293	30,042
Total accrued expenses	$ 193,168	$ 131,891

(1) Included in computer software at December 28, 2019 and December 29, 2018 were $23.3 million and $13.1 million, respectively, related to enterprise resource planning (“ERP”) systems that the Company implemented. The unamortized ERP costs at December 28, 2019 and December 29, 2018 were $11.3 million and $3.9 million, respectively.

(2) Included in laboratory and manufacturing equipment at December 28, 2019 was $2 million related to an equipment finance lease entered by the Company for a term of three years with an option to purchase at the end of the three year term. The finance lease was recorded at $2 million using a discount rate of 8.2% and was included in property, plant and equipment, net. As of December 28, 2019, $1 million was included in accrued expenses and other current liabilities and $1.0 million as long term finance lease obligation.

(3) Included in leasehold improvements at December 28, 2019 was equipment finance lease entered by the Company for a term of five years with an option to purchase at the end of five year term. The finance lease was recorded at $2.3 million using a discount rate of 5% and was included in property, plant and equipment, net. As of December 28, 2019, $0.4 million was included in accrued expenses and other current liabilities and $1.3 million as long term finance lease obligation.

(4) Depreciation expense was $60.0 million, $47.7 million and $39.4 million (which includes depreciation of capitalized ERP costs of $2.4 million, $2.2 million and $1.7 million, respectively) for 2019, 2018 and 2017, respectively.

10. Restructuring and Other Related Costs

In December of 2018, the Company implemented a restructuring initiative (the “2018 Restructuring Plan”) as part of a comprehensive review of the Company's operations and ongoing integration activities in order to optimize resources for future growth, improve efficiencies and address redundancies following the Acquisition. As part of the 2018 Restructuring Plan, the Company has made several changes it believes will help its research and development efficiency, with consolidation of its manufacturing and development sites, including closure of its Berlin, Germany site, reduction of headcount at its Munich, Germany site, process changes to leverage the Company's engineering and product line development resources across regions and prioritization of research and development initiatives. As of December 28, 2019, the Berlin and Munich initiatives have been substantially completed, with some remaining payments to be made in 2020. Additional restructuring initiatives may continue as the Company shifts to transformation initiatives.

In connection with the Acquisition, the Company assumed restructuring liabilities associated with Coriant's previous restructuring and reorganization plans consisting of termination benefits primarily comprised of severance payments. These costs are recorded at estimated fair value.

The following table presents restructuring and other related costs included in cost of revenue and operating expenses in the accompanying consolidated statements of operations under the 2018 Restructuring Plan, Coriant's previous restructuring and reorganization plans, and the 2017 Restructuring Plan (in thousands):

	Year Ended December 28, 2019	
	Cost of Revenue	Operating Expenses
Severance and related expenses	$ 26,576	$ 25,303
Lease related impairment charges	1,158	14,703
Asset impairment	2,201	7
Others	—	838
Total	$ 29,935	$ 40,851

	Year Ended December 29, 2018	
	Cost of Revenue	Operating Expenses
Severance and related expenses	$ 2,630	$ 10,413
Lease related impairment charges	—	(544)
Asset impairment	—	2,643
Total	$ 2,630	$ 12,512

Restructuring liabilities are reported within accrued expenses and other long-term liabilities in the accompanying consolidated balance sheets (in thousands):

	December 29, 2018	Assumed Liabilities from the Acquisition	Charges	Cash	Other and Non-cash Settlements	December 28, 2019
Severance and related expenses	$ 19,842	—	51,879	$ (43,136)	$ (20)	$ 28,565
Lease related impairment charges	4,266	—	15,861	(8,418)	(11,709)	—
Asset impairment	243	—	2,208	(243)	(2,208)	—
Others	—	—	838	—	—	838
Total	$ 24,351	$ —	$ 70,786	$ (51,797)	$ (13,937)	$ 29,403

As of December 28, 2019, the Company's restructuring liability was comprised of $28.6 million of severance and related expenses, of which $7.4 million is related to assumed restructuring liabilities associated with Coriant's previous restructuring and reorganization plans and is expected to be paid by 2022. The remaining $21.2 million is primarily related to the 2018 Restructuring Plan and is expected to be substantially paid by the end of 2020. The Company's restructuring liability as of December 28, 2019 also comprised of $0.8 million related to service agreements that were determined to have no future use. The Company expects the payments related to the service agreements to be fully paid by the second quarter of 2021. Other and Non-cash settlements primarily include foreign exchange impact on settlement of restructuring liability and impairment of right of use asset.

11. Accumulated Other Comprehensive Income (Loss)

Accumulated other comprehensive income (loss) includes certain changes in equity that are excluded from net income (loss). The following table sets forth the changes by component for the periods presented (in thousands):

	Unrealized Gain (Loss) on Available-for-Sale Securities	Foreign Currency Translation	Accumulated Tax Effect	Actuarial Gain (Loss) on Pension	Total
Balance at December 31, 2016	$ (209)	$ (27,236)	$ (879)	$ —	$ (28,324)
Other comprehensive income (loss) before reclassifications	(209)	34,787	—	—	34,578
Amounts reclassified from accumulated other comprehensive loss	—	—	—	—	—
Net current-period other comprehensive income (loss)	(209)	34,787	—	—	34,578
Balance at December 30, 2017	$ (418)	$ 7,551	$ (879)	$ —	$ 6,254
Other comprehensive income (loss) before reclassifications	327	(26,483)	(85)	(5,547)	(31,788)
Amounts reclassified from accumulated other comprehensive loss	—	—	—	234	234
Net current-period other comprehensive income (loss)	327	(26,483)	(85)	(5,313)	(31,554)
Balance at December 29, 2018	$ (91)	$ (18,932)	$ (964)	$ (5,313)	$ (25,300)
Other comprehensive income (loss) before reclassifications	91	(9,376)	—	(1,692)	(10,977)
Amounts reclassified from accumulated other comprehensive loss	—	—	—	1,638	1,638
Net current-period other comprehensive income (loss)	91	(9,376)	—	(54)	(9,339)
Balance at December 28, 2019	$ —	$ (28,308)	$ (964)	$ (5,367)	$ (34,639)

12. Basic and Diluted Net Loss Per Common Share

Basic net loss per common share is computed by dividing net loss by the weighted average number of common shares outstanding during the period. Diluted net loss per common share is computed using net loss and the weighted average number of common shares outstanding plus potentially dilutive common shares outstanding during the period. Potentially dilutive common shares include the assumed exercise of outstanding stock options, assumed release of outstanding RSUs and PSUs, and assumed issuance of common stock under the ESPP using the treasury stock method. Potentially dilutive common shares also include the assumed conversion of the 2024 Notes from the conversion spread (as further discussed in Note 13, “Debt” to the Notes to Consolidated Financial Statements), and $150.0 million in aggregate principal amount of its 1.75% convertible senior notes due June 1, 2018 (the “2018 Notes”) from the conversion spread (as further discussed in Note 11, “Convertible Senior Notes” to the Notes to Consolidated Financial Statements disclosed in the Company’s Annual Report on Form 10-K for the fiscal year ended December 30, 2017). The Company would include the dilutive effects of the 2024 Notes in the calculation of diluted net income per common share if the average market price is above the conversion price. Upon conversion of the 2024 Notes, it is the Company’s intention to pay cash equal to the lesser of the aggregate principal amount or the conversion value of the 2024 Notes being converted, therefore, only the conversion spread relating to the 2024 Notes would be included in the Company’s diluted earnings per share calculation unless their effect is anti-dilutive. The Company includes the common shares underlying PSUs in the calculation of diluted net income per common share only when they become contingently issuable.

The following table sets forth the computation of net loss per common share (in thousands, except per share amounts):

	Years Ended		
	December 28, 2019	December 29, 2018	December 30, 2017
Net loss	$ (386,618)	$ (214,295)	$ (194,506)
Weighted average common shares outstanding - basic and diluted	178,984	157,748	147,878
Net loss per common share - basic and diluted	$ (2.16)	$ (1.36)	$ (1.32)

The Company incurred net losses during 2019, 2018 and 2017, and as a result, potential common shares from stock options, RSUs, PSUs and the assumed release of outstanding shares under the ESPP were not included in the diluted shares used to calculate net loss per share, as their inclusion would have been anti-dilutive. Additionally, due to the net loss position during these periods, the Company excluded the potential shares issuable upon conversion of the 2024 Notes and the 2018 Notes in the calculation of diluted earnings per share, as their inclusion would have been anti-dilutive.

The following table sets forth the potentially dilutive shares excluded from the computation of the diluted net loss per share because their effect was anti-dilutive (in thousands):

	As of		
	December 28, 2019	December 29, 2018	December 30, 2017
Stock options outstanding	873	1,134	1,461
Restricted stock units	11,776	7,792	6,856
Performance stock units	2,389	1,284	1,420
Employee stock purchase plan shares	569	940	810
Total	15,607	11,150	10,547

13. Debt

Asset-based revolving credit facility

On August 1, 2019, the Company entered into a Credit Agreement (the "Credit Agreement") with Wells Fargo Bank, National Association. The Credit Agreement provides for a senior secured asset-based revolving credit facility of up to $100 million (the "Credit Facility"), which the Company may draw upon from time to time. The Company may increase the total commitments under the Credit Facility by up to an additional $50 million, subject to certain conditions. The Credit Agreement provides for a $50 million letter of credit sub-facility and a $10 million swing loan sub-facility.

On December 23, 2019, the Company exercised its option to increase the total commitments under the Credit Facility and entered into an Increase Joinder and Amendment Number One to Credit Agreement (the “Amendment”), with BMO Harris Bank N.A. and Wells Fargo Bank, National Association, as administrative agent. The amendment increased the total commitments under the Credit Facility to $150 million.

The proceeds of the loans under the Credit Agreement, as amended by the Amendment (the “Amended Credit Agreement”) may be used to pay the fees, costs and expenses incurred in connection with the Amended Credit Agreement and for working capital and general corporate purposes. The Credit Facility matures, and all outstanding loans become due and payable, on March 5, 2024. Availability under the Credit Facility is based upon periodic borrowing base certifications valuing certain inventory and accounts receivable, as reduced by certain reserves. The Credit Facility is secured by first-priority security interest (subject to certain exceptions) in inventory, certain related assets, specified deposit accounts, and certain other accounts in certain domestic subsidiaries.

Loans under the Amended Credit Agreement bear interest, at the Company's option, at either a rate based on the London Interbank Offered Rate (“LIBOR”) for the applicable interest period or a base rate, in each case plus a margin. The margin ranges from 2.00% to 2.50% for LIBOR rate loans and 1.00% to 1.50% for base rate loans, depending on the utilization of the Credit Facility. The commitment fee payable on the unused portion of the Credit Facility ranges from 0.375% to 0.625% per annum, also based on the current utilization of the Credit Facility. Letters of credit issued pursuant to the Credit Facility will accrue a fee at a per annum rate equal to the applicable LIBOR rate margin times the average amount of the letter of credit usage during the immediately preceding quarter in addition to the fronting fees, commissions and other fees.

The Amended Credit Agreement contains customary affirmative covenants, such as financial statement reporting requirements and delivery of borrowing base certificates. The Amended Credit Agreement also contains customary covenants that limit the ability of the Company and its subsidiaries to, among other things, incur debt, create liens and encumbrances, engage in certain fundamental changes, dispose of assets, prepay certain indebtedness, make restricted payments, make investments, and engage in transactions with affiliates. The Amended Credit Agreement also contains a financial covenant that requires the Company to maintain a minimum amount of liquidity and customary events of default.

In connection with the Credit Facility, the Company incurred lender and other third-party costs of approximately $4.9 million for the period ended December 28, 2019, which are recorded as a deferred asset and are amortized to interest expense using a straight-line method over the term of the Credit Facility. During the year ended December 28, 2019, the Company recorded $0.3 million as amortization of deferred debt issuance cost, $0.8 million as contractual interest expense and related charges.

As of December 28, 2019, the Company had availability of $115.9 million under the Credit Facility and had letters of credit outstanding of approximately $4.1 million.

Finance Assistance Agreement

During March 2019, the Company signed an agreement with a third-party contract manufacturer that governs the transfer of the activities from the legacy Coriant manufacturing facility in Berlin, Germany to a third-party contract manufacturer. Subsequently in May 2019, the Company entered into a financing assistance agreement with the contract manufacturer whereby the contract manufacturer agreed to provide funding of up to $40 million to cover severance, retention and other costs associated with the transfer. The funding is secured against certain foreign assets, carries a fixed interest rate of 6% and is repayable in 12 months from the date of each draw down. As of December 28, 2019, $31.3 million was outstanding, which was included in short-term debt.

Mortgage Payable

In March 2019, the Company mortgaged a property it owns. The Company received proceeds of $8.7 million in connection with the loan. The loan carries a fixed interest rate of 5.25% and is repayable in 59 equal monthly installments of approximately $0.1 million each with the remaining unpaid principal balance plus accrued unpaid interest due five years from the date of the loan. As of December 28, 2019, $8.4 million remained outstanding, of which $0.4 million was included in short-term debt and $8 million was included in long-term debt

2.125% Convertible Senior Notes due September 1, 2024

In September 2018, the Company issued the 2024 Notes due on September 1, 2024, unless earlier repurchased, redeemed or converted. The 2024 Notes are governed by a base indenture dated as of September 11, 2018 and a first supplemental indenture dated as of September 11, 2018 (together, the “Indenture”), between the Company and U.S. Bank National Association, as trustee. The 2024 Notes are unsecured, and the Indenture does not contain any financial covenants or any restrictions on the payment of dividends, the incurrence of senior debt or other indebtedness, or the issuance or repurchase of the Company's other securities by the Company.

Interest is payable semi-annually in arrears on March 1 and September 1 of each year, commencing March 1, 2019. The net proceeds to the Company were approximately $391.4 million, of which approximately $48.9 million was used to pay the cost of the capped call transactions with certain financial institutions (“Capped Calls”). The Company also used a portion of the remaining net proceeds to fund the cash portion of the purchase price of the Acquisition (as discussed in Note 7, “Business Combination” to the Notes to Consolidated Financial Statements), including fees and expenses relating thereto, and intends to use the remaining net proceeds for general corporate purposes.

The Capped Calls have an initial strike price of $9.87 per share, subject to certain adjustments, which corresponds to the initial conversion price of the 2024 Notes. The Capped Calls have initial cap prices of $15.19 per share, subject to certain adjustments. The Capped Calls cover, subject to anti-dilution adjustments, 40.8 million shares of common stock. The capped call transactions are expected generally to reduce or offset potential dilution to the Company's common stock upon any conversion of the 2024 Notes and/or offset any cash payments the Company is required to make in excess of the principal amount of converted 2024 Notes, as the case may be, with such reduction and/or offset subject to a cap. The Capped Calls expire on various dates between July 5, 2024 and August 29, 2024. The Capped Calls were recorded as a reduction of the Company’s stockholders' equity in the accompanying consolidated balance sheets.

Upon conversion, it is the Company's intention to pay cash equal to the lesser of the aggregate principal amount or the conversion value of the 2024 Notes. For any remaining conversion obligation, the Company intends to pay or deliver, as the case may be, either cash, shares of its common stock, or a combination of cash and shares of its common stock, at the Company’s election. The initial conversion rate is 101.2812 shares of common stock per $1,000 principal amount of 2024 Notes, subject to anti-dilution adjustments, which is equivalent to a conversion price of approximately $9.87 per share of common stock.

Throughout the term of the 2024 Notes, the conversion rate may be adjusted upon the occurrence of certain events, including for any cash dividends. Holders of the 2024 Notes will not receive any cash payment representing accrued and unpaid interest upon conversion of a 2024 Note. Accrued but unpaid interest will be deemed to be paid in full upon conversion rather than canceled, extinguished or forfeited. Prior to June 1, 2024, holders may convert their 2024 Notes under the following circumstances:

- during any fiscal quarter commencing after the fiscal quarter ended on December 29, 2018 (and only during such fiscal quarter) if the last reported sale price of the common stock for at least 20 trading days (whether or not consecutive) during a period of 30 consecutive trading days ending on the last trading day of the immediately preceding fiscal quarter is greater than or equal to 130% of the conversion price on each applicable trading day;

- during the five business day period after any five consecutive trading day period (the “measurement period”) in which the trading price per $1,000 principal amount of 2024 Notes for each trading day of the measurement period was less than 98% of the product of the last reported sale price of the Company’s common stock and the conversion rate on each such trading day;

- if the Company calls the 2024 Notes for redemption, at any time prior to the close of business on the scheduled trading day immediately preceding the redemption date;

- upon the occurrence of specified corporate events described under the Indenture, such as a consolidation, merger or binding share exchange; or

- at any time on or after June 1, 2024 until the close of business on the second scheduled trading day immediately preceding the maturity date, holders may convert their 2024 Notes at any time, regardless of the foregoing circumstances.

If the Company undergoes a fundamental change as defined in the Indenture governing the 2024 Notes, holders may require the Company to repurchase for cash all or any portion of their 2024 Notes at a repurchase price equal to 100% of the principal amount of the 2024 Notes to be repurchased, plus accrued and unpaid interest to, but excluding, the fundamental change repurchase date. In addition, upon the occurrence of a “make-whole fundamental change” (as defined in the Indenture), the Company may, in certain circumstances, be required to increase the conversion rate by a number of additional shares for a holder that elects to convert its 2024 Notes in connection with such make-whole fundamental change.

The net carrying amounts of the debt obligation were as follows (in thousands):

	December 28, 2019	December 29, 2018
Principal	$ 402,500	$ 402,500
Unamortized discount [1]	(109,652)	(127,264)
Unamortized issuance cost [1]	(7,158)	(8,307)
Net carrying amount	$ 285,690	$ 266,929

(1) Unamortized debt conversion discount and issuance costs will be amortized over the remaining life of the 2024 Notes, which is approximately 57 months.

As of December 28, 2019, the carrying amount of the equity component of the 2024 Notes was $128.7 million.

In accounting for the issuance of the 2024 Notes, the Company separated the 2024 Notes into liability and equity components. The carrying amount of the liability component was calculated by measuring the fair value of a similar debt instrument that does not have an associated convertible feature. The carrying amount of the equity component representing the conversion option was determined by deducting the fair value of the liability component from the par value of the 2024 Notes. The equity component is not re-measured as long as it continues to meet the conditions for equity classification. The excess of the principal amount of the liability component over its carrying amount (“debt discount”) is amortized to interest expense over the term of the 2024 Notes.

The Company allocated the total issuance costs incurred to the liability and equity components of the 2024 Notes based on their relative values. Issuance costs attributable to the liability component were recorded as a reduction to the liability portion of the Notes and will be amortized as interest expense over the term of the 2024 Notes. The issuance costs attributable to the equity component were netted with the equity component in stockholders’ equity.

The Company recorded a deferred tax liability of $30.9 million in connection with the issuance of the 2024 Notes, and a corresponding reduction in valuation allowance. The impact of both was recorded to stockholders' equity.

The Company determined that the embedded conversion option in the 2024 Notes does not require separate accounting treatment as a derivative instrument because it is both indexed to the Company’s own stock and would be classified in stockholder’s equity if freestanding.

The following table sets forth total interest expense recognized related to the 2024 Notes (in thousands):

	Year Ended	
	December 28, 2019	December 29, 2018
Contractual interest expense	$ 8,553	$ 2,613
Amortization of debt issuance costs	1,149	373
Amortization of debt discount	17,612	5,716
Total interest expense	$ 27,314	$ 8,702

For the year ended December 28, 2019, the debt discount and debt issuance costs were amortized, using an annual effective interest rate of 10.07%, to interest expense over the term of the 2024 Notes.

As of December 28, 2019, the fair value of the 2024 Notes was $417.2 million. The fair value was determined based on the quoted bid price of the 2024 Notes in an over-the-counter market on December 27, 2019. The 2024 Notes are classified as Level 2 of the fair value hierarchy.

Based on the closing price of the Company’s common stock of $7.78 on December 27, 2019, the if-converted value of the Notes did not exceed their principal amount.

1.75% Convertible Senior Notes due June 1, 2018

In May 2013, the Company issued the 2018 Notes, which matured on June 1, 2018. Upon maturity of the 2018 Notes, the Company repaid in full all $150.0 million in aggregate principal amount and the final coupon interest of $1.3 million.

The following table sets forth total interest expense recognized related to the 2018 Notes (in thousands):

	Year ended December 29, 2018
Contractual interest expense	$ 1,094
Amortization of debt issuance costs	402
Amortization of debt discount	4,671
Total interest expense	$ 6,167

The coupon rate was 1.75%. For the year ended December 28, 2019 and the year ended December 29, 2018, the debt discount and debt issuance costs were amortized, using an annual effective interest rate of 10.23%, to interest expense over the term of the 2018 Notes.

14. Commitments and Contingencies

Operating Leases

The Company leases facilities under non-cancelable operating lease agreements. These leases have varying terms that range from one to 11 years. The Company has contractual commitments to remove leasehold improvements and return certain properties to a specified condition when the leases terminate. At the inception of a lease with such conditions, the Company records an asset retirement obligation liability and a corresponding capital asset in an amount equal to the estimated fair value of the obligation. Asset retirement obligations were $4.7 million and $5.4 million as of December 28, 2019 and December 29, 2018, respectively. These obligations are classified as other long-term liabilities on the accompanying consolidated balance sheets.

Future annual minimum operating lease payments at December 28, 2019 were as follows (in thousands):

	2020	2021	2022	2023	2024	Thereafter	Total
Operating lease payments	$ 24,717	$ 18,265	$ 15,488	$ 12,208	$ 10,212	$ 36,124	$ 117,014

In the fourth quarter of 2017, the Company implemented the 2017 Restructuring Plan, which included cease-use of certain leased facilities. See Note 10, "Restructuring and Other Related Costs" to the Notes to Consolidated Financial Statements for more information.

In the fourth quarter of 2018, the Company implemented the 2018 Restructuring Plan, which included vacating certain leased facilities. See Note 10, "Restructuring and Other Related Costs" to the Notes to Consolidated Financial Statements for more information.

Financing Lease Obligations

The Company has two finance leases for manufacturing and other equipment. See Note 9, "Balance Sheet Details" to the Notes to Consolidated Financial Statements for more information.

Future annual minimum financing lease payments at December 28, 2019 were as follows (in thousands):

	2020	2021	2022	2023	2024	Thereafter	Total
Financing lease obligations	$ 1,563	$ 1,204	$ 936	$ 406	$ —	$ —	$ 4,109

Purchase Commitments

The Company has agreements with its major production suppliers, where the Company is committed to purchase certain parts. As of December 28, 2019, December 29, 2018 and December 30, 2017, these non-cancelable purchase commitments were $258.2 million, $203.5 million and $96.1 million, respectively. The significant increase of purchase commitments in 2018 was due to the Acquisition.

Future purchase commitments at December 29, 2018 were as follows (in thousands):

	2020	2021	2022	2023	2024	Thereafter	Total
Purchase obligations	$ 255,427	$ 1,553	$ 1,154	$ 43	$ —	$ —	$ 258,177

The contractual obligation tables above exclude tax liabilities of $4.1 million related to uncertain tax positions because the Company cannot reliably estimate the timing and amount of future payments, if any.

Convertible Senior Notes 2024

The future interest and principal payments related to the 2024 Notes are as follows as of December 28, 2019:

	2020	2021	2022	2023	2024	Thereafter	Total
Convertible senior notes, including interest	$ 8,553	$ 8,553	$ 8,553	$ 8,553	$ 411,053	$ —	$ 445,265

Mortgage Payable

The future interest and principal payments related to the Mortgage are as follows as of December 28, 2019:

	2020	2021	2022	2023	2024	Thereafter	Total
Mortgage payable, including interest	$ 841	$ 842	$ 841	$ 841	$ 6,725	$ —	$ 10,090

Finance Assistance Agreement

The future interest and principal payments related to the Financing assistance agreement are as follows as of December 28, 2019:

	2020	2021	2022	2023	2024	Thereafter	Total
Finance assistance agreement	$ 31,809	$ —	$ —	$ —	$ —	$ —	$ 31,809

Asset-backed Loan

The future interest and principal payments related to the Credit Facility are as follows as of December 28, 2019:

	2020	2021	2022	2023	2024	Thereafter	Total
Asset backed loan	$ 525	$ —	$ —	$ —	$ 30,000	$ —	$ 30,525

Legal Matters

Oyster Optics LLC I

On November 23, 2016, Oyster Optics, LLP (“Oyster Optics”) filed a complaint against the Company in the United States District Court for the Eastern District of Texas. The complaint asserts infringement of U.S. Patent Nos. 6,469,816, 6,476,952, 6,594,055, 7,099,592, 7,620,327 (the “’327 patent”), 8,374,511 (the “’511 patent”) and 8,913,898 (the “’898 patent”). Collectively, the asserted patents are referred to herein as the “Oyster Optics patents in suit.” The complaint seeks unspecified damages and a permanent injunction. The Company filed its answer to Oyster Optics’ complaint on February 3, 2017. The Company filed two petitions for Inter Partes Review (“IPR”) of the ‘898 patent with the U.S. Patent and Trademark Office (“USPTO”). Other defendants have filed IPR petitions in connection with the remaining Oyster Optics patents in suit. The USPTO instituted two IPRs of the ‘511 patent and two IPRs of the ‘898 patent but denied IPR petitions in connection with the ‘327 patent.

A first Markman decision issued on December 5, 2017 and fact discovery closed on December 22, 2017. Oyster Optics dropped the ‘511 and ‘898 patents, leaving only a few claims in the ‘327 patent at issue in the case.

Oyster Optics LLC II

On May 15, 2018, Oyster Optics filed a new patent infringement complaint in the United States District Court for the Eastern District of Texas, naming the Company as a defendant. In its new complaint, Oyster Optics alleges infringement of the ‘327 patent, ‘898 patent and U.S. Patent No. 9,749,040. On June 8, 2018, the court granted the parties’ joint motion to sever and consolidate the first-filed lawsuit with the later filed case. The Company filed its answer to the new complaint on July 16, 2018. On October 26, 2018, the Company filed an amended answer to include a license defense based on a license agreement dated June 28, 2018 by and between Oyster Optics and several subsidiaries of Coriant (now one of the Company’s affiliated subsidiaries). The Company also filed a motion for summary judgment based on the license defense on November 29, 2018. On June 25, 2019, the Court granted the Company’s motion for summary judgment and on June 28, 2019, the court entered a final judgment for the Company. On July 22, 2019, Oyster Optics filed an appeal of the court’s decision with the Court of Appeals for the Federal Circuit. The Company believes that it does not infringe any valid and enforceable claim of the Oyster Optics patents in suit and intend to defend this action vigorously. The Company is currently unable to predict the outcome of this litigation at this time and therefore cannot determine the likelihood of loss nor estimate a range of possible loss.

Oyster Optics LLC III

On July 29, 2019, Oyster Optics filed a third complaint against the Company, Coriant (USA) Inc., Coriant North America, LLC and Coriant Operations, Inc. in the United States District Court for the Eastern District of Texas. The complaint asserts infringement of U.S. Patent No. 6,665,500 (the “Oyster III patent in suit”). The complaint seeks unspecified damages and a permanent injunction. On October 7, 2019, the Company filed its answer to the complaint asserting among other things, counterclaims and defenses based on non-infringement, invalidity, and a license to the Oyster III patent in suit. On October 28, 2019, Oyster filed an amended complaint. On December 3, 2019, the Company filed a motion to dismiss certain claims based on certain allegations made by Oyster in their amended complaint. On December 27, 2019, the Company filed petitions IPR petitions with the USPTO, in which the Company requested the USPTO to invalidate the asserted claims of the Oyster III patent in suit. The Company believes that it does not infringe any valid and enforceable claim of the Oyster III patent in suit and intend to defend this action vigorously. The Company is unable to predict the outcome of this litigation at this time and therefore cannot reasonably estimate the possible loss or range of loss, if any, arising from this matter.

Oyster Optics LLC IV

On August 26, 2019, Oyster Optics filed a fourth complaint against the Company in the Superior Court of California, Santa Clara County (“Oyster IV”). On November 5, 2019, the Oyster IV lawsuit was dismissed.

Civil Investigative Demand

On June 8, 2017, a Civil Investigative Demand was issued to Coriant pursuant to a False Claims Act investigation by the U.S. government as to whether there has been any violation of 31 U.S.C. §3729. Coriant provided documents and other responses to the U.S. government, and the Company will continue to cooperate in the ongoing investigation.

In addition to the matters described above, the Company is subject to various legal proceedings, claims and litigation arising in the ordinary course of business. While the outcome of these matters is currently not determinable, the Company does not expect that the ultimate costs to resolve these matters will have a material effect on its consolidated financial position, results of operations or cash flows.

Loss Contingencies

The Company is subject to the possibility of various losses arising in the ordinary course of business. These may relate to disputes, litigation and other legal actions. In the preparation of its quarterly and annual financial statements, the Company considers the likelihood of loss or the incurrence of a liability, including whether it is probable, reasonably possible or remote that a liability has been incurred, as well as the Company's ability to reasonably estimate the amount of loss, in determining loss contingencies. In accordance with U.S. GAAP, an estimated loss contingency is accrued when it is probable that a liability has been incurred and the amount of loss can be reasonably estimated. The Company regularly evaluates current information to determine whether any accruals should be adjusted and whether new accruals are required. As of December 28, 2019 and December 29, 2018, the Company has accrued the estimated liabilities associated with certain loss contingencies.

Indemnification Obligations

From time to time, the Company enters into certain types of contracts that contingently require it to indemnify parties against third-party claims. The terms of such indemnification obligations vary. These contracts may relate to: (i) certain real estate leases under which the Company may be required to indemnify property owners for environmental and other liabilities, and other claims arising from the Company's use of the applicable premises; and (ii) certain agreements with the Company's officers, directors and certain key employees, under which the Company may be required to indemnify such persons for liabilities.

In addition, the Company has agreed to indemnify certain customers for claims made against the Company's products, where such claims allege infringement of third-party intellectual property rights, including, but not limited to, patents, registered trademarks, and/or copyrights. Under the aforementioned intellectual property indemnification clauses, the Company may be obligated to defend the customer and pay for the damages awarded against the customer under an infringement claim as well as the customer's attorneys' fees and costs. These indemnification obligations generally do not expire after termination or expiration of the agreement containing the indemnification obligation. In certain cases, there are limits on and exceptions to the Company's potential liability for indemnification. The Company cannot estimate the amount of potential future payments, if any, that it might be required to make as a result of these agreements. The maximum potential amount of any future payments that the Company could be required to make under these indemnification obligations could be significant.

As permitted under Delaware law and the Company's charter and bylaws, the Company has agreements whereby it indemnifies certain of its officers and each of its directors. The term of the indemnification period is for the officer's or director's lifetime for certain events or occurrences while the officer or director is, or was, serving at the Company's request in such capacity. The maximum potential amount of future payments the Company could be required to make under these indemnification agreements could be significant; however, the Company has a director and officer insurance policy that may reduce its exposure and enable it to recover all or a portion of any future amounts paid. As a result of its insurance policy coverage, the Company believes the estimated fair value of these indemnification agreements is minimal.

15. Guarantees

Product Warranties

Activity related to product warranty was as follows (in thousands):

	December 28, 2019	December 29, 2018
Beginning balance	$ 41,021	$ 30,909
Charges to operations	23,874	28,685
Utilization	(25,070)	(18,028)
Change in estimate[1]	3,523	(545)
Balance at the end of the period	$ 43,348	$ 41,021

(1) The Company records product warranty liabilities based on the latest quality and cost information available as of the date the revenue is recorded. The changes in estimate shown here are due to changes in overall actual failure rates, the mix of new versus used units related to replacement of failed units, and changes in the estimated cost of repair. As the Company's products mature over time, failure rates and repair costs generally decline leading to favorable changes in warranty reserves.

Letters of Credit and Bank Guarantees

The Company had $27.9 million of standby letters of credit and bank guarantees outstanding as of December 28, 2019. These consisted of $14.2 million related to customer performance guarantees, $0.4 million of value-added tax and customs' licenses, $5.9 million related to property leases, $6.8 million related to Coriant pre-acquisition restructuring plans, $0.5 million related to credit cards and $0.1 million for other liabilities.

Of the aforementioned standby letters of credit and bank guarantees outstanding, $4.1 million was backed by cash collateral from a third-party institution, and the Company accrues 2.25% annual fee and 0.13% annual fronting fee on the average LOC balances outstanding on the cash collateral.

The Company had $30.0 million of standby letters of credit and bank guarantees outstanding as of December 29, 2018. These consisted of $2.9 million related to property leases, $23.4 million related to customer performance guarantees, $1.4 million related to a value added tax and customs authorities' licenses and $1.8 million related to Coriant pre-acquisition restructuring plans and $0.5 million related to credit cards.

As of December 28, 2019 and December 29, 2018, the Company has a line of credit for approximately $150.0 million and $1.6 million, respectively to support the issuance of letters of credit, of which $4.1 million and zero had been issued and outstanding, respectively. The Company has pledged approximately $180.9 million and $4.9 million of assets of a subsidiary to secure this line of credit and other obligations as of December 28, 2019 and December 29, 2018, respectively.

16. Stockholders' Equity

2007 Equity Incentive Plan, 2016 Equity Incentive Plan, 2019 Inducement Equity Incentive Plan and Employee Stock Purchase Plan

In February 2007, the Company's board of directors adopted the 2007 Equity Incentive Plan (the "2007 Plan") and the Company's stockholders approved the 2007 Plan in May 2007. The Company reserved a total of 46.8 million shares of common stock for issuance under the 2007 Plan. Upon stockholder approval of the 2016 Equity Incentive Plan (the "2016 Plan"), the Company has ceased granting equity awards under the 2007 Plan, however the 2007 Plan will continue to govern the terms and conditions of the outstanding options and awards previously granted under the 2007 Plan. As of December 28, 2019, options to purchase 0.7 million shares of the Company's common stock were outstanding and 0.3 million RSUs were outstanding under the 2007 Plan.

In February 2016, the Company's board of directors adopted the 2016 Plan and the Company's stockholders approved the 2016 Plan in May 2016. In May 2018 and May 2019 respectively, the Company's stockholders approved an amendment to the 2016 Plan to increase the number of shares authorized for issuance under the 2016 Plan by 1.5 million shares and 7.3 million shares. As of December 28, 2019, the Company reserved a total of 22.7 million shares of common stock for the award of stock options, RSUs and PSUs to employees, non-employees, consultants and members of the Company's board of directors, pursuant to the 2016 Plan, plus any shares subject to awards granted under the 2007 Plan that, after the effective date of the 2016 Plan, expire, are forfeited or otherwise terminate without having been exercised in full to the extent such awards were exercisable, and shares issued pursuant to awards granted under the 2007 Plan that, after the effective date of the 2016 Plan, are forfeited to or repurchased by the Company due to failure to vest. The 2016 Plan has a maximum term of 10 years from the date of adoption, or it can be earlier terminated by the Company's board of directors.

The ESPP was adopted by the board of directors in February 2007 and approved by the stockholders in May 2007. The ESPP was last amended by the stockholders in May 2019 to increase the shares authorized under the ESPP to a total of approximately 31.6 million shares of common stock. The ESPP has a 20-year term. Eligible employees may purchase the Company's common stock through payroll deductions at a price equal to 85% of the lower of the fair market values of the stock as of the beginning or the end of six-month offering periods. An employee's payroll deductions under the ESPP are limited to 15% of the employee's compensation and employees may not purchase more than 3,000 shares per purchase period and $25,000 of stock during any calendar year.

Shares Reserved for Future Issuances

Common stock reserved for future issuance was as follows (in thousands):

	December 28, 2019
Outstanding stock options and awards	14,835
Reserved for future option and award grants	8,149
Reserved for future ESPP	12,438
Total common stock reserved for stock options and awards	35,422

Stock-based Compensation Plans

The Company has stock-based compensation plans pursuant to which the Company has granted stock options, RSUs and PSUs. The Company also has an ESPP for all eligible employees. The following tables summarize the Company's equity award activity and related information (in thousands, except per share data):

	Number of Options	Weighted-Average Exercise Price Per Share	Aggregate Intrinsic Value
Outstanding at December 31, 2016	**1,655**	**$ 8.30**	**$ 965**
Options granted	—	$ —	
Options exercised	(196)	$ 7.78	$ 373
Options canceled	(62)	$ 14.11	
Outstanding at December 30, 2017	**1,397**	**$ 8.11**	**$ 1**
Options granted	—	$ —	
Options exercised	(229)	$ 7.43	$ 496
Options canceled	(53)	$ 11.57	
Outstanding at December 29, 2018	**1,115**	**$ 8.09**	**$ —**
Options granted	—	$ —	
Options exercised	—	$ —	**$ —**
Options canceled	(385)	$ 7.47	
Outstanding at December 28, 2019	**730**	**$ 8.41**	**$ —**
Exercisable at December 28, 2019	**730**	**$ 8.41**	**$ —**

	Number of Restricted Stock Units	Weighted-Average Grant Date Fair Value Per Share	Aggregate Intrinsic Value
Outstanding at December 31, 2016	**5,293**	**$ 14.10**	**$ 44,939**
RSUs granted	4,281	$ 9.66	
RSUs released	(2,198)	$ 13.56	$ 20,791
RSUs canceled	(585)	$ 13.24	
Outstanding at December 30, 2017	**6,791**	**$ 11.55**	**$ 42,988**
RSUs granted	3,756	$ 10.52	
RSUs released	(2,642)	$ 12.12	$ 26,457
RSUs canceled	(1,159)	$ 11.12	
Outstanding at December 29, 2018	**6,746**	**$ 10.83**	**$ 26,446**
RSUs granted	8,950	$ 4.36	
RSUs released	(2,784)	$ 10.48	$ 12,901
RSUs canceled	(1,312)	$ 8.37	
Outstanding at December 28, 2019	**11,600**	**$ 6.20**	**$ 90,254**

	Number of Performance Stock Units	Weighted-Average Grant Date Fair Value Per Share	Aggregate Intrinsic Value
Outstanding at December 31, 2016	**904**	**$ 14.13**	**$ 7,672**
PSUs granted	916	$ 10.88	
PSUs released	(26)	$ 11.83	$ 225
PSUs canceled	(427)	$ 12.20	
Outstanding at December 30, 2017	**1,367**	**$ 16.28**	**$ 8,651**
PSUs granted	521	$ 9.79	
PSUs released	(55)	$ 15.93	$ 411
PSUs canceled	(704)	$ 16.01	
Outstanding at December 29, 2018	**1,129**	**$ 16.10**	**$ 4,425**
PSUs granted	2,202	$ 4.63	
PSUs released	(99)	$ 11.11	$ 472
PSUs canceled	(727)	$ 14.42	
Outstanding at December 28, 2019	**2,505**	**$ 6.48**	**$ 19,485**
Expected to vest as of December 28, 2019	**2,392**		**$ 18,613**

The aggregate intrinsic value of unexercised options is calculated as the difference between the closing price of the Company’s common stock of $7.78 at December 27, 2019 and the exercise prices of the underlying stock options. The aggregate intrinsic value of the options which have been exercised is calculated as the difference between the fair market value of the common stock at the date of exercise and the exercise price of the underlying stock options. The aggregate intrinsic value of unreleased RSUs and unreleased PSUs is calculated using the closing price of the Company's common stock of $7.78 at December 27, 2019. The aggregate intrinsic value of RSUs and PSUs released is calculated using the fair market value of the common stock at the date of release.

The following table presents total stock-based compensation cost for instruments granted but not yet amortized, net of estimated forfeitures, of the Company’s equity compensation plans as of December 28, 2019. These costs are expected to be amortized on a straight-line basis over the following weighted-average periods (in thousands, except for weighted-average period):

	Unrecognized Compensation Expense, Net	Weighted-Average Period (in years)
RSUs	$ 50,418	2.10
PSUs	$ 7,458	1.99

The following table summarizes information about options outstanding at December 28, 2019.

	Options Outstanding			Vested and Exercisable Options	
Exercise Price	**Number of Shares**	**Weighted-Average Remaining Contractual Life**	**Weighted-Average Exercise Price**	**Number of Shares**	**Weighted-Average Exercise Price**
	(In thousands)	**(In years)**		**(In thousands)**	
$6.99 - $ 7.25	48	1.40	$ 7.03	48	$ 7.03
$ 7.53	35	1.34	$ 7.53	35	$ 7.53
$ 8.01	93	0.87	$ 8.01	93	$ 8.01
$ 8.58	485	1.05	$ 8.58	485	$ 8.58
$9.02 - $9.28	69	0.01	$ 9.19	69	$ 9.19
	730			730	

Employee Stock Options

The Company did not grant any stock options during 2019, 2018 or 2017. Stock option exercises are settled with newly issued shares of common stock approved by stockholders for inclusion under the 2007 Plan. Amortization of stock-based compensation expense related to stock options in 2019, 2018 and 2017 was insignificant.

Employee Stock Purchase Plan

The fair value of the ESPP shares was estimated at the date of grant using the following assumptions:

	Years Ended		
	December 28, 2019	December 29, 2018	December 30, 2017
Volatility	70% - 72%	48% - 62%	47% - 51%
Risk-free interest rate	1.76% - 2.48%	1.90% - 2.31%	0.81% - 1.16%
Expected life	0.5 years	0.5 years	0.5 years
Estimated fair value	$1.64 - $1.77	$2.47 - $3.13	$2.44 - $3.46

The Company's ESPP activity for the following periods was as follows (in thousands):

	Years Ended		
	December 28, 2019	December 29, 2018	December 30, 2017
Stock-based compensation expense	$ 4,873	$ 5,478	$ 6,049
Employee contributions	$ 12,052	$ 15,992	$ 16,410
Shares purchased	2,897	2,189	2,140

Restricted Stock Units

The Company granted RSUs to employees and members of the Company's board of directors to receive shares of the Company's common stock. All RSUs awarded are subject to each individual's continued service to the Company through each applicable vesting date. The Company accounted for the fair value of the RSUs using the closing market price of the Company's common stock on the date of grant. Amortization of stock-based compensation expense related to RSUs in 2019, 2018 and 2017 was approximately $32.3 million, $29.2 million and $30.5 million, respectively.

Performance Stock Units

Pursuant to the 2016 Plan, the Company has granted PSUs to certain of the Company's executive officers, senior management and certain employees. All PSUs awarded are subject to each individual's continued service to the Company through each applicable vesting date and if the performance metrics are not met within the time limits specified in the award agreements, the PSUs will be canceled.

PSUs granted to the Company's executive officers and senior management under the 2016 Plan during 2017 and the first half of 2018 are based on the TSR of the Company's common stock price relative to the TSR of the individual companies listed in the SPGIIPTR over the span of one year, two years and three years. The number of shares to be issued upon vesting of these PSUs range from zero to two times the target number of PSUs granted depending on the Company's performance against the individual companies listed in the SPGIIPTR.

The ranges of estimated values of the PSUs granted that are compared to the SPGIIPTR, as well as the assumptions used in calculating these values were based on estimates as follows:

	2018	2017
Index volatility	33%	33% - 34%
Infinera volatility	58% - 59%	55% - 56%
Risk-free interest rate	2.37% - 2.40%	1.41% - 1.63%
Correlation with index	0.04 - 0.48	0.10 - 0.49
Estimated fair value	$14.99 - $19.46	$15.23 - $17.35

PSUs granted to the Company's executive officers and senior management under the 2016 Plan during the first, second and third quarter of 2019 are based on performance criteria related to a specific financial target over the span of a three-year performance period. These PSUs may become eligible for vesting to begin before the end of the three year performance period, if the applicable financial target is met. The number of shares to be issued upon vesting of these PSUs is capped at the target number of PSUs granted. Certain other employees were awarded PSUs that will only vest upon the achievement of specific financial and operational performance criteria.

In addition, one of the Company's executive officers was awarded a PSU that will be eligible to vest if the market price condition is met. The assumptions used in calculating the estimated values of this award granted in fiscal 2019 were based upon Monte Carlo Model Assumptions and estimates as follows:

	2019
Index volatility	N/A
Infinera volatility	64% - 68%
Risk-free interest rate	2.17% - 2.48%
Correlation with index/index component	N/A
Estimated fair value	$2.08 - $2.89

The following table summarizes by grant year, the Company’s PSU activity for the year ended December 28, 2019 (in thousands):

	Total Number of Performance Stock Units	Grant Year			
		2016	2017	2018	2019
Outstanding at December 29, 2018	1,129	156	481	492	—
PSUs granted	2,202	—	—	—	2,202
PSUs released	(99)	—	(26)	(25)	(48)
PSUs canceled	(727)	(156)	(256)	(197)	(118)
Outstanding at December 28, 2019	2,505	—	199	270	2,036

Amortization of stock-based compensation expense related to PSUs in 2019, 2018 and 2017 was approximately $6.1 million, $8.2 million and $9.5 million, respectively.

Stock-based Compensation Expense

The following tables summarize the effects of stock-based compensation on the Company's consolidated balance sheets and statements of operations for the periods presented (in thousands):

	Years Ended		
	December 28, 2019	December 29, 2018	December 30, 2017
Stock-based compensation effects in inventory	$ 4,798	$ 4,750	$ 5,255
Stock-based compensation effects in net loss before income taxes			
Cost of revenue	$ 1,743	$ 1,635	$ 3,065
Research and development	17,457	16,270	15,845
Sales and marketing	8,413	10,869	11,288
General and administrative	10,460	9,649	10,776
	$ 38,073	$ 38,423	$ 40,974
Cost of revenue—amortization from balance sheet [1]	4,706	4,986	4,746
Total stock-based compensation expense	$ 42,779	$ 43,409	$ 45,720

(1) Represents stock-based compensation expense deferred to inventory in prior periods and recognized in the current period.

17. Income Taxes

The following is a geographic breakdown of the provision for/(benefit from) income taxes (in thousands):

	Years Ended		
	December 28, 2019	December 29, 2018	December 30, 2017
Current:			
Federal	$ —	$ —	$ —
State	288	186	69
Foreign	3,046	6,832	4,679
Total current	$ 3,334	$ 7,018	$ 4,748
Deferred:			
Federal	$ 369	$ (546)	$ —
State	—	—	—
Foreign	(740)	(7,127)	(6,178)
-	$ (371)	$ (7,673)	$ (6,178)
Total provision for/(benefit from) income taxes	$ 2,963	$ (655)	$ (1,430)

Loss before provision for income taxes from international operations was $202.2 million, $135.5 million and $22.6 million for the years ended December 28, 2019, December 29, 2018 and December 30, 2017, respectively.

The provisions for (benefit from) income taxes differ from the amount computed by applying the statutory federal income tax rates as follows:

	Years Ended		
	December 28, 2019	**December 29, 2018**	**December 30, 2017**
Expected tax at federal statutory rate	21.0 %	21.0 %	35.0 %
State taxes, net of federal benefit	(0.1)%	(0.1)%	— %
Research credits	1.0 %	1.8 %	1.8 %
Stock-based compensation	(2.0)%	(0.8)%	(6.0)%
Change in valuation allowance	(19.7)%	(18.1)%	(26.8)%
Foreign rate differential	(0.2)%	(2.9)%	(3.3)%
Other	(0.8)%	(0.6)%	— %
Effective tax rate	(0.8)%	0.3 %	0.7 %

For 2019, the Company's income tax expense was $3.0 million with effective tax rate of (0.8)%. The difference between the effective income tax rate and the U.S federal statutory rate of 21% to income before income taxes is primarily the result of foreign income taxed at different rates and valuation allowances. The Company recognized an income tax benefit of $0.7 million and $1.4 million in fiscal years 2018 and 2017. The resulting effective tax rates were 0.3% and 0.7% for 2018 and 2017. The 2018 and 2017 effective tax rates differ from the expected statutory rate of 21% and 35%, respectively, based on the Company's ability to benefit from its U.S. loss carryforwards, offset by state income taxes, non-deductible stock-based compensation expenses and foreign taxes provided on foreign subsidiary earnings.

Deferred tax assets and liabilities are recognized for the future tax consequences of differences between the carrying amounts of assets and liabilities and their respective tax basis using enacted tax rates in effect for the year in which the differences are expected to reverse. Significant deferred tax assets and liabilities consist of the following (in thousands):

	Years Ended	
	December 29, 2019	December 29, 2018
Deferred tax assets:		
Net operating losses	$ 301,929	$ 257,928
Research and foreign tax credits	121,065	221,943
Nondeductible accruals	72,094	50,312
Inventory valuation	31,982	39,430
Property, plant and equipment	4,601	2,591
Leasing Liabilities	19,265	—
Stock-based compensation	3,998	4,825
Total deferred tax assets	$ 554,934	$ 577,029
Valuation allowance	(484,834)	(493,157)
Net deferred tax assets	$ 70,100	$ 83,872
Deferred tax liabilities:		
Accrual and reverse - lease	—	(16,802)
Depreciation	—	(199)
Accruals, reserves and prepaid expenses	(830)	(784)
Right of use asset	(16,261)	—
Acquired intangible assets	(34,542)	(49,406)
Convertible senior notes	(25,417)	(29,419)
Total deferred tax liabilities	$ (77,050)	$ (96,610)
Net deferred tax liabilities	$ (6,950)	$ (12,738)

The ultimate realization of deferred tax assets is dependent upon the generation of future taxable income during the periods in which those temporary differences become deductible. The Company must consider all positive and negative evidence, including the Company's forecasts of taxable income over the applicable carryforward periods, its current financial performance, its market environment, and other factors in evaluating the need for a full or partial valuation allowance against its net U.S. deferred tax assets. Based on the available objective evidence, management believes it is not more likely than not that the domestic net deferred tax assets will be realizable in the foreseeable future. Accordingly, the Company has provided a full valuation allowance against its domestic deferred tax assets, net of deferred tax liabilities, as of December 28, 2019 and December 29, 2018.

To the extent that the Company determines that deferred tax assets are realizable on a more likely than not basis, and an adjustment is needed, that adjustment will be recorded in the period that the determination is made and would generally decrease the valuation allowance and record a corresponding benefit to earnings.

As of December 28, 2019, the Company had net operating loss carryforwards of approximately $576.1 million for federal income tax purposes which will begin to expire in 2027 if unused. The Company had net operating loss carryforwards of approximately $442.5 million for state income tax purposes which will begin to expire in the year 2020 if unused. The Company also had foreign net operating loss carryforwards of approximately $605.5 million.

As of December 28, 2019, the Company also had R&D credit carryforwards of approximately $52.1 million for federal income tax and $52.9 million for state income tax purposes. The federal R&D tax credit will begin to expire in 2023 if unused. State R&D tax credits will carry forward indefinitely.

As of December 28, 2019, the Company also had Foreign Tax credit carryforwards of approximately $39.5 million for federal income tax. The foreign R&D tax credit will begin to expire in 2023 if unused.

Infinera Canada Inc., an indirect wholly owned subsidiary, has Scientific Research and Experimental Development Expenditures ("SRED") credits available of $2.5 million to offset future Canadian income tax payable as of December 28, 2019. The Company's Portugal subsidiary has a SIFIDE Credit of $5.0 million to offset future income tax in Portugal payable as of December 28, 2019. Canadian SRED credits will begin to expire in the year 2032 if not fully utilized. The Portugal SIFIDE credits will begin to expire in the year 2021.

At December 28, 2019, the Company had federal capital loss carryforwards of $7.8 million. If not utilized, the federal capital loss will expire in 2023.

The federal and state net operating loss carryforwards may be subject to significant limitations under Section 382 and Section 383 of the Internal Revenue Code of 1986 and similar provisions under state law. The Tax Reform Act of 1986 contains provisions that limit the federal net operating loss carryforwards that may be used in any given year in the event of special occurrences, including significant ownership changes. The Company has completed a Section 382 review and has determined that none of its operating losses will expire solely due to Section 382 limitation(s).

The aggregate changes in the balance of gross unrecognized tax benefits were as follows (in thousands):

	December 29, 2019	December 29, 2018	December 30, 2017
Beginning balance	$ 24,617	$ 19,786	$ 22,282
Tax position related to current year			
Additions	1,965	2,296	2,234
Tax positions related to prior years			
Additions	18,212	2,981	—
Reductions	(542)	(40)	(4,728)
Lapses of statute of limitations	(160)	(406)	(2)
Ending balance	$ 44,092	$ 24,617	$ 19,786

As of December 28, 2019, the cumulative unrecognized tax benefit was $44.1 million, of which $40.8 million was netted against deferred tax assets that would have otherwise been subjected with a full valuation allowance. Of the total unrecognized tax benefit as of December 28, 2019, approximately $3.1 million, if recognized, would impact the Company's effective tax rate. Prior year addition of $18.2 million is related to reserve on Federal and California R&D credits acquired from Coriant Operations, Inc. As the Company determined that it is more likely than not that 100% of the Federal and California R&D credit will not be sustained in the event of an audit. As such the Company recorded a 100% reserve on these acquired R&D credits in 2019.

As of December 28, 2019, December 29, 2018 and December 30, 2017, the Company had $1.4 million, $1.2 million and $0.7 million, respectively, of accrued interest or penalties related to unrecognized tax benefits, of which less than $0.8 million was included in the Company's provision for income taxes in each of the years ended December 28, 2019, December 29, 2018 and December 30, 2017, respectively. The Company's policy is to include interest and penalties related to unrecognized tax benefits within the Company's provision for income taxes.

The Company files income tax returns in the United States, various state jurisdictions and various foreign jurisdictions. As of December 28, 2019, the Company is potentially subject to examination by the Internal Revenue Service and the relevant state income taxing authorities and other major foreign jurisdictions where the Company conducts business, under the statute of limitations for years 2002 and forward.

With these jurisdictions and in the United States, it is reasonably possible that there could be significant changes to the Company's unrecognized tax benefits in the next twelve months due to either the expiration of a statute of limitation or a tax audit settlement that will be partially offset by an anticipated tax liability related to unremitted foreign earnings, where applicable. Given the number of years and numerous matters that remain subject to examination in various tax jurisdictions, management is unable to estimate the range of possible changes to the balance of the Company's unrecognized tax benefits.

The Company has received assessments of tax resulting from transfer pricing examinations in India for most years in the range of fiscal years ending March 2005 through March 2015. While some of the assessment years have been settled with no change from the original tax return position, the Company intends to appeal all remaining assessment years, and does not expect a significant adjustment to unrecognized tax benefits as a result of these inquiries. The Company believes that the resolution of these disputed issues will not have a material impact on its financial statements.

Included in the balance of income tax liabilities, accrued interest and penalties at December 28, 2019 is an immaterial amount related to tax positions for which it is reasonably possible that the statute of limitations will expire in various jurisdictions within the next twelve months.

18. Segment Information

Operating segments are defined as components of an enterprise about which separate financial information is available that is evaluated regularly by the chief operating decision maker, or decision making group, in deciding how to allocate resources and in assessing performance. The Company’s chief operating decision maker is the Company’s Chief Executive Officer (“CEO”). The Company’s CEO reviews financial information presented on a consolidated basis, accompanied by information about revenue by geographic region for purposes of allocating resources and evaluating financial performance. The Company has one business activity as a provider of optical transport networking equipment, software and services. Accordingly, the Company is considered to be in a single reporting segment and operating unit structure.

Revenue by geographic region is based on the shipping address of the customer. The following tables set forth long-lived assets by geographic region (in thousands):

Property, plant and equipment, net

	December 28, 2019	December 29, 2018
United States	$ 118,656	$ 288,614
Other Americas	2,798	2,370
Europe, Middle East and Africa	21,536	38,273
Asia Pacific and Japan	7,803	13,563
Total property, plant and equipment, net	$ 150,793	$ 342,820

19. Employee Benefit and Pension Plans

Defined Contribution Plans

The Company has established a savings plan under Section 401(k) of the Internal Revenue Code (the “401(k) Plan”). As allowed under Section 401(k) of the Internal Revenue Code, the 401(k) Plan provides tax-deferred salary contributions for eligible U.S. employees. Employee contributions are limited to a maximum annual amount as set periodically by the Internal Revenue Code. The Company made voluntary cash contributions and matched a portion of employee contributions of $2.7 million, $2.3 million and $2.2 million for 2019, 2018 and 2017, respectively. Expenses related to the 401(k) Plan were insignificant for each of the years 2019, 2018 and 2017.

In connection with the Company's acquisition of Transmode during the third quarter of 2015, the Company has an ITP pension plan covering its Swedish employees. Commitments for old-age and survivors' pension for salaried employees in Sweden are vested through an insurance policy. Expenses related to the ITP pension plan were $2.6 million for 2019, $2.8 million for 2018 and $3.3 million for 2017.

The Company also provides defined contribution plans in certain foreign countries where required by local statute or at the Company's discretion. For the year ended December 28, 2019, the Company had $3.9 million related to post-retirement costs.

Pension Plans

Pension and Post-Retirement Benefit Plans

As a result of the Acquisition during the fourth quarter of 2018, the Company acquired a number of post-employment plans in Germany, as well as a number of smaller post-employment plans in other countries, including both defined contribution and defined benefit plans. The defined benefit plans expose the Company to actuarial risks such as, investment risk, interest rate risk, life expectancy risk and salary risk. The characteristics of the defined benefit plans and the risks associated with them vary depending on legal, fiscal, and economic requirements.

Obligations and Funded Status

The following table sets forth the changes in benefits obligations and the fair value of plan assets of the Company's benefit plans (in thousands):

	December 28, 2019	December 29, 2018
Benefit obligation at beginning of year	$ 104,624	$ 106,474
Service cost	2,061	466
Interest cost	2,075	512
Benefits paid	(1,925)	(194)
Actuarial loss	9,134	236
Foreign currency exchange rate changes	(2,735)	(2,870)
Benefit obligation at end of year(1)	$ 113,234	$ 104,624
Fair value of plan assets at beginning of year	$ 63,064	$ 69,614
Actual return on plan assets	2,371	653
Payments	(1,397)	—
Employee contributions	715	—
Employer contributions	53	—
Actuarial gain/(loss)	6,672	(5,319)
Foreign currency exchange rate changes	(1,701)	(1,884)
Fair value of plan assets at end of year	$ 69,777	$ 63,064
Net liability recognized	$ 43,457	$ 41,560

(1) The Company's accumulated benefit obligation was $110.8 million and $100.2 million at December 28, 2019 and December 29, 2018, respectively.

The net liability is included in the line item other long-term liabilities in the Company's consolidated balance sheets.

The following table presents net amounts of non-current assets and current and non-current liabilities for the Company's pension and other post-retirement benefit plans recognized on its consolidated balance sheet (in thousands):

	December 29, 2018	December 29, 2018
Other non-current assets	$ 69,777	$ 63,064
Current liabilities	—	(901)
Other long-term liabilities	(113,234)	(103,723)
Net liability recognized	$ (43,457)	$ (41,560)

Components of Net Periodic Benefit Cost

Net periodic benefit cost for the Company's pension and other post-retirement benefit plans consisted of the following (in thousands):

	Years ended	
	December 28, 2019	December 29, 2018 [1]
Service cost	$ 2,061	$ 466
Interest cost	2,075	512
Expected return on plan assets	(2,371)	(653)
Amortization of actuarial loss	1,638	234
Total net periodic benefit cost	$ 3,403	$ 559

[1] Acquisition date through December 29, 2018.

Actuarial gains and losses are amortized using a corridor approach. The gain/loss corridor is equal to 10% of the greater of the pension benefit obligation and the market-related value of assets. Gains and losses in excess of the corridor are generally amortized over the average future working lifetime of the pension plan participants. All components of net periodic benefit cost are recorded in operating expense of the Company's consolidated statements of operations as the impact of the amounts to be recorded in other income and expense is immaterial.

The following table sets forth the changes in accumulated other comprehensive income for the Company's benefit plans (pre-tax) (in thousands):

	December 28, 2019	December 29, 2018
Beginning balance	$ (5,313)	$ —
Net actuarial loss arising in current year	(1,680)	(5,562)
Amortization of net actuarial loss[1]	1,638	234
Foreign currency translation gain/(loss)	(12)	15
Ending balance	$ (5,367)	$ (5,313)

[1] The actuarial loss for the year ended December 29, 2018 was caused primarily by the change in the discount rate. Amounts in accumulated other comprehensive income expected to be recognized as components of net periodic pension cost during fiscal year 2020 is $1.6 million (pre-tax).

Assumptions

Certain weighted-average assumptions used in computing the benefit obligations are as follows:

	December 28, 2019	December 29, 2018
Discount rate	1.35%	2.07%
Salary growth rate	2.25%	2.25%
Pension growth rate	2.00%	2.00%

Assumptions regarding future mortality are set based on actuarial advice in accordance with published German statistics and experience. These assumptions translate into an average remaining life expectancy in years for a pensioner retiring at age 65:

	2020 Life Expectancy
Retiring at the end of the reporting period	20.5
Male	20.0
Female	23.6

Investment Policy

The financial position of the Company's funded status is the difference between the fair value of plan assets and projected benefit obligations. Volatility in funded status occurs when asset values change differently from liability values and can result in fluctuations in costs in financial reporting. The Company's investment policies and strategies are designed to increase the rate of assets to plan liabilities at an appropriate level of funded status volatility. Asset allocation decisions are recommended by the trustees for the specific plan and agreed to by the Company's management. Investment objectives are designed to generate returns that will enable the plan to meet its future obligations. The Company's management reviews the investment strategy and performance semi-annually and discuss alternatives to manage volatility.

Basis for Expected Long-Term Rate of Return on Plan Assets

The expected long-term rate of return on plan assets reflects the expected returns for each major asset class in which the plan invests and the weight of each asset class in the target mix. Expected asset returns reflect the current yield on government bonds, risk premiums for each asset class and expected real returns which considers each country's specific inflation outlook. The expected return is set using a low to medium risk profile and to meet the market expectations over a longer period of time to meet the obligations in the future.

Fair Value of Plan Assets

The following tables present the fair value of plan assets for pension and other benefit plans by major asset category (in thousands):

	As of December 28, 2019		
	Fair Value Measured Using		
	Level 1	Level 2	Total
Cash	$ 895	$ —	$ 895
Equity fund	—	43,540	43,540
Insurance contracts	—	15,149	15,149
Mixed fund	—	615	615
Pension fund	—	9,578	9,578
Total plan assets at fair value	$ 895	$ 68,882	$ 69,777

	As of December 29, 2018		
	Fair Value Measured Using		
	Level 1	Level 2	Total
Cash	$ 686	$ —	$ 686
Equity fund	—	32,513	32,513
Insurance contracts	—	24,852	24,852
Mixed fund	—	4,114	4,114
Pension fund	—	899	899
Total plan assets at fair value	$ 686	$ 62,378	$ 63,064

Valuation Techniques

The following describes the valuation techniques used to measure the fair value of the assets shown in the table above. Equity funds are invested in traded securities and are recorded at market value as of the balance sheet date. Insurance contracts are recorded at cash surrender value of the policies. Mixed fund and pension fund are valued at the amounts as provided by the insurance companies who manage the funds and represent fair market value at the date of the balance sheet.

Transfers Between Levels

Any transfers between levels in the fair value hierarchy are recognized as of the end of the reporting period. No material transfers between levels occurred during the year ended December 28, 2019.

Future Contributions

In fiscal 2020, the Company expects to make contributions of $3.5 million to cover benefit payments to plan participants.

Cash Flows

Estimated future benefit payments under the Company's pension plans as of December 28, 2019 are as follows (in thousands):

2020	$ 3,485
2021	$ 3,982
2022	$ 3,995
2023	$ 3,435
2024	$ 3,605
2025 to 2029	$ 20,060

20. Financial Information by Quarter (Unaudited)

The following table sets forth the Company's unaudited quarterly consolidated statements of operations data for 2019 and 2018. The data has been prepared on the same basis as the audited consolidated financial statements and related notes included in this report. The table includes all necessary adjustments, consisting only of normal recurring adjustments that the Company considers necessary for a fair presentation of this data.

	For the Three Months Ended (Unaudited)							
	2019				2018			
	Dec. 28	Sep. 28	Jun. 29	Mar. 30	Dec. 29	Sep. 29	Jun. 30	Mar. 31
	(In thousands, except per share data)							
Revenue:								
Product	$ 307,861	$253,754	$226,866	$223,007	$249,608	$167,030	$175,288	$171,629
Services	76,706	71,587	69,384	69,700	82,450	33,383	32,939	31,052
Total revenue	384,567	325,341	296,250	292,707	332,058	200,413	208,227	202,681
Cost of revenue:								
Cost of product	213,536	186,205	177,501	157,817	197,251	112,276	105,914	102,324
Cost of services	38,543	34,866	36,831	36,676	39,408	13,075	13,039	12,831
Amortization of intangible assets	8,437	7,796	8,098	8,252	8,315	4,876	4,943	5,341
Acquisition and integration costs	7,238	8,447	10,700	2,064	—	—	—	—
Restructuring and related	5,407	1,198	1,864	21,466	2,580	7	26	17
Total cost of revenue	273,161	238,512	234,994	226,275	247,554	130,234	123,922	120,513
Gross profit	111,406	86,829	61,256	66,432	84,504	70,179	84,305	82,168
Amortization of intangible assets	6,617	6,861	6,745	7,057	24,735	1,467	1,487	1,607
Acquisition and integration costs	11,011	11,962	12,164	7,134	13,463	2,067	—	—
Restructuring and related	18,024	2,168	3,471	17,188	10,804	191	1,680	(163)
Other operating expenses	136,625	135,125	147,260	146,741	149,726	91,612	102,757	105,402
Total operating expenses	172,277	156,116	169,640	178,120	198,728	95,337	105,924	106,846
Loss from operations	(60,871)	(69,287)	(108,384)	(111,688)	(114,224)	(25,158)	(21,619)	(24,678)
Other income (expense), net	(5,886)	(13,932)	(3,887)	(9,720)	(19,231)	(7,317)	(443)	(2,280)
Loss before income taxes	(66,757)	(83,219)	(112,271)	(121,408)	(133,455)	(32,475)	(22,062)	(26,958)
Provision for (benefit from) income taxes	(163)	1,548	1,385	193	12	135	(124)	(678)
Net loss	$ (66,594)	$ (84,767)	$ (113,656)	$ (121,601)	$ (133,467)	$ (32,610)	$ (21,938)	$ (26,280)
Net loss per common share								
Basic	$ (0.37)	$ (0.47)	$ (0.64)	$ (0.69)	$ (0.76)	$ (0.21)	$ (0.14)	$ (0.17)
Diluted	$ (0.37)	$ (0.47)	$ (0.64)	$ (0.69)	$ (0.76)	$ (0.21)	$ (0.14)	$ (0.17)

The Company operates and reports financial results on a fiscal year of 52 or 53 weeks ending on the last Saturday of December in each year. Accordingly, fiscal years 2019 and 2018 were 52-week years that ended on December 28, 2019, and December 29, 2018 respectively. The quarters for fiscal years 2019, and 2018 were 13-week quarters.

During the fourth quarter of 2018, the Company completed the Coriant Acquisition, which was accounted for as a business combination, and accordingly, the Company has consolidated the financial results of Coriant with its financial results for the period from the Acquisition Date through December 28, 2019. For more information, see Note 7, "Business Combination" to the Notes to Consolidated Financial Statements.

In December of 2018, the Company implemented a restructuring initiative (the "2018 Restructuring Plan") as part of a comprehensive review of the Company's operations and ongoing integration activities in order to optimize resources for future growth, improve efficiencies and address redundancies following the Acquisition. These integration initiatives and restructuring initiatives continued through 2019. For more information on the Company's restructuring plans, see Note 10, "Restructuring and Other Related Costs" to the Notes to Consolidated Financial Statements.

Effective December 30, 2018, the Company adopted Topic 842, using the alternative modified transition method. Results for the reporting periods beginning December 30, 2018 are presented under Topic 842, while prior period amounts are not adjusted and continue to be reported in accordance with the Company's historical accounting under Accounting Standards Codification ("ASC") Topic 840, "Leases." The company incurred lease impairment costs included in restructuring expenses.

ITEM 9. CHANGES IN AND DISAGREEMENTS WITH ACCOUNTANTS ON ACCOUNTING AND FINANCIAL DISCLOSURE

None.

ITEM 9A. CONTROLS AND PROCEDURES

Attached as exhibits to this Form 10-K are certifications of our Chief Executive Officer ("CEO") and Chief Financial Officer ("CFO"), which are required in accordance with Rule 13a-14 of the Exchange Act. This "Controls and Procedures" section includes information concerning the internal controls and controls evaluation referred to in the certifications.

Evaluation of Disclosure Controls and Procedures

An evaluation was performed by our management, with the participation of our CEO and our CFO, of the effectiveness of our disclosure controls and procedures (as defined in Rules 13a-15(e) and 15d -15(e) under the Exchange Act). Disclosure controls and procedures are designed to ensure that information required to be disclosed in our reports filed or submitted under the Exchange Act is recorded, processed, summarized and reported within the time periods specified in the SEC's rules and forms and that such information is accumulated and communicated to management, including our CEO and CFO, as appropriate, to allow timely decisions regarding required disclosure. Based on this evaluation, our CEO and CFO concluded that, as of December 28, 2019, our disclosure controls and procedures are effective.

Inherent Limitations on Effectiveness of Controls

Our management, including the CEO and CFO, does not expect that our disclosure controls or our internal controls over financial reporting will prevent or detect all errors and all fraud. A control system, no matter how well designed and operated, can provide only reasonable, not absolute, assurance that the control system's objectives will be met. The design of a control system must reflect the fact that there are resource constraints, and the benefits of controls must be considered relative to their costs. Further, because of the inherent limitations in all control systems, no evaluation of controls can provide absolute assurance that misstatements due to error or fraud will not occur or that all control issues and instances of fraud, if any, have been detected. The design of any system of controls is based in part on certain assumptions about the likelihood of future events, and there can be no assurance that any design will succeed in achieving its stated goals under all potential future conditions. Projections of any evaluation of the effectiveness of controls to future periods are subject to risks. Over time, controls may become inadequate because of changes in business conditions or deterioration in the degree of compliance with policies or procedures.

Changes in Internal Control over Financial Reporting

There were no changes in our internal control over financial reporting during the fourth quarter of 2019, which were identified in connection with management's evaluation required by paragraph (d) of Rules 13a-15 and 15d-15 under the Exchange Act, that have materially affected, or are reasonably likely to materially affect, our internal control over financial reporting.

Management's Report on Internal Control Over Financial Reporting

Our management, with the participation of our CEO and CFO, is responsible for establishing and maintaining adequate internal control over financial reporting (as defined in Rules 13a-15(f) and 15d-15(f) under the Exchange Act) to provide reasonable assurance regarding the reliability of our financial reporting and the preparation of financial statements for external purposes in accordance with U.S. GAAP.

Management assessed the effectiveness of our internal control over financial reporting as of December 28, 2019, the end of our fiscal year. Management based its assessment on the framework established in the 2013 *Internal Control - Integrated Framework* issued by the Committee of Sponsoring Organizations of the Treadway Commission ("2013 COSO framework"). Management's assessment included evaluation of elements such as the design and operating effectiveness of key financial reporting controls, process documentation, accounting policies, and our overall control environment. This assessment is supported by testing and monitoring performed by our internal audit and finance personnel utilizing the 2013 COSO framework.

Based on our assessment, management has concluded that our internal control over financial reporting was effective as of the end of our fiscal year 2019 to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external reporting purposes in accordance with U.S. GAAP.

The effectiveness of our internal control over financial reporting as of the end of fiscal year 2019 has been audited by Ernst & Young, LLP, an independent registered public accounting firm, as stated in their report, which is included elsewhere herein.

ITEM 9B. OTHER INFORMATION

None.

PART III

ITEM 10. DIRECTORS, EXECUTIVE OFFICERS AND CORPORATE GOVERNANCE

Information responsive to this item is incorporated herein by reference to our definitive proxy statement with respect to our 2020 Annual Meeting of Stockholders to be filed with the SEC within 120 days after the end of the fiscal year covered by this Annual Report on Form 10-K. For information pertaining to our executive offers, refer to the section entitled “Information about our Executive Officers” in Part 1, Item 1 of this Annual Report on Form 10-K.

As part of our system of corporate governance, our board of directors has adopted a code of business conduct and ethics. The code applies to all of our employees, officers (including our principal executive officer, principal financial officer, principal accounting officer or controller, or persons performing similar functions), agents and representatives, including our independent directors and consultants, who are not employees of Infinera, with regard to their Infinera-related activities. The full text of our code of business conduct and ethics is posted on our web site at *http://www.infinera.com*. We intend to disclose future amendments to certain provisions of our code of business conduct and ethics, or waivers of such provisions, applicable to any principal executive officer, principal financial officer, principal accounting officer or controller, or persons performing similar functions or our directors on our web site identified above. The inclusion of our web site address in this report does not include or incorporate by reference the information on our web site into this report.

ITEM 11. EXECUTIVE COMPENSATION

Information responsive to this item is incorporated herein by reference to our definitive proxy statement with respect to our 2020 Annual Meeting of Stockholders to be filed with the SEC within 120 days after the end of the fiscal year covered by this Annual Report on Form 10-K.

ITEM 12. SECURITY OWNERSHIP OF CERTAIN BENEFICIAL OWNERS AND MANAGEMENT AND RELATED STOCKHOLDER MATTERS

Information responsive to this item is incorporated herein by reference to our definitive proxy statement with respect to our 2020 Annual Meeting of Stockholders to be filed with the SEC within 120 days after the end of the fiscal year covered by this Annual Report on Form 10-K.

ITEM 13. CERTAIN RELATIONSHIPS AND RELATED TRANSACTIONS, AND DIRECTOR INDEPENDENCE

Information responsive to this item is incorporated herein by reference to our definitive proxy statement with respect to our 2020 Annual Meeting of Stockholders to be filed with the SEC within 120 days after the end of the fiscal year covered by this Annual Report on Form 10-K.

ITEM 14. PRINCIPAL ACCOUNTING FEES AND SERVICES

Information responsive to this item is incorporated herein by reference to our definitive proxy statement with respect to our 2020 Annual Meeting of Stockholders to be filed with the SEC within 120 days after the end of the fiscal year covered by this Annual Report on Form 10-K.

PART IV

ITEM 15. EXHIBITS, FINANCIAL STATEMENT SCHEDULES

(a)(1) *Consolidated Financial Statements*

This Annual Report on Form 10-K contains the following financial statements which appear under Part II, Item 8 of this Form 10-K on the pages noted below:

(a)(2) *Financial Statement Schedule*

Schedule II: Valuation and Qualifying Accounts

	Years Ended		
	December 28, 2019	December 29, 2018	December 30, 2017
	(In thousands)		
Deferred tax asset, valuation allowance			
Beginning balance	$ 493,157	$ 205,241	$ 200,476
Additions	122,878	355,166	31,759
Reductions	(131,201)	(67,250)	(26,994)
Ending balance	$ 484,834	$ 493,157	$ 205,241
Allowance for doubtful accounts			
Beginning balance	$ 1,821	$ 892	$ 772
Additions	2,184	929	138
Reductions	—	—	(18)
Ending balance	$ 4,005	$ 1,821	$ 892

Schedules not listed above have been omitted because the information required to be set forth therein is not applicable or is shown in the consolidated financial statements or notes thereto.

(a)(3) *Exhibits.*

See Index to Exhibits. The Exhibits listed in the accompanying Index to Exhibits are filed or incorporated by reference as part of this Annual Report on Form 10-K.

ITEM 16. FORM 10-K SUMMARY

None.

INDEX TO EXHIBITS

Exhibit No.	Description
2.1	Unit Purchase Agreement by and among Infinera Corporation, Coriant Investor LLC and Oaktree Optical Holdings, L.P., dated July 23, 2018, incorporated by reference to Exhibit 2.1 of the Registrant's Current Report on Form 8-K/A (No. 001-33486), filed with the SEC on July 27, 2018.
3.1	Amended and Restated Certificate of Incorporation, incorporated herein by reference to Exhibit 3.1 of the Registrant's Current Report on Form 8-K (No. 001-33486), filed with the SEC on June 12, 2007.
3.2	Amended and Restated Bylaws, incorporated herein by reference to Exhibit 3.1 of the Registrant's Current Report on Form 8-K (No. 001-33486), filed with the SEC on February 29, 2016.
4.1	Form of Common Stock Certificate, incorporated herein by reference to Exhibit 4.1 of the Registrant's Form S-1/A (No. 333-140876), filed with the SEC on April 27, 2007.
4.2	Base Indenture, dated as of September 11, 2018, by and between Infinera Corporation and U.S. Bank National Association, incorporated herein by reference to Exhibit 4.1 of the Registrant's Current Report on Form 8-K (No. 001-33486), filed with the SEC on September 12, 2018.
4.3	First Supplemental Indenture, dated as of September 11, 2018, by and between Infinera Corporation and U.S. Bank National Association, incorporated herein by reference to Exhibit 4.2 of the Registrant's Current Report on Form 8-K (No. 001-33486), filed with the SEC on September 12, 2018.
4.4	Form of 2.125% Convertible Senior Notes due 2024 (included in Exhibit 4.3 incorporated by reference hereto).
4.5	Description of Registrant's Securities Registered Pursuant to Section 12 of the Securities Exchange Act of 1934.
10.1*	Form of Indemnification Agreement between Registrant and each of its directors and executive officers, incorporated herein by reference to Exhibit 10.1 of the Registrant's Form S-1 (No. 333-140876), filed with the SEC on February 26, 2007.
10.2*	2007 Equity Incentive Plan, incorporated herein by reference to Exhibit 10.3 of the Registrant's Annual Report on Form 10-K (No. 001-33486), filed with the SEC on February 18, 2015.
10.3*	Infinera Corporation Amended and Restated 2007 Employee Stock Purchase Plan.
10.4*	Form of 2007 Employee Stock Purchase Plan Global Subscription Agreement.
10.5*	Bonus Plan, incorporated herein by reference to Exhibit 10.1 of the Registrant's Current Report on 8-K (No. 001-33486), filed with the SEC on February 14, 2011.
10.6*	Form of Section 16 Officer Notice of Grant of Restricted Stock Units under the 2007 Equity Incentive Plan, incorporated herein by reference to Exhibit 10.7 of the Registrant's Annual Report on Form 10-K (No. 001-33486), filed with the SEC on February 18, 2015.
10.7*	Form of Notice of Grant of Stock Option under the 2007 Equity Incentive Plan, incorporated herein by reference to Exhibit 10.1 of the Registrant's Quarterly Report on Form 10-Q (No. 001-33486), filed with the SEC on May 5, 2010.
10.8*	Form of Chief Executive Officer Amended and Restated Change of Control Severance Agreement, incorporated herein by reference to Exhibit 10.1 of the Registrant's Current Report on Form 8-K (No. 001-33486), filed with the SEC on February 22, 2018.
10.9*	Form of Section 16 Officer Amended and Restated Change of Control Severance Agreement, incorporated herein by reference to Exhibit 10.2 of the Registrant's Current Report on Form 8-K (No. 001-33486), filed with the SEC on February 22, 2018.
10.10*	Executive Clawback Policy, incorporated herein by reference to Exhibit 10.2 of the Registrant's Current Report on Form 8-K (No. 001-33486), filed with the SEC on January 17, 2013.
10.11*	Executive Severance Policy, incorporated herein by reference to Exhibit 10.19 of the Registrant's Annual Report on Form 10-K (No. 001-33486), filed with the SEC on February 18, 2015.
10.12*	Infinera Corporation Amended and Restated 2016 Equity Incentive Plan, incorporated herein by reference to Exhibit 10.1 of the Registrant's Current Report on Form 8-K (No. 001-33486), filed with the SEC on May 23, 2019.

Exhibit No.	Description
10.13*	Form of Notice of Grant of Restricted Stock Units under the Amended and Restated 2016 Equity Incentive Plan, incorporated herein by reference to Exhibit 10.1 of the Registrant's Quarterly Report on Form 10-Q (No. 001-33486), filed with the SEC on May 9, 2019.
10.14*	Form of Notice of Grant of Restricted Stock Units for Directors under the Amended and Restated 2016 Equity Incentive Plan, incorporated herein by reference to Exhibit 10.3 of the Registrant's Current Report on Form 8-K (No. 001-33486), filed with the SEC on May 17, 2016.
10.15*	Form of Notice of Grant of Performance Shares under the Amended and Restated 2016 Equity Incentive Plan, incorporated herein by reference to Exhibit 10.2 of the Registrant's Quarterly Report on Form 10-Q (No. 001-33486), filed with the SEC on May 9, 2019.
10.16	Underwriting Agreement, dated as of September 6, 2018, by and between Infinera Corporation and Morgan Stanley & Co. LLC, as manager of the underwriter named therein, incorporated herein by reference to Exhibit 10.1 of the Registrant's Current Report on Form 8-K (No. 001-33486), filed with the SEC on September 12, 2018.
10.17	Form of Capped Call Confirmation, incorporated herein by reference to Exhibit 10.2 of the Registrant's Current Report on Form 8-K (No. 001-33486), filed with the SEC on September 12, 2018.
10.18	First Amendment to Unit Purchase Agreement, dated as of March 4, 2019, by and among Infinera Corporation, Coriant Investor LLC and Oaktree Optical Holdings, L.P., incorporated herein by reference to Exhibit 10.1 of the Registrant's Current Report on Form 8-K (No. 001-33486), filed with the SEC on March 4, 2019.
10.19*	Offer Letter between Infinera Corporation and David L. Teichmann dated March 18, 2019, incorporated herein by reference to Exhibit 10.1 of the Registrant's Quarterly Report on Form 10-Q (No. 001-33486), filed with the SEC on August 8, 2019.
10.20*	Offer Letter between Infinera Corporation and Nancy Erba dated July 8, 2019, incorporated herein by reference to Exhibit 10.1 of the Registrant's Quarterly Report on Form 10-Q (No. 001-33486), filed with the SEC on November 12, 2019.
10.21*	Infinera Corporation 2019 Inducement Equity Incentive Plan, incorporated herein by reference to Exhibit 4.1 of the Registrant's Registration Statement on Form S-8 (No. 333-233150), filed with the SEC on August 8, 2019.
10.22*	Form of Notice of Grant of Restricted Stock Units (Inducement Plan), incorporated herein by reference to Exhibit 4.2 of the Registrant's Registration Statement on Form S-8 (No. 333-233150), filed with the SEC on August 8, 2019.
10.23*	Form of Notice of Grant of Performance Shares (Inducement Plan), incorporated herein by reference to Exhibit 4.3 of the Registrant's Registration Statement on Form S-8 (No. 333-233150), filed with the SEC on August 8, 2019.
10.24	Credit Agreement, dated as of August 1, 2019, by and among Infinera Corporation, Coriant Operations, Inc., Coriant North America, LLC, Coriant America Inc., Coriant (USA) Inc., and Wells Fargo Bank, National Association, as administrative agent, incorporated herein by reference to Exhibit 10.1 of the Registrant's Current Report on Form 8-K (No. 001-33486), filed with the SEC on August 2, 2019.
10.25	Guaranty and Security Agreement, dated as of August 1, 2019, by and among Infinera Corporation, the lenders party thereto, and Wells Fargo Bank, National Association, as administrative agent, incorporated herein by reference to Exhibit 10.2 of the Registrant's Current Report on Form 8-K (No. 001-33486), filed with the SEC on August 2, 2019.
10.26	Increase Joinder and Amendment Number One to Credit Agreement, dated as of December 23, 2019, by and among Infinera Corporation, Wells Fargo Bank, National Association and BMO Harris Bank N.A., incorporated herein by reference to Exhibit 10.1 of the Registrant's Current Report on Form 8-K (No. 001-33486), filed with the SEC on December 26, 2019.
10.27*	Offer Letter between Infinera Corporation and Nicholas Walden dated January 3, 2020.
21.1	Subsidiaries.
23.1	Consent of Ernst & Young LLP, Independent Registered Public Accounting Firm.

INDEX TO EXHIBITS

Exhibit No.	Description
31.1	Certification of Chief Executive Officer pursuant to Rule 13a-14(a) and Rule 15d-14(a) of the Securities Exchange Act of 1934, as amended, as adopted pursuant to Section 302 of the Sarbanes-Oxley Act of 2002.
31.2	Certification of Chief Financial Officer pursuant to Rule 13a-14(a) and Rule 15d-14(a) of the Securities Exchange Act of 1934, as amended, as adopted pursuant to Section 302 of the Sarbanes-Oxley Act of 2002.
32.1**	Certification of Chief Executive Officer pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.
32.2**	Certification of Chief Financial Officer pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.
101.INS	XBRL Instance Document
101.SCH	XBRL Taxonomy Extension Schema Document
101.CAL	XBRL Taxonomy Extension Calculation Linkbase Document
101.DEF	XBRL Taxonomy Extension Definition Linkbase Document
101.LAB	XBRL Taxonomy Extension Label Linkbase Document
101.PRE	XBRL Taxonomy Extension Presentation Linkbase Document
104	Cover Page Interactive Data File (embedded within the Inline XBRL document)

* Management contracts or compensation plans or arrangements in which directors or executive officers are eligible to participate.

** This exhibit shall not be deemed “filed” for purposes of Section 18 of the Exchange Act or otherwise subject to the liabilities of that section, nor shall it be deemed incorporated by reference in any filings under the Securities Act of 1933, as amended, or the Exchange Act, whether made before or after the date hereof and irrespective of any general incorporation language in any filings.

SIGNATURES

Pursuant to the requirements of Section 13 or 15(d) of the Securities Exchange Act of 1934, the Registrant has duly caused this report to be signed on its behalf by the undersigned, thereunto duly authorized.

Dated: March 04, 2020

Infinera Corporation

By: /s/ NANCY ERBA

Nancy Erba
Chief Financial Officer
Principal Financial Officer

KNOW ALL PERSONS BY THESE PRESENTS, that each person whose signature appears below constitutes and appoints Thomas J. Fallon and Nancy Erba, and each of them individually, his or her attorneys-in-fact, each with the power of substitution, for him or her in any and all capacities, to sign any amendments to this Annual Report on Form 10-K, and to file the same, with exhibits thereto and other documents in connection therewith, with the Securities and Exchange Commission, hereby ratifying and confirming all that each of said attorneys-in-fact, or his substitute or substitutes, may do or cause to be done by virtue hereof.

Pursuant to the requirements of the Securities Exchange Act of 1934, this report has been signed below by the following persons on behalf of the Registrant and in the capacities and on the dates indicated.

Name and Signature	Title	Date
/s/ THOMAS J. FALLON **Thomas J. Fallon**	Chief Executive Officer, Principal Executive Officer and Director	March 4, 2020
/s/ NANCY ERBA **Nancy Erba**	Chief Financial Officer, Principal Financial Officer	March 4, 2020
/s/ MICHAEL FERNICOLA **Michael Fernicola**	Chief Accounting Officer and Principal Accounting Officer	March 4, 2020
/s/ KAMBIZ Y. HOOSHMAND **Kambiz Y. Hooshmand**	Chairman of the Board	March 4, 2020
/s/ SHARON HOLT **Sharon Holt**	Director	March 4, 2020
/s/ GREG P. DOUGHERTY **Greg P. Dougherty**	Director	March 4, 2020
/s/ MARCEL GANI **Marcel Gani**	Director	March 4, 2020
/s/ PAUL J. MILBURY **Paul J. Milbury**	Director	March 4, 2020
/s/ RAJAL M. PATEL **Rajal M. Patel**	Director	March 4, 2020
/s/ MARK A. WEGLEITNER **Mark A. Wegleitner**	Director	March 4, 2020
/s/ DAVID F. WELCH, PH.D. **David F. Welch, Ph.D.**	Co-founder, Chief Innovation Officer and Director	March 4, 2020

EXHIBIT 31.1

CERTIFICATION PURSUANT TO RULE 13a-14(a) OR 15d-14(a) OF THE SECURITIES EXCHANGE ACT OF 1934, AS ADOPTED PURSUANT TO SECTION 302 OF THE SARBANES-OXLEY ACT OF 2002

I, Thomas J. Fallon, certify that:

1. I have reviewed this Annual Report on Form 10-K of Infinera Corporation;

2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;

3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;

4. The registrant's other certifying officer and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:

a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;

b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;

c) Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and

d) Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and

5. The registrant's other certifying officer and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):

a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and

b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Dated: March 04, 2020

By: /s/ THOMAS J. FALLON

Thomas J. Fallon
Chief Executive Officer
(Principal Executive Officer)

EXHIBIT 31.2

CERTIFICATION PURSUANT TO RULE 13a-14(a) OR 15d-14(a) OF THE SECURITIES EXCHANGE ACT OF 1934, AS ADOPTED PURSUANT TO SECTION 302 OF THE SARBANES-OXLEY ACT OF 2002

I, Nancy Erba, certify that:

1. I have reviewed this Annual Report on Form 10-K of Infinera Corporation;

2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;

3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;

4. The registrant's other certifying officer and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:

a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;

b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;

c) Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and

d) Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and

5. The registrant's other certifying officer and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):

a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and

b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Dated: March 04, 2020

By: /s/ NANCY ERBA

Nancy Erba
Chief Financial Officer
(Principal Financial Officer)

EXHIBIT 32.1

INFINERA CORPORATION
Written Statement of Chief Executive Officer
Pursuant to Section 906 of the Sarbanes-Oxley Act of 2002

I, Thomas J. Fallon, certify pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, as amended, that, to my knowledge on the date hereof:

(a) the Annual Report on Form 10-K of Infinera Corporation for the year ended December 28, 2019 (the “Annual Report”) fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934; and

(b) the information contained in the Annual Report on Form 10-K fairly presents, in all material respects, the financial condition and results of operations of Infinera Corporation.

Date: March 04, 2020

/s/ THOMAS J. FALLON

Thomas J. Fallon
Chief Executive Officer
(Principal Executive Officer)

A signed original of this written statement required by Section 906 of the Sarbanes-Oxley Act of 2002 has been provided to Infinera Corporation and will be retained by Infinera Corporation and furnished to the Securities and Exchange Commission or its staff upon request.

This certification “accompanies” the Annual Report on Form 10-K to which it relates, is not deemed filed with the Securities and Exchange Commission and is not to be incorporated by reference into any filing of the Company under the Securities Act of 1933, as amended, or the Securities Exchange Act of 1934, as amended (whether made before or after the date of the Annual Report on Form 10-K), irrespective of any general incorporation language contained in such filing.

EXHIBIT 32.2

INFINERA CORPORATION
Written Statement of Chief Financial Officer
Pursuant to Section 906 of the Sarbanes-Oxley Act of 2002

I, Nancy Erba, certify pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, as amended, that, to my knowledge on the date hereof:

(a) that the Annual Report on Form 10-K of Infinera Corporation for the year ended December 28, 2019 (the “Annual Report”) fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934; and

(b) the information contained in the Annual Report on Form 10-K fairly presents, in all material respects, the financial condition and results of operations of Infinera Corporation.

Date: March 04, 2020

/s/ NANCY ERBA

Nancy Erba
Chief Financial Officer
(Principal Financial Officer)

A signed original of this written statement required by Section 906 of the Sarbanes-Oxley Act of 2002 has been provided to Infinera Corporation and will be retained by Infinera Corporation and furnished to the Securities and Exchange Commission or its staff upon request.

This certification “accompanies” the Annual Report on Form 10-K to which it relates, is not deemed filed with the Securities and Exchange Commission and is not to be incorporated by reference into any filing of the Company under the Securities Act of 1933, as amended, or the Securities Exchange Act of 1934, as amended (whether made before or after the date of the Annual Report on Form 10-K), irrespective of any general incorporation language contained in such filing.

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