



2021 ANNUAL MEETING

PROXY STATEMENT
2020 ANNUAL REPORT



April 1, 2021

Fellow Calix stockholders:

The year 2020 was one marked by profound changes across nearly all areas of daily life. Education, entertainment and work were all affected and some of the changes may be with us for years to come, while others we may look back as nothing more than short term adjustments we made to our daily routine. Although we are encouraged by the progress the new Administration in the U.S. has made; along with efforts by many countries around the world to accelerate vaccinations, it will still take time for results to show through as the coronavirus pandemic continues to rage and evolve around the globe.

The Calix team is focused on ensuring we can deliver the platforms, products and services our customers require for the critical role they play to enable the communications infrastructure and services needed for businesses, schools, government services and other activities in this time of social distancing. Over the long term, our vision remains unchanged despite the broader near-term challenges impacting the global economy. However, our mission has elevated as we look to empower our customers with the data insights needed to operate their business and create more value.

Our mission at Calix is to enable our customers to simplify their businesses, excite their subscribers, and grow their value. Calix platforms empower our customers to build new business models, rapidly deploy new services and make the promise of the smart home and business a reality.

Our vision is focused on providing the platforms and services that enable service providers of all types and sizes to create services at a DevOps pace and provide their subscribers with an exceptional experience. Service providers achieve this objective by building their infrastructure and service offerings on platforms.

We made significant investments in our people and our systems in 2020. At the start 2020, we went live on an upgrade to our ERP system and throughout the year we invested in tools and platforms to automate processes and virtualize key aspects of our business for a work from anywhere environment. We ended the year with nearly 790 employees, which on its face isn't all that different from where we were just a few years ago. However, the makeup of this employee base is radically different and speaks to the transformation of Calix. We've added considerably to our sales and marketing efforts by strategically drawing from software and services firms focused on business transformation. Similarly, in our research and development teams and even in the general and administrative ranks, we grew our teams with key cloud and software talent. I am proud to see what this team has already accomplished and, more importantly, what can be accomplished when this level of talent is brought together under a common mission and vision to benefit our customers.

We made one major change in the executive ranks this year. Michael Weening, who joined us nearly five years ago from Salesforce, was promoted to Chief Operating Officer in August and promoted to President of the company in January of 2021. The team has performed at a high level over the past year in spite of the challenges stemming from the pandemic and the global supply chain disruptions. Michael's leadership of global sales and marketing, product research

and development along with supply chain, means the team can continue to execute at a high level leaving me more time to focus on our long-term strategy, culture, and investing more time with you, our stockholders.

As we have discussed, the two secular disruptions moving through the communications industry have been accelerated by the pandemic. In 2020 we saw a realignment of work, education and entertainment, and we expect these trends will continue. Furthermore, we expect a significant portion of these new behaviors will remain, albeit in a hybrid form, after the pandemic has abated. This simply means for Calix, the future is sooner! Stated simply, our transformation of Calix into a communications cloud and software platform business gained significant momentum in 2020.

As we stated in our prior letters to stockholders, we continue to believe this transformation will manifest in improved financial performance across four measurable metrics over the long term:

- Deliberate revenue growth
- Gross margin expansion
- Disciplined operating expense investment
- Increased predictability

We are happy to report in 2020 that we continued to deliver on these objectives as we delivered record revenue, gross margin, net income per common diluted share and operating cash flow. We expect these metrics will continue to improve as our platforms and related services increase as a percentage of our total business.

Importantly, in the fourth quarter of 2020 we did not have a single greater than 10% of revenue customer, demonstrating the diversification of our revenue base across our small, medium and large size customers. We ended the year 2020 with a record \$134 million in cash. This includes the proceeds from our successful August 2020 follow-on offering, which raised over \$60 million and added a number of long-term focused stockholders to the Calix. This allowed us to fully repay our line of credit and end the year with no debt on the balance sheet. We end 2020 with the strongest balance sheet in the company's history.

In summary, we made significant progress towards our mission in 2020, and as we continue to execute, we expect to see our performance improve over the long term. In 2020, we had a record year across many fronts as we grew our customer base, adding service providers of all types to our all-platform solutions, increased our revenue, expanded our gross margin and continued to demonstrate discipline in operating expense investment. All of these improvements are tied directly to the benefits inherent in our all-platform solution.

With an expanding pipeline of opportunities spanning service providers of every type, Calix ... an all-platform company ... is well positioned in front of the largest wave of disruption our industry has ever experienced. We remain committed to our vision.

As always, I want to thank you – my fellow Calix stockholders, customers, suppliers and employees – for your continued support. As we continued our transformation over the last several years, we made significant investments in people, systems and platforms. We remain focused on helping our existing customers transform their business models while striving to win new strategically-aligned customers. As we continue to diversify our customer base across different markets and geographies, we are laying the groundwork for sustained growth in revenue, profits and cash flow. Finally, I want to assure you that we are committed to the safety and wellbeing of our people, customers, partners and communities, and we are focusing our

efforts on the resilience and continuity of our business and operations as we all navigate the unprecedented impacts of the COVID-19 pandemic.

Sincerely,

A handwritten signature in blue ink, appearing to read "Russo". The signature is fluid and cursive, with a large initial letter.

Carl Russo
CEO

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CALIX, INC.
2777 Orchard Parkway
San Jose, California 95134

**NOTICE OF ANNUAL MEETING OF STOCKHOLDERS
TO BE HELD ON MAY 13, 2021**

To the Stockholders of Calix, Inc.:

The Annual Meeting of Stockholders (“Annual Meeting”) of Calix, Inc. (“Calix”), will be held virtually, via live webcast at www.virtualshareholdermeeting.com/CALX21, on Thursday, May 13, 2021 at 10:45 a.m. Pacific Daylight Time. The Annual Meeting will be held for the following purposes:

1. To elect three directors to the Calix Board of Directors (“Board”);
2. To approve the Amended and Restated 2019 Equity Incentive Award Plan (“2019 Plan”) to increase the number of shares of common stock issuable under the 2019 Plan by 3,800,000 shares;
3. To approve the Amended and Restated Employee Stock Purchase Plan (“ESPP”) to increase the number of shares of common stock issuable under the ESPP by 1,300,000 shares;
4. To approve the Amended and Restated 2017 Nonqualified Employee Stock Purchase Plan (“Nonqualified ESPP”) to increase the number of shares of common stock issuable under the Nonqualified ESPP by 800,000 shares;
5. To approve, on a non-binding, advisory basis, the compensation of our named executive officers;
6. To ratify the selection of KPMG LLP as Calix’s independent registered public accounting firm for the fiscal year ending December 31, 2021; and
7. To transact such other business as may properly come before the Annual Meeting or any adjournment or postponement thereof.

The above items of business are more fully described in the Proxy Statement. Only stockholders who owned Calix common stock at the close of business on March 16, 2021 can vote at this meeting or any adjournments that take place.

We have elected to use the Internet as our primary means of providing our proxy materials to stockholders. As a result, we are sending a Notice of Internet Availability of Proxy Materials (“Notice”) rather than mailing a paper copy of this Proxy Statement and our 2020 Annual Report. The Notice will be sent on or about April 1, 2021 to our stockholders of record as of the close of business on March 16, 2021. We are also providing access to our proxy materials over the Internet beginning on or about April 1, 2021. Electronic delivery of our proxy materials minimizes printing and mailing costs and reduces the environmental impact of the proxy materials.

The Notice contains instructions for accessing the proxy materials, including the Proxy Statement and our 2020 Annual Report, and provides information on how stockholders may obtain paper copies free of charge. The Notice also provides the date and time of the virtual Annual Meeting, the matters to be acted upon at the meeting and the Board’s recommendation with regard to each matter and information on how to attend the virtual Annual Meeting and vote online.

You are cordially invited to attend the virtual Annual Meeting. Whether or not you expect to attend, you should vote and submit your proxy over the Internet following the voting procedures described in the Notice to ensure that your vote is recorded. In light of continued disruptions resulting from the COVID-19 pandemic, we strongly encourage you to vote by Internet or phone by following the instructions described in the Notice. If you have requested and received paper copies of proxy materials in lieu of the Notice, we still encourage you to vote by phone, but if you do not have access to a phone you may sign, date and return by mail the proxy card sent to you.

By Order of the Board of Directors

/s/ Suzanne Tom

Suzanne Tom
Corporate Secretary

San Jose, California
April 1, 2021

The Notice of Annual Meeting, Proxy Statement and Form of Proxy are being distributed and made available on or about April 1, 2021.

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**PROXY STATEMENT
FOR 2021 ANNUAL MEETING OF STOCKHOLDERS**

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CALIX, INC.
2777 Orchard Parkway
San Jose, California 95134

PROXY STATEMENT
FOR THE 2021 ANNUAL MEETING OF STOCKHOLDERS

IMPORTANT NOTICE REGARDING THE AVAILABILITY OF PROXY MATERIALS FOR THE STOCKHOLDER MEETING TO BE HELD ON MAY 13, 2021

The Board of Directors of Calix, Inc. is soliciting your proxy to vote at the virtual Annual Meeting of Stockholders to be held on May 13, 2021, at 10:45 a.m. Pacific Daylight Time, and any adjournment or postponement of that meeting (“Annual Meeting”). The Annual Meeting will be held via live webcast only at www.virtualshareholdermeeting.com/CALX21.

We have elected to provide access to our proxy materials on the Internet. Accordingly, we are sending a Notice of Internet Availability of Proxy Materials (“Notice”) to our stockholders of record as of March 16, 2021 (“Record Date”), while brokers and other nominees who hold shares on behalf of beneficial owners will be sending their own similar notice. All stockholders will have the ability to access the proxy materials on the website referred to in the Notice or to request a printed set of the proxy materials. Instructions on how to request a printed copy by mail or email may be found in the Notice and on the website referred to in the Notice, including an option to request paper copies on an ongoing basis. On or about April 1, 2021, we are making this Proxy Statement available on the Internet and are mailing the Notice to all stockholders entitled to vote at the Annual Meeting. We intend to mail or email this Proxy Statement, together with a proxy card, to those stockholders entitled to vote at the Annual Meeting who have properly requested paper copies of such materials within three business days of request.

The only voting securities of Calix, Inc. are shares of common stock, \$0.025 par value per share (“common stock”), of which there were 62,854,852 shares outstanding as of the Record Date. We need the holders of a majority of the outstanding shares of common stock, present or represented by proxy, to hold the Annual Meeting.

In this Proxy Statement, we refer to Calix, Inc. as the “Company,” “Calix,” “we” or “us” and the Board of Directors as the “Board.” When we refer to Calix’s fiscal year, we mean the year ended December 31 of the stated year.

Our 2020 Annual Report to Stockholders, which contains consolidated financial statements for fiscal year 2020, accompanies this Proxy Statement. Stockholders who received the Notice can access this Proxy Statement and the 2020 Annual Report to Stockholders at the website referred to in the Notice. You also may obtain a copy of our 2020 Annual Report, which was filed with the Securities and Exchange Commission (“SEC”), without charge, by writing to our Investor Relations department at the above address. Our 2020 Annual Report and Proxy Statement are also available under “Financials” in the Investor Relations section of our website at investor-relations.calix.com and at the SEC’s web site at www.sec.gov.

THE PROXY PROCESS AND STOCKHOLDER VOTING
QUESTIONS AND ANSWERS ABOUT THIS PROXY MATERIAL AND VOTING

Who can vote at the Annual Meeting?

Only stockholders of record at the close of business on March 16, 2021 will be entitled to vote online at the Annual Meeting. At the close of business on March 16, 2021, there were 62,854,852 shares of common stock outstanding and entitled to vote.

For Shares Registered in Your Name

If, on March 16, 2021, your shares were registered directly in your name with Calix’s transfer agent, Computershare, Inc., then you are a registered stockholder and will receive the proxy materials directly from Broadridge Financial Solutions, Inc. (“Broadridge”), an independent agent who we have engaged to tabulate votes for the Annual Meeting. You are the stockholder of record and may vote online at the Annual Meeting or vote by proxy. Whether or not you expect to attend, you should vote and submit your proxy over the Internet following the voting procedures described in the Notice to ensure that your vote is recorded. If you have requested and received paper copies of proxy materials, you can also vote over the phone or by signing, dating and returning by mail the proxy card sent to you.

For Shares Registered in the Name of a Broker, Bank or Other Agent

If, on March 16, 2021, your shares were held in an account at a brokerage firm, bank, dealer or other similar organization, then you are the beneficial owner of shares held in “street name” and these proxy materials are being forwarded to you by that organization. The organization holding your account is considered the stockholder of record for purposes of voting at the Annual Meeting. As the beneficial owner of the shares, you have the right to direct your broker or other agent on how to vote the shares in your account. You are also welcome to join the Annual Meeting and to vote online.

What do I need in order to be able to join the Annual Meeting online?

Any stockholder can join the Annual Meeting live online at www.virtualshareholdermeeting.com/CALX21. The webcast will start at 10:45 a.m. Pacific Daylight Time. Stockholders may vote and submit questions while attending the Annual Meeting online. In order to be able to participate in the online Annual Meeting, you will need the control number included on your Notice or, if you received a printed copy of the proxy materials, your proxy card if you are a registered stockholder, or included with your voting instruction card and voting instructions you received from your broker, bank or other agent if you hold your shares in “street name.” Instructions on how to participate online are also posted online at www.virtualshareholdermeeting.com/CALX21.

Why is Calix holding the Annual Meeting online?

Calix has held its annual meetings online since 2012. Among other reasons, Calix believes holding the Annual Meeting online enables broader stockholder attendance and participation from any location around the world, minimizing travel time and cost, especially in light of current circumstances and disruptions resulting from the COVID-19 pandemic. In designing our online format, we have taken measures to facilitate easy access and to ensure our virtual meeting provides all stockholders with equal access to ask questions of our Board and management. Our virtual meeting allows participating stockholders to vote on proposals, access our Proxy Statement and 2020 Annual Report and engage in a live Q&A with our Board, management and auditors. In addition, a recording of our Annual Meeting is publicly available for a year following each annual meeting at www.virtualshareholdermeeting.com/CALX21.

What am I being asked to vote on?

You are being asked to vote on:

- election of three Class II directors to hold office until our 2024 Annual Meeting of Stockholders (Proposal No. 1);
- approval of the Amended and Restated 2019 Equity Incentive Award Plan (“2019 Plan”) to increase the number of shares of common stock issuable under the 2019 Plan by 3,800,000 shares (Proposal No. 2);
- approval of the Amended and Restated Employee Stock Purchase Plan (“ESPP”) to increase the number of shares of common stock issuable under the ESPP by 1,300,000 shares (Proposal No. 3);
- approval of the Amended and Restated 2017 Nonqualified Employee Stock Purchase Plan (“Nonqualified ESPP”) to increase the number of shares of common stock issuable under the Nonqualified ESPP by 800,000 shares (Proposal No. 4);

- approval, on a non-binding, advisory basis of the compensation of our named executive officers (“NEOs”) as disclosed in this Proxy Statement (Proposal No. 5); and
- ratification of the selection of KPMG LLP as our independent registered public accounting firm for the fiscal year ending December 31, 2021 (Proposal No. 6).

In addition, you are entitled to vote on any other matters that are properly brought before the Annual Meeting.

How does the Board recommend I vote on the Proposals?

The Board recommends that you vote:

- **FOR** each of the Class II director nominees;
- **FOR** approval of the 2019 Plan to increase the number of shares of common stock issuable under the 2019 Plan by 3,800,000 shares;
- **FOR** approval of the ESPP to increase the number of shares of common stock issuable under the ESPP by 1,300,000 shares;
- **FOR** approval of the Nonqualified ESPP to increase the number of shares of common stock issuable under the Nonqualified ESPP by 800,000 shares;
- **FOR** approval, on a non-binding, advisory basis, of the compensation of our NEOs; and
- **FOR** ratification of KPMG LLP as our independent registered public accounting firm.

How do I vote?

For election of directors, you may either vote “For” the three nominees or you may “Withhold” your vote for all or for any nominee you specify. For any other matter to be voted on, you may vote “For” or “Against” or abstain from voting. The procedures for voting are as follows:

For Shares Registered in Your Name

If your shares are registered in your name, you may vote using any of the following methods:

- To vote over the Internet prior to or during the Annual Meeting, follow the online instructions provided on the Notice.
- To vote by phone, call the toll-free number found on the proxy card, which you can request by following the instructions provided on the Notice.
- To vote by mail, follow the instructions provided on the Notice to request a proxy card and complete, sign and date the proxy card, and return it promptly by mail.
- Whether or not you plan to join the Annual Meeting, we strongly encourage you to vote by Internet or phone in light of current circumstances and disruptions resulting from the COVID-19 pandemic to ensure that your vote is timely received and counted. You may still vote by mail if you do not have access to the Internet or a phone. As long as we receive your signed proxy card, or your vote by Internet or phone, by 11:59 p.m. Eastern Daylight Time on May 12, 2021, we will vote your shares as you direct. Even if you have submitted a proxy or voted by phone or the Internet before the Annual Meeting, you may still join the Annual Meeting and vote online. In such case, your previously submitted proxy or vote will be disregarded.

For Shares Registered in the Name of a Broker, Bank or Other Agent

If you are a beneficial owner of shares registered in the name of your broker, bank or other agent, you should receive a voting instruction card and voting instructions with these proxy materials from that organization rather than from us. You should follow the instructions from your broker, bank or other agent included with these proxy materials, or contact your broker, bank or other agent to request a proxy card. You may also vote online at the Annual Meeting by following the voting instructions provided by your broker, bank or other agent to log in to www.virtualshareholdermeeting.com/CALX21 and cast your vote. You should also complete and mail the voting instruction card to ensure that your vote is counted.

Who counts the votes?

We have engaged Broadridge as our independent agent to tabulate stockholder votes. If you are a registered stockholder and you choose to vote over the Internet (either prior to or during the Annual Meeting) or by phone, Broadridge will access and tabulate your vote electronically, and if you have requested and received proxy materials via mail or email and choose to sign and mail your proxy card, your executed proxy card is returned directly to Broadridge for tabulation. As noted above, if you hold your shares through a broker, your broker (or its agent for tabulating votes of shares held in “street name”) returns one proxy card to Broadridge on behalf of all its clients.

What is the required vote and how are votes counted?

A majority of the outstanding shares of common stock must be present or represented by proxy at the Annual Meeting in order to have a quorum. Abstentions and broker non-votes will be treated as shares present for the purpose of determining the presence of a quorum.

With respect to Proposal No. 1, the election of directors, directors will be elected by a plurality of the votes cast, which means that the three nominees receiving the highest number of “For” votes will be elected. Abstentions and broker non-votes will have no effect with regard to this proposal, because approval of a percentage of shares present or outstanding is not required for this proposal.

With respect to Proposals No. 2, 3, 4 and 6, the affirmative vote of the holders of a majority of the shares of common stock present or represented by proxy and entitled to vote on the proposal is required for approval. Abstentions have the same effect as a vote against these proposals.

Because your vote on Proposal No. 5 is advisory, it will not be binding on us, our Board or our Compensation Committee. However, we value our stockholders’ views on the effectiveness of our executive compensation program. Our Board and Compensation Committee consider the annual advisory vote of our stockholders and our stockholders’ views when making decisions about executive compensation.

Under the New York Stock Exchange (“NYSE”) rules, brokers are permitted to vote their clients’ proxies in their own discretion as to certain “routine” proposals. However, where a proposal is considered “non-routine,” a broker who has received no instructions from its client generally does not have discretion to vote its clients’ uninstructed shares on that proposal. When a broker indicates on a proxy that it does not have discretionary authority to vote certain shares on a particular proposal, the missing votes are referred to as “broker non-votes.” Those shares would be considered present for purposes of determining whether a quorum is present but would not be counted in determining the number of votes present for the proposal. Those shares would not be taken into account in determining the outcome of a non-routine proposal.

Under NYSE rules, Proposals No. 1 through No. 5 are non-routine matters while Proposal No. 6 is a routine matter. Because brokers cannot vote uninstructed shares on behalf of their customers for non-routine matters, it is important that stockholders vote their shares.

How many votes do I have?

On each matter to be voted upon, you have one vote for each share of common stock you own as of March 16, 2021.

What if I return a proxy card but do not make specific choices?

If you have properly requested and received a proxy card by mail or email, and we receive a signed and dated proxy card that does not specify how your shares are to be voted, your shares will be voted “For” the election of each of the three nominees for director and “For” Proposals No. 2, 3, 4, 5 and 6. If any other matter is properly presented at the Annual Meeting, the individuals named as proxy holders on your proxy card will vote your shares in the manner recommended by the Board on all proposals presented in this Proxy Statement and as they may determine in their best judgment as to any other matters properly presented for vote at the Annual Meeting.

Who is paying for this proxy solicitation?

We will pay for the entire cost of soliciting proxies. In addition to these mailed proxy materials, our directors, officers and employees may also solicit proxies in person, by phone or by other means of communication. Directors, officers and employees will not be paid any additional compensation for soliciting proxies. We may also reimburse brokerage firms, banks and other agents for the cost of forwarding proxy materials to beneficial owners.

In addition, we have engaged D.F. King & Co., Inc., a proxy solicitation firm, to assist in the solicitation of proxies for a fee of approximately \$12,500, plus reasonable out-of-pocket expenses.

What does it mean if I receive more than one Notice or set of materials?

If you receive more than one Notice or more than one set of materials, your shares are registered in more than one name or are registered in different accounts. In order to vote all the shares you own, you must follow the instructions for voting on the Internet on all of the Notices or proxy cards you receive via mail or email upon your request, which includes voting over the Internet, phone or by signing and returning all of the proxy cards you request and receive.

Can I change my vote after submitting my proxy or voting on the Internet or by phone?

Yes. You can revoke your proxy or prior vote at any time before the final vote at the Annual Meeting. If you are the registered stockholder for your shares, you may revoke your proxy or prior vote in any one of three ways:

- You may submit another properly completed proxy card with a later date or submit a new vote on the Internet or by phone using the same instructions followed when you submitted your prior vote.
- You may send a written notice that you are revoking your proxy to Calix's Corporate Secretary at Calix, Inc., 2777 Orchard Parkway, San Jose, California 95134, or corporate.secretary@calix.com.
- You may join the Annual Meeting and vote online. Simply logging into the Annual Meeting will not, by itself, revoke your proxy or prior vote.

If your shares are held by your broker, bank or other agent, you should follow the instructions provided by them, or you may join the Annual Meeting and vote online.

How will voting on any business not described in this Proxy Statement be conducted?

We are not aware of any business to be considered at the Annual Meeting other than the items described in this Proxy Statement. If any other matter is properly presented for vote at the Annual Meeting and you are not attending the meeting in person but have voted by proxy, the individuals named as proxy holder on your proxy card will vote your shares as they may determine in their best judgment.

When are stockholder proposals due for next year's Annual Meeting?

To be considered for inclusion in next year's proxy materials, your proposal must be submitted in writing by December 2, 2021, to Calix's Corporate Secretary at 2777 Orchard Parkway, San Jose, California 95134 or corporate.secretary@calix.com. If you wish to submit a proposal that is not to be included in next year's proxy materials under the SEC's stockholder proposal procedures or nominate a director, you must do so between January 13, 2022 and February 12, 2022; provided that if the date of the annual meeting is earlier than April 13, 2022 or later than July 12, 2022, you must give notice not later than the 90th day prior to the annual meeting date or, if later, the 10th day following the date on which public disclosure of the annual meeting date is first made. You are also advised to review our bylaws, which contain additional requirements about advance notice of stockholder proposals and director nominations.

What is the quorum requirement?

A quorum of stockholders is necessary to hold a valid meeting. A quorum will be present if the holders of a majority of the shares of common stock issued and outstanding and entitled to vote are present or represented by proxy at the Annual Meeting. On the Record Date, there were 62,854,852 shares outstanding and entitled to vote. Accordingly, 31,427,427 shares must be represented by stockholders present at the Annual Meeting or by proxy to have a quorum.

Your shares will be counted towards the quorum if you submit a valid proxy vote or vote online at the Annual Meeting. Abstentions and broker non-votes also will be counted towards the quorum requirement. If there is no quorum, either the chairperson of the Annual Meeting or a majority in voting power of the stockholders entitled to vote at the Annual Meeting, present or represented by proxy, may adjourn the Annual Meeting to another time or place.

How can I find out the results of the voting at the Annual Meeting?

Voting results will be announced by the filing of a Current Report on Form 8-K within four business days after the Annual Meeting. If final voting results are unavailable at that time, we will file an amended Current Report on Form 8-K within four business days of the day the final results are available.

CORPORATE GOVERNANCE

Overview

Our Board is responsible for providing oversight over the Company's business and affairs, including the Company's strategic direction, as well as the management and financial and operational execution that can best perpetuate the success of the business and support the long-term interests of our stockholders. To effectively support its responsibilities, the Board has three principal board committees: an Audit Committee, a Compensation Committee and a Nominating and Corporate Governance Committee that each carry out responsibilities set out in specific committee charters approved by the Board and consistent with applicable requirements of the NYSE and the SEC. The Board has also established a Cybersecurity Committee and a Strategic Committee, each with specific committee charters approved by the Board. The Board and each Board committee may at their discretion retain outside advisors at the Company's expense in carrying out their responsibilities.

Our Board is committed to good corporate governance practices and seeks to represent stockholder interests through the exercise of sound judgment. To this end, the Board has adopted Corporate Governance Guidelines ("Guidelines") that provide specific provisions for the governance of the Board and Company. We have a Code of Business Conduct and Ethics ("Code of Conduct") applicable to all directors, officers and employees that is approved and adopted by our Board representing our commitment to the highest standards of ethics and integrity in the conduct of our business. Our bylaws, together with the Guidelines, the Board committee charters and our Code of Conduct serve as the governance and compliance framework of the Company.

On an annual basis, the Board and its committees review the Guidelines, Board committee charters and our Code of Conduct. The Guidelines, the written charter for each of the Audit Committee, Compensation Committee, Nominating and Corporate Governance Committee, Cybersecurity Committee, Strategic Committee and the Code of Conduct, as well as any amendments from time to time, may be found under "Governance" in the Investor Relations section of our website at investor-relations.calix.com. The referenced information on the Investor Relations section of our website is not a part of this Proxy Statement.

Leadership Structure of the Board

Under our bylaws, our Board appoints our corporate officers, including the chief executive officer. We separate the roles of chief executive officer and chairman of the Board in recognition of the differences between the two roles. Mr. Russo serves as chief executive officer and is responsible for setting the strategic direction for and the day-to-day leadership and performance of Calix, while Mr. Listwin serves as chairman and provides guidance to the chief executive officer and management, sets the agenda for Board meetings and presides over meetings of the full Board. The Board does not have a policy on whether the role of the chairman and chief executive officer should be separate and, if it is to be separate, whether the chairman should be selected from the non-employee directors or be an employee and if it is to be combined, whether a lead independent director should be selected. As chief executive officer, Mr. Russo is not "independent" under the rules of the NYSE. Mr. Listwin, Calix's chairman, is an independent director as defined under the rules of the NYSE and has significant executive leadership, strategic and operational experience including multiple executive leadership roles at large publicly-traded technology companies. The Board believes that the current board leadership structure is best for Calix and its stockholders at this time. Our Nominating and Corporate Governance Committee periodically reviews and recommends to the Board the leadership structure of the Board.

Board Independence

Among other considerations, the Board strongly values independent board oversight as an essential component of strong corporate performance. On at least an annual basis, the Board undertakes a review of the independence of each director and considers whether any director has a material relationship with Calix. The Board evaluates each director under the independence rules of the NYSE and the non-employee director and audit committee independence requirements of the SEC.

Nine of the total ten current directors of our Board are independent under NYSE rules:

<u>Director</u>	<u>Independent</u>	<u>Director Since</u>
Christopher Bowick	Independent	2014
Kathy Crusco	Independent	2017
Kevin DeNuccio	Independent	2012
Michael Everett	Independent	2007
Don Listwin	Independent	2007
Kira Makagon	Independent	2017
Michael Matthews	Independent	2010
Kevin Peters	Independent	2014
J. Daniel Plants	Independent	2018
Carl Russo	Not Independent	1999

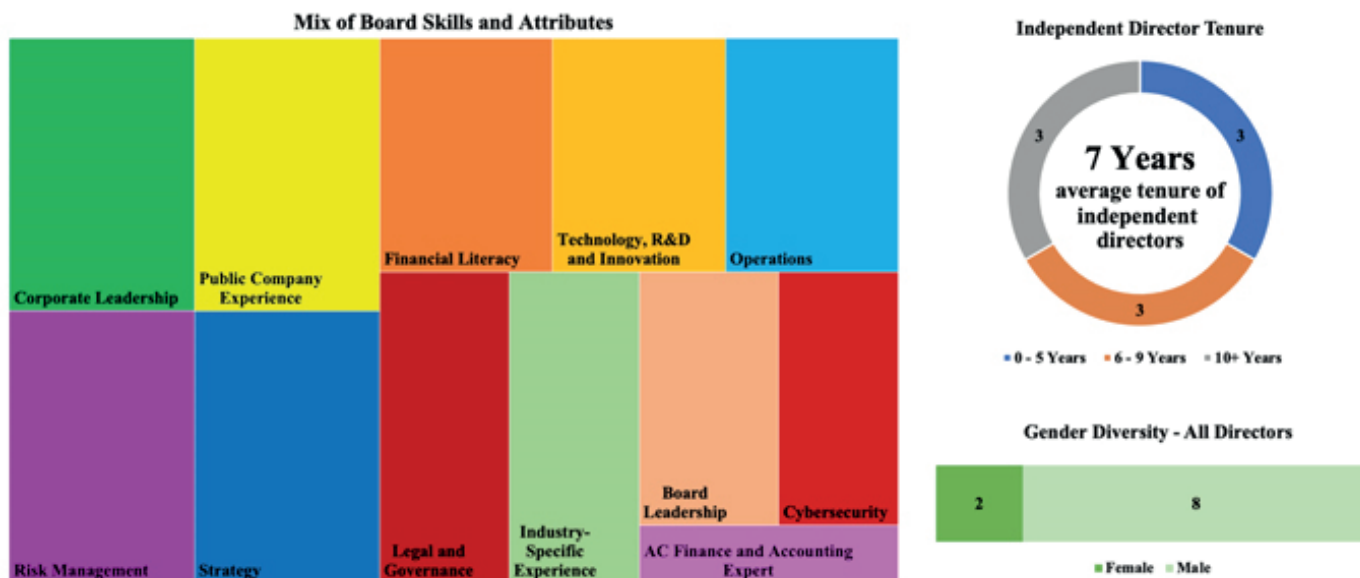
The NYSE rules require listed company boards have at least a majority of independent directors. Based on its evaluation, our Board determined that each of Messrs. Bowick, DeNuccio, Everett, Listwin, Matthews, Peters and Plants, and each of Mses. Crusco and Makagon, representing nine of Calix’s ten current directors, are independent directors as defined under the NYSE rules. Mr. Russo, our chief executive officer, is the only member of the Board who is not independent.

Board Composition and Qualifications

The Board assesses Board composition and qualifications at least annually. In assessing Board composition and qualifications, as well as in evaluating candidates for nomination or to fill vacancies on the Board, the Board seeks to maximize effectiveness of the Board and its committees to perpetuate the success of the Company, to best represent stockholder interests through the exercise of sound judgment and to assure continuity in the Board’s oversight over the Company and management. The Board places significant emphasis on ensuring an appropriate mix of characteristics, skills and experience for the Board as a whole and as to each individual director. The Board has delegated the evaluation of the skills and attributes of the Board as a whole and each individual director against the Company’s needs and strategic direction to the Nominating and Corporate Governance Committee pursuant to the committee’s charter. Among other considerations, the Board seeks to ensure an appropriate mix of expertise in executive and corporate leadership, diversity of background, perspective and experience (including diversity of gender, age and ethnicity), personal and professional integrity, ethics and values, financial and operational experience, depth of knowledge related to our business, business risks and operations, as well as expertise and insights in technologies, industries and markets relevant to our strategic plans, as set forth in our Corporate Governance Guidelines.

Our Board believes the current mix of skills, backgrounds, service period and attributes of our Board maximizes the effectiveness of our Board in its oversight responsibilities. More recently, in 2017, Mses. Makagon and Crusco joined our Board, with Ms. Makagon bringing substantial expertise in global platform strategy, technology, cybersecurity, operations and high-technology executive leadership and Ms. Crusco adding deep financial, accounting and operational expertise, public company leadership and governance experience. In 2018, Mr. Plants joined our Board, bringing expertise in corporate governance and leadership, financial expertise, as well as adding stockholder insight. The Board values the added diversity of gender, experience and perspective with the additions of Mses. Crusco and Makagon and Mr. Plants to the Board and intends to continue to include diversity in its assessment of Board composition and qualifications. Our Board also considers board tenure and mix of shorter, medium and longer tenure of board service in its review of Board composition. The average tenure of our independent directors is approximately seven years.

A depiction of the mix of key skills and attributes representative of our current Board is as follows:



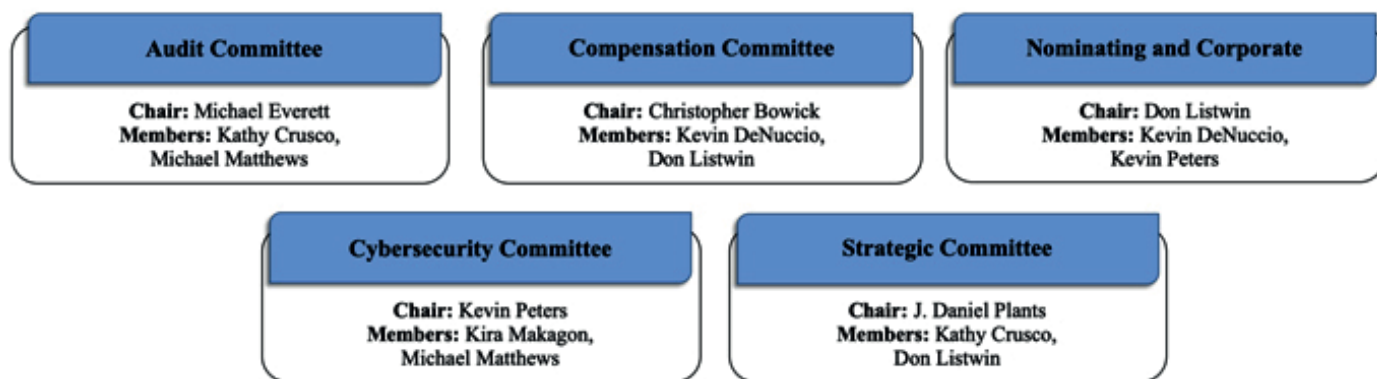
Board Meetings and Committees

Our Board met nine times during fiscal year 2020. During 2020, each Board member attended 75% or more of the total number of meetings of the Board and of the committees on which he or she served. In addition, our Board met in executive session without management present during its four regularly scheduled meetings in 2020. Our chairman of the Board presides over the executive sessions of the Board.

We encourage our directors to attend our annual meetings of stockholders, and all of our directors attended our 2020 annual meeting of stockholders.

The Board has established three principal Board committees: the Audit Committee, the Compensation Committee and the Nominating and Corporate Governance Committee. In June 2017, the Board established a fourth Board committee, the Cybersecurity Committee, and in June 2018, the Board established a fifth Board committee, the Strategic Committee. The memberships of all five Board committees are composed entirely of independent directors.

Committees of the Board of Directors (All Committee Members are Independent)



Audit Committee

Our Audit Committee is established in accordance with Section 3(a)(58)(A) of the Exchange Act and is responsible for overseeing management of Calix's risks relating to accounting matters, financial reporting and legal and regulatory compliance. Each director serving on our Audit Committee is independent within the meaning of the NYSE listing standards and applicable rules and regulations of the SEC.

The current members of our Audit Committee are Mr. Everett, Ms. Crusco and Mr. Matthews, with Mr. Everett serving as the Audit Committee chair. Our Board has determined that Mr. Everett and Ms. Crusco are each an "audit committee financial expert" as defined under the SEC rules and that Ms. Crusco's service on the audit committees of three other public companies would not impair her ability to effectively serve on our Audit Committee. During 2020, the Audit Committee met ten times and conducted private sessions with our independent registered public accounting firm and with individual members of management at its regularly scheduled meetings. The Audit Committee also meets regularly in executive session without management present at its scheduled meetings.

Our Audit Committee oversees our corporate accounting and financial reporting process. Among other matters, the Audit Committee evaluates the independent registered public accounting firm's qualifications, independence and performance; determines the engagement of the independent registered public accounting firm; reviews and approves the scope of the annual audit and the audit fees; discusses with management and the independent registered public accounting firm the results of the annual audit and the review of Calix's quarterly consolidated financial statements; approves the retention of the independent registered public accounting firm to perform any proposed permissible non-audit services; monitors the rotation of partners of the independent registered public accounting firm on Calix's engagement team as required by law; reviews Calix's critical accounting policies and estimates; oversees the internal audit function; oversees the Company's management of the legal function and compliance program; and annually reviews the Audit Committee charter and the committee's performance. The Audit Committee operates under a written charter pursuant to applicable standards and rules of the SEC and the NYSE. The Audit Committee's written charter is available under "Governance" in the Investor Relations section of our website at investor-relations.calix.com.

In carrying out its responsibilities, the Audit Committee may at its discretion retain outside advisors at the Company's expense.

Compensation Committee

Our Compensation Committee is responsible for overseeing the management of risks relating to Calix's executive compensation plans and arrangements. Our Compensation Committee also oversees our policies related to employee compensation and benefits. Each director serving on our Compensation Committee is independent within the meaning of the NYSE listing standards and applicable rules and regulations of the SEC.

The current members of our Compensation Committee are Messrs. Bowick, DeNuccio and Listwin, with Mr. Bowick serving as the Compensation Committee chair. During 2020, the Compensation Committee met ten times.

Our Compensation Committee reviews and approves corporate goals and objectives relevant to compensation of the chief executive officer and other executive officers, certifies performance against such corporate goals and objectives and sets the compensation of our executive officers. The Compensation Committee oversees executive succession matters, including chief executive officer succession planning, on an annual basis. The Compensation Committee also administers Calix's stock-based compensation plans, including the issuance of stock options and other awards under Calix's equity incentive award plan. The Compensation Committee reviews and evaluates, at least annually, the Compensation Committee charter and the performance of the Compensation Committee and its members. The Compensation Committee operates under a written charter pursuant to applicable standards and rules of the SEC and the NYSE. The Compensation Committee's written charter is available under "Governance" in the Investor Relations section of our website at investor-relations.calix.com.

In carrying out its responsibilities, the Compensation Committee may at its discretion retain outside advisors at the Company's expense.

Compensation Committee Interlocks and Insider Participation

Each of Messrs. Bowick, DeNuccio and Listwin served on Calix's Compensation Committee for the entirety of 2020. None of the members of Calix's Compensation Committee is or was at any time during 2020 an officer or employee of Calix, was formerly an officer of Calix or has engaged in certain related transactions with Calix, as required to be disclosed by SEC regulations. None of Calix's executive officers currently serves or in the past year has served as a member of the board of directors or compensation committee of any other entity that has one or more executive officers serving on Calix's Board or Compensation Committee.

Nominating and Corporate Governance Committee

The Nominating and Corporate Governance Committee is responsible for overseeing management of Calix's risks associated with the composition of the Board and its committees and the independence of the Board and potential conflicts of interest as well as for overseeing matters of corporate governance. Each director serving on our Nominating and Corporate Governance Committee is independent within the meaning of the NYSE listing standards.

Our Nominating and Corporate Governance Committee currently consists of Messrs. DeNuccio, Listwin and Peters, with Mr. Listwin serving as the Nominating and Corporate Governance Committee chair. During 2020, the Nominating and Corporate Governance Committee met four times.

The Nominating and Corporate Governance Committee is responsible for evaluating and making recommendations regarding candidates for directorships and the size and composition of the Board. In addition, the Nominating and Corporate Governance Committee is responsible for overseeing Calix's Corporate Governance Guidelines and reporting and making recommendations concerning corporate governance matters. The Nominating and Corporate Governance Committee operates under a written charter pursuant to applicable standards and rules of the SEC and the NYSE. The Nominating and Corporate Governance Committee's written charter is available under "Governance" in the Investor Relations section of our website at investor-relations.calix.com.

In carrying out its responsibilities, the Nominating and Corporate Governance Committee may at its discretion retain outside advisors at the Company's expense.

Director Nominations

The Nominating and Corporate Governance Committee considers director candidate recommendations from a variety of sources, including nominees recommended by stockholders. The Nominating and Corporate Governance Committee may also retain an executive search firm or other resources to assist in identifying, screening and facilitating the interview process of director candidates. The Nominating and Corporate Governance Committee may take into account minimum qualifications including, among other factors the Committee may deem appropriate: diversity of personal and professional background, perspective and experience, including diversity of gender, age and ethnicity; personal and professional integrity, ethics and values; executive experience in corporate management, operations, governance or finance; experience relevant to the Company's business and industry and with relevant social policy considerations; experience as a board member or executive officer of other publicly-held companies; relevant academic expertise; practical and mature business judgment; promotion of a diversity of business or career experience relevant to the success of the Company; and any other relevant qualifications, attributes or skills, which will be evaluated in the context of the Board as a whole, with the objective of assembling a board that can best perpetuate the success of the business and represent stockholder interests through the exercise of sound judgment using its diversity of experience in these various areas. In addition, the Nominating and Corporate Governance Committee expects any candidate for the Board to be able to represent the interests of the Company's stockholders as a whole rather than any special interest or constituency.

Each of our nominees standing for election at this 2021 Annual Meeting was recommended to the Board by the Nominating and Corporate Governance Committee based on the Committee's evaluation as set forth above.

The policy of the Nominating and Corporate Governance Committee is to consider properly submitted director candidates recommended by stockholders. For a stockholder to make any nomination for election to the Board at an annual meeting, the stockholder must provide notice to Calix, which must be received at Calix's principal executive office not less than 90 days and not more than 120 days prior to the one-year anniversary of the preceding year's annual meeting; provided, that if the date of the annual meeting is more than 30 days before or more than 60 days after such anniversary date, the stockholder's notice must be delivered not later than 90 days prior to the date of the annual meeting or, if later, the 10th day following the date on which public disclosure of the annual meeting date is first made. Further updates and supplements to such notice may be required at the times and in the forms required under our bylaws. As set forth in our bylaws, submissions must include the name and address of the proposed nominee, information regarding the proposed nominee that is required to be disclosed in a proxy statement or other filings in a contested election under Section 14(a) of the Exchange Act, information regarding the proposed nominee's indirect and direct interests in shares of Calix's common stock, and a completed and signed questionnaire, representation and agreement of the proposed nominee. Our bylaws also specify further requirements as to the form and content of a stockholder's notice. We recommend that any stockholder wishing to make a nomination for director review a copy of our bylaws, as amended and restated to date, which is available, without charge, from our Corporate Secretary at 2777 Orchard Parkway, San Jose, California 95134 or corporate.secretary@calix.com. The presiding officer at the applicable annual meeting may, if the facts warrant, determine that a nomination was not properly made in accordance with the foregoing and our bylaws, in which case the defective nomination may be disregarded.

Cybersecurity Committee

The Cybersecurity Committee was constituted by the Board in June 2017 as a Board committee of independent directors responsible for overseeing the management of enterprise security over cyber risks, overall data protection and security breach programs and readiness and our program for data and security breach response and management. The Cybersecurity Committee also oversees risk management associated with the Company's business continuity and disaster recovery program. Each director serving on our Cybersecurity Committee is independent within the meaning of the NYSE listing standards.

Our Cybersecurity Committee currently consists of Mr. Peters, Ms. Makagon and Mr. Matthews, with Mr. Peters serving as the Cybersecurity Committee chair. During 2020, the Cybersecurity Committee met four times.

Our Cybersecurity Committee oversees Calix's management of risks associated with cybersecurity threats. At each Cybersecurity Committee meeting, members of the Company's senior leadership review and update the Committee on information security and data protection governance matters, including assessment of cybersecurity threats and risks, data security programs, data privacy programs and management and mitigation of potential and any actual cybersecurity and information technology risks and breaches. Among other responsibilities, the Cybersecurity Committee also reviews and provides oversight of: the effectiveness of Calix's data breach incident response plan; Calix's cybersecurity risk systems against industry benchmarks and best practices; Calix's cybersecurity insurance coverage; Calix's information security planning and resources to manage changes in Calix's cybersecurity threat landscape, including assessments of the potential impact of cybersecurity risk on Calix's business, operations and reputation; and Calix's business continuity and disaster recovery program. The Cybersecurity Committee's written charter is available under "Governance" in the Investor Relations section of our website at investor-relations.calix.com.

In carrying out its responsibilities, the Cybersecurity Committee may at its discretion retain outside advisors at the Company's expense.

Strategic Committee

The Board constituted a Strategic Committee in June 2018 as a committee of independent directors with responsibility to oversee our business strategy, strategic direction and objectives.

Our Strategic Committee currently consists of Ms. Crusco and Messrs. Listwin and Plants, with Mr. Plants serving as the Strategic Committee Chair.

Among other duties, the Strategic Committee provides oversight over our long-term strategic plan to support our objectives and to create long-term stockholder value and evaluates potential strategic actions and financing strategies. The Strategic Committee also works with management to monitor internal and external risks, threats and potential disruptions to our strategic plan. The Strategic Committee's written charter is available under "Governance" in the Investor Relations section of our website at investor-relations.calix.com.

In carrying out its responsibilities, the Strategic Committee may at its discretion retain outside advisors at the Company's expense.

Annual Self-Assessment and Board Education

Annually, the Board and each Board committee conduct a self-assessment to assess the performance and effectiveness of the Board and Board committees, as well as to provide feedback on individual directors. The chairman of the Board leads discussions and actions related to the self-assessments. The Board is committed to the ongoing director education and advancement. To that end, the Company has a written Board education policy and provides its directors with membership in the National Association of Corporate Directors ("NACD") to assist them in remaining current with best practices and developments in board oversight and corporate governance, as well as opportunities to participate in NACD fellowship programs on leading boardroom practices and commitment to boardroom excellence.

Board Oversight Over Risks

The Board has an active role, as a whole and also at the committee level, in overseeing management of Calix's risks, including financial risks, cybersecurity risks, credit and liquidity risks, legal and regulatory risks and operational risks, including risks that may impact continuity of our business in the event of disruptions or disasters that may materially impact our business. The Board is responsible for general oversight of risks and regularly reviews information from management who is responsible for the day-to-day processes and operations to manage and mitigate risks.

The Audit Committee has primary responsibility for oversight over management's processes over financial, credit and liquidity, legal and regulatory risks, including the Company's compliance program; the Compensation Committee is responsible for risk assessments over Calix's compensation practices and policies, including incentivizing and retention of executive officers; the Nominating and Corporate Governance Committee oversees corporate governance and management of our public company governance risks; the Cybersecurity Committee oversees Calix's overall business continuity and disaster recovery, including management of risks associated with cybersecurity, privacy and data breach threats; and the Strategic Committee has oversight over internal and external risks to our strategic plan. While Board committees have responsibility for evaluating certain areas of risks and overseeing the management of such risks, the entire Board retains overall responsibility and remains regularly informed through committee reports about such risks.

COVID-19 Impact and Response

The COVID-19 pandemic has severely impacted global economies, financial markets and business operations around the world as business, travel and personal activities became significantly restricted.

COVID-19 related restrictions disrupted our global supply chain activities, increased competition for certain components and significantly limited our business travel, customer engagements and normal business activities. Although we saw increased customer and overall demand for broadband infrastructure and services, we have had to quickly pivot to assess and navigate our operational risks on a number of fronts. Our management focused on several key areas: 1) we aligned resources and leveraged technology to maintain continuity of our business and operations, 2) we implemented changes, programs and resources to support the safety, wellbeing and productivity of our workforce in a "work from anywhere" model despite shelter-in-place mandates, 3) we adapted our processes and upgraded tools so we could prioritize customer engagement and requirements, and 4) we increased resources to strategically manage our supply chain, manufacturing partners and logistics despite delays, shortages and global uncertainties.

Since the outset of the COVID-19 pandemic, we have increased support and attention to closely monitor workforce wellbeing and provide flexibility and tools to enable business continuity while keeping our team safe. We continue to conduct CEO-led bi-weekly sessions in an open forum with all employees addressing the impact of the pandemic and our response to support our workforce and business. The work and safety protocols we implemented to put the health and safety of our team first have continued to evolve and we expect will remain in place along with our expanded wellness benefits, enhanced home office program and investments in virtual resources and business tools.

Our Board maintains oversight over our execution and mitigation of risks associated with the COVID-19 pandemic, including reviews with management at its meetings. In particular, our Audit Committee reviews financial, operational and legal risks with management and our Cybersecurity Committee reviews our business continuity response to COVID-19 with management.

Code of Conduct and Compliance

We are committed to the conduct of our business to the highest standards of ethics and integrity as reflected in our Code of Conduct. All of our directors, officers and employees annually review our Code of Conduct and are expected to comply with our Code of Conduct, including our principal executive officer, principal financial officer, principal accounting officer and persons performing similar functions. Under our Code of Conduct, we have established a compliance hotline that is operated by an independent third party to receive complaints about any accounting, internal control or auditing matters as well as compliance, ethical or other matters of concern (including on an anonymous basis where permitted under applicable law). Annually, our Audit Committee reviews our Code of Conduct and related policies and processes with management. Our Code of Conduct is available under “Governance” in the Investor Relations section of our website at investor-relations.calix.com.

Risk Assessment of Compensation Practices and Policies

We have assessed, with input from outside consultants, and discussed with the Compensation Committee our compensation policies and practices for our employees as they relate to risk management. Based upon this assessment, we believe that any risks arising from such policies and practices are not reasonably likely to have a material adverse effect on the Company.

Our employees’ base salaries are fixed in amount and thus we do not believe that they encourage excessive risk-taking. While performance-based cash incentives and sales-based incentives focus on achievement of short-term or annual goals, we believe that our performance-based cash incentives and sales-based incentives appropriately balance risk and the desire to focus employees on specific goals important to our growth and long-term success. We believe these programs also do not encourage unnecessary or excessive risk taking as the potential payout is limited, with payouts on performance-based cash incentives for our executives generally limited to 100% of target and payouts of greater than target based on limited incremental achievement above 100% of target. Further, such programs represent only one portion of the total compensation opportunities available to most employees, and we believe that our internal policies and controls help mitigate this risk. Employees are also given the opportunity to participate in stock ownership through our employee stock purchase plans to purchase stock at discounted prices, subject to limits and holding periods stated in the plans, which we believe help align employee performance with creation of long-term stockholder value.

A significant portion of the compensation provided to senior management is in the form of long-term equity-based incentives that are conditioned on achievement of one or more annual financial performance targets that we believe are important to help further align management’s interests with those of our stockholders. We do not believe that these equity-based incentives encourage unnecessary or excessive risk taking because their ultimate value is tied to our financial performance and stock price and vesting of such equity awards are generally over a four-year period.

The statements regarding the risks arising from our compensation policies and practices contain forward-looking statements that involve substantial risks and uncertainties. We have based these forward-looking statements on our current expectations and projections about future events and financial trends that we believe may affect our financial condition, results of operations, business strategy and financial needs.

Communications with the Board

Stockholders and other interested parties may communicate with the Board or any specified individual directors. Such correspondence should be sent to the attention of the Board or specific directors, c/o Corporate Secretary, 2777 Orchard Parkway, San Jose, California 95134 or corporate.secretary@calix.com.

SECURITY OWNERSHIP OF CERTAIN BENEFICIAL OWNERS AND MANAGEMENT

The following table presents information as to the beneficial ownership of our common stock as of March 16, 2021 for:

- each stockholder known by us to be the beneficial owner of more than 5% of our common stock;
- each of our directors;
- each NEO as set forth in the Summary Compensation Table in this Proxy Statement; and
- all current executive officers and directors as a group.

Beneficial ownership is determined in accordance with the rules of the SEC and generally includes voting or investment power with respect to securities. Unless otherwise indicated below, to our knowledge, the persons and entities named in the table have sole voting and sole investment power with respect to all shares beneficially owned, subject to community property laws where applicable. Shares of our common stock subject to options that are currently exercisable or exercisable within 60 days of March 16, 2021 and restricted stock units (“RSUs”) that vest within 60 days of March 16, 2021, are deemed to be outstanding and to be beneficially owned by the person holding the options or RSUs for the purpose of computing the percentage ownership of that person, but are not treated as outstanding for the purpose of computing the percentage ownership of any other person.

Percentage ownership of our common stock in the table is based on 62,854,852 shares of our common stock outstanding on March 16, 2021. Unless otherwise indicated, the address of each of the individuals and entities named below is c/o Calix, Inc., 2777 Orchard Parkway, San Jose, California 95134.

<u>Name of Beneficial Owner</u>	<u>Shares of Common Stock Beneficially Owned (1)</u>				
	<u>Common Stock</u>	<u>Options Exercisable Within 60 Days</u>	<u>RSUs Vesting Within 60 Days</u>	<u>Total Number of Shares Beneficially Owned</u>	<u>Percent</u>
5% Stockholder:					
BlackRock, Inc. 55 East 52nd Street New York, NY 10055	4,865,244 (2)	—	—	4,865,244	7.74%
Gilder Gagnon Howe & Company, LLC 475 10 th Avenue New York, NY 10018	3,750,470 (3)	—	—	3,750,470	5.97%
The Vanguard Group 100 Vanguard Blvd. Malvern, PA 19355	3,219,634 (4)	—	—	3,219,634	5.12%
Named Executive Officers:					
Carl Russo	6,227,855 (5)	320,000	—	6,547,855	10.42%
Cory Sindelar	72,310	473,500	—	545,810	*
Michael Weening	13,585	822,125	—	835,710	1.33%
Non-Employee Directors:					
Don Listwin	1,072,500 (6)	—	12,477	1,084,977	1.73%
J. Daniel Plants	672,641 (7)	—	12,477	685,118	1.09%
Michael Everett	175,229	—	12,477	187,706	*
Kevin DeNuccio	114,000 (8)	—	12,477	126,477	*
Kevin Peters	113,551	—	12,477	126,028	*
Christopher Bowick	87,450	—	12,477	99,927	*
Kathy Crusco	66,404	—	12,477	78,881	*
Michael Matthews	60,408	2,500	12,477	75,385	*
Kira Makagon	51,798	—	12,477	64,275	*
All Current Directors and Executive Officers as a Group (12 persons)	8,727,731	1,618,125	112,293	10,458,149	16.64%

- * Represents beneficial ownership of less than one percent of the outstanding shares of common stock.
- (1) Shares shown in the table include shares held in the beneficial owner's name or jointly with others, or in the name of a bank, nominee or trustee for the beneficial owner's account.
 - (2) The information was based upon a Schedule 13G/A filed with the SEC on January 29, 2021 by BlackRock, Inc. BlackRock, Inc. has sole voting with respect to 4,692,229 of these shares and sole dispositive power over 4,865,244 of these shares. The shares reported as being beneficially held by BlackRock, Inc. may be held by one or more of its subsidiaries: BlackRock Life Limited; BlackRock Advisors, LLC; Blackrock (Netherlands) B.V.; BlackRock Institutional Trust Company, N.A.; BlackRock Asset Management Ireland Limited; Blackrock Financial Management, Inc.; Blackrock Japan Co., Ltd.; BlackRock Asset Management Schweiz AG; BlackRock Investment Management, LLC; Blackrock Investment Management (UK) Limited; BlackRock Asset Management Canada Limited; BlackRock (Luxembourg) S.A.; BlackRock Investment Management (Australia) Limited; BlackRock Fund Advisors; or BlackRock Fund Managers Ltd.
 - (3) The information was based upon a Form 13F filed with the SEC on February 16, 2021 by Gilder Gagnon Howe & Company, LLC. Gilder Gagnon Howe & Company, LLC has shared-defined dispositive power over 3,750,470 shares.
 - (4) The information was based upon a Schedule 13G filed with the SEC on February 10, 2021 by The Vanguard Group. The Vanguard Group has shared voting power over 125,207 of these shares, sole dispositive power over 3,050,613 of these shares and shared dispositive power over 169,021 of these shares. The shares reported as being beneficially held by The Vanguard Group may be held by one or more of its subsidiaries: Vanguard Asset Management, Limited; Vanguard Fiduciary Trust Company; Vanguard Global Advisors, LLC; Vanguard Group (Ireland) Limited; Vanguard Investments Australia Ltd.; Vanguard Investments Canada Inc.; Vanguard Investments Hong Kong Limited; or Vanguard Investments UK, Limited.
 - (5) Includes 2,239,188 shares held by The Crescentico Trust, Carl Russo, Trustee; 275,633 shares held by Equanimous Investments and 284,653 shares held by Calgrat Partners, L.P. The managing members of Equanimous Investments are Carl Russo and Tim Pasquinelli. The managing partner of Calgrat Partners, L.P. is Tim Pasquinelli. These individuals may be deemed to have shared voting and investment power over the shares held by Equanimous Investments and Calgrat Partners, as applicable. Each of these individuals disclaims beneficial ownership of such shares, except to the extent of his pecuniary interest therein. The address of each of The Crescentico Trust, Carl Russo, Trustee; Equanimous Investments and Calgrat Partners, L.P. is 1960 The Alameda #150, San Jose, California 95126.
 - (6) Includes 300,000 shares held by No Mas Ninos, L.P. Mr. Listwin is a general partner of No Mas Ninos, L.P. and may be deemed to have shared voting and investment power over the shares held by the partnership. Mr. Listwin disclaims beneficial ownership of such shares, except to the extent of his pecuniary interest therein.
 - (7) Includes 623,907 shares held by Voce Capital Management, LLC. Mr. Plants is managing member of Voce Capital Management, LLC and disclaims beneficial ownership of such shares, except to the extent of his pecuniary interest therein.
 - (8) Includes 3,900 shares held in a spouse IRA and 10,000 shares held by Mount Madonna Ranch LLC. Mr. DeNuccio is the manager of Mount Madonna Ranch LLC. Mr. DeNuccio disclaims beneficial ownership of such shares, except to the extent of his pecuniary interest therein.

PROPOSAL NO. 1
ELECTION OF DIRECTORS

Our Amended and Restated Certificate of Incorporation provides that our Board shall be divided into three classes, with the directors in each class having a three-year term. Unless the Board determines that vacancies (including vacancies created by increases in the number of directors) shall be filled by the stockholders, and except as otherwise provided by law, vacancies on the Board may be filled only by the affirmative vote of a majority of the remaining directors. A director elected by the Board to fill a vacancy (including a vacancy created by an increase in the number of directors) shall serve for the remainder of the full term of the class of directors in which the vacancy occurred and until such director's successor is elected and qualified.

As of April 1, 2021, the date this Proxy Statement is made available, the Board consists of ten directors, divided into the following three classes:

- **Class I directors:** Kathy Crusco, Kevin DeNuccio and Michael Everett, whose current terms will expire at the 2023 Annual Meeting;
- **Class II directors:** Don Listwin, Kevin Peters and J. Daniel Plants, whose current terms will expire at the 2021 Annual Meeting; and
- **Class III directors:** Christopher Bowick, Kira Makagon, Michael Matthews and Carl Russo, whose current terms will expire at the 2022 Annual Meeting.

Our Nominating and Corporate Governance Committee recommended, and our Board has approved, Don Listwin, Kevin Peters and J. Daniel Plants as nominees for election to the Board as Class II directors at the 2021 Annual Meeting. Messrs. Listwin, Peters and Plants have each agreed to stand for reelection as Class II directors. Each director to be elected will hold office from the date of such director's election by the stockholders until the third subsequent annual meeting of stockholders or until his or her successor is elected and has been qualified, or until such director's earlier death, resignation or removal. Shares of common stock represented by executed proxies will be voted, if authority to do so is not withheld, for the election of the three Class II director nominees named above.

The Board expects each of the nominees to be available for election to the Board at the 2021 Annual Meeting. In the event that any nominee should be unable to serve or for good cause will not serve, such shares will be voted for the election of such substitute nominee as the Board may propose. Each person nominated for election has agreed to serve if elected, and management has no reason to believe that any nominee will be unable to serve. Directors are elected by a plurality of the votes cast at the meeting.

Our Director Nominees and Board of Directors

At least annually our Nominating and Corporate Governance Committee reviews the skills and characteristics of directors and the mix of skills and experience and diversity of the Board in the context of our business strategy, growth initiatives and our customers and target market, our business and operating requirements and the long-term interests of our stockholders. In doing so, the Nominating and Corporate Governance Committee seeks a board composition that can best perpetuate the success of the business and represent stockholder interests. The Committee also considers the tenure of our directors and seeks to maintain a balance of longer tenured directors with deep institutional knowledge and newer directors who bring new perspectives to the Board. See "*Board Meetings and Committees — Nominating and Corporate Governance Committee*" above regarding the Nominating and Corporate Governance Committee's evaluation and selection of director nominees.

The Board believes that all the nominees for reelection are highly qualified and have the skills and experience required for effective service on the Board. Mr. Listwin serves as our independent Board chair and brings significant public company chief executive and board leadership experience as well as extensive knowledge of our industry. Mr. Peters serves as our Cybersecurity Committee chair and brings significant communications industry experience in addition to knowledge and expertise in the areas of cybersecurity and enterprise risk and continuity. Mr. Plants serves as our Strategic Committee chair and has strong expertise in the areas of financial and capital management, corporate governance and executive leadership. We believe the skills and attributes of these nominees complement the expertise, background and experience of our other continuing directors.

Biographical information describing the qualifications and relevant experience, skills and attributes of our Class II nominees and our other current directors who will continue in office after the Annual Meeting as of April 1, 2021 is set forth below.

Nominees for Election to a Three-Year Term Expiring at the 2024 Annual Meeting of Stockholders

Don Listwin

**Chairman of the Board
Nominating and Corporate Governance Committee Chair**

Independent director

Mr. Listwin has served as chairman of our Board since July 2007 and brings 40 years of experience in the networking industry and significant board, public company executive and operational experience to our Board. Since January 2018, Mr. Listwin has served as chief executive officer of iSchemaView (doing business as RapidAI), a privately-held medical device company. Mr. Listwin also serves on the board of directors of several privately-held technology companies in the fields of health and medical, software and electric vehicles.

Age: 62

Director since 2007

Calix Board committees:

- Compensation
- Nominating and Corporate Governance (Chair)
- Strategic

Mr. Listwin founded BelizeKIDS.org in 2016, a non-profit organization focused on helping children in Belize, and Canary Foundation in 2004, a non-profit organization devoted to the early detection of cancer, and has served on the board of directors of both organizations since their inception. From January 2008 to January 2009, Mr. Listwin served as chief executive officer of Sana Security, Inc., a security software company, which was acquired by AVG Technologies. From September 2000 to October 2004, Mr. Listwin served as chief executive officer of Openwave Systems Inc., a leader in mobile internet infrastructure software. From August 1990 to September 2000, he served in various capacities at Cisco Systems, Inc., most recently as executive vice president. Mr. Listwin formerly served on the board of directors of Violin Memory, Inc., Isilon Systems, Inc., Openwave Systems Inc. (now known as Unwired Planet, Inc.), TIBCO Software Inc., Redback Networks, Inc. and E-Tek Dynamics Inc., each a publicly-held company. Mr. Listwin also previously served as a member of the board of scientific advisors of the National Cancer Institute.

**Other current public company
directorships:**

- POET Technologies Inc. (member of audit and compensation committees)

Mr. Listwin holds an honorary Doctorate of Law from the University of Saskatchewan and a Bachelor of Science in Electrical Engineering from the University of Saskatchewan.

Independent director**Age:** 57**Director since** 2014**Calix Board committees:**

- Cybersecurity (Chair)
- Nominating and Corporate Governance

Other current public company directorships:

None

Mr. Peters brings to our Board a wealth of leadership as well as business and industry experience gained over the course of a 28-year career with AT&T, one of world's largest communications companies. Since February 2018, Mr. Peters has served as president, chief executive officer and board member of NetNumber Inc., a privately-held technology company.

Mr. Peters formerly served as executive vice president, global customer service for AT&T, Inc., from 2012 until his retirement in 2014. Mr. Peters joined AT&T in 1986, and held various functional roles, including in information technology, sales, engineering and finance until 2000. Mr. Peters then served as vice president, local network planning and project management in 2001. During his subsequent career at AT&T, Mr. Peters served in the following capacities: senior vice president, network engineering from 2003 until 2004; senior vice president, global network technology program management, AT&T Labs in 2005; senior vice president-enterprise systems and software engineering in 2006; executive vice president, global network operations from 2006 until 2009; and chief marketing officer, business from 2010 until 2011. Since retiring, Mr. Peters has provided advisory services to a number of companies, including Accenture, a global management consulting and professional services firm, J&L Group, a privately-held telecommunications company and the Howe School of Business, Stevens Institute of Technology. Mr. Peters also currently volunteers and serves on the board of directors of the Crandon Lakes Country Club and the Yogi Berra Museum and Learning Center, and also serves on the board of directors of privately-held technology companies.

Mr. Peters holds a Master of Business Administration with honors (Beta Gamma Sigma) from Columbia University, a Master of Science in Telecommunications Engineering from Stevens Institute of Technology and a Bachelor of Science in Psychology from Fairfield University, and attended the Harvard University Advanced Management Program. Mr. Peters also holds a Certificate in Cybersecurity Oversight from the Software Engineering Institute at Carnegie Mellon University.

J. Daniel Plants**Strategic Committee Chair****Independent director****Age:** 54**Director since** 2018**Calix Board committees:**

Strategic (Chair)

Other current public company directorships:

Cutera, Inc. (chairman of the board and member of compensation committee)

Mr. Plants brings to our Board extensive experience as a successful investor, director and advisor to public companies. Currently, Mr. Plants serves as chief investment officer of Voce Capital Management LLC, an investment advisor that he founded in 2011.

From July 2007 until May 2009, Mr. Plants served as managing director and head of communications technology and media for Needham & Company LLC, an investment banking and asset management firm. Prior to joining Needham & Company, Mr. Plants held a number of executive leadership roles at investment banking firms Goldman Sachs and JPMorgan Chase. Mr. Plants also served on the board of directors of Destination Maternity Corporation, a maternity apparel retailer, from November 2014 until December 2016.

Mr. Plants holds a Juris Doctor from the University of Michigan Law School and a Bachelor of Arts in economics from Baylor University. Mr. Plants is also admitted to the New York Bar.

THE BOARD OF DIRECTORS RECOMMENDS A VOTE "FOR" THE ELECTION OF EACH CLASS II DIRECTOR NOMINEE NAMED ABOVE.

Directors Continuing in Office Until the 2022 Annual Meeting of Stockholders

Christopher Bowick

Compensation Committee Chair

Independent director

Mr. Bowick brings to our Board extensive experience in advising and managing companies in the technology and telecommunications industries. Mr. Bowick is principal of The Bowick Group, LLC, where he provides technology, product, business and executive-development advice and counsel to clients in the cable television and telecommunications industries.

Age: 65

Director since 2014

Calix Board committees:

Compensation (Chair)

From 1998 until his retirement in 2009, Mr. Bowick held various positions at Cox Communications. Mr. Bowick joined Cox in 1998 as vice president, technology development, and was named senior vice president of engineering and chief technical officer in 2000. Mr. Bowick retired as chief technology officer of Cox in June of 2009. At Cox, Mr. Bowick was responsible for strategic technology planning, day-to-day technical operations and the development and deployment of technology solutions for the company's video, voice, high speed data and wireless products, including the development and deployment of telecommunications services, such as circuit-switched telephone, voice over IP, high-speed data, digital video, HDTV, video-on-demand and interactive television. Mr. Bowick was also responsible for network engineering and network operations for Cox's nation-wide network infrastructure including its national backbone, Metropolitan Area Networks and HFC networks. Prior to joining Cox, Mr. Bowick served as group vice president of technology and chief technical officer for Jones Intercable, Inc., while simultaneously serving as president of Jones Futurex, a designer and manufacturer of triple DES, PC-based hardware encryption devices and provider of contract manufacturing services. Prior to Jones, Mr. Bowick served as vice president of engineering for Scientific Atlanta's Transmission Systems Business Division, and as a design engineer for Rockwell International, Collins Avionics Division. Mr. Bowick also formerly served on the board of directors of VIXS Systems Inc., a publicly-held company, and currently serves on the board of directors of several privately-held software and technology companies.

Other current public company directorships:

None

Mr. Bowick holds a Master of Business Administration from the University of Colorado and a Bachelor of Science in Electrical Engineering from the Georgia Institute of Technology. Mr. Bowick is a National Association of Corporate Director ("NACD") Governance Fellow under the NACD's director credential program.

Kira Makagon

Independent director

Age: 57

Director since 2017

Calix Board committees:

Cybersecurity

Other current public company directorships:

None

Ms. Makagon brings to the Board extensive experience in global platform strategy, technology, cybersecurity, operations and high technology executive leadership. Since July 2019, Ms. Makagon has served as executive vice president and chief innovation officer at RingCentral, Inc., a publicly-held provider of cloud-based global collaborative communications solutions, and previously served as RingCentral's executive vice president of innovation from August 2012 to July 2019.

From January 2012 to July 2012, Ms. Makagon served as the senior vice president of products of iCrossing, a global digital marketing agency owned by Hearst Corporation. From June 2009 to December 2011, she held various executive leadership roles at Red Aril, Inc., an online media technology company, serving as founder, chief executive officer and member of the board of directors from June 2009 to April 2010, and president from April 2010 to December 2011. Prior to joining Red Aril, Ms. Makagon held various executive leadership roles at NebuAd, Inc., an online data and media company, serving as co-founder and president from September 2006 to July 2008, chief executive officer from August 2008 to December 2008, and consultant and board member from January 2009 to May 2009. Ms. Makagon has also served in various roles at Exigen Group, a provider of SaaS workflow platforms and call center solutions, including president, ventures and alliances, and executive vice president, marketing and business development, as well as serving on the board of directors. Prior to that, Ms. Makagon co-founded and held key executive positions in flagship online marketing and CRM companies, including Octane Software, which was acquired by E.piphany, and Scopus Technology, where she brought multiple generations of CRM products to market.

Ms. Makagon holds a Master of Business Administration and a Bachelor of Science in computer science from the University of California, Berkeley.

Michael Matthews

Independent director

Age: 64

Director since 2010

Calix Board committees:

- Audit
- Cybersecurity

Other current public company directorships:

None

Mr. Matthews brings to our Board over 30 years of experience in the software industry, with significant industry and strategic insights into global telecommunications markets as a marketing and business strategy executive. In January 2016, Mr. Matthews founded AwareX, Inc., a privately-held software company specializing in assisting communications service providers to improve customer relationships through digital customer experience products and services.

From January 2012 through September 2013, Mr. Matthews served as chief corporate development officer for the information technology company AGT International GMBH, where he was responsible for AGT's research and development, new business ventures and marketing. From September 2008 to December 2011, Mr. Matthews served as head of strategy and business development at Nokia Siemens Networks, a telecommunications company, where he directed the company's strategic planning and investments, mergers and acquisitions program and strategic alliances and partnerships. From February 2003 to January 2008, Mr. Matthews served as chief marketing officer at Amdocs Inc., a publicly-held software and services provider. From September 1999 to March 2002 he served as the executive vice president, sales and marketing, at Groove Networks, a privately-held software company which was acquired by Microsoft Corporation. Prior to this, he served in leadership positions across technology companies in the United States and Australia such as Platinum Technology, Inc. a database management software company which was acquired by Computer Associates, Inc.; Sterling Software, a software company which was acquired by Computer Associates, Inc.; and Digital Equipment Corporation, which was acquired by Compaq Computer Corporation.

Mr. Matthews has a degree in Civil Engineering from the University of Queensland, Australia.

Director

Age: 64

Director since 1999

Calix Board committees:

None

Other current public company directorships:

None

Mr. Russo has served as Calix's chief executive officer since December 2002 and served as president and chief executive officer from December 2002 until January 2021. As Calix's chief executive officer, Mr. Russo brings substantial expertise and knowledge regarding our business strategy, markets and operations to Calix's board of directors. He also brings to the Board an extensive background in the telecommunications and networking technology industries.

From November 1999 to May 2002, Mr. Russo served as vice president of optical strategy and group vice president of optical networking of Cisco Systems, Inc. From April 1998 to October 1999, Mr. Russo served as president and chief executive officer of Cerent Corporation, which was acquired by Cisco. From April 1995 to April 1998, Mr. Russo served in various capacities, including as chief operating officer, at Xircom, Inc., which was acquired by Intel Corporation. Previously, Mr. Russo served as senior vice president and general manager for the hyperchannel networking group of Network Systems Corporation and as vice president and general manager of the data networking products division of AT&T Paradyne Corporation. Mr. Russo served on the board of directors of Vital Network Services, Inc., a privately-held company delivering network lifecycle services, and Xirrus, Inc., a privately-held company providing products that enable high-performance wireless networks.

Mr. Russo attended Swarthmore College and previously served on its board of managers.

Directors Continuing in Office Until the 2023 Annual Meeting of Stockholders

Kathy Crusco

Independent director

Age: 56

Ms. Crusco brings to our Board a wealth of experience as a financial and operational executive instilling operational rigor at leading technology companies.

Director since 2017

From December 2017 until January 2020, Ms. Crusco served as executive vice president and chief financial officer at Kony, Inc., a privately-held mobile applications solutions provider, which was acquired by Temenos, a banking software company. From August 2016 until November 2017, Ms. Crusco served as executive vice president, chief operating officer and chief financial officer at Epicor Software Corporation, a privately-held software company. Ms. Crusco joined Epicor in May 2011 when the company merged with Activant Solutions Inc., a business management software company where she served as senior vice president and chief financial officer from May 2007 to November 2010, then as executive vice president and chief financial officer. Before joining Activant, she worked for Polycom from 2002 to 2007, rising to the role of vice president of worldwide finance during her tenure. Ms. Crusco has also held a variety of financial roles at Documentum, Inc., Adaptec, Inc. and Price Waterhouse LLP.

Calix Board committees:

- Audit (Audit Committee financial expert)
- Strategic

Other current public company directorships:

- Duck Creek Technologies (member of audit and compensation committees)
- Poly (member of audit and compensation committees)
- QAD Inc. (member of audit, compensation and corporate governance committees)

Ms. Crusco holds a Bachelor of Science in Business Administration with an emphasis in accounting from California State University, Chico.

Kevin DeNuccio

Independent director

Age: 61

Director since 2012

Mr. DeNuccio brings to our Board over 25 years of leadership, strategic and governance experience at communications technology companies and service providers worldwide. Mr. DeNuccio is presently general partner of Wild West Capital LLC, a private investment firm which he co-founded in July 2012.

Calix Board committees:

- Compensation
- Nominating and Corporate Governance

Other current public company directorships:

- Juniper Networks, Inc. (member of compensation committee)
- Marathon Patent Group (member of compensation committee)

From February 2014 until April 2017, Mr. DeNuccio served as president, chief executive officer and a member of the board of directors of Violin Memory, Inc., a publicly-held data storage company, which filed a voluntary petition for Chapter 11 bankruptcy protection in December 2016 and was subsequently acquired by a unit of Soros Fund Management LLC. Mr. DeNuccio served as chief executive officer of Metaswitch Networks, a telecommunications hardware and software company, from February 2010 until June 2012. From January 2007 until the present, Mr. DeNuccio has also worked as a private equity investor, both individually and through Wild West Capital. Mr. DeNuccio served as chief executive officer of Redback Networks from August 2001 until its acquisition by Ericsson in January 2007. From 1995 to 2001, he held a number of executive positions at Cisco Systems, Inc., including senior vice president of worldwide service provider operations. Prior to joining Cisco, Mr. DeNuccio was founder, president, and chief executive officer of Bell Atlantic Network Integration, a wholly owned subsidiary of Bell Atlantic (now Verizon Communications). He has also held senior management positions at both Unisys Corporation's and Wang Laboratories' network integration and worldwide channel partner businesses. Mr. DeNuccio previously served on numerous public and private boards, including Sandisk, Redback and JDS Uniphase Corporation, each a publicly-held company.

Mr. DeNuccio has a Master of Business Administration from Columbia University and a Bachelor's degree in Finance from Northeastern University.

Independent director**Age:** 71**Director since** 2007

Mr. Everett brings to our Board over 40 years of experience in senior management and financial operations at communications technology companies, as well as his background as a corporate attorney. Mr. Everett was named chief financial officer of the year by San Francisco Business Times in 2007 and is admitted to the State Bar of California and the New York Bar.

Calix Board committees:

Audit (Chair and Audit Committee financial expert)

From May 2007 until his retirement in December 2008, Mr. Everett served as vice president of finance at Cisco Systems, Inc. From April 2003 to May 2007, Mr. Everett was chief financial officer of WebEx Communications, Inc., a web collaboration service provider that was acquired by Cisco. From 2001 to 2003, Mr. Everett served as chief financial officer of Bivio Networks, Inc., a network appliance company. In 2001, Mr. Everett served as chief financial officer of VMware, Inc., an infrastructure software company. From February 1997 to November 2000, Mr. Everett served as executive vice president and chief financial officer of Netro Corporation, a broadband wireless technology provider. Mr. Everett served in several senior management positions at Raychem Corporation from 1987 through 1996, including senior vice president and chief financial officer from August 1988 to August 1993, and was involved in the company's early fiber to the home initiatives. Before joining Raychem Corporation, Mr. Everett served as a partner in the law firm of Heller, Ehrman, White & McAuliffe LLC. He currently serves on the advisory boards of Moxtra, Inc. and Zuora, Inc.; as advisory member of the audit committee of the New Mexico State Investment Council, the state's sovereign wealth fund; and as chair and trustee of the Santa Fe Chamber Music Festival. Mr. Everett also formerly served on the board of directors and as chairman of the audit committee of Smart Focus, Ltd., a privately-held marketing analytics company, and on the board of directors of Broncus Technologies, Inc., a privately-held medical technology company, including as chairman of the audit committee and member of the compensation committee.

Other current public company directorships:

None

Mr. Everett holds a Juris Doctor from the University of Pennsylvania Law School and a Bachelor of Arts in History from Dartmouth College.

There are no family relationships among any directors, director nominees or executive officers of Calix.

Our Executive Officers

The following is biographical information for our current executive officers who were not discussed above.

<u>Name</u>	<u>Age</u>	<u>Position(s)</u>
Cory Sindelar	52	Chief Financial Officer
Michael Weening	52	President and Chief Operating Officer

Cory Sindelar has served as Calix’s chief financial officer and principal accounting officer since October 1, 2017, and previously served as Calix’s interim chief financial officer and principal accounting officer from May 31, 2017 to September 30, 2017. Prior to joining Calix, Mr. Sindelar served from December 2011 to April 2017 as the chief financial officer of Violin Memory, Inc., a publicly-held data storage company, which filed a voluntary petition for Chapter 11 bankruptcy protection in December 2016 and was subsequently acquired by a unit of Soros Fund Management LLC. He also previously served as chief financial officer of Kilopass Technology, Inc. from November 2010 to December 2011, and as chief financial officer of Ikanos Communications, Inc. from September 2006 to July 2010. From 2003 to 2006, Mr. Sindelar held various finance positions at EMC Corporation. From 2000 to 2003, Mr. Sindelar was vice president, corporate controller and principal accounting officer at Legato Systems, Inc., an enterprise software company, which was acquired by EMC. Mr. Sindelar holds a Bachelor of Science in Business Administration with an emphasis in accounting from Georgetown University.

Michael Weening has served as Calix’s president and chief operating officer since January 2021 and previously served as executive vice president and chief operating officer from August 2020 until January 2021; as executive vice president, global operations from January 2019 until August 2020; and as executive vice president in various capacities over our field operations and sales and marketing organizations from June 2016 until January 2019. Prior to joining Calix, Mr. Weening held various sales executive leadership roles at salesforce.com, inc., a customer relationship management company. From August 2014 until June 2016, Mr. Weening served as senior vice president of global customer success and services at salesforce.com, and from May 2012 until August 2014 as senior vice president of customer and sales growth in Japan and Asia Pacific at salesforce.com. From May 2009 until May 2012, Mr. Weening served as vice president of business sales at Bell Mobility in Canada. Prior to joining Bell Mobility, Mr. Weening also held various sales leadership roles at Microsoft Corporation in Canada and the United Kingdom. Mr. Weening holds a Bachelor of Arts in Business Administration from Brock University.

Independence of the Board

The NYSE prescribes independence standards for listed companies. These standards require a majority of the Board to be independent. They also require each member of the Audit Committee, Compensation Committee and Nominating and Corporate Governance Committee of the Board to be independent. No director qualifies as independent unless the Board determines that the director has no direct or indirect material relationship with us. The Board also evaluates each director’s independence to serve on our Board and committees under the applicable requirements of the SEC. On an annual basis, each director and executive officer is obligated to complete a director and officer questionnaire which requires disclosure of any transactions with us in which the director or executive officer, or any member of his or her immediate family, have a direct or indirect material interest. We also review our relationship with any entity employing a director or on which the director currently serves as a member of the board.

After review of all relevant transactions or relationships between each director, or any of his or her immediate family members, and Calix, its senior management and its independent registered public accounting firm, the Board has affirmatively determined that all of Calix’s current directors are independent directors within the meaning of the applicable NYSE standards, except for Mr. Russo, Calix’s chief executive officer. All of the committees of our Board are comprised entirely of directors determined by the Board to be independent within the meaning of the NYSE standards and applicable SEC regulations.

PROPOSAL NO. 2

APPROVAL OF THE AMENDED AND RESTATED CALIX, INC. 2019 EQUITY INCENTIVE AWARD PLAN

We are asking our stockholders to approve the amendment and restatement of the Calix, Inc. 2019 Equity Incentive Award Plan (as amended and restated, the “2019 Plan”) to increase the number of shares authorized for issuance under the 2019 Plan by 3,800,000 shares, resulting in an increase to the total shares authorized for issuance under the 2019 Plan from 6,629,039 shares to 10,429,039 shares. Our Board, upon recommendation of the Compensation Committee, approved the increase by 3,800,000 shares of the shares authorized for issuance in March 2021, subject to stockholder approval. The 2019 Plan was originally adopted by our Board in March 2019 and approved by stockholders in May 2019.

The 2019 Plan includes provisions that implement compensation and governance best practices to ensure our equity compensation aligns employee interests with that of our stockholders and incentivizes the creation of long-term stockholder value. Accordingly, our Board and Compensation Committee believe that the share increase to the 2019 Plan is reasonable and appropriate at this time. Based on our projected usage of shares authorized for issuance under the Plan and our reasonable expectation of future equity usage, we believe that the number of shares being requested for authorization under the Plan is equivalent to what we anticipate as one to two years of usage based on expected key hires and aggregate equity need in a highly competitive talent market; share usage is ultimately dependent on factors such as stock price movement, participation levels and corporate activities that could impact our grant practices.

Employees and consultants of the Company, its subsidiaries and affiliates, as well as members of our Board, are eligible to receive awards under the 2019 Plan. The 2019 Plan provides for the grant of stock options, including incentive stock options (“ISOs”) and nonqualified stock options (“NQSOs”), stock appreciation rights (“SARs”), restricted stock, restricted stock units (“RSUs”), other stock or cash-based awards and dividend equivalents to eligible individuals.

Our stockholders last approved an increase in the shares authorized for issuance under the 2019 Plan in May 2020 which increased the shares authorized for issuance under the 2019 Plan from 3,129,039 to 6,629,039. As of March 16, 2021, we had an aggregate of 62,854,852 shares of common stock outstanding and a total of approximately 3.5 million shares of common stock reserved for issuance and available for future grants under the 2019 Plan. As of March 16, 2021, there were approximately 117,668 shares of common stock subject to full-value awards, which are equity awards that do not require the holder to pay a purchase price equal to at least fair market value as of the date of grant to acquire the underlying shares, and approximately 7,118,160 shares of common stock subject to options outstanding under the 2019 Plan and our other equity incentive plans and arrangements (other than our Amended and Restated Employee Stock Purchase Plan and our Amended and Restated 2017 Nonqualified Employee Stock Purchase Plan), with an approximate weighted average exercise price of the outstanding options of \$12.93 per share and an approximate weighted average remaining contractual term for the outstanding options of 7.66 years.

Approval of the 2019 Plan will constitute approval pursuant to the stockholder approval requirements of Section 422 of the Code, relating to ISOs.

A summary of the principal provisions of the 2019 Plan, including a number of important compensation and governance best practices we implemented to ensure the 2019 Plan furthers our compensation plan objectives and supports long-term stockholder interests, is set forth below. The summary is qualified by reference to the full text of the 2019 Plan, which is attached as Appendix A to this Proxy Statement.

Key Features of the 2019 Plan

The 2019 Plan reflects a broad range of compensation and governance best practices, including the following:

- **No repricing of awards without stockholder approval.** Under the 2019 Plan, awards may not be repriced, replaced or regranted through cancellation or modification without stockholder approval if the effect would be to reduce the exercise price for the shares underlying the award.
- **No evergreen feature/stockholder approval required for share reserve increases.** The 2019 Plan does not provide for an annual increase in the share reserve, and the 2019 Plan may not be amended to increase the share reserve without stockholder approval.
- **Prohibition of liberal stock recycling on all awards.** The 2019 Plan prohibits any shares withheld for taxes on all awards from being added back to the share reserve, in addition to prohibiting other practices considered to be liberal stock recycling with respect to stock options and SARs.

- **Minimum vesting requirements.** Subject to limited exceptions, no awards granted under the 2019 Plan may vest until the first anniversary of the date of grant.
- **Fungible share counting.** The aggregate number of shares available for issuance under the 2019 Plan will be reduced by 1.5 shares for each share delivered in settlement of any full-value award.
- **Payment of dividends only if underlying awards vest.** Under the 2019 Plan, dividends and dividend equivalents in respect of shares underlying an award may only be paid to the extent the award vests.
- **Requirement that all awards granted to NEOs are subject to our clawback policy.** Awards granted to our NEOs under the 2019 Plan are subject to our clawback policy.
- **Limit on grant date fair value for non-employee directors.** Under the 2019 Plan, the grant date fair value of equity-based awards granted to a non-employee director during any calendar year shall not exceed \$750,000.
- **No loans.** Executive officers and directors are not permitted to make payment with respect to any awards granted under the 2019 Plan with loans from the Company.

Background on Share Request

In its determination to approve the share increase to the 2019 Plan, our Compensation Committee reviewed an analysis prepared by Aon, its compensation consultant, which included an analysis of our historical share usage, certain burn rate metrics and the costs of the 2019 Plan. Specifically, our Compensation Committee considered the following:

- In determining the reasonableness of the 2019 Plan share reserve, our Compensation Committee considered our historic burn rate. The following historical grant information results in an average annual burn rate for the last three fiscal years of 3.55% of the total of then-outstanding shares, or Basic Weighted Average Common Shares Outstanding, as shown in the following table, counting both options and full-value awards on a one-for-one basis. Our Compensation Committee considered our historic burn rate levels and the impact of utilizing regular annual equity compensation grants in determining how long the amended share authorization could potentially last. We expect the share authorization under the 2019 Plan to provide us with enough shares for awards for one to two years, with such timing dependent on a variety of factors, including the price of our shares and hiring activity during the next few years, forfeitures of outstanding awards, and noting that future circumstances may require us to change our current equity grant practices. We cannot predict our future equity grant practices, the future price of our shares or future hiring activity with any degree of certainty at this time, and the share reserve under the 2019 Plan could last for a shorter or longer time.

Year	Options Granted	RSUs Granted	Total Awards Granted	Basic Weighted Average Common Shares Outstanding	Burn Rate
2020	2,378,500	112,293	2,490,793	59,074,000	4.22%
2019	2,925,000	190,000	3,115,000	54,993,000	5.66%
2018	230,000(1)	174,000	404,000	52,609,000	0.77%
				3-Year Average	3.55%

- (1) Options granted in 2018 were lower due to the timing in 2017 of the grant of 1,602,000 performance-based stock options subject to achievement of 2018 corporate performance objectives.
- In addition to maintaining a reasonable average annual burn rate, we have also provided meaningful performance-based stock options grants, historically as follows: 800,000 performance-based stock options granted in 2020 subject to achievement of 2020 corporate performance objectives; 2,000,000 performance-based stock options granted in 2019 subject to achievement of 2019 corporate performance objectives; 1,602,000 performance-based stock options granted in 2017 subject to achievement of 2018 corporate performance objectives; and 1,165,000 performance-based stock options granted in 2017 subject to achievement of 2017 corporate performance objectives.

Performance Measurement Year	Grant Year	Time-based Options Granted	Performance-based Options Granted	Performance-based Options Earned (1)
2020	2020	1,579,000	800,000	800,000
2019	2019	925,000	2,000,000	555,000
2018	2017	230,000	1,602,000	1,506,000

- (1) Represents total number of performance-based options earned less amounts forfeited.

- Aon’s analysis, which is based on generally accepted evaluation methodologies, concluded that the share increase under the 2019 Plan is reasonable and within generally accepted standards as measured by an analysis of the plan cost relative to industry standards.

In light of the factors described above, and that the ability to continue to grant equity compensation is vital to our ability to attract and retain employees in the competitive labor markets in which we compete, our Compensation Committee and our Board have determined that the increase to the share reserve under the 2019 Plan is reasonable and appropriate at this time.

Administration

The Compensation Committee (or, with respect to awards to non-employee directors, our Board) (together, the “administrator”) is charged with the general administration of the 2019 Plan. The 2019 Plan provides that, subject to certain limitations, our Board and the Compensation Committee may from time to time delegate its authority to grant awards to a committee consisting of one or more members of our Board or one or more of our officers. Subject to the terms and conditions of the 2019 Plan, the administrator will have the authority to select the persons to whom awards are to be made; to determine the type of awards to be granted, the number of shares to be subject to awards and the terms and conditions of awards; to determine when awards can be settled in cash, shares, other awards or whether to cancel, forfeit or surrender awards; to prescribe the form award agreements; to accelerate vesting or lapse restrictions; and to make all other determinations and to take all other actions necessary or advisable for the administration of the 2019 Plan. The administrator will also be authorized to adopt, amend or rescind rules relating to the administration of the 2019 Plan, excluding certain matters described below that will require the approval of our stockholders.

Eligibility

Persons eligible to participate in the 2019 Plan include all members of the Board, currently comprised of nine non-employee directors and approximately 820 employees (including three NEOs) of the Company and its subsidiaries, as well as approximately three consultants of the Company and its subsidiaries, in each case, as determined by the administrator of the 2019 Plan. Only employees may be granted ISOs under the 2019 Plan.

Limitation on Awards and Shares Available

If our stockholders approve the 2019 Plan, the number of shares available for issuance under 2019 Plan will be equal to 10,429,039 shares. In addition, the aggregate number of shares available for issuance under the 2019 Plan will be reduced by 1.5 shares (the “Fungible Share Counting Ratio”) for each share delivered in settlement of any full-value award. If any shares subject to an award under the 2019 Plan or any award under the Calix Networks, Inc. 2010 Equity Incentive Award Plan, the Calix Networks, Inc. 2000 Stock Plan or the Calix Networks, Inc. Amended and Restated 2002 Stock Plan are forfeited, expire or are settled for cash, any shares deemed subject to such award may, to the extent of such forfeiture, expiration or cash settlement, be used again for new grants under the 2019 Plan (using the Fungible Share Counting Ratio to determine the number of shares returned to the share reserve with respect to full-value awards). However, the following shares may not be used again for grant under the 2019 Plan: (1) shares tendered or withheld to satisfy the exercise price of an option; (2) shares tendered or withheld to satisfy the tax withholding obligations with respect to an award; (3) shares subject to a SAR (or other stock-settled award) that are not issued in connection with the stock settlement of the SAR or other award on its exercise; and (4) shares purchased on the open market with the cash proceeds from the exercise of stock options. In addition, the following items will not be counted against the shares available for issuance under the 2019 Plan: (i) the payment of dividend equivalents in cash in conjunction with any outstanding awards and (ii) to the extent permitted by applicable law or any exchange rule, shares issued in assumption of, or in substitution for, any outstanding awards of any entity acquired in any form of combination by our company or any of its subsidiaries, except as may be required by reason of Section 422 of the Code.

Awards granted under the 2019 Plan must vest no earlier than one year measured from the date of grant and no award agreement may reduce or eliminate such minimum vesting requirement, provided that an award may provide that such minimum vesting restrictions may lapse or be waived upon a participant’s termination of service. In addition, up to an aggregate of five percent of the number of shares available for issuance under the 2019 Plan may be granted without regard to the foregoing minimum vesting requirement. For the purposes of awards to non-employee directors, a vesting period shall be deemed to be one year if it runs from the date of one annual meeting of the Company’s stockholders to the next annual meeting of the Company’s stockholders, so long as the period between such meetings is not less than 50 weeks.

As of March 16, 2021, the closing price of a share of our common stock on the NYSE was \$47.77.

Awards

The 2019 Plan provides for the grant of ISOs, NQSOs, SARs, restricted stock, RSUs, dividend equivalents and other share or cash-based awards. All awards under the 2019 Plan will be set forth in award agreements, which will detail all terms and conditions of the awards, including any applicable vesting and payment terms and post-termination exercise limitations. No fractional shares shall be issued or delivered pursuant to the 2019 Plan or any award thereunder.

The 2019 Plan provides that the administrator may grant or issue stock options, SARs, restricted stock, RSUs, dividend equivalents and other stock or cash awards, or any combination thereof. Each award will be set forth in an agreement with the person receiving the award and will set forth the type, terms and conditions of the award, including exercise price, vesting schedule and treatment of awards upon termination of employment, if applicable. Vesting provisions may require that certain conditions be met, such as continued employment or specified performance goals, before an awardee may receive the shares underlying an award or before such shares become freely tradeable and nonforfeitable.

Stock Options. Stock options, including ISOs and NQSOs may be granted pursuant to the 2019 Plan. The per share exercise price of all stock options granted pursuant to the 2019 Plan will not be less than 100% of the fair market value of a share of common stock on the date of grant, or in the case of ISOs granted to an individual who owns (or is deemed to own) at least 10% of the total combined voting power of all classes of our capital stock, 110% of the fair market value of a share on the date of grant. Stock options may be exercised as determined by the administrator, but in no event more than ten years after their date of grant, or in the case of ISOs granted to an individual who owns (or is deemed to own) at least 10% of the total combined voting power of all class of our capital stock, five years. The aggregate fair market value of the shares with respect to which options intended to be incentive stock options are exercisable for the first time by an employee in any calendar year may not exceed \$100,000, or such other amount as the Code provides.

Restricted Stock. Restricted stock may be granted pursuant to the 2019 Plan. A restricted stock award is the grant of shares of common stock at a price determined by the administrator (which may be zero), that is nontransferable and may be subject to substantial risk of forfeiture until specific conditions are met. Conditions may be based on continuing employment or service or achieving performance goals. During the period of restriction, participants holding shares of restricted stock may have full voting and dividend rights with respect to such shares. The restrictions will lapse in accordance with a schedule or other conditions determined by the administrator. Dividends that otherwise would be paid prior to vesting are held by the Company and will be paid to the participants only to the extent that the vesting conditions are met.

SARs. SARs may be granted pursuant to the 2019 Plan, either alone or in tandem with other awards. A SAR is the right to receive payment of an amount equal to the excess of the fair market value of a share of common stock on the date of exercise of the SAR over the fair market value of a share of common stock on the date of grant of the SAR. SARs may be paid in cash or stock. SARs may be exercised as determined by the administrator, but in no event more than 10 years after their date of grant.

RSUs. RSUs represent the right to receive shares of common stock at a specified date in the future, subject to forfeiture of such right. If the RSU has not been forfeited, then on the date specified in the RSU award we shall deliver to the holder of the RSU unrestricted shares of common stock which will be freely transferable. The administrator will specify the purchase price, if any, to be paid by the grantee for the common stock.

Dividend Equivalents / Dividends. Dividend equivalents represent the value of the dividends per share of common stock paid by the Company, calculated with reference to the number of shares covered by an Award (other than a dividend equivalent award, option or SAR) held by the participant. Dividend Equivalents will not be granted on options or SARs. In addition, no dividend or dividend equivalents will be paid in respect of shares underlying any unvested awards.

Other Stock or Cash Based Awards. Other stock or cash-based awards are awards of cash, fully vested shares of common stock and other awards valued wholly or partially by referring to, or otherwise based on, our common stock. Other stock or cash-based awards may be granted to participants and may also be available as a payment form in the settlement of other awards, as standalone payments and as payment in lieu of base salary, bonus, fees or other cash compensation otherwise payable to any individual who is eligible to receive awards. The administrator will determine the terms and conditions of other stock or cash-based awards, which may include vesting conditions based on continued service, performance and/or other conditions.

Limits for Non-Employee Directors. Under the 2019 Plan, the grant date fair value of equity-based awards granted to a non-employee director during any calendar year shall not exceed \$750,000.

Prohibition on Loans for Award Payments. Directors or executive officers of the Company are not permitted to make payment with respect to any awards granted under the 2019 Plan with loans from the Company.

Prohibition on Repricing Without Stockholder Approval

Except in connection with a corporate transaction involving our company, the terms of outstanding awards may not be amended without the approval of our stockholders to (a) reduce the exercise price per share of outstanding options or SARs or (b) cancel outstanding options or SARs in exchange for cash, other awards or options or SARs with an exercise price per share that is less than the exercise price per share of the original options or SARs.

Awards Subject to Clawback

Awards granted under the 2019 Plan (including any proceeds, gains or other economic benefit actually or constructively received by a participant) are subject to the clawback provisions of our Compensation Recovery Policy and any clawback policy we adopt to comply with applicable law, including, without limitation, the Dodd-Frank Wall Street Reform and Consumer Protection Act and any rules or regulations promulgated thereunder, whether or not such clawback policy was in place at the time of grant of an award, to the extent set forth in such clawback policy and/or in the applicable award agreement.

MISCELLANEOUS PROVISIONS

Adjustment Upon Certain Events

In the event of a stock dividend, stock split, combination or exchange of shares, merger, consolidation, spin-off, recapitalization, distribution of assets or any other corporate event affecting the common stock or the share price of the common stock in a manner that causes dilution or enlargement of benefits or potential benefits under the 2019 Plan, the administrator will make proportionate and equitable adjustments, in its discretion, to: (i) the aggregate number and types of shares of stock that may be issued under the 2019 Plan; (ii) the number and kind of shares subject to outstanding awards; (iii) the terms and conditions of any outstanding awards (including any applicable performance targets); and/or (iv) the grant or exercise price for any outstanding awards.

In addition, in such a case as noted above or in the event of any unusual or nonrecurring transactions or events affecting the Company or the financial statements of the Company, or of changes in applicable laws, the administrator, may, in its discretion, subject to the terms of the 2019 Plan, take any of the following actions if it determines that such action is appropriate in order to prevent the dilution or enlargement of benefits or potential benefits intended to be made available under the 2019 Plan or with respect to any award: (i) provide for either the payment and termination of the award or the replacement of the award; (ii) provide that the awards shall be assumed by the successor or survivor corporation, or a parent or subsidiary thereof, or shall be substituted for by similar awards covering the stock of the successor or survivor corporation, or a parent or subsidiary thereof, with appropriate adjustments as to the number and kind of shares and prices; (iii) make adjustments in the number and type of shares of stock (or other securities or property) subject to outstanding awards and/or in the terms and conditions of (including the grant or exercise price), and the criteria included in, outstanding awards which may be granted in the future; (iv) provide for the acceleration of vesting or exercisability of the awards; (v) replace such Awards with other rights or property selected by the Administrator; and/or (vi) provide that the awards cannot vest or be exercised after the event that triggers the action.

If a Change in Control of the Company occurs (as defined in the 2019 Plan), all outstanding options and SARs that are not exercised shall be assumed or substituted by the surviving corporation and other outstanding awards shall be converted into similar awards of the surviving corporation. If the surviving corporation refuses to assume or substitute for an award, the award shall accelerate and become fully vested and exercisable upon the Change in Control and all restrictions on the award shall lapse.

Transferability of Awards

Except by will or the laws of descent and distribution or pursuant to beneficiary designation procedures approved from time to time by the administrator or as otherwise provided by the administrator, no award granted under the 2019 Plan may be assigned, transferred or otherwise disposed of by the awardee, unless and until the award has been exercised or the shares underlying the award have been issued, and all restrictions applicable to the shares have lapsed.

Rights as a Stockholder

An awardee will not have any rights as a stockholder with respect to the shares covered by an award until the awardee becomes the owner of the shares.

No Rights as Employee

Nothing in the 2019 Plan or in any award agreement will give any awardee under the 2019 Plan any right to continue as an employee, consultant or non-employee director for our Company or any of our Subsidiaries or will interfere with or restrict in any way the rights of any such entity to discharge any awardee at any time.

Data Privacy

The 2019 Plan provides that, as a condition of receipt of any award, each awardee explicitly consents to the collection, use and transfer, in electronic or other form, of personal data by and among, as applicable, our Company and subsidiaries, including any transfer of this data required to a broker or other third party with whom our Company or any of our Subsidiaries or the awardee may elect to deposit any shares, to implement, administer and manage the awardee's participation in the 2019 Plan.

Tax Withholding

We may deduct or withhold, or require an awardee to remit to our Company, an amount sufficient to satisfy applicable withholding tax obligations with respect to any taxable event concerning the awardee arising as a result of the 2019 Plan or any award. The administrator may in its discretion and in satisfaction of the foregoing requirement, or in satisfaction of such additional withholding obligations as an awardee may have elected, allow the awardee to satisfy these obligations by means of cash or check, wire transfer of immediately available funds, shares, broker-assisted cashless exercise or any other form of legal consideration acceptable to the administrator. The Administrator may allow the awardee to elect to have us withhold shares otherwise issuable under any award (or allow the surrender of shares). The number of shares which may be withheld (or surrendered) will be no greater than the number of shares having a fair market value on the date of withholding or repurchase equal to the aggregate amount of such liabilities based on the maximum statutory withholding rates in the awardee's applicable jurisdictions for federal, state, local and foreign income and payroll taxes.

Amendment and Termination

The 2019 Plan may be amended, modified or terminated at any time and from time to time; provided that, no amendment, suspension or termination of the 2019 Plan shall, without the consent of the awardee, materially and adversely affect any rights or obligations under any award theretofore granted or awarded, unless the award itself otherwise expressly so provides or such action is to comply with the requirements of any applicable clawback policy or Section 409A of the Code.

Notwithstanding the foregoing, the 2019 Plan requires us to obtain stockholder approval within twelve (12) months before or after doing any of the following (other than in connection with certain corporate events, as described above):

- Increasing the maximum number of shares available under the 2019 Plan;
- Reducing the price per share of any outstanding option or SAR granted under the 2019 Plan; and
- Cancelling any option or SAR in exchange for cash or another option or SAR having a lower per share exercise price.

In addition, subject to applicable law and the limitations above, the administrator may amend, modify or terminate any outstanding award, including substituting another award of the same or a different type, changing the date of exercise or settlement, and converting an ISO to an NQSO. The awardee's consent to such action will be required unless (a) the administrator determines that the action, taking into account any related action, would not materially and adversely affect the awardee, or (b) the change is otherwise permitted under the 2019 Plan.

Expiration Date

The 2019 Plan will expire on, and no award will be granted pursuant to the 2019 Plan after the tenth anniversary of the date the 2019 Plan, as amended and restated, was approved by the Board of Directors. Any award outstanding on the expiration date of the 2019 Plan will remain in force according to the terms of the 2019 Plan and the applicable award agreement.

FEDERAL INCOME TAX CONSEQUENCES

This discussion regarding federal tax consequences is intended for the general information of our stockholders, not 2019 Plan awardees. Alternative minimum tax and state and local income taxes are not discussed and may vary depending on individual circumstances and from locality to locality.

Code Section 162(m)

Under Code Section 162(m), income tax deductions of publicly-traded companies may be limited to the extent total compensation (including, without limitation, base salary, annual bonus, RSU settlement and nonqualified benefits) for certain executive officers exceeds \$1 million (less the amount of any “excess parachute payments” as defined in Code Section 280G) in any one year. Under the tax rules in effect before 2018, the Code Section 162(m) deduction limit did not apply to qualified “performance-based” compensation that was established by an independent compensation committee and conformed to certain restrictive conditions stated under the Code and related regulations. However, the U.S. Tax Cuts and Jobs Act of 2017 eliminated this performance-based compensation exception effective January 1, 2018, subject to a special rule that “grandfathers” certain awards and arrangements that were in effect on or before November 2, 2017. As a result, compensation awarded under the 2019 Plan in excess of \$1 million to our current and former NEOs generally is not deductible.

Code Section 409A

Certain awards under the 2019 Plan may be considered “nonqualified deferred compensation” subject to Code Section 409A, which imposes additional requirements on the payment of deferred compensation. These requirements generally provide that, if at any time during a taxable year a nonqualified deferred compensation plan fails to meet the requirements of Code Section 409A or is not operated in accordance with those requirements, all amounts deferred under the nonqualified deferred compensation plan for the then-current taxable year and all preceding taxable years, by or for any awardee with respect to whom the failure relates, are includible in the gross income of the awardee for the taxable year to the extent not subject to a substantial risk of forfeiture and not previously included in gross income. If a deferred amount is required to be included in income under Code Section 409A, the amount will be subject to income tax at regular income tax rates plus a 20 percent penalty, as well as potential premium interest tax.

Federal Tax Treatment of Award Types

With respect to NQSOs, the Company is generally entitled to deduct and the optionee recognizes taxable income in an amount equal to the difference between the option exercise price and the fair market value of the shares at the time of exercise. A participant receiving ISOs will not recognize taxable income upon grant. Additionally, if applicable holding period requirements are met, the participant will not recognize taxable income at the time of exercise. However, the excess of the fair market value of the Common Stock received over the option price is an item of tax preference income potentially subject to the alternative minimum tax. If stock acquired upon exercise of an ISO is held for a minimum of two years from the date of grant and one year from the date of exercise, the gain or loss (in an amount equal to the difference between the fair market value on the date of sale and the exercise price) upon disposition of the stock will be treated as a long-term capital gain or loss, and the Company will not be entitled to any deduction. If the holding period requirements are not met, the ISO will be treated as one which does not meet the requirements of the Code for ISOs and the tax consequences described for NQSOs will apply.

The current federal income tax consequences of other awards authorized under the 2019 Plan generally follow certain basic patterns: SARs are taxed and deductible in substantially the same manner as NQSOs; nontransferable restricted stock subject to a substantial risk of forfeiture results in income recognition equal to the excess of the fair market value over the price paid, if any, only at the time the restrictions lapse (unless the recipient elects to accelerate recognition as of the date of grant); stock-based performance awards, dividend equivalents and other types of awards are generally subject to tax at the time of payment. Compensation otherwise effectively deferred is taxed when paid. In each of the foregoing cases, the Company will generally have a corresponding deduction at the time the participant recognizes income, subject to Section 162(m) with respect to our current and former NEOs. An award of a retainer, committee fee or meeting-based fee generally realizes ordinary income and we are entitled to a deduction in an amount equal to the amount of such retainer or fees upon payment thereof.

New Plan Benefits

As of March 16, 2021, 4,145,500 shares subject to stock options and 112,293 RSUs have been granted under the 2019 Plan. Other than with respect to annual grants of stock options to our non-employee directors that will be made immediately following the date of the Annual Meeting and certain incentive time-based equity grants to be awarded to Messrs. Sindelar and Weening, all future awards under the 2019 Plan are subject to the discretion of the plan administrator, and therefore it is not possible to determine the benefits that will be received in the future by other participants in the 2019 Plan (the *Grants of Plan-Based Awards in 2020* table in this Proxy Statement describes all equity awards granted to our named executive officers during our fiscal year ended December 31, 2020 under the 2019 Plan).

<u>Name and Position</u>	<u>Dollar Value of Future Awards (\$)</u> (2)	<u>Number of Shares Underlying Future Award Grants</u> (#) (1)
Carl Russo, <i>Chief Executive Officer</i>	—	—
Cory Sindelar, <i>Chief Financial Officer</i>	—	300,000
Michael Weening, <i>President and Chief Operating Officer</i>	—	360,000
All current executive officers as a group	—	660,000
All current directors who are not executive officers as a group	1,575,000	—
All employees who are not executive officers as a group	—	—

- (1) Represents the number of shares underlying option grants to be awarded to Messrs. Sindelar and Weening on November 27, 2021, November 27, 2022 and November 27, 2023 pursuant to letter agreements approved by the Compensation Committee in November 2019. For a further discussion on Messrs. Sindelar and Weening’s option grants, see “*Compensation Discussion and Analysis - November 2019 Awards for Cory Sindelar and Michael Weening.*”
- (2) Our Non-Employee Director Equity Compensation Policy, as amended on February 11, 2021, provides that each director who is a non-employee director immediately following an annual meeting of stockholders will automatically be granted an option to purchase a number of shares of common stock of the Company equal to the result of equal to the result of dividing (i) \$175,000 by (ii) the Black-Scholes value of an option to purchase one share of common stock of the Company as of the date of grant, which will be granted on the date of such annual meeting and vest on the earlier of the first anniversary of the grant date or the day prior to the next annual general meeting of our stockholders, subject to continuous service as a director until such vesting date, except in the event of certain terminations of service. For a further discussion of the determination of the Black-Scholes value of these options, see “*Director Compensation – February 2021 Amendment to Non-Employee Director Compensation.*”

Awards Granted Under the 2019 Plan

The following table shows the number of shares of our common stock underlying options and RSUs granted under the 2019 Plan through March 16, 2021 and stock options to be received in the future, to the extent determinable, by certain individuals and certain groups of individuals.

<u>Name</u>	<u>Stock Options</u>	<u>RSUs</u>
Carl Russo, <i>Chief Executive Officer</i> (1)	800,000	—
Cory Sindelar, <i>Chief Financial Officer</i> (2)	730,000	—
Michael Weening, <i>President and Chief Operating Officer</i> (2)	1,360,000	—
All current executive officers as a group	2,890,000	—
All current non-executive officer directors as a group	—	—
All nominees for election as a director	—	37,431
Don Listwin, <i>Director</i>	—	12,477
Christopher J. Bowick, <i>Director</i>	—	12,477
Kathy Crusco, <i>Director</i>	—	12,477
Kevin DeNuccio, <i>Director</i>	—	12,477
Michael Everett, <i>Director</i>	—	12,477
Kira Makagon, <i>Director</i>	—	12,477
Michael Matthews, <i>Director</i>	—	12,477
Kevin Peters, <i>Director</i>	—	12,477
J. Daniel Plants, <i>Director</i>	—	12,477
Associate of any such directors, executive officers or nominees	—	—
Other persons who received or is to receive 5% of such options or rights	—	—
All non-executive officer employees as a group	1,915,500	—

- (1) Represents the number of shares underlying a time-based option grant awarded to Mr. Russo in May 2020. The May 2020 stock option was granted at an exercise price of \$12.63 per share, equal to the closing trading price of the Company’s common stock on the date of grant. The stock option will vest and become exercisable over four years, with 25% of the shares underlying the option vesting on the first anniversary of the grant date, and the remainder vesting in equal quarterly installments over the next three years.

- (2) Represents the number of shares underlying 2021 performance-based equity awards granted to Messrs. Sindelar and Weening in February 2021 and the number of shares underlying time-based option grants awarded and to be awarded to Messrs. Sindelar and Weening on November 27, 2021, November 27, 2022 and November 27, 2023 pursuant to letter agreements approved by the Compensation Committee in November 2019. For a further discussion on these option grants, see “*Compensation Discussion and Analysis - Performance-Based Grants – 2021 Financial Performance*” and “*Compensation Discussion and Analysis - November 2019 Awards for Cory Sindelar and Michael Weening.*”

To be approved, this proposal must receive a “For” vote from the holders of a majority in voting power of the shares of common stock which are present or represented by proxy and entitled to vote on the proposal. Abstentions will have the same effect as an “Against” vote for purposes of determining whether this matter has been approved. Broker non-votes will not be counted for any purpose in determining whether this matter has been approved.

**THE BOARD OF DIRECTORS RECOMMENDS A VOTE “FOR” APPROVAL OF THE
CALIX, INC. AMENDED AND RESTATED 2019 EQUITY INCENTIVE AWARD PLAN AS DISCUSSED ABOVE.**

PROPOSAL NO. 3

APPROVAL OF THE CALIX, INC. AMENDED AND RESTATED EMPLOYEE STOCK PURCHASE PLAN

We are asking our stockholders to approve the Calix, Inc. Amended and Restated Employee Stock Purchase Plan (“ESPP”) to increase the number of shares authorized for issuance under the ESPP by 1,300,000 shares, resulting in an increase to our ESPP available share reserve from 2,379,496 to 3,679,496. Our Board, upon recommendation of the Compensation Committee, approved the increase by 1,300,000 shares of the shares authorized for issuance in March 2021, subject to stockholder approval.

The purpose of the ESPP is to provide our employees with an opportunity to purchase the Company’s common stock so that they may increase their proprietary interest in our success and to align employee interests to those of our stockholders. We believe that the ESPP is an important component of the benefits package that we offer to our employees, is a key factor in recruiting and retaining talented and high caliber employees in a competitive market and serves to incentivize employee performance aligned with our business strategy and growth initiatives. In the past two years, we averaged approximately 396 employees participating in the ESPP in each purchase period.

Under the ESPP, eligible employees purchase our common stock through accumulated payroll deductions. All eligible employees of the Company (or of any subsidiary) shall have equal rights and privileges under the ESPP. The ESPP qualifies as an employee stock purchase plan under Section 423 of the Internal Revenue Code of 1986, as amended (the “Code”).

Our stockholders last approved an increase in the shares authorized for issuance under the ESPP in May 2019 which increased the shares available for issuance under the ESPP to 9,800,000. The proposed share increase results in an increase of the total number of shares authorized for issuance under the ESPP from 9,800,000 shares to 11,100,000 shares. As of March 16, 2021, a total of 7,420,504 shares have been purchased under the ESPP since its inception in July 2010. We expect that the additional 1,300,000 share increase to the ESPP plus the current share reserve will cover purchases under the ESPP for approximately two years.

The current purchase periods under the ESPP, as set by the Compensation Committee of our Board, provide for six-month purchase periods commencing February 15 and August 15 of each year. If approved by our stockholders, the increase in shares for the ESPP will go into effect for the six-month purchase period commencing August 15, 2021 and ending on February 14, 2022.

The principal features of the ESPP are summarized below. The following summary of the ESPP is not a complete description of all the provisions of the ESPP and is qualified in its entirety by reference to the complete text of the ESPP, which is filed with the SEC as Appendix B to this Proxy Statement.

Summary of the ESPP

Administration. Our Board has appointed our Compensation Committee to serve as the administrator of the ESPP. The ESPP administrator has final authority for interpretation of any provisions of the ESPP or of any right to purchase stock granted under the ESPP. The Plan administrator may request advice or assistance or employ such other persons as are necessary for proper administration of the Plan. Interpretations and constructions of the administrator of any provision of the ESPP or of any rights under it is conclusive and binding on all persons. We bear all expenses and liabilities incurred by the ESPP administrator.

Offerings. The ESPP provides for the grant to employees of rights to purchase shares of the Company’s common stock at reduced prices through payroll deductions. “Purchase Periods” are six-month periods that are set as February 15 through August 14 and August 15 through February 14 of each year, unless otherwise determined by our Compensation Committee as administrator of the ESPP. However, in no event may a Purchase Period be longer than 27 months in length.

Shares Available Under ESPP. Under the proposed ESPP, the maximum number of our shares of common stock which will be authorized for sale under the ESPP is 11,100,000, an increase of 1,300,000 shares from the share reserve last approved by our stockholders in May 2019. The shares made available for sale under the ESPP may be authorized but unissued shares or reacquired shares reserved for issuance under the ESPP.

Eligibility and Enrollment. Any employee of Calix, Inc. (and such present or future subsidiaries of Calix, Inc. as our Board may designate) who (i) is customarily employed more than twenty hours a week; (ii) is customarily employed more than five months per calendar year and (iii) who is an employee at the commencement of a Purchase Period is eligible to participate in the ESPP. However, no employee is eligible to participate in the ESPP if, immediately after the election to participate, such employee would own stock of the Company (including stock such employee may purchase under outstanding options) representing 5% or more of the total combined voting power or value of all classes of stock of the Company or any parent or subsidiary of the Company. In addition, no employee is permitted to participate if the rights of the employee to purchase common stock of the Company under the ESPP and any other qualified employee stock purchase plans would accrue at a rate which exceeds \$25,000 of the fair market value of such stock (determined at the time the right is granted) for each calendar year. Eligible employees become participants in the ESPP by executing a participation agreement and filing it with the Company's stock administrator. By enrolling in the ESPP, a participant is deemed to have elected to purchase the maximum number of whole shares of common stock that can be purchased with the compensation withheld during each Purchase Period for which the participant is enrolled. No participant will be eligible to purchase more than 2,000 shares of stock within any Purchase Period. Termination of a participant's status as an eligible employee for any reason, including death, is treated as an automatic withdrawal from the ESPP.

As of March 16, 2021, two of our current executive officers and approximately 800 current non-executive officer employees in the U.S., Canada and China are eligible to participate in the ESPP. Mr. Russo is not eligible to participate in the ESPP based on his total share holdings of Calix common stock. In addition, consultants and non-employee directors are not eligible to participate in the ESPP.

Payroll Deductions. The payroll deductions made for each participant may be not less than 1% nor more than 15% of a participant's base salary compensation. Compensation is defined in the ESPP, and generally includes cash remuneration that would be reported as income for federal income tax purposes. Payroll deductions commence with the first paycheck issued during the Purchase Period for which the participant is enrolled and are deducted from subsequent paychecks throughout the Purchase Period unless changed or terminated as provided in the ESPP. A participant may decrease (but not increase) his or her payroll deduction authorization once during any Purchase Period. If a participant wishes to increase or decrease the rate of payroll withholding, he or she may do so effective for the next Purchase Period by submitting a new election.

Exercise Date; Purchase of Stock. The "Exercise Date" of each Purchase Period occurs on the last trading day of each Purchase Period. On the Exercise Date, each participant's accumulated payroll deductions are applied to the purchase of whole shares of common stock at a purchase price which is the lower of 85% of the fair market value per share of the common stock on the first trading day or on the last trading day of the applicable Purchase Period. The fair market value of the common stock on a given date is defined as the closing price on that day as reported by the NYSE. As of March 16, 2021, the closing price of our common stock on the NYSE was \$47.77 per share.

A participant may cancel his or her payroll deduction authorization at any time at least seven days before the last day of the Purchase Period. Upon cancellation, the participant's account balance will be refunded in cash without interest. A participant who ceases contributions to the ESPP during any Purchase Period shall not be permitted to resume contributions to the ESPP during the same Purchase Period.

Unless a participant has previously canceled his or her participation in the ESPP in accordance with the terms of the ESPP, the participant will be deemed to have exercised his or her purchase right in full as of each Exercise Date. Upon exercise, the participant will purchase the number of whole shares that his or her accumulated payroll deductions will buy at the purchase price, subject to the participation limitations listed above.

A participant may not assign, transfer, pledge or otherwise dispose of (other than by will or the laws of descent and distribution) payroll deductions credited to a participant's account or any rights or interest, including purchase rights, under the ESPP, and during a participant's lifetime, purchase rights under the ESPP shall be exercisable only by such participant. Any such attempt at assignment, transfer, pledge or other disposition will not be given effect.

Adjustments upon Changes in Recapitalization, Dissolution, Liquidation, Merger or Asset Sale. In the event of any increase or decrease in the number of issued shares of our common stock resulting from a subdivision or consolidation of shares or any other capital adjustment, the payment of a stock dividend, or other increase or decrease in such shares affected without receipt of consideration, we will proportionately adjust the aggregate number of shares of our common stock offered under the ESPP, the number and price of shares which any participant has elected to purchase pursuant under the ESPP and the maximum number of shares which a participant may elect to purchase in any single Purchase Period.

If there is a proposal to dissolve or liquidate the Company, then the ESPP will terminate, and any amounts that a participant has paid towards the purchase of common stock under the ESPP will be refunded without interest. If the Company undergoes a merger with or into another corporation or sale of all or substantially all of our assets, each outstanding Purchase Period will be assumed or an equivalent Purchase Period substituted by the successor corporation or the parent or subsidiary of the successor corporation. If the successor corporation refuses to assume or substitute for the outstanding Purchase Period, then the outstanding Purchase Period will be shortened by setting a new Exercise Date to take place before the date of the proposed sale or merger. We will notify each participant in writing at least five days prior to any such new Exercise Date.

Amendment and Termination. Our Board may amend, suspend or terminate the ESPP at any time. The ESPP shall terminate upon the earlier of (i) such date as is determined by the Company in its sole discretion or (ii) the date on which all shares available for issuance under the ESPP shall have been sold pursuant to purchase rights exercised under the ESPP. However, the Board may not amend the ESPP without obtaining stockholder approval within 12 months before or after such amendment to the extent required by applicable laws.

Federal Income Tax Consequences

Generally, no federal income tax consequences will arise at the time an employee purchases shares of common stock under the ESPP. If an employee disposes of shares purchased under the ESPP less than one year after the shares are purchased or within two years of the enrollment date, the employee will be deemed to have received compensation taxable as ordinary income for the taxable year in which the disposition occurs in the amount of the difference between the fair market value of the shares of common stock at the time of purchase and the amount paid by the employee for the shares. The amount of such ordinary income recognized by the employee will be added to the employee's basis in the shares for purposes of determining capital gain or loss upon the disposition of the shares by the employee.

If an employee does not dispose of the shares of common stock purchased under the ESPP until at least one year after the shares are purchased and at least two years after the enrollment date, the employee will be deemed to have received compensation taxable as ordinary income for the taxable year in which the disposition occurs in an amount equal to the lesser of (a) the excess of the fair market value of the shares of common stock on the date of disposition over the purchase price paid by the employee, or (b) the excess of the fair market value of the shares of common stock on the enrollment date over the purchase price paid by the employee. The amount of such ordinary income recognized by the employee will be added to the employee's basis in the shares for purposes of determining capital gain or loss upon the disposition of the shares by the employee.

We generally will not be entitled to a tax deduction with respect to the shares of common stock purchased by an employee under the ESPP, unless the employee disposes of the shares less than one year after the shares are transferred to the employee or less than two years after the enrollment date, in which case we will generally be entitled to a tax deduction corresponding to the amount of ordinary income recognized by the employee.

New Plan Benefits

The increase in shares authorized for issuance under the proposed ESPP applies to future Purchase Periods under the ESPP, starting with the Purchase Period commencing August 15, 2021 and closing with an Exercise Date of February 14, 2022. The number of shares of common stock that may be purchased under the ESPP is dependent upon the stock's market value on the first and last day of each future Purchase Period, the voluntary election by each eligible employee to participate and the amount each participant has elected to apply to a Purchase Period, and is not currently determinable. The following table states the amounts which were received by each of the named individuals and groups under our ESPP for our last completed fiscal year, and the number of shares of common stock purchased under the ESPP from its inception through March 16, 2021.

<u>Name and Position</u>	<u>Dollar Value of Shares Purchased in 2020 (\$)</u> (1)	<u>Number of Shares Purchased in 2020</u>	<u>Number of Shares Purchased from Inception through March 16, 2021</u>
Carl Russo (2) <i>Chief Executive Officer</i>	—	—	—
Cory Sindelar <i>Chief Financial Officer</i>	45,648	3,119	12,310
Michael Weening <i>President and Chief Operating Officer</i>	24,511	2,112	13,585
Executive Group	70,159	5,231	25,895
Non-Executive Director Group (3)	—	—	—
Non-Executive Officer Employee Group	8,125,047	576,590	7,394,609

- (1) Represents fair market value at date of purchase. The purchase price of the shares was \$6.57 for the Purchase Period ending May 14, 2020 and \$9.32 for the Purchase Period ending August 14, 2020 (the latter representing a three-month transition period to the August – February Purchase Periods).
- (2) Mr. Russo is not eligible to participate in the ESPP based on his total share holdings of Calix common stock.
- (3) Non-executive directors are not eligible to participate in the ESPP.

To be approved, this proposal must receive a “For” vote from the holders of a majority in voting power of the shares of common stock which are present or represented by proxy and entitled to vote on the proposal. Abstentions will have the same effect as an “Against” vote for purposes of determining whether this matter has been approved. Broker non-votes will not be counted for any purpose in determining whether this matter has been approved.

THE BOARD OF DIRECTORS RECOMMENDS A VOTE “FOR” APPROVAL OF THE AMENDED AND RESTATED EMPLOYEE STOCK PURCHASE PLAN AS DISCUSSED ABOVE.

PROPOSAL NO. 4

APPROVAL OF THE CALIX, INC. AMENDED AND RESTATED 2017 NONQUALIFIED EMPLOYEE STOCK PURCHASE PLAN

We are asking our stockholders to approve the amendment and restatement of the Calix, Inc. Amended and Restated 2017 Nonqualified Employee Stock Purchase Plan (the “Nonqualified ESPP”) to increase the number of shares authorized for issuance under the current Nonqualified Employee Stock Purchase Plan by 800,000 shares, resulting in an increase to our Nonqualified ESPP available share reserve from 2,279,671 to 3,079,671. Our Board, upon recommendation of our Compensation Committee, approved the increase by 800,000 shares of the shares authorized for issuance in March 2021, subject to stockholder approval.

The purpose of the Nonqualified ESPP is to assist our employees, excluding our executive officers and certain members of senior management, in acquiring a stock ownership interest in the Company pursuant to a plan which is intended to increase employee proprietary interest in our success and to encourage them to remain in the employment of the Company. We believe that the Nonqualified ESPP aligns employee interests with that of our stockholders, is an important component of the benefits we offer to our employees and serves as a key recruiting and retention tool in a competitive market.

We have attempted, in the design of the terms of the Nonqualified ESPP, to balance considerations of recruiting and retention in a competitive labor market with the costs to our stockholders. We obtained and reviewed an independent consultant’s analyses of the potential dilution to stockholders over the term of the Nonqualified ESPP and potential expense. Based on that information, 1) we have set the number of additional shares contained in this proposal (800,000 shares) such that the aggregate number of shares available under the Nonqualified ESPP and our Amended and Restated Employee Stock Purchase Plan is, we believe, reasonable under the standards of many institutional investors; 2) we have also set a limit on the number of shares that can be acquired in an Offering Period to 500,000 shares, which will similarly serve to limit dilution to stockholders; and 3) we anticipate the additional 800,000 shares under the Nonqualified ESPP plus our current share reserve would provide sufficient shares in the plan reserve for approximately three years after the Annual Meeting. In addition, shares acquired under the Nonqualified ESPP are generally required to be held for a period of one year from the Exercise Date. We believe that the design of the Nonqualified ESPP allows us to offer a vehicle through which employees can continue to acquire an ownership interest in the Company on favorable terms and be aligned with stockholders by acquiring equity, while also being mindful of dilution.

Under the Nonqualified ESPP, eligible employees purchase our common stock through accumulated payroll deductions, and for each share of our common stock purchased, we issue an additional share at no cost to the employee that is subject to a one-year vesting period. The Nonqualified ESPP is not intended to qualify as an “employee stock purchase plan” under Section 423 of the Code.

A copy of the proposed Nonqualified ESPP is included as Appendix C to this Proxy Statement.

Our stockholders last approved an increase in the shares authorized for issuance under the Nonqualified ESPP in May 2020 which increased the shares authorized for issuance under the Nonqualified ESPP from 3,500,000 to 4,700,000. Since its inception in May 2017, a total of 2,420,329 shares have been issued under the Nonqualified ESPP, inclusive of forfeited shares. Given the current rate of participation by our employees in the Nonqualified ESPP, we expect that the additional 800,000 share increase to the Nonqualified ESPP plus the current share reserve will cover purchases under the Nonqualified ESPP for approximately three years.

Background on Share and Amendment Request

In its determination to approve the 800,000 share increase to the Nonqualified ESPP, our Board and Compensation Committee reviewed an analysis prepared by Aon, its compensation consultant, which included an analysis of our historical share usage, certain dilution metrics and the costs of the Nonqualified ESPP. Specifically, our Board and Compensation Committee considered the following:

- During the Offering Period ended on November 14, 2020, we issued a total of 225,726 shares out of a maximum of 500,000 shares and saw the number of participants increase by approximately 10% over the prior year. Further, participating employees for the Offering Period ended November 14, 2020 elected to contribute an average of 12.7% of their eligible earnings to purchase shares under the Nonqualified ESPP. As such, our Board and Compensation Committee believe that the Nonqualified ESPP acts as an important incentive to both newly hired and existing employees to invest in our common stock and aligning their interests with the interests of our stockholders.
- Our Board and Compensation Committee considered the dilutive effect of the share increase to the Nonqualified ESPP and sought to balance such dilutive effect with the benefits of providing sufficient shares to promote employee participation.

- No more than an aggregate of 500,000 shares may be purchased or acquired on any Exercise Date in an Offering Period.

In light of the factors described above, and our Board's and our Compensation Committee's assessment that the ability to continue to offer the opportunity to purchase shares of our common stock and be issued matching shares of our common stock is vital to our ability to continue to attract and retain employees in the labor markets in which we compete, our Board and our Compensation Committee have determined that the size of the increase in the share reserve under the Nonqualified ESPP and the proposed amendments are reasonable and appropriate at this time.

A summary of the principal provisions of the Nonqualified ESPP is set forth below. The summary is qualified by reference to the full text of the Nonqualified ESPP, which is attached as Appendix C to this Proxy Statement.

Summary of the Nonqualified ESPP

Administration. The Nonqualified ESPP will be administered by our Compensation Committee, which, unless otherwise determined by the Board, will consist solely of two or more members of the Board, each of whom is intended to qualify as a "non-employee director" as defined by Rule 16b-3 of the Exchange Act and an "independent director" under the applicable exchange rules. The Administrator has broad authority to construe the Nonqualified ESPP and to make determinations with respect to the terms and conditions of each Offering Period under the Nonqualified ESPP, awards, designated subsidiaries and other matters pertaining to plan administration.

Shares Available Under the Nonqualified ESPP. Under the Nonqualified ESPP, the maximum number of shares of our common stock which will be authorized for issuance is 5,500,000, an increase of 800,000 shares from the share reserve last approved by our stockholders in May 2020. The shares available for issuance under the Nonqualified ESPP may be authorized but unissued shares or reacquired shares.

Offerings. Under the Nonqualified ESPP, employees have the right to acquire shares of our common stock through payroll deductions accumulated over an Offering Period. "Offering Periods" are six-month periods that are set as November 15 through May 14 and May 15 through November 14 of each year, unless otherwise determined by our Compensation Committee as administrator of the Nonqualified ESPP.

Eligibility and Enrollment. Any employee of Calix, Inc. (and such present or future subsidiaries of Calix, Inc. as our Board or Compensation Committee may designate) who (i) is customarily employed more than twenty hours a week; (ii) is customarily employed more than five months per calendar year and (iii) who is an employee at the commencement of an Offering Period is eligible to participate in the Nonqualified ESPP. However, the following employees are ineligible to participate in the Nonqualified ESPP: our Chief Executive Officer, each senior management employee who reports directly to our Chief Executive Officer and other employees that are members of senior management as identified by the Administrator.

By enrolling in the Nonqualified ESPP, a participant is deemed to have elected to (a) purchase the maximum number of whole shares of common stock that can be purchased with the compensation withheld during each Offering Period for which the participant is enrolled and (b) acquire an equal number of Restricted Shares. Unless otherwise determined by the plan administrator, Restricted Shares are subject to a risk of forfeiture in the event the participant ceases to be employed prior to the first anniversary of the date the shares are acquired. If a participant ceases to be an eligible employee for any reason during an Offering Period, he or she will be deemed to have elected to withdraw from the Nonqualified ESPP and any amounts credited to the participant's account will be returned to the participant or the participant's beneficiary in the event of his or her death. If a participant ceases to be employed during the one-year period following an Offering Period, he or she will retain each purchased share but each Restricted Share will be forfeited, subject to the discretion of the plan administrator to waive such forfeiture under certain limited circumstances.

As of March 16, 2021, approximately 791 employees in the U.S., Canada and China are eligible to participate in the Nonqualified ESPP. None of our executive officers are eligible to participate in the Nonqualified ESPP. In addition, consultants and non-employee directors are not eligible to participate in the Nonqualified ESPP.

Payroll Deductions. The payroll deductions made for each participant may be not less than 1% nor more than 25% of a participant's compensation. Compensation is defined in the Nonqualified ESPP and generally includes cash remuneration that would be reported as income for federal income tax purposes. A participant may decrease (but not increase) his or her payroll deduction authorization once during any Offering Period. If a participant wishes to increase or decrease the rate of payroll withholding, he or she may do so effective for the next Offering Period by submitting a new election.

Exercise Date; Purchase of Stock. The “Exercise Date” of each Offering Period occurs on the last trading day of each Offering Period. On the Exercise Date, accumulated payroll deductions for each participant will be used to (i) purchase whole shares of common stock at a purchase price equal to the closing trading price of our common stock on the Exercise Date (the “Purchased Shares”) and (ii) acquire an equal number of shares of our common stock that, unless determined otherwise by the Administrator in connection with certain terminations of employment, are subject to a risk of forfeiture in the event the participant terminates employment within the one year period immediately following the Exercise Date (the “Restricted Shares”). On March 16, 2021, the closing price of our common stock on the NYSE was \$47.77 per share.

A participant may cancel his or her payroll deduction authorization and elect to withdraw from the Nonqualified ESPP by delivering written notice of such election to the Company. Upon cancellation, the participant may elect either to withdraw all of the funds then credited to his or her Nonqualified ESPP account and withdraw from the Nonqualified ESPP or have the balance of his or her account applied to the purchase of Purchased Shares and acquisition of Restricted Shares for the Offering Period in which his or her cancellation is effective (with any remaining Nonqualified ESPP account balance returned to the participant). A participant who ceases contributions to the Nonqualified ESPP during any Offering Period shall not be permitted to resume contributions to the Nonqualified ESPP during the same Offering Period.

Unless a participant has previously canceled his or her participation in the Nonqualified ESPP in accordance with the terms of the Nonqualified ESPP, the participant will be deemed to have exercised his or her option to purchase and acquire shares in full as of each Exercise Date. Upon exercise, the participant will purchase the number of whole shares that his or her accumulated payroll deductions will buy at the purchase price and acquire an equal number of Restricted Shares, provided that no more than an aggregate of 500,000 shares may be purchased or acquired on any Exercise Date.

Restrictions on Transferability. A participant may not assign, transfer, pledge or otherwise dispose of (other than by will or the laws of descent and distribution) payroll deductions credited to a participant’s account or any rights or interest, including purchase rights, under the Nonqualified ESPP, and during a participant’s lifetime, purchase rights under the Nonqualified ESPP shall be exercisable only by such participant. Any such attempt at assignment, transfer, pledge or other disposition will not be given effect.

In addition, unless otherwise determined by the plan administrator, no shares issued pursuant to the Nonqualified ESPP may be assigned, transferred, pledged or otherwise disposed of by the participant until the first anniversary of the Exercise Date upon which such shares were purchased or acquired. However, in the event a participant ceases to be an employee of the Company prior to the first anniversary of the Exercise Date upon which the shares were purchased, the Restricted Shares will be forfeited (subject to the discretion of the plan administrator to waive such forfeiture under certain limited circumstances), and the transfer restrictions applicable to the Purchased Shares will lapse.

Adjustments upon Changes in Recapitalization, Dissolution, Liquidation, Merger or Asset Sale. In the event of any stock dividend, stock split, combination or reclassification of shares or any other increase or decrease in the number of shares of common stock effected without receipt of consideration, the plan administrator has broad discretion to equitably adjust the number of shares authorized for issuance and awards under the Nonqualified ESPP to prevent the dilution or enlargement of benefits under outstanding awards as a result of such transaction.

In the event of a proposed liquidation or dissolution of the Company, the Offering Period then in progress will be shortened by setting a new Exercise Date to occur prior to the consummation of the proposed liquidation or dissolution and will terminate immediately prior to such consummation.

In the event of a proposed merger or asset sale, each outstanding purchase right will be assumed or substituted by the successor corporation. In the event that the successor corporation refuses to assume or substitute the purchase rights, any Offering Periods then in progress will be shortened by setting a new Exercise Date to occur prior to the date of the proposed sale or merger.

Insufficient Shares. If the total number of shares of common stock which are to be acquired under outstanding rights on any particular date exceed the number of shares then available for issuance under the Nonqualified ESPP or if the number of shares with respect to which rights are to be exercised exceed the Offering Period Share Limit, the plan administrator will make a pro rata allocation of the available shares on a uniform and equitable basis.

Rights as Stockholders. A participant will have the rights and privileges of a stockholder of the Company when, but not until, shares have been deposited in the designated brokerage account following exercise of his or her option. However, in the event a dividend is paid in respect of shares prior to the first anniversary of the Exercise Date upon which such shares were purchased or acquired under the Nonqualified ESPP, then no dividend will be paid on the Restricted Shares unless and until the participant continues employment through such first anniversary.

Data Privacy. The Nonqualified ESPP provides that, as a condition of participation, each participant explicitly consents to the collection, use and transfer, in electronic or other form, of personal data by and among, as applicable, our Company and subsidiaries, including any transfer of this data required to a broker or other third party with whom our Company or any of our Subsidiaries or the participant may elect to deposit any shares, to implement, administer and manage the participant's participation in the Nonqualified ESPP.

Amendment and Termination. Our Board may amend, suspend or terminate the Nonqualified ESPP at any time. The plan administrator may also modify or amend the Nonqualified ESPP to reduce or eliminate any unfavorable financial accounting consequences that may result from the ongoing operation of the Nonqualified ESPP. However, the Board may not amend the Nonqualified ESPP without obtaining stockholder approval within 12 months before or after such amendment to the extent required by applicable laws.

Federal Income Tax Consequences

The Nonqualified ESPP is not intended to qualify as an "employee stock purchase plan" under Section 423 of the Code. Accordingly, certain tax benefits available to participants in a Section 423 plan are not available under our Nonqualified ESPP.

For federal income tax purposes, a participant generally will not recognize taxable income on the grant of the right to purchase and acquire shares under the Nonqualified ESPP, nor will the Company be entitled to any deduction at that time. Upon the purchase of shares under the Nonqualified ESPP, a participant generally will not recognize taxable income and instead will recognize ordinary income in the amount equal to the fair market value of the Restricted Shares when the risk of forfeiture on the Restricted Shares lapses. The Company will be entitled to a corresponding deduction when the risk of forfeiture on the Restricted Shares lapses. A participant's basis in Purchased Shares, for purposes of determining the participant's gain or loss on subsequent disposition of such shares of common stock, generally, will be equal to the purchase price paid for such shares. A participant's basis in Restricted Shares, for purposes of determining the participant's gain or loss on subsequent disposition of such shares of common stock, generally, will be the fair market value of the shares of common stock on the date the risk of forfeiture on such shares lapse.

Upon the subsequent sale of the shares acquired under the Nonqualified ESPP, the participant will recognize capital gain or loss (long-term or short-term, depending on how long the shares were held following the date of purchase for Purchased Shares and the lapse of the risk of forfeiture for Restricted Shares prior to disposing of them).

The above is a general summary under current law of the material federal income tax consequences to an employee who participates in the Nonqualified ESPP. This summary deals with the general federal income tax principles that apply and is provided only for general information. Some kinds of taxes, such as state, local and foreign income taxes and federal employment taxes, are not discussed. Tax laws are complex and subject to change and may vary depending on individual circumstances and from locality to locality. The summary above does not discuss all aspects of federal income taxation that may be relevant in light of a participant's personal circumstances. Further, this summarized tax information is not tax advice and a participant in the Nonqualified ESPP should rely on the advice of his or her legal and tax advisors.

New Plan Benefits

The increase in shares authorized for issuance under the proposed Nonqualified ESPP applies to future Offering Periods, starting with the Offering Period commencing May 15, 2021 and ending on November 14, 2021. The number of shares of common stock that may be acquired under the Nonqualified ESPP is dependent upon the closing trading price of our common stock on the last day of each future Offering Period, the voluntary election by each eligible employee to participate and the amount of a participant's payroll deductions during an Offering Period, and is not currently determinable. The following table states the amounts which were received by each of the named individuals and groups under our Nonqualified ESPP for our last completed fiscal year, and the number of shares of common stock purchased under the Nonqualified ESPP from its inception through March 16, 2021.

<u>Name and Position</u>	<u>Payroll Deductions Used to Purchase Shares in 2020 (\$)</u> (1)	<u>Number of Shares Issued in 2020</u> (2)	<u>Number of Shares Issued from Inception through March 16, 2021</u> (2)
Carl Russo (3) <i>Chief Executive Officer</i>	—	—	—
Cory Sindelar (3) <i>Chief Financial Officer</i>	—	—	—
Michael Weening (3) <i>President and Chief Operating Officer</i>	—	—	—
Executive Group (4)	—	—	—
Non-Executive Director Group (4)	—	—	—
Non-Executive Officer Employee Group	4,834,518	470,580	2,420,329

- (1) Represents fair market value at date of purchase. The purchase price of the shares was \$13.98 for the Offering Period ending June 20, 2020 and \$24.69 for the Offering Period ending November 14, 2020 (the latter representing a five-month transition period to the May – Nov Offering Periods).
- (2) Includes Purchased Shares and Restricted Shares, less forfeited shares.
- (3) Messrs. Russo, Sindelar and Weening are not eligible to participate in the Nonqualified ESPP.
- (4) Groups not eligible to participate in the Nonqualified ESPP.

To be approved, this proposal must receive a “For” vote from the holders of a majority in voting power of the shares of common stock which are present or represented by proxy and entitled to vote on the proposal. Abstentions will have the same effect as an “Against” vote for purposes of determining whether this matter has been approved. Broker non-votes will not be counted for any purpose in determining whether this matter has been approved.

THE BOARD OF DIRECTORS RECOMMENDS A VOTE “FOR” APPROVAL OF THE CALIX, INC. AMENDED AND RESTATED 2017 NONQUALIFIED EMPLOYEE STOCK PURCHASE PLAN AS DISCUSSED ABOVE.

PROPOSAL NO. 5

APPROVAL ON A NON-BINDING, ADVISORY BASIS OF THE COMPENSATION OF OUR NAMED EXECUTIVE OFFICERS (“SAY-ON-PAY”)

We are seeking an advisory vote from our stockholders to approve the compensation paid to our NEOs, as disclosed in this Proxy Statement under the “Compensation Discussion and Analysis” section (“CD&A”) below.

Our Compensation Committee, with advice and information from its external compensation consultant and consideration of recommendations by our CEO for our executives (other than the CEO), has structured our executive compensation program to stress a pay-for-performance philosophy. The compensation opportunities provided to our NEOs are significantly dependent on Calix’s financial performance, the performance of Calix’s stock and the NEO’s individual performance, which are intended to drive creation of sustainable stockholder value. The Compensation Committee intends to continue to emphasize what it believes to be responsible compensation arrangements that attract and retain high-caliber executive officers and motivate strong performance to achieve Calix’s short- and long-term business strategies and objectives.

Our Board previously determined to hold an advisory “say-on-pay” vote every year. In accordance with this determination and Section 14A of the Exchange Act, you have the opportunity to vote “For” or “Against” or to “Abstain” from voting on the following non-binding resolution relating to executive compensation:

“RESOLVED, that the stockholders approve, on an advisory basis, the compensation paid to Calix’s NEOs as disclosed in Calix’s proxy statement for the 2021 Annual Meeting of Stockholders under the compensation disclosure rules of the SEC, including the compensation discussion and analysis, compensation tables and narrative discussion of the proxy statement.”

In deciding how to vote on this proposal, we encourage you to consider Calix’s executive compensation philosophy and objectives, the design principles and the elements of Calix’s executive compensation program described in our CD&A below. As described in the CD&A, a guiding principle of our compensation philosophy is that pay should be linked to performance and that the interests of our executives and stockholders should be aligned. Our compensation program is a mix of short- and long-term components, cash and equity elements and fixed and contingent payments in proportions we believe will provide the proper incentives, reward our NEOs, help us achieve our goals and increase stockholder value. For example:

- *Chief Executive Officer Compensation Aligned with Stockholder Interests.* A significant portion of our chief executive officer’s compensation is tied to equity. As a holder of more than 10% of our common stock consistently since Calix’s initial public offering, our chief executive officer is a significant stockholder and his personal wealth has consistently been, and continues to be, tied directly to sustained stock price appreciation and performance, which provides direct alignment with stockholder interests.
- *Other NEOs Compensation Substantially Tied to Performance.* Our other NEOs generally earn a significant portion of their total compensation in the form of variable cash and long-term equity compensation contingent upon stated performance targets tied to achievement of growth in Calix’s stock price and Calix’s quarterly and annual financial performance along with consideration of individual executive performance. From time to time, our Compensation Committee may also choose to award our NEOs with discretionary bonuses and time-based option grants to recognize exemplary performance or for retentive purposes.
- *Change in Control and Severance Benefits Not Grossed Up.* Calix provides limited change in control and severance benefits to provide NEOs security and to remain competitive in attracting and retaining executive talent. Calix does not provide for any tax gross up to any NEO in connection with any change in control or severance benefits.
- *Clawback Policy.* Calix adopted a clawback policy in May 2019 that applies to all executive officers and covers all compensation under our cash incentive programs as well as all equity awards granted or awarded after the date the policy was adopted. The policy applies in the event our financial statements are restated as a result of material non-compliance with financial reporting rules as defined in the policy and provides our Board with broad discretion as to the actions that may be taken based on circumstances leading to the restatement, including recovery of incentive-based compensation received by an executive officer in excess of what the executive officer would have been paid under the restatement.
- *Two-Year Holding Period Upon Exercise of Certain Time-Based Option Grants.* In November 2019, Mr. Sindelar and Mr. Weening were awarded time-based option grants annually over a five-year period as discussed under “*Compensation Discussion and Analysis – November 2019 Awards for Cory Sindelar and Michael Weening*” below. Each option grant will vest and become exercisable over four years, and any shares issued upon exercise of the options are further subject to a two-year holding period from the vest date of such shares to further align our NEOs’ long-term equity compensation with the Company’s efforts to improve financial performance over the long-term.

To be approved, on a non-binding and advisory basis, the compensation paid to our NEOs must receive a “For” vote from the holders of a majority in voting power of the shares of common stock which are present or represented by proxy and entitled to vote on the proposal. Abstentions will have the same effect as “Against” votes for purposes of determining whether this matter has been approved. Broker non-votes will not be counted for any purpose in determining whether this matter has been approved.

While your vote on this proposal is advisory and will not be binding, we value the opinions of Calix’s stockholders on executive compensation matters and will take the results of this advisory vote into consideration when making future decisions regarding Calix’s executive compensation program. Unless the Board modifies its determination of the frequency of future “say on pay” advisory votes, the next “say-on-pay” advisory vote will be held at our 2022 Annual Meeting of stockholders.

THE BOARD OF DIRECTORS RECOMMENDS A VOTE “FOR” THE APPROVAL OF THE COMPENSATION PAID TO THE NAMED EXECUTIVE OFFICERS, AS DISCLOSED IN THIS PROXY STATEMENT UNDER THE COMPENSATION DISCLOSURE RULES OF THE SEC.

PROPOSAL NO. 6

RATIFICATION OF SELECTION OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

Our Audit Committee has engaged KPMG LLP (“KPMG”) as our independent registered public accounting firm for the fiscal year ending December 31, 2021 and is seeking ratification of such selection by our stockholders at the Annual Meeting. KPMG has audited our financial statements since February 29, 2016. Representatives of KPMG are expected to be present at the Annual Meeting. They will have an opportunity to make a statement if they so desire and will be available to respond to appropriate questions.

Neither our bylaws nor other governing documents or law require stockholder ratification of the selection of KPMG as our independent registered public accounting firm. However, our Audit Committee is submitting the selection of KPMG to our stockholders for ratification as a matter of good corporate practice. If our stockholders fail to ratify the selection, the Audit Committee will reconsider whether or not to retain KPMG. Even if the selection is ratified, the Audit Committee in its discretion may direct the appointment of a different independent registered public accounting firm at any time during the year if they determine that such a change would be in the best interests of Calix and its stockholders.

To be approved, the ratification of the selection of KPMG as our independent registered public accounting firm must receive a “For” vote from the holders of a majority in voting power of the shares of common stock which are present or represented by proxy and entitled to vote on the proposal. Abstentions will have the same effect as an “Against” vote for purposes of determining whether this matter has been approved. Broker non-votes will not be counted for any purpose in determining whether this matter has been approved.

Principal Accountant Fees and Services

The following table provides information regarding the fees for the audit and other services provided by KPMG for the fiscal years ended December 31, 2020 and 2019 (in thousands).

	Fiscal Years Ended December 31,	
	2020	2019
Audit Fees	\$ 1,460	\$ 1,323
Audit-Related Fees	—	—
Tax Fees	—	—
All Other Fees	—	—
Total Fees	<u>\$ 1,460</u>	<u>\$ 1,323</u>

Audit Fees

KPMG audit fees for 2020 consist of fees billed or expected to be billed for professional services rendered for the audit of our annual consolidated financial statements for the fiscal year ended 2020, the audit of the effectiveness of our internal control over financial reporting and the review of our consolidated financial statements included in our Form 10-Q quarterly reports for the fiscal year ended 2020.

KPMG audit fees for 2019 consist of actual fees for professional services rendered for the audit of our annual consolidated financial statements for the fiscal year ended 2019, the audit of the effectiveness of our internal control over financial reporting and the review of our consolidated financial statements included in our Form 10-Q quarterly reports for the fiscal year ended 2019.

Audit fees also include services that are typically provided by the independent registered public accounting firm in connection with statutory and regulatory filings for our international subsidiaries for those fiscal years, and for 2020, services for our follow-on offering of common stock.

Pre-Approval Policy and Procedures

Our Audit Committee pre-approves all audit and non-audit services provided by our independent registered public accounting firm. Our Audit Committee may delegate authority to one or more members of the Audit Committee to provide such pre-approvals, provided that such approvals are presented to the Audit Committee at a subsequent meeting. This policy is set forth in the charter of the Audit Committee and available under “Governance” in the Investor Relations section of our website at investor-relations.calix.com.

**THE BOARD OF DIRECTORS RECOMMENDS A VOTE “FOR” THE RATIFICATION OF THE SELECTION OF KPMG LLP
AS OUR INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM FOR THE FISCAL YEAR ENDING
DECEMBER 31, 2021.**

EXECUTIVE COMPENSATION

Compensation Discussion and Analysis

Executive Summary

Our compensation and benefits programs reflect our philosophy of compensation and incentivizing all of our employees, including our named executive officers (“NEOs”), in ways that support two primary objectives:

- attract, reward and retain exceptional talent in the markets in which we operate
- identify and reward outstanding performance that reflects Calix principles and values and aligns with long-term stockholder value creation

To help us achieve these objectives, a significant portion of our NEOs’ compensation is set to be “at risk” with significant upside potential for strong performance as well as downside exposure for underperformance. NEOs with greater responsibilities and the ability to directly impact our Company’s goals and long-term results bear a greater proportion of the risk if these goals and results are not achieved.

The following discussion describes and analyzes our compensation objectives and policies as well as the material components of our compensation program for our NEOs during 2020. Our NEOs for 2020 were:

- Carl Russo, President and Chief Executive Officer
- Cory Sindelar, Chief Financial Officer
- Michael Weening, Executive Vice President and Chief Operating Officer

In January 2021, Mr. Russo resigned from his role as president, and Mr. Weening was promoted to the role of president and chief operating officer. Mr. Russo continues to serve as our chief executive officer.

Compensation Philosophy and Process

We strive to find the best talent, resources and infrastructure to serve our customers and key stakeholders, execute on our strategy as a cloud and software platforms, systems and services company and pursue our mission. Our goal is to attract and retain highly qualified executives to manage and oversee each of our business functions. We seek out individuals who we believe will be able to contribute to our business, long-term success, culture, principles and values and who will promote the long-term interests and growth of our Company. Our compensation philosophy is intended to promote a team-oriented approach to performance as a portion of each NEO’s incentive compensation is based on achievement against the same performance objectives as our broad-based incentive plan.

Our executive compensation program aims to achieve the following:

- enable us to attract, retain and drive a high caliber, talented leadership team to execute on our business strategy;
- foster a goal-oriented leadership team with a clear understanding of long-term business objectives and shared corporate principles and values;
- ensure that the elements of compensation provided to our employees and executives are balanced, individually and in combination, and do not encourage excessive risk-taking;
- reflect the competitive environment of our industry and our changing business needs;
- allocate our resources effectively and efficiently in the development and selling of market-leading platforms, systems and services; and
- maintain pay parity and fair compensation practices across our organization.

In furtherance of these goals, our executive compensation program is designed to:

- be market competitive, including targeting benchmarking and evaluating compensation levels and compensation practices to our peer group;
- emphasize pay for performance;
- share risks and rewards with our stockholders;
- align the interests of our executives with those of our stockholders; and

- reflect our principles and values.

Our executive compensation program includes the following components:

- base salary;
- incentive-based cash compensation;
- cash bonus awards;
- grants of long-term equity awards; and
- health, welfare and retirement benefits.

In November 2020, our Compensation Committee conducted its annual review of our executive compensation program with its independent compensation consultant, including a review of our pay philosophy, compensation mix, short and long-term incentive plan structures, equity plans and overall compensation program governance and risks and concluded that overall our executive compensation program was consistent with market practice and does not encourage excessive risk taking. In reaching these conclusions, our Compensation Committee, in consultation with Aon, also reviewed governance and pay-for-performance guidelines issued by proxy advisory firms.

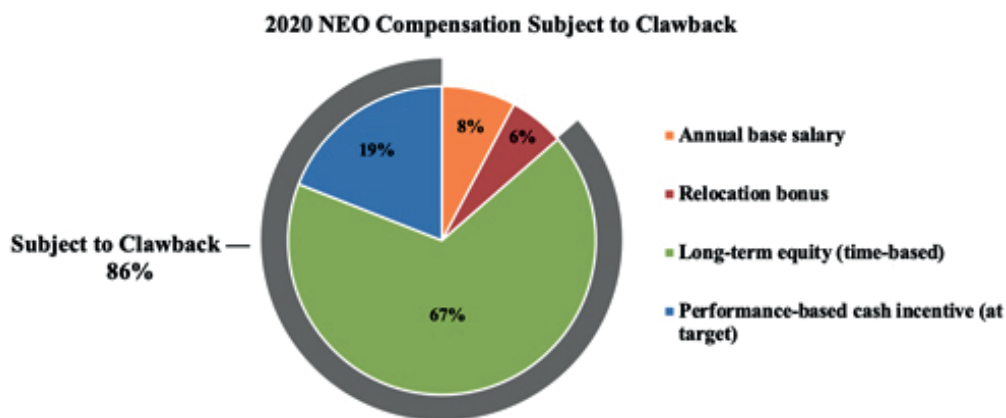
Annual Stockholder Advisory Vote on Executive Compensation

We hold an advisory, non-binding stockholder vote on executive compensation every year. At our 2020 Annual Meeting of Stockholders, our stockholders voted to approve the compensation of our NEOs, with approval of 93% of the votes cast. The Compensation Committee also reviewed our compensation programs with Aon and management, including consideration of governance and pay-for-performance guidelines issued by proxy advisory firms. The Compensation Committee regularly reviews executive compensation programs, in conjunction with Aon, and makes changes it determines are appropriate. The Compensation Committee intends to continue to take into consideration the outcome of our stockholders’ advisory “say-on-pay” votes along with market practices and the recommendations of its executive compensation advisor when making future compensation decisions for the NEOs.

Clawback Policy

In May 2019, we adopted a clawback policy that applies to our executive officers and covers all compensation under our cash incentive programs as well as all equity awards granted or awarded after the date the policy was adopted. The policy applies in the event our financial statements are restated as a result of material non-compliance with financial reporting rules as defined in the policy and provides our Board with broad discretion as to the actions that may be taken based on circumstances leading to the restatement, including recovery of incentive-based compensation received by an executive officer in excess of what the executive officer would have been paid under the restatement. Our Compensation Committee monitors regulatory developments with respect to compensation policies and will recommend to our Board of Directors any changes to the current policy that are necessary or appropriate in light of guidance issued by the SEC.

The fiscal year 2020 NEO compensation subject to clawback under our policy is as follows:



Policy Prohibiting Speculative Transactions and Hedging or Pledging

In accordance with our insider trading policy, which is annually reviewed by our Nominating and Corporate Governance Committee, we do not permit any officer, director or employee, and their respective family members, to directly or indirectly participate in certain trading activities related to our common stock that are considered aggressive or speculative in nature, including short sales, publicly-traded options, hedging transactions, margin purchases and pledging our common stock.

Role of Our Compensation Committee

Our Compensation Committee approves and interprets our executive compensation and benefit plans and policies. The Compensation Committee also has oversight over compensation of senior management and the effectiveness of our overall compensation and benefits programs for all employees. The Compensation Committee is appointed by the Board and consists entirely of directors who are non-employee directors for purposes of Rule 16b-3 of the Exchange Act. In 2020, our Compensation Committee determined the compensation for all of our NEOs. Our chief executive officer assesses NEO individual performance and compensation, excluding his own performance and compensation, each year and makes recommendations regarding each element of NEO compensation to the Compensation Committee. Our chief executive officer does not participate in any formal discussion with the Compensation Committee regarding decisions on his own compensation and recuses himself from discussions in which his compensation is assessed or determined by the Compensation Committee.

Competitive Market Review

The market for experienced executive leaders is highly competitive in the technology sector generally and in our industry and for the skills and experience we desire. We strive to attract and retain highly qualified executives to effectively lead each of our business functions to achieve our business strategy. In doing so, we draw upon a pool of talent that is highly sought after by both large and established technology and telecommunications companies in our geographic areas and by other competitive companies in development or growth phases. Established organizations in our industry seek to recruit top talent from emerging companies in the sector just as smaller organizations look to attract and retain the best talent from the industry as a whole. We also compete for key talent on the basis of: our vision of future success; our culture and values; the cohesiveness and productivity of our teams; and the excellence of our technical and leadership teams. The competition for technical and non-technical skills is aggressive across the sector, and we expect it to remain high for the foreseeable future.

Our Compensation Committee determines compensation for our NEOs in large part based upon its assessment of competitive market data and individual executive roles and responsibilities to pursue our short and long-term strategy. In setting executive compensation for 2020, our Compensation Committee conducted a review of our NEOs' compensation, as well as a mix of elements used to compensate our NEOs, and compared that information with data provided by Aon, as discussed below.

Our 2020 peer group companies were set in the fourth quarter of 2019 for purposes of determining NEO compensation for 2020. Our 2020 peer group criteria consisted of companies within the technology industry, with an increasing shift toward software and platform companies, with revenue between \$200 million and \$1.2 billion and market capitalizations between \$150 million and \$1.5 billion that we believe compete with us for executive talent. Our 2020 peer group was set by our Compensation Committee based on recommendations from Aon, consideration of ISS and Glass Lewis peer group criteria, and discussion with management. Although 8x8, Inc., Five9 Inc. and NetScout Systems, Inc. were above \$1.5 billion in market capitalization at the time of our 2020 peer group evaluation and selection, our Compensation Committee determined to retain these companies in the peer group after consideration of a number of factors, including our potential growth and the determination that these companies align across all other peer group metrics. As of March 16, 2021, our market capitalization was approximately \$3 billion. Our 2020 peer group consisted of the following companies:

- | | |
|------------------------------------|----------------------------------|
| • 8x8, Inc. | • Forescout Technologies, Inc. * |
| • A10 Networks, Inc. | • Harmonic Inc. |
| • Applied Optoelectronics, Inc. | • Infinera Corporation |
| • CalAmp Corp. | • Inseego Corp. |
| • Carbon Black, Inc. * | • MobileIron, Inc. * |
| • Casa Systems, Inc. | • NetScout Systems, Inc. |
| • Comtech Telecommunications Corp. | • QAD Inc. * |
| • Digi International Inc. | • Ribbon Communications US LLC |
| • Extreme Networks, Inc. | • Talend * |
| • Five9 Inc. | • TESSCO Technologies, Inc. |

* Represents new additions to our peer group for 2020.

At the time our 2020 peer group companies were determined, our annual revenue and market cap were positioned at approximately the 69th percentile and 14th percentile, respectively, of our 2020 peer group. We determine our approximate position relative to the appropriate market benchmark by comparing our practices and levels: by target annual cash compensation, which includes base salary, target annual incentive opportunity; and by total direct compensation, which includes target cash compensation and equity compensation. Our Compensation Committee seeks to set the total target cash compensation for our NEOs at approximately the 50th percentile of our peer group, when looking at the group in the aggregate.

During 2020, our Compensation Committee continued to engage Aon as its independent executive compensation advisor. Aon was hired directly by our Compensation Committee and works with management only at our Compensation Committee's direction to interpret results, make recommendations and assist in setting compensation levels for our executive officers. Our Compensation Committee annually assesses the independence of its executive compensation advisor, including conducting a review with the advisor. After review, our Compensation Committee determined that Aon is independent and that there is no conflict of interest in retaining Aon currently or during 2020.

Weighting of Elements in our Compensation Program

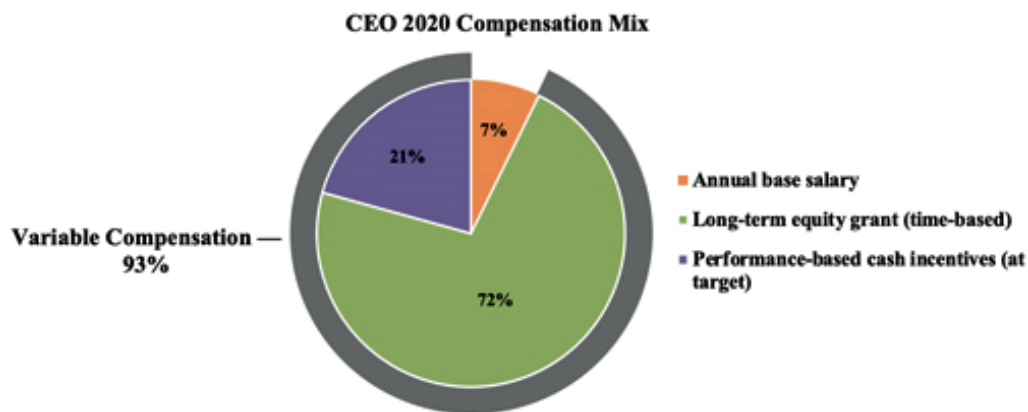
The use and weight of each compensation element is based on a determination by our Compensation Committee of the importance of each element in meeting our overall corporate objectives for each year as well as our long-term business strategy. We also take into consideration assessments of our compensation program, including an assessment of compensation program risks and the recommendations of the Compensation Committee's executive compensation advisor.

Chief Executive Officer Compensation

The compensation of Mr. Russo is annually reviewed by our Compensation Committee. In 2012, Mr. Russo's base salary was set at \$500,000 per year with a cash incentive opportunity set at 100% of his annual base salary. For each year since 2012 through 2020, Mr. Russo's base salary and cash incentive plan opportunity have remained as set in 2012. Over the past six years, Mr. Russo has declined four annual executive equity awards, but continues to be a significant stockholder (with stock ownership of approximately 10.42% of common stock outstanding). As such, the Compensation Committee considers that Mr. Russo's personal wealth has continued to be tied directly to sustained stock price appreciation and performance, which provides direct alignment with stockholder interests.

In recognition of Mr. Russo's strategic leadership and the Company's overall performance, and after consideration that Mr. Russo's total direct compensation remained flat over the last several years placing Mr. Russo's compensation at approximately the 25th percentile compared to peer group companies, in May 2020 the Compensation Committee determined to grant Mr. Russo an option to purchase 800,000 shares of the Company's common stock. The stock option was granted at an exercise price of \$12.63 per share, equal to the closing trading price of the Company's common stock on the date of grant. The stock option will vest and become exercisable over four years, with 25% of the shares underlying each option vesting on the first anniversary of the grant date of such option, and the remainder vesting in equal quarterly installments over the next three years.

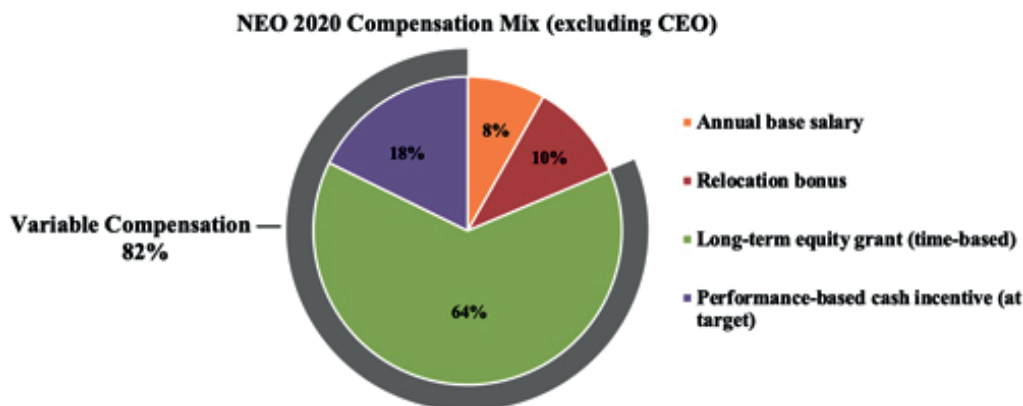
In general, our executive compensation is more heavily weighted toward long-term equity awards such that a significant portion of an executive's compensation is tied to long-term stockholder interests. Except for the option grant, no other adjustments to Mr. Russo's compensation were made in 2020. Following the option grant, Mr. Russo's 2020 total target cash compensation is positioned at the 25th percentile of our peer group of companies, and his 2020 total target direct compensation is positioned at the 75th percentile of our peer group of companies. The weighting of compensation elements for Mr. Russo in 2020 is as follows:



Other NEO Compensation

As with our chief executive officer compensation, a significant amount of the total potential compensation of our other NEOs in 2020 is comprised of “at risk” variable compensation based on our achievements of corporate financial targets aligned with our financial objectives and our business strategy.

The weighting of compensation elements for our other NEOs in 2020 as a group is as follows:



For the purposes of the graphs above, the value of long-term equity is based on grant date fair value of the applicable equity award. The graphs do not include time-based options to which Messrs. Sindelar and Weening became entitled, but will not be granted until the future, or the relocation bonuses payable to Mr. Weening in the future, in each case, as described below under “November 2019 Awards for Cory Sindelar and Michael Weening.”

November 2019 Awards for Cory Sindelar and Michael Weening

In November 2019, the Compensation Committee approved, and we entered into letter agreements with each of Mr. Sindelar and Mr. Weening (each, a “Letter Agreement”) that provide (1) each executive with time-based stock option awards to be granted annually over a five-year period commencing in November 2019 under the Company’s 2019 Equity Incentive Award Plan and (2) Mr. Weening with a relocation bonus, payable in quarterly installments over a five-year period commencing in 2020. The Letter Agreements were entered into as an incentive for each executive to continue their employment with the Company. Among other considerations, the Committee placed significant importance on the focus areas for the next stage of the Company’s execution against its long-term strategy and growth as a cloud and software platform business and on our efforts to improve our financial performance over the long-term as we transform to a cloud and software platform company.

Letter Agreement with Mr. Sindelar

Pursuant to his Letter Agreement, in November 2019 Mr. Sindelar was granted an option to purchase 200,000 shares of the Company’s common stock and, subject to Mr. Sindelar’s continued employment with the Company, Mr. Sindelar will automatically be granted an additional option to purchase 150,000 shares of the Company’s common stock on the first anniversary of the initial grant date and an additional option to purchase 100,000 shares of the Company’s common stock on each of the second, third and fourth anniversaries of the initial grant date. Each such option has, or in the case of future grants will have, an exercise price per share equal to the closing trading price of the Company’s common stock on the date of grant, and will vest and become exercisable over four years, with 25% of the shares underlying each option vesting on the first anniversary of the grant date of such option, and the remainder vesting in equal quarterly installments over the next three years. Under Mr. Sindelar’s Letter Agreement, Mr. Sindelar will hold and may not transfer any shares issued upon exercise of the foregoing options until two years have lapsed from the vest date of such shares.

Letter Agreement with Mr. Weening

Pursuant to his Letter Agreement, in November 2019 Mr. Weening was granted an option to purchase 600,000 shares of the Company's common stock and, subject to Mr. Weening's continued employment with the Company, Mr. Weening will automatically be granted an additional option to purchase 300,000 shares of the Company's common stock on the first anniversary of the initial grant date and an additional option to purchase 120,000 shares of the Company's common stock on each of the second, third and fourth anniversaries of the initial grant date. Each such option has, or in the case of future grants will have, an exercise price per share equal to the closing trading price of the Company's common stock on the date of grant, and will vest and become exercisable over four years, with 25% of the shares underlying each option vesting on the first anniversary of the grant date of such option, and the remainder vesting in equal quarterly installments over the next three years. Under Mr. Weening's Letter Agreement, Mr. Weening will hold and may not transfer any shares issued upon exercise of the foregoing options until two years have lapsed from the vest date of such shares.

In addition, Mr. Weening's Letter Agreement provides for a relocation bonus (the "Relocation Bonus") to be paid to Mr. Weening in quarterly installments of \$225,000, less deductions and withholdings, during the period commencing January 1, 2020 and ending December 31, 2024. The Relocation Bonus is subject to Mr. Weening's relocation of his principal residence, currently in Canada, to the general vicinity of the Company's San Jose, California offices on or prior to November 27, 2020 and Mr. Weening's continued employment through each applicable payment date. On November 12, 2020, the Compensation Committee amended Mr. Weening's Letter Agreement to extend the deadline for Mr. Weening to relocate until November 27, 2021 due to unforeseen difficulties with relocating resulting from the COVID-19 pandemic.

Base Salary

Base salary reflects the experience, skills, knowledge and responsibilities of each NEO as well as competitive market conditions. Base salary is one component of total cash compensation.

The table below sets forth the annual base salary as of December 31, 2020 for each NEO as set by our Compensation Committee:

<u>Name of Executive Officer</u>	<u>Annual Base Salary</u>	
	<u>2020</u>	<u>2019</u>
Carl Russo	\$ 500,000	\$ 500,000
Cory Sindelar	352,000	352,000
Michael Weening	352,000	352,000

The annual base salaries of our NEOs are reviewed at least once a year, and our Compensation Committee intends to make adjustments to reflect performance considerations as well as competitive conditions.

For 2020, the Compensation Committee reviewed executive compensation but determined to not make any adjustments to the base salaries of our senior management, including the base salaries of our NEOs, after considering the global economic and business disruptions, including disruptions that impacted our operations along with those of our suppliers and customers, as well as the overall uncertainties resulting from the COVID-19 pandemic.

Cash Incentive Compensation

Our NEOs participate in our executive cash incentive plan. The executive cash incentive plan provides for funding of an executive's cash incentive opportunity based on the Company's achievement against preset quarterly corporate financial targets and an annual payout based on assessment of the NEO's performance for the year. Our Compensation Committee sets target incentive opportunities for each NEO under the plan in an amount equal to a percentage of the NEO's annual base salary. Our chief executive officer provides his assessment of individual NEO performance for our Compensation Committee determination of actual cash incentive payout of amounts funded under the plan. Our chief executive officer's performance is evaluated and determined solely by our Compensation Committee. The cash incentive plan does not provide for any guaranteed payments. Further, our Compensation Committee retains discretion over funding of the cash incentive plan each quarter as well as the actual payout awarded to each executive.

In setting the performance targets for our cash incentive plan, our Compensation Committee seeks to align the performance targets to our key financial objectives and business strategy, which we believe best furthers the long-term interests of our stockholder. Our Compensation Committee establishes our quarterly corporate financial targets based on the annual operating plan approved by our Board at the beginning of the year and based on quarterly financial information prepared by management. In general, the preset financial targets need to be achieved for that particular quarter in order for the cash incentive compensation pool to be funded for that quarter.

For 2020, our Compensation Committee established two separate cash bonus opportunities under the executive cash incentive plan. The first bonus opportunity is based on our achievement of quarterly revenue and non-GAAP net income (loss) performance targets designed to incentivize achievement at or above our annual financial goals. Both targets must be achieved at 100% or more for any payout. The second bonus opportunity is based on our achievement of a minimum non-GAAP gross margin target, measured quarterly, that is designed to incentivize long-term financial achievement aligned to our target financial model. This bonus opportunity provides that in the event the non-GAAP gross margin for a fiscal quarter exceeds the target, the bonus opportunity would be funded in an amount equal to 25% of the gross profit dollars of the performance above target. If non-GAAP gross margin is achieved at or below target, the bonus is not funded and there is no payout opportunity achieved for the quarter. The target allocation to an executive of any funding for the bonus opportunity is based on such executive's relative target annual bonus opportunity as a percentage of base salary. Overall, the performance targets for both bonus opportunities were designed to incentivize specific desired financial growth and performance for the year as we continued to drive adoption of our cloud and software platforms while seeking to maintain discipline over operating leverage consistent with long-term financial achievement aligned to our target financial model. Non-GAAP net income (loss) for the purposes of the cash incentive plan is calculated as net income (loss) on a GAAP basis less certain items that are not considered indicative of our performance, consisting of: stock-based compensation, intangible asset amortization, U.S. tariff and tariff-related costs, restructuring charges and certain component inventory accrual. Non-GAAP gross margin for the purposes of the cash incentive plan is calculated as gross margin on a GAAP basis less certain items that are not considered indicative of our performance, consisting of: stock-based compensation, intangible asset amortization, U.S. tariff and tariff-related costs and certain component inventory accrual. Reconciliation of these non-GAAP amounts to GAAP is provided in Appendix D.

Even though our Compensation Committee has established target cash incentive opportunities for each NEO, once our corporate performance goals are achieved and the cash incentive compensation pool is funded, our Compensation Committee retains further discretion to adjust cash incentive compensation paid to each individual up or down, ranging from 50% to 200% of the funded amounts for each individual's target cash incentive opportunity in 2020, based upon assessment of individual performance.

Total Target Cash Incentive Opportunity

The 2020 target cash incentive plan opportunity as a percentage of base salary set by our Compensation Committee for our NEOs is as follows:

Named Executive Officer	Target Cash Incentive Plan Opportunity	Target Cash Incentive Plan Opportunity as a Percentage of Base Salary
Carl Russo	\$ 500,000	100%
Cory Sindelar	211,200	60%
Michael Weening	316,800	90%

Achievement Against Quarterly Performance Targets

The table below sets forth the quarterly financial targets and achievement applicable to the two separately funded cash bonus opportunities under our cash incentive plan for each fiscal quarter of 2020.

Fiscal Quarter	Revenue (1)		Non-GAAP Net Income (Loss) (1) (3)			Non-GAAP Gross Margin (2) (3)		
	Target	Actual	Target	Actual	Funding	Target	Actual	Funding
First quarter	\$102M	\$ 102M	\$(2.8M)	\$(2.3M)	100%	>48%	46.7%	\$ —
Second quarter	\$113M	\$ 119M	\$ 4.1M	\$ 8.5M	100%	>48%	50.2%	\$ 0.7M
Third quarter	\$135M	\$ 151M	\$18.0M	\$25.4M	100%	>48%	51.5%	\$ 1.3M
Fourth quarter	\$165M	\$ 170M	\$28.0M	\$29.4M	100%	>48%	53.2%	\$ 2.2M

- (1) Financial targets are not separately weighted. Achievement of both revenue and non-GAAP net income (loss) targets is required for any funding of this bonus opportunity. Based on actual results, the Compensation Committee approved each quarter's funding at 100%.

- (2) For non-GAAP gross margin achieved above target, funding is in an amount equal to 25% of the gross profit dollars of the performance above target. Based on actual results, the Compensation Committee approved the funded amounts for the second, third and fourth quarters.
- (3) Reconciliation of these non-GAAP amounts to GAAP is provided in Appendix D.

2020 Awarded Payouts of Cash Incentive Compensation

The table below summarizes the cash incentive payouts awarded to each NEO under the cash incentive plan for 2020.

Named Executive Officer	Cash Bonus Opportunity Based on Revenue and Non-GAAP Net Income (Loss)		Cash Bonus Opportunity Based on Non-GAAP Gross Margin		Total Award
	Achievements	% of Target	Achievements	% of Target	
Carl Russo	\$ 500,000	100%	\$ 942,750	75% (1)	\$ 1,442,750
Cory Sindelar	\$ 211,200	100%	\$ 398,218	75% (1)	\$ 609,418
Michael Weening	\$ 316,800	100%	\$ 597,326	75% (1)	\$ 914,126

- (1) Percentage determined based on three out of four quarters exceeding the non-GAAP gross margin target for any funding.

The payout awards of funded cash incentive amounts are determined by our Compensation Committee following assessment of performance and in consultation with Mr. Russo as to each NEO other than Mr. Russo. For 2020, each executive was awarded 100% of his funded opportunity under the cash incentive plan.

Equity-Based Incentives

Our 2019 Equity Incentive Award Plan provides our key employees, including our NEOs, with stock-based incentives to align their interests with the interests of our stockholders.

We believe that awards of stock-based compensation to our key employees and executives encourage strong long-term financial and operational performance and provides them the opportunity to participate in the long-term appreciation of our stock value. Our Compensation Committee also annual reviews the equity plan “burn” rate metrics and related information, including benchmark data for peer companies and overall industry practices.

We generally provide grants of stock-based awards to our NEOs under our 2019 Equity Incentive Award Plan on an annual basis as determined by our Compensation Committee. Stock-based awards are generally in the form of stock option grants with either time-based vesting or performance-based vesting, with all awards subject to a minimum one-year vesting period from the date of grant. Awards with time-based vesting typically vest as to 25% of the shares subject to the award after the first twelve months of service and in equal quarterly installments thereafter with full vest in four years, subject to continued service through each vesting date. Awards with performance-based vesting, in addition to the one-year minimum vesting period from the date of grant, typically vest contingent on achievement of corporate goals or other financial targets set as of the grant date.

Initial awards at the time of hire generally vest solely based on the continued service of the NEO. The size and terms of the initial equity grant made to each new NEO upon joining the Company is primarily based on competitive conditions applicable to the NEO’s specific position and the value of unvested equity the executive is leaving at his or her prior company. In addition, we consider the number of shares of our common stock underlying stock-based awards granted to other executives in comparable positions within the Company.

Subsequent stock-based awards are granted at the discretion of the Compensation Committee, generally in recognition of a promotion or extraordinary performance, or as an annual refresh grant to continue to incentivize future performance. Annual refresh stock-based awards in recent years have generally included threshold financial performance criteria which are intended to reduce or eliminate the economic benefit of such awards in the event we do not achieve specified performance objectives. Because the performance-based awards are contingent upon the Company achieving financial targets as established by the Compensation Committee based on our business strategy and long-term growth initiatives, we believe the award to each NEO is closely aligned to the interests of our stockholders. If achieved, a portion of the shares underlying the performance-based awards vest immediately and a portion vests over time based on continuous service, generally over three years from the initial vesting upon achievement. We believe these awards provide an appropriate blend of performance-based incentive and executive-retention impact with a service-based vesting component. We believe that award size, performance target and vest terms are such that a significant portion of each NEO’s total compensation would be attained only if we achieved performance aligned with our growth initiatives and long-term stockholder value. We believe that our equity awards also provide an important retention tool for our NEOs, as they are typically subject to vesting over a longer service period based on the Compensation Committee’s assessment of the circumstances, such as timing of award, retention or other considerations.

Our Compensation Committee generally evaluates annual refresh grants of stock-based awards for our NEOs with any such equity awards expected to be tied to the following year's financial performance and with vesting over a future service period, generally four years from the date of grant. In particular, the Company believes that the financial performance targets chosen for its equity awards to executives align with its objective of creating long-term stockholder value.

2020 Option Grants

On May 22, 2020, in recognition of Mr. Russo's strategic leadership and the Company's overall performance, and after consideration that Mr. Russo's total direct compensation remained flat over the last several years placing Mr. Russo's compensation at approximately the 25th percentile compared to peer group companies, the Compensation Committee determined to grant Mr. Russo an option to purchase 800,000 shares of the Company's common stock under the 2019 Equity Incentive Award Plan. The stock option was granted at an exercise price of \$12.63 per share, equal to the closing trading price of the Company's common stock on the date of grant. The stock option will vest and become exercisable over four years, with 25% of the shares underlying each option vesting on the first anniversary of the grant date of such option, and the remainder vesting in equal quarterly installments over the next three years.

On November 27, 2020, pursuant to the November 27, 2019 Letter Agreements with each of Messrs. Sindelar and Weening, Messrs. Sindelar and Weening received a stock option to purchase shares of the Company's common stock under the 2019 Equity Incentive Award Plan, with Mr. Sindelar receiving a stock option to purchase 150,000 shares of common stock and Mr. Weening receiving a stock option to purchase 300,000 shares of common stock. Each stock option was granted at an exercise price of \$23.95 per share, equal to the closing trading price of the Company's common stock on the date of grant. Each stock option will vest and become exercisable over four years, with 25% of the shares underlying each option vesting on the first anniversary of the grant date of such option, and the remainder vesting in equal quarterly installments over the next three years. See discussion above under "*November 2019 Awards for Cory Sindelar and Michael Weening.*"

Performance-Based Grants – 2021 Financial Performance

In February 2021, the Compensation Committee evaluated an annual refresh grant of performance-based stock options for our executives tied to specific financial targets for 2021 (the "2021 Performance-Based Equity Award"). After consideration, the Compensation Committee approved the grant of a 2021 Performance-Based Equity Award on February 11, 2021 to our NEOs, with the actual number of shares earned contingent upon achievement of annual corporate financial targets for bookings and non-GAAP net income for fiscal year 2021 (collectively, the "2021 Performance Targets"). The 2021 Performance-Based Equity Award would vest, subject to the Compensation Committee's certification of the achievement of both of the 2021 Performance Targets, as to 25% of the shares of common stock earned on one year anniversary of the date of grant, and as to the remaining 75% of the shares of common stock earned, in substantially equal quarterly installments over the subsequent 36 months. If the non-GAAP net income target is achieved below 80% of target or the bookings target is achieved below 90% of target, no shares would be awarded, and the 2021 Performance-Based Equity Award would be forfeited in full. If both targets are achieved at the minimum threshold of 80% of target for non-GAAP net income and 90% of target for bookings, then the shares are awarded at 50% of the granted shares, with an increasing percentage of shares awarded above the minimum thresholds up to 100% of the granted shares if both targets are achieved at 100% or more of target.

The 2021 Performance-Based Equity Award includes an option to purchase up to 80,000 shares of common stock for Mr. Sindelar and an option to purchase up to 100,000 shares of common stock for Mr. Weening. In determining the 2021 Performance Targets, the Compensation Committee set the 2021 Performance Targets to align and incentivize executive performance to the Company's 2021 focus on disciplined operating expense investment and deliberate revenue growth, such that the NEO's equity awards are "at risk" based on the Company's performance in these areas. The Compensation Committee determined to provide for 25% vesting upon achievement of the 2021 Performance Targets and time-based vesting for the remaining award shares over the subsequent 36 months such that the 2021 Performance-Based Equity Awards both incentivizes corporate financial performance and provides retention value for each NEO. For more information on all outstanding equity awards held by our NEOs as of December 31, 2020, see below table under "*Outstanding Equity Awards at December 31, 2020.*"

Change in Control and Severance Benefits

We provide our NEOs with certain change in control and severance benefits under our Amended and Restated Executive Change in Control and Severance Plan (“CICSP”), which our Compensation Committee adopted in July 2010 and amended from time to time. Our Compensation Committee provides change in control and severance benefits to our senior management to, among other things, provide security to our NEOs including in the event of a change in control of the Company.

Under the CICSP, in the event an eligible NEO’s employment with us is involuntarily terminated by us other than for Cause (as defined in the CICSP), death or disability and such involuntary termination is not in connection with a Change in Control Period (as defined below), he or she is eligible to receive (i) a cash severance payment in an amount equal to 12 months of base salary and a pro-rata portion of the eligible NEO’s annual bonus opportunity at target, (ii) 12 months accelerated vesting of equity awards and (iii) 12 months of health insurance benefit continuation, subject to certain exceptions.

In the event an eligible NEO’s employment with us is involuntarily terminated by us other than for Cause, death or disability, or the eligible NEO voluntarily terminates his or her employment for Good Reason (as defined in the CICSP), during a period of time commencing 60 days prior to a change in control and ending 12 months following the change in control (the “Change in Control Period”), he or she is eligible to receive (i) a cash severance payment in an amount equal to: 24 months of base salary (in the case of Mr. Russo) or 12 months of base salary (in the case of Messrs. Sindelar and Weening); 200% of the annual bonus opportunity at target (in the case of Mr. Russo) or 100% of the annual bonus opportunity at target (in the case of Messrs. Sindelar and Weening); and a pro-rata portion the eligible NEO’s annual bonus opportunity at target, subject to attainment of the performance criteria with respect to the eligible NEO’s bonus opportunity, (ii) 100% acceleration of all equity awards and (iii) 24 months of health insurance benefit continuation (in the case of Mr. Russo) or 12 months of health insurance benefit continuation (in the case of Messrs. Sindelar and Weening), in each case subject to certain exceptions.

In March 2021 our Board amended the CICSP to extend the post-termination exercise period for vested options from the three-month period provided in the applicable equity incentive and award plan to 12 months in the event of a termination in connection with a change in control.

Under the CICSP, an executive must execute, and not revoke during any applicable revocation period, a general release of claims against us in order to be eligible for any severance benefits. We do not provide for any tax gross-up payments under our CICSP or otherwise in connection with executive severance benefits.

Benefits

Our NEOs receive health and welfare benefits under the same programs and subject to the same eligibility requirements that apply to our employees generally. Our NEOs are also eligible to participate in our Amended and Restated Employee Stock Purchase Plan (other than Mr. Russo, due to his ownership of more than 5% of our outstanding shares of common stock) but are not eligible to participate in our Amended and Restated 2017 Nonqualified Employee Stock Purchase Plan.

Perquisites

Our NEOs participate in the same benefit programs as other employees and do not receive any other perquisites.

Tax and Accounting Considerations

Section 280G of the Internal Revenue Code

Section 280G of the Internal Revenue Code disallows a tax deduction for “excess parachute payments” and Section 4999 of the Code imposes a 20% excise tax on any person who receives excess parachute payments. Our NEOs are not eligible to receive any tax gross-up payments in the event any payments made or that may be made to them become subject to this excise tax. The Compensation Committee will take into account the implications of Section 280G in determining potential payments to be made to our executives in connection with a change in control. Nevertheless, to the extent that certain payments upon a change in control are classified as excess parachute payments, such payments may not be deductible under Section 280G.

Section 409A of the Internal Revenue Code

Section 409A of the Internal Revenue Code, which governs the form and timing of payment of deferred compensation, imposes a 20% tax and an interest penalty on the recipient of deferred compensation that is subject to but does not comply with Section 409A. As a general matter, it is our intention to design and administer our compensation and benefits plans and arrangements for all of our employees and other service providers, including our NEOs, so that they are either exempt from, or satisfy the requirements of, Section 409A of the Code. The Compensation Committee will take into account the implications of Section 409A in determining the form and timing of compensation awarded to our executives and will strive to structure any nonqualified deferred compensation plans or arrangements to be exempt from or to comply with the requirements of Section 409A.

Section 162(m) of the Internal Revenue Code

Section 162(m) disallows a tax deduction for any publicly-held corporation for individual compensation exceeding \$1 million in any taxable year for our CEO, our CFO, any employee who is one of the top three highest compensated executive officers for the tax year; or for any employee who was an NEO for any preceding taxable year beginning after December 31, 2016 referred to as “covered employees.” Further, since the enactment of tax reform legislation on December 22, 2017 (the “2017 Tax Reform Act”), “qualified performance-based compensation” is exempt from this \$1 million limitation only if payable pursuant to a written binding contract in effect on November 2, 2017 (and that has not subsequently been materially modified). The Compensation Committee has not previously taken the deductibility limit imposed by Section 162(m) into consideration in setting compensation and as a result of the 2017 Tax Reform Act, a deduction for any compensation paid to our NEOs in excess of \$1 million is disallowed.

Accounting for Stock-Based Compensation

We follow Financial Accounting Standards Board Accounting Standards Codification Topic 718 (“ASC Topic 718”) for our stock-based compensation awards. ASC Topic 718 requires companies to calculate the grant date “fair value” of their stock-based awards using a variety of assumptions. ASC Topic 718 also requires companies to recognize the compensation cost of their stock-based awards in their income statements over the period that an employee is required to render service in exchange for the award. Grants of stock options, restricted stock, RSUs and other stock-based awards under our equity incentive award plans will be accounted for under ASC Topic 718. Our Compensation Committee will regularly consider the accounting implications of significant compensation decisions, especially in connection with decisions that relate to our equity incentive award plans and programs. As accounting standards change, we may revise certain programs to appropriately align accounting expenses of our equity awards with our overall executive compensation philosophy and objectives.

Summary Compensation Table

The following table sets forth all of the compensation awarded to, earned by or paid to our NEOs during 2020, 2019 and 2018.

Name and Principal Position	Year	Salary (\$)	Bonus (\$) (1)	Option Awards (\$) (2)	Non-Equity Incentive	All Other Compensation (\$) (3)	Total (\$)
					Plan Compensation (\$)		
Carl Russo President and Chief Executive Officer	2020	500,000	—	4,952,000	1,442,750	—	6,894,750
	2019	500,000	—	—	375,000	—	875,000
	2018	500,000	—	—	—	—	500,000
Cory Sindelar Chief Financial Officer	2020	352,000	—	1,820,745	609,418	8,550	2,790,713
	2019	352,000	—	1,808,261	158,400	8,400	2,327,061
	2018	336,000	—	383,670	86,800	6,979	813,449
Michael Weening Executive Vice President, Chief Operating Officer	2020	352,000	900,000	3,641,490	914,126	8,974	5,816,590
	2019	352,000	—	3,552,666	237,600	13,032	4,155,298
	2018	336,000	—	724,710	142,145	7,703	1,210,558

- (1) Amounts reported in 2020 represent relocation bonus payments to Mr. Weening in the amount of \$900,000 pursuant to his 2019 Letter Agreement, as amended. For a further discussion of Mr. Weening’s relocation bonus, see above under “*Letter Agreement with Mr. Weening.*”
- (2) Amounts reported in 2020 represent (i) the value of the May 2020 stock option grant to Mr. Russo and (ii) the value of the November 2020 stock option grants to each of Messrs. Sindelar and Weening. The amounts as reported were calculated in accordance with ASC Topic 718, excludes the impact of estimated forfeitures related to service-based vesting conditions, and are not adjusted for subsequent changes in our stock performance or the level of ultimate vesting. For a further discussion of the 2020 option grants, see above under “*2020 Option Grants.*” For a discussion of the assumptions used in the valuations of the stock options, see Note 7 of the Notes to Consolidated Financial Statements included in our Annual Report on Form 10-K for the year ended December 31, 2020.
- (3) Amounts reported for 2020 represent (i) employer matching contributions of \$8,550 we made for Mr. Sindelar pursuant to our U.S. 401(k) Plan and (ii) employer matching contributions of \$8,974 we made for Mr. Weening to the Canadian Registered Retirement Savings Plan (“RRSP”), a tax-deferred capital accumulation plan in which our Canadian employees can participate. Payments under the RRSP are set in Canadian dollars and were converted to U.S. dollars using an average exchange rate of CAD1.00 to US\$0.745.

Grants of Plan-Based Awards in 2020

The following table lists grants of plan-based awards to our NEOs in 2020 and their related fair value as of the respective grant date.

Name	Grant Date	Estimated Possible Payouts Under Non-Equity Incentive Plan Awards -Target (\$ (1))	All Other Option Awards: Number of Securities Underlying Options (2)	Exercise or Base Price of Option Awards (\$/Sh)	Grant Date or Fair Value of Option and Stock Awards (\$ (3))
Carl Russo	05/22/2020	1,442,750	800,000	12.63	4,952,000
Cory Sindelar	11/27/2020	609,418	150,000	23.95	1,820,745
Michael Weening	11/27/2020	914,126	300,000	23.95	3,641,490

- (1) These amounts represent (a) estimated payout at target for our cash bonus opportunity based on achievement of quarterly revenue and non-GAAP net income (loss) performance goals and (b) actual payout in 2020 for our cash bonus opportunity based on achievement of a minimum non-GAAP gross margin goal. Estimated payouts for our second cash bonus opportunity were not determinable at the start of the 2020 fiscal year as funding, if any, was dependent on achievement of gross margin above our target financial model. See discussion above under “Cash Incentive Compensation.”
- (2) Amount for Mr. Russo represents the May 2020 stock option granted to Mr. Russo. The stock option grant vests over four years, with 25% of the common stock subject to the grant vesting and becoming exercisable on the one-year anniversary of the grant date, and the remainder vesting and becoming exercisable quarterly thereafter in substantially equal installments over the next 36 months. Amounts for Messrs. Sindelar and Weening represents the November 2020 stock option grants to each of Messrs. Sindelar and Weening. Each stock option grant vests over four years, with 25% of the common stock subject to the grant vesting and becoming exercisable on the one-year anniversary of the grant date, and the remainder vesting and becoming exercisable quarterly thereafter in substantially equal installments over the next 36 months. No shares issued upon exercise of the grant to Messrs. Sindelar and Weening may be transferred in any manner prior to the second anniversary of the date such shares vested. For a further discussion of these 2020 stock option grants, see above under “2020 Option Grants.”
- (3) Amounts reported represent the aggregate grant date fair value, calculated in accordance with ASC Topic 718, and exclude the impact of estimated forfeitures related to service-based vesting conditions.

Outstanding Equity Awards at December 31, 2020

The following table lists all outstanding equity awards held by our NEOs as of December 31, 2020.

Name	Grant Date	Number of Securities Underlying Unexercised Options Exercisable (#)	Number of Securities Underlying Unexercised Options Unexercisable (#)	Option Exercise Price (\$)	Option Expiration Date
Carl Russo	05/22/2020 (1)	—	800,000	12.63	05/22/2030
	01/28/2014	120,000	—	8.18	01/28/2024
	02/21/2013	200,000	—	8.41	02/21/2023
	02/24/2011	100,000	—	19.75	02/24/2021
Cory Sindelar	11/27/2020 (2)	—	150,000	23.95	11/27/2030
	11/27/2019 (3)	50,000	150,000	7.84	11/27/2029
	02/14/2019 (4)	31,500	40,500	8.03	02/14/2029
	12/29/2017 (5)	101,250	6,750	5.95	12/29/2027
	10/01/2017 (6)	225,000	75,000	5.05	10/01/2027
Michael Weening	11/27/2020 (2)	—	300,000	23.95	11/27/2030
	11/27/2019 (3)	150,000	450,000	7.84	11/27/2029
	02/14/2019 (4)	39,375	50,625	8.03	02/14/2029
	12/29/2017 (5)	191,250	12,750	5.95	12/29/2027
	06/27/2016 (6)	380,000	—	6.38	06/27/2026

- (1) Represents the May 2020 stock option granted to Mr. Russo. The stock option grant vests over four years, with 25% of the common stock subject to the grant vesting and becoming exercisable on the one-year anniversary of the grant date, and the remainder vesting and becoming exercisable quarterly thereafter in substantially equal installments over the next 36 months.
- (2) Represents the November 2020 stock option grants to Messrs. Sindelar and Weening. Each stock option grant vests over four years, with 25% of the common stock subject to the grant vesting and becoming exercisable on the one-year anniversary of the grant date, and the remainder vesting and becoming exercisable quarterly thereafter in substantially equal installments over the next 36 months. No shares issued upon exercise of the grant may be transferred in any manner prior to the second anniversary of the date such shares vested. For a further discussion of the November 2020 stock option grants, see above under “*November 2019 Awards for Cory Sindelar and Michael Weening.*”
- (3) Represents the November 2019 stock option grants to Messrs. Sindelar and Weening. Each stock option grant vests over four years, with 25% of the common stock subject to the grant vesting and becoming exercisable on the one-year anniversary of the grant date, and the remainder vesting and becoming exercisable quarterly thereafter in substantially equal installments over the next 36 months. No shares issued upon exercise of the grant may be transferred in any manner prior to the second anniversary of the date such shares vested. For a further discussion of the November 2019 stock option grants, see above under “*November 2019 Awards for Cory Sindelar and Michael Weening.*”
- (4) Represents shares underlying 2019 performance-based equity awards granted to Messrs. Sindelar and Weening that were subsequently modified in August 2019. The number of shares subject to such stock option grants eligible to vest are contingent upon achievement of 2019 financial performance metrics, with 25% of the shares earned based on performance scheduled to vest on February 13, 2020 and the remaining 75% scheduled to vest in substantially equal installments over the subsequent 36 months. In February 2020, the Compensation Committee certified partial attainment of the 2019 performance metrics, resulting in 30% of the shares subject to each 2019 performance-based equity award being eligible to vest. At his election, Mr. Russo did not receive a 2019 performance-based equity award.
- (5) Represents shares underlying options that comprised the 2018 performance-based equity awards earned by Messrs. Sindelar and Weening. In February 2019, the Compensation Committee certified attainment of the 2018 performance metric. Each stock option grant vests over three years, with 50% of the shares earned based on performance vesting on January 1, 2019 and the remaining 50% vesting quarterly in substantially equal installments over the subsequent 24 months. At his election, Mr. Russo did not receive a 2018 performance-based equity award.
- (6) Represents Messrs. Sindelar’s and Weening’s stock option grants pursuant to their offer letters. Each stock option grant vests over four years, with 25% of the common stock subject to the grant vesting and becoming exercisable on the one-year anniversary of the grant date, and the remainder vesting quarterly thereafter in substantially equal installments over the next 36 months.

Option Exercises and Stock Vested in 2020

None of our NEOs exercised stock options or held restricted stock awards that vested during 2020.

Potential Payments Upon Termination or Change of Control

Under our CICSP, each of our NEOs may be entitled to severance upon an involuntary termination for reasons other than Cause, death or disability or, only during a Change in Control Period, a resignation for Good Reason (all as defined in the CICSP) under our CICSP (subject to certain conditions in the CICSP, with each such termination event, a “Covered Termination”). See the section above entitled “*Change in Control and Severance Benefits*” for more information regarding the benefits provided under our CICSP.

The table below sets forth the estimated payments and benefits that would be provided to each of our NEOs under our CICSP in the event of a Covered Termination if our NEO’s employment had terminated on December 31, 2020, with and without a change in control, taking into account the NEO’s compensation as of that date.

Executive Benefits and Payments upon Termination	Involuntary Termination for Reasons Other Than Cause, Death or Disability, or Voluntary Termination for Good Reason Only During a Change in Control (“Covered Termination”)	
	Not in Connection with a Change in Control (\$)(1)	60 Days Prior to or 12 Months Following a Change in Control (\$)(2)
Carl Russo		
Cash severance	\$ 1,000,000	\$ 2,500,000
Value of accelerated vesting of equity awards	5,139,000	13,704,000
Health insurance benefit continuation	18,331	36,662
Total	\$ 6,157,331	\$ 16,240,662
Cory Sindelar		
Cash severance	\$ 563,200	\$ 774,400
Value of accelerated vesting of equity awards	3,718,983	7,053,533
Health insurance benefit continuation	18,429	18,429
Total	\$ 4,300,612	\$ 7,846,362
Michael Weening		
Cash severance	\$ 668,800	\$ 985,600
Value of accelerated vesting of equity awards	4,516,253	13,010,659
Health insurance benefit continuation	4,162	4,162
Total	\$ 5,189,215	\$ 14,000,421

- (1) In the event of a Covered Termination not in connection with a change in control, each NEO is eligible to receive: (a) a cash severance payment in an amount equal to the sum of 12 months of base salary and a pro-rata portion of the eligible NEO’s annual bonus opportunity at target; (b) 12 months accelerated vesting of equity awards; and (c) 12 months of health insurance benefit continuation.
- (2) In the event of a Covered Termination in connection with a change in control, the NEO is eligible to receive: (a) a cash severance payment in an amount equal to the sum of: 24 months of base salary (in the case of Mr. Russo) or 12 months of base salary (in the case of Messrs. Sindelar and Weening); 200% of the annual bonus opportunity at target (in the case of Mr. Russo) or 100% of the annual bonus opportunity at target (in the case of Messrs. Sindelar and Weening); and a pro-rata portion of the NEO’s annual bonus opportunity at target, subject to attainment of the performance criteria with respect to the NEO’s bonus opportunity; (b) 100% acceleration of all equity awards, with the value of such accelerated vesting of equity awards calculated based on a closing trading price of \$29.76 per share at December 31, 2020; and (c) 24 months of health insurance benefit continuation (in the case of Mr. Russo) or 12 months of health insurance benefit continuation (in the case of Messrs. Sindelar and Weening).

CEO PAY RATIO

As required by Section 953(b) of the Dodd-Frank Wall Street Reform and Consumer Protection Act and Item 402(u) of Regulation S-K, we are required to disclose the ratio of our principal executive officer’s annual total compensation to the annual total compensation of our median employee.

During fiscal 2020, Mr. Russo was the principal executive officer of Calix. For 2020, the annual total compensation for Mr. Russo was \$6,894,750, as disclosed under the Summary Compensation Table above, and the annual total compensation for our median employee was \$162,542, calculated using the same methodology as applied for Mr. Russo in the Summary Compensation Table above, resulting in a pay ratio of approximately 42:1. Annual total compensation includes compensation awarded, earned or paid during 2020.

In accordance with Item 402(u) of Regulation S-K, and consistent with the process developed to identify the median employee for 2019, we identified the median employee for 2020 by (i) aggregating for each applicable employee, as of October 1, 2020 (the median employee determination date): (A) annual base salary for permanent salaried employees, or hourly rate multiplied by expected work schedule, for hourly employees and (B) the target incentive compensation for 2020, and (ii) ranking this compensation measure for our employees from lowest to highest. This calculation was performed for all employees, excluding Mr. Russo, whether employed on a full-time, part-time or seasonal basis. After applying our methodology, we identified two median employees. As a result, we selected the individual who is a U.S. employee and whose compensation was closest to our estimate used to identify the median employee.

We believe the pay ratio reported above is a reasonable estimate calculated in a manner consistent with SEC rules. Because the SEC rules allow companies to utilize different methodologies and companies have different employee populations and compensation practices, the pay ratio reported by other companies may not be comparable to the pay ratio reported above.

DIRECTOR COMPENSATION

Our Compensation Committee reviews compensation for our non-employee directors on an annual basis, taking into consideration market data for our peer group, recommendations from its compensation advisor based on market data analysis and governance considerations issued by proxy advisory firms. Compensation for our non-employee directors consists of cash retainers for service on the Board and Board committees, with an initial equity award granted upon joining the Board and an annual equity award granted on the date of each annual meeting of stockholders. Director compensation has generally been assessed and compared to peer companies at approximately the 50th percentile of peer company compensation and practices. We do not provide for any per meeting fees for attendance at meetings. Members of the Board who are employees of Calix do not receive any compensation for their service as directors.

Non-Employee Director Cash Compensation

Under Calix’s Non-Employee Director Cash Compensation Policy, directors who were not employed by Calix or one of our affiliates received the following cash retainers for their service on the Board and committees of the Board during 2020:

	<u>Amount</u>
Base Retainer	\$ 45,000
Board and Committee Chair Service (in addition to Base Retainer)	
Board Chair	45,000
Audit Committee Chair	35,000
Compensation Committee Chair	20,000
Nominating and Corporate Governance Committee Chair	10,000
Cybersecurity Committee Chair	10,000
Strategic Committee Chair	10,000
Non-Chair Committee Service (in addition to Base Retainer)	
Audit Committee	10,000
Compensation Committee	7,500
Nominating and Corporate Governance Committee	5,000
Cybersecurity Committee	5,000
Strategic Committee	5,000

Non-Employee Director Equity Compensation

Under our Non-Employee Director Equity Compensation Policy for 2020, non-employee directors will automatically be granted an initial grant of RSUs valued at \$200,000 (based on the per share closing price of our common stock on the date such director commences service) upon their election or appointment to the Board. The initial grant is prorated based on the non-employee director's start date through the applicable vesting date and will vest with respect to 100% of the RSUs on the earlier of the one-year anniversary of the date of grant or the day immediately preceding the date of the next annual meeting of stockholders following the year of grant.

Each director who is a non-employee director immediately following each annual meeting of stockholders, provided that such director has served as a director for at least six months prior to such date, will also automatically be granted RSUs valued at \$140,000 (based on the per share closing price of our common stock on the date of such annual meeting of stockholders). The annual grant vests as to 100% of the RSUs on the day immediately prior to the date of the next annual meeting of stockholders following the date of grant, subject to continued Board service to Calix through the applicable vesting date.

Members of the Board who are Calix employees and who subsequently terminate employment with Calix and remain on the Board are not eligible for initial grants of equity but are eligible, after termination of employment with Calix, for annual grants.

All options, RSUs and other equity awards held by a non-employee director, regardless of when granted, automatically accelerate in the event of a change in control of Calix.

February 2021 Amendment to Non-Employee Director Compensation

On February 11, 2021, upon the recommendation of the Compensation Committee after its review of market data and the analysis and recommendation of its compensation advisor, the Board amended our Non-Employee Director Cash Compensation Policy to increase our base and board chair retainers from \$45,000 to \$50,000. Further, the Compensation Committee amended our Non-Employee Director Equity Compensation Policy to provide for equity compensation in the form of stock option grants rather than RSUs and to adjust the value of the initial equity grant to newly elected or appointed Board members and the value of annual equity grants to existing Board members to \$175,000.

The base and board chair cash retainers were last amended in 2019, from \$40,000 to \$45,000. The retainer for the Cybersecurity Committee was added upon the formation of that Committee in 2017 and the retainer for the Strategic Committee was added upon the formation of that Committee in 2018. The value of our initial director grants had remained unchanged since first established by the Board in 2012 at \$200,000, and the value of our annual director grants was last amended in 2019, from \$120,000 to \$140,000.

Under the amended Non-Employee Director Equity Compensation Policy, each non-employee director newly elected or appointed to the Board will automatically be granted an option to purchase a number of shares of common stock of the Company equal to the product obtained by multiplying (a) the result of dividing (i) \$175,000 by (ii) the Black-Scholes value of an option to purchase one share of common stock of the Company as of the date of grant, as described below, by (b) a fraction, the numerator of which is the number of whole days that will have passed from the date of election through the scheduled date of the Company's next annual stockholder meeting and the denominator of which is 365, rounded down to the nearest whole share. The Black-Scholes value of an option to purchase a share of common stock of the Company shall be determined using the per share trading price of the Company's common stock on the date of grant.

Immediately following each annual meeting of stockholders, each non-employee director with continuing service on the Board will automatically be granted an option to purchase a number of shares of common stock of the Company equal to the result of equal to the result of dividing (i) \$175,000 by (ii) the Black-Scholes value of an option to purchase one share of common stock of the Company as of the date of grant, as determined in accordance with the initial director grant above, and rounded down to the nearest whole share.

Both the initial option grants and the annual option grants shall vest and become exercisable with respect to 100% of the shares of common stock underlying the option on the earlier of (i) the one-year anniversary of the date of grant or (ii) the day immediately preceding the date of the annual meeting of stockholders that occurs in the year following the year of grant.

Limits on Non-Employee Director Equity Awards

Under our 2019 Plan, the grant date fair value of equity-based awards granted to a non-employee director during any calendar year shall not exceed \$750,000.

Director Stock Ownership Guidelines

Under our director stock ownership guidelines, each director is expected to acquire and maintain ownership of Calix common stock having a value of no less than four (4) times the annual Board cash retainer, which achievement of the requisite stock ownership expected on or before the date five years after the initial appointment date of such director. If a director fails to meet these guidelines, shares from such director's annual equity grants will be held until the guidelines are met. Each of our directors is currently in compliance with and have shareholding in excess of our director stock ownership guidelines.

Other Arrangements

We reimburse non-employee directors for travel, lodging and other expenses incurred in connection with their Board service and attendance at Board and committee meetings.

Director Compensation Table

The following table sets forth information regarding compensation earned by our non-employee directors during the year ended December 31, 2020.

<u>Name</u>	<u>Fees Earned or Paid in Cash</u>	<u>Stock Awards (1)</u>	<u>Total</u>
Don Listwin	\$ 115,618	\$ 140,000	\$ 255,618
Christopher Bowick	65,000	140,000	205,000
Kathy Crusco	60,000	140,000	200,000
Kevin DeNuccio	57,500	140,000	197,500
Michael Everett	80,000	140,000	220,000
Kira Makagon	50,000	140,000	190,000
Michael Matthews	60,000	140,000	200,000
Kevin Peters	60,000	140,000	200,000
J. Daniel Plants	55,000	140,000	195,000

- (1) Amounts reflect the grant date fair value of RSUs granted in 2020 calculated in accordance with ASC Topic 718 for share-based payment transactions and exclude the impact of estimated forfeitures related to service-based vesting conditions. We value RSUs based on the closing trading price of our common stock on the date of grant.

As of December 31, 2020, outstanding options and RSUs held by our current non-employee directors were as follows:

<u>Name</u>	<u>Stock Options (#)</u>	<u>Restricted Stock Units (#)</u>
Don Listwin	—	12,477
Christopher Bowick	—	12,477
Kathy Crusco	—	12,477
Kevin DeNuccio	—	12,477
Michael Everett	—	12,477
Kira Makagon	—	12,477
Michael Matthews	2,500	12,477
Kevin Peters	—	12,477
J. Daniel Plants	—	12,477

EQUITY COMPENSATION PLAN INFORMATION

The following table provides certain information as of December 31, 2020, with respect to all of our equity compensation plans in effect on that date.

<u>Plan Category</u>	<u>Number of Securities to be Issued Upon Exercise of Outstanding Options and Restricted Stock Units (a)</u>	<u>Weighted-Average Exercise Price of Outstanding Options (b)</u>	<u>Number of Securities Remaining Available for Future Issuance Under Equity Compensation Plans (Excluding Securities Reflected in Column(a))</u>
Equity Compensation Plans Approved by Stockholders (1)	6,627,701 (3)	\$ 9.97 (4)	9,214,589 (6)
Equity Compensation Plans Not Approved by Stockholders (2)	300,000	\$ 5.05	—
Total	6,927,701	\$ 9.76 (4)(5)	9,214,589

- (1) Includes our 2010 Equity Incentive Award Plan, 2019 Equity Incentive Award Plan, Amended and Restated Employee Stock Purchase Plan and Amended and Restated 2017 Nonqualified Employee Stock Purchase Plan.
- (2) Consists of a Nonstatutory Inducement Stock Option Grant, which constitutes an employment inducement award for Mr. Sindelar under NYSE Listed Company Manual Rule 303A.08 that was approved by the Compensation Committee on September 28, 2017. The NYSE approved the Supplemental Listing Application for the Inducement Award on October 30, 2017. The Nonstatutory Inducement Stock Option Grant was awarded on October 1, 2017 and provides Mr. Sindelar the right to purchase up to 300,000 shares of our common stock for an exercise price of \$5.05 per share. The Nonstatutory Inducement Stock Option Grant has a term of 10 years and vests and becomes exercisable over four years from the date of grant. In the event of a termination of Mr. Sindelar's employment, the unvested portion of the Nonstatutory Inducement Stock Option Grant would be immediately forfeited and Mr. Sindelar would have three months, or 12 months in the case of death or disability, to exercise the vested portion of the option.
- (3) Includes 126,991 shares of common stock subject to RSUs that will entitle each holder the issuance of one share of common stock for each unit and 6,500,710 shares of common stock subject to stock options.
- (4) The weighted-average exercise price of outstanding options excludes RSUs, which do not have an exercise price.
- (5) The weighted-average remaining term for outstanding options is 7.5 years.
- (6) Includes 2,596,228 shares available for future issuance under the Amended and Restated Employee Stock Purchase Plan, 2,274,391 shares available for future issuance under the Amended and Restated 2017 Nonqualified Employee Stock Purchase Plan and 4,343,970 shares available for future issuance under the 2019 Equity Incentive Award Plan.

COMPENSATION COMMITTEE REPORT

The information contained in this report shall not be deemed to be “soliciting material,” to be “filed” with the SEC or be subject to Regulation 14A or Regulation 14C (other than as provided in Item 407 of Regulation S-K) or to the liabilities of Section 18 of the Securities Exchange Act of 1934, and shall not be deemed to be incorporated by reference in future filings with the SEC except to the extent that Calix specifically incorporates it by reference into a document filed under the Securities Act of 1933 or the Securities Exchange Act of 1934.

The Compensation Committee of the Board has reviewed and discussed the Compensation Discussion and Analysis required by Item 402(b) of Regulation S-K with management and, based on such review and discussions, the Compensation Committee of the Board recommended to the Board that the Compensation Discussion and Analysis be included in this Proxy Statement.

Compensation Committee

Christopher Bowick, Chair
Kevin DeNuccio
Don Listwin

AUDIT COMMITTEE REPORT

The information contained in this report shall not be deemed to be “soliciting material,” to be “filed” with the SEC or be subject to Regulation 14A or Regulation 14C (other than as provided in Item 407 of Regulation S-K) or to the liabilities of Section 18 of the Securities Exchange Act of 1934, and shall not be deemed to be incorporated by reference in future filings with the SEC except to the extent that Calix specifically incorporates it by reference into a document filed under the Securities Act of 1933 or the Securities Exchange Act of 1934.

The Audit Committee has reviewed and discussed with Calix management and KPMG LLP the audited consolidated financial statements of Calix contained in the Calix Annual Report on Form 10-K for the year ended December 31, 2020. The Audit Committee has also discussed with KPMG LLP the matters required to be discussed by AS No. 1301, as amended, as adopted by the Public Company Accounting Oversight Board in Rule 3200T.

The Audit Committee has received the written disclosures and the letter from KPMG LLP required by the Public Company Accounting Oversight Board regarding the independent accountant’s communications with the Audit Committee concerning independence and has discussed with KPMG LLP its independence.

Based on the review and discussions referred to above, the Audit Committee recommended to the Board of Directors that the audited consolidated financial statements be included in Calix’s Annual Report on Form 10-K for its year ended December 31, 2020 for filing with the Securities and Exchange Commission.

Audit Committee

Michael Everett, Chair
Kathy Crusco
Michael Matthews

CERTAIN RELATIONSHIPS AND RELATED TRANSACTIONS

Calix's Board and Audit Committee have adopted a written related person transaction policy that sets forth the policies and procedures for the review and approval or ratification of related person transactions that may be deemed "related person transactions" under the rules of the SEC. This policy covers any transaction, arrangement or relationship, or any series of similar transactions, arrangements or relationships, in which Calix was or is to be a participant, the amount involved exceeds \$120,000 and a related person had or will have a direct or indirect material interest, including, without limitation, purchases of goods or services by or from the related person or entities in which the related person has a material interest, indebtedness, guarantees of indebtedness or employment by Calix of a related person. For purposes of the policy, a "related person" is a director, officer or greater than 5% beneficial owner of Calix's stock and their immediate family members.

Calix recognizes that related person transactions can present potential or actual conflicts of interest or create the appearance of a conflict of interest. Management presents to the Audit Committee each proposed related person transaction, including all relevant facts and circumstances, and the Audit Committee reviews the relevant facts and circumstances of each related person transaction, including if the transaction is on terms comparable to those that could be obtained in arm's length dealings with an unrelated third party and the extent of the related person's interest in the transaction, takes into account the conflicts of interest and corporate opportunity provisions of Calix's Code of Business Conduct and Ethics, and either approves or disapproves the related person transaction. Any related person transaction may be consummated and shall continue only if the Audit Committee has approved or ratified such transaction in accordance with the guidelines set forth in the policy. No director may participate in approval of a related person transaction for which he or she is a related person. As required under rules issued by the SEC, transactions that are determined to be directly or indirectly material to a related person are or will be disclosed in Calix's proxy statements.

During fiscal year 2020, Calix has not participated in any transactions, nor are there any currently proposed transactions in which Calix will participate, where the amount involved exceeds, or would exceed, \$120,000, and in which any related person had or will have a direct or indirect material interest.

Indemnification of Directors and Officers

Calix's amended and restated certificate of incorporation and amended and restated bylaws provide that Calix is required to indemnify its directors and officers, in each case to the fullest extent permitted by Delaware law. Calix has entered into and expects to continue to enter into agreements to indemnify its directors, executive officers and other employees as determined by the Board.

HOUSEHOLDING OF PROXY MATERIALS

The SEC has adopted rules that permit companies and intermediaries (e.g., brokers) to satisfy the delivery requirements for Notices of Internet Availability of Proxy Materials, proxy statements and annual reports with respect to two or more stockholders sharing the same address by delivering a single Notice of Internet Availability of Proxy Materials, or proxy statement and annual report, as applicable, addressed to those stockholders. This process, which is commonly referred to as "householding," potentially means extra convenience for stockholders and cost savings for companies.

This year, a number of brokers with account holders who are Calix stockholders will be "householding" our proxy materials. A single Notice of Internet Availability of Proxy Materials may be delivered to multiple stockholders sharing an address unless contrary instructions have been received from the affected stockholders. Once you have received notice from your broker that it will be "householding" communications to your address, "householding" will continue until you are notified otherwise or until you notify your broker or Calix that you no longer wish to participate in "householding."

If, at any time, you no longer wish to participate in "householding" and would prefer to receive a separate Notice of Internet Availability of Proxy Materials, you may (1) notify your broker, (2) direct your written request to: Investor Relations, Calix, Inc., 2777 Orchard Parkway, San Jose, California 95134 or (3) contact our Investor Relations department by email at InvestorRelations@calix.com or by telephone at (408) 474-0080. Stockholders who currently receive multiple copies of the Notice of Internet Availability of Proxy Materials at their address and would like to request "householding" of their communications should contact their broker. In addition, Calix will promptly deliver, upon written or oral request to the address or telephone number above, a separate copy of the Notice of Internet Availability of Proxy Materials to a stockholder at a shared address to which a single copy of the documents was delivered.

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 proxy card to vote on such matters in accordance with their best judgment.

ANNUAL REPORTS

The 2020 Annual Report to Stockholders, including our 2020 Annual Report on Form 10-K (which is not a part of our proxy soliciting materials), will be mailed with this Proxy Statement to those stockholders that request and receive a copy of the proxy materials in the mail. Stockholders that received the Notice of Internet Availability of Proxy Materials can access this Proxy Statement and our 2020 Annual Report at www.proxyvote.com.

We have filed our Annual Report on Form 10-K for the year ended December 31, 2020 with the SEC. It is available free of charge in the “SEC Filings” section of our website at investor-relations.calix.com or at the SEC’s website at www.sec.gov. Upon written request by a Calix stockholder, we will mail without charge a copy of our Annual Report on Form 10-K, including the financial statements and financial statement schedules, but excluding exhibits to the Annual Report on Form 10-K. Exhibits to the Annual Report on Form 10-K are available upon payment of a reasonable fee, which is limited to our expenses in furnishing the requested exhibit. All requests should be directed to Investor Relations, Calix, Inc., 2777 Orchard Parkway, San Jose, California 95134 or InvestorRelations@calix.com.

By Order of the Board of Directors

/s/ Suzanne Tom

Suzanne Tom
Corporate Secretary

April 1, 2021

CALIX, INC.
AMENDED AND RESTATED 2019 EQUITY INCENTIVE AWARD PLAN

ARTICLE 1.

PURPOSE

The purpose of the Calix, Inc. Amended and Restated 2019 Equity Incentive Award Plan (as it may be amended or restated from time to time, the “Plan”) is to promote the success and enhance the value of Calix, Inc. (the “Company”) by linking the individual interests of the members of the Board, Employees and Consultants to those of Company stockholders and by providing such individuals with an incentive for outstanding performance to generate superior returns to Company stockholders. The Plan is further intended to provide flexibility to the Company in its ability to attract, incentivize and retain the services of members of the Board, Employees and Consultants upon whose judgment, interest and special effort the successful conduct of the Company’s operation is largely dependent. The Plan amends and restates the 2019 Amended and Restated Equity Incentive Award Plan (the “Prior Plan”) in its entirety, subject to stockholder approval of this Plan at the annual meeting of the Company’s stockholders in 2021. In the event the Company’s stockholders fail to approve the Plan as set forth herein at the annual meeting of the Company’s stockholders in 2021, then this Plan shall be deemed *void ab initio* and the Prior Plan shall continue in effect in accordance with its terms.

ARTICLE 2.

DEFINITIONS AND CONSTRUCTION

Wherever the following terms are used in the Plan they shall have the meanings specified below, unless the context clearly indicates otherwise. The singular pronoun shall include the plural where the context so indicates.

2.1 “Administrator” shall mean the entity that conducts the general administration of the Plan as provided in Article 11. With reference to the duties of the Committee under the Plan which have been delegated to one or more persons pursuant to Section 11.6, or as to which the Board has assumed, the term “Administrator” shall refer to such person(s) unless the Committee or the Board has revoked such delegation or the Board has terminated the assumption of such duties.

2.2 “Applicable Accounting Standards” shall mean Generally Accepted Accounting Principles in the United States, International Financial Reporting Standards or such other accounting principles or standards as may apply to the Company’s financial statements under United States federal securities laws from time to time.

2.3 “Applicable Law” shall mean any applicable law, including without limitation: (a) provisions of the Code, the Securities Act, the Exchange Act and any rules or regulations thereunder; (b) corporate, securities, tax or other laws, statutes, rules, requirements or regulations, whether federal, state, local or foreign; and (c) rules of any securities exchange or automated quotation system on which the Shares are listed, quoted or traded.

2.4 Reserved.

2.5 “Award” shall mean an Option, a Stock Appreciation Right, a Restricted Stock award, a Restricted Stock Unit award, an Other Stock or Cash Based Award or a Dividend Equivalent award, which may be awarded or granted under the Plan.

2.6 “Award Agreement” shall mean any written notice, agreement, terms and conditions, contract or other instrument or document evidencing an Award, including through electronic medium, which shall contain such terms and conditions with respect to an Award as the Administrator shall determine consistent with the Plan.

2.7 “Board” shall mean the Board of Directors of the Company.

2.8 “Cause” shall mean (a) a Holder (i) has committed willful fraud, willful misconduct or gross negligence, (ii) has repeatedly failed to execute the duties and responsibilities of Holder’s service to the Company as reasonably requested by Company’s management, or (iii) has committed an incurable material breach of the Company’s Confidential Information and Invention Assignment Agreement, or (b) Holder has been convicted of, or has admitted culpability with respect to, a felony or a crime involving moral turpitude causing material harm to the standing or reputation of Company, in each case as determined in good faith by the Administrator.

2.9 “Change in Control” shall mean and includes each of the following:

(a) A transaction or series of transactions (other than an offering of Common Stock to the general public through a registration statement filed with the Securities and Exchange Commission) whereby any “person” or related “group” of “persons” (as such terms are used in Sections 13(d) and 14(d)(2) of the Exchange Act) (other than the Company, any of its parents or subsidiaries, an employee benefit plan maintained by the Company or any of its subsidiaries or a “person” that, prior to such transaction, directly or indirectly controls, is controlled by, or is under common control with, the Company) directly or indirectly acquires beneficial ownership (within the meaning of Rule 13d-3 under the Exchange Act) of securities of the Company possessing more than 50% of the total combined voting power of the Company’s securities outstanding immediately after such acquisition; or

(b) During any period of two consecutive years, individuals who, at the beginning of such period, constitute the Board together with any new director(s) (other than a director designated by a person who shall have entered into an agreement with the Company to effect a transaction described in Section 2.9(a) or Section 2.9(c)) whose election by the Board or nomination for election by the Company’s stockholders was approved by a vote of at least two-thirds of the directors then still in office who either were directors at the beginning of the two-year period or whose election or nomination for election was previously so approved, cease for any reason to constitute a majority thereof; or

(c) The consummation by the Company (whether directly involving the Company or indirectly involving the Company through one or more intermediaries) of (x) a merger, consolidation, reorganization, or business combination or (y) a sale or other disposition of all or substantially all of the Company’s assets in any single transaction or series of related transactions or (z) the acquisition of assets or stock of another entity, in each case other than a transaction:

(i) Which results in the Company’s voting securities outstanding immediately before the transaction continuing to represent (either by remaining outstanding or by being converted into voting securities of the Company or the person that, as a result of the transaction, controls, directly or indirectly, the Company or owns, directly or indirectly, all or substantially all of the Company’s assets or otherwise succeeds to the business of the Company (the Company or such person, the “Successor Entity”)) directly or indirectly, at least a majority of the combined voting power of the Successor Entity’s outstanding voting securities immediately after the transaction, and

(ii) After which no person or group beneficially owns voting securities representing 50% or more of the combined voting power of the Successor Entity; provided, however, that no person or group shall be treated for purposes of this Section 2.9(c)(ii) as beneficially owning 50% or more of combined voting power of the Successor Entity solely as a result of the voting power held in the Company prior to the consummation of the transaction; or

(d) The Company’s stockholders approve a liquidation or dissolution of the Company.

In addition, if a Change in Control constitutes a payment event with respect to any Award which provides for the deferral of compensation and is subject to Section 409A of the Code, the transaction or event described in subsection (a), (b), (c) or (d) with respect to such Award must also constitute a “change in control event,” as defined in Treasury Regulation §1.409A-3(i)(5) to the extent required by Section 409A.

The Committee shall have full and final authority, which shall be exercised in its discretion, to determine conclusively whether a Change in Control of the Company has occurred pursuant to the above definition, and the date of the occurrence of such Change in Control and any incidental matters relating thereto.

2.10 “Code” shall mean the Internal Revenue Code of 1986, as amended from time to time, together with the regulations and official guidance promulgated thereunder, whether issued prior or subsequent to the grant of any Award.

2.11 “Committee” shall mean the Compensation Committee of the Board, or another committee or subcommittee of the Board or the Compensation Committee of the Board described in Article 11 hereof.

2.12 “Common Stock” shall mean the common stock of the Company.

2.13 “Company” shall have the meaning set forth in Article 1.

2.14 “Constructive Termination” shall mean Holder’s resignation that constitutes a Termination of Service following (a) a material reduction (without Holder’s written consent) in Holder’s title, job duties, responsibilities and job requirements inconsistent with Holder’s position with Company and Holder’s prior duties, responsibilities and requirements taking into account the differences in job title and duties that are normally occasioned by reason of an acquisition of one company by another and that do not actually result in a material change in duties, responsibilities and requirements; (b) a material reduction of a Holder’s base compensation without the Holder’s written consent (except an equal, across-the-board reduction in the compensation of all similarly-situated employees of Company or the surviving entity that is approved by the Board); or (c) the relocation of Holder’s principal office that increases Holder’s one way commute more than thirty-five (35) miles. Notwithstanding the foregoing, a resignation shall not constitute a “Constructive Termination” unless the event or condition giving rise to such resignation continues more than thirty (30) days following the Holder’s written notice of such condition provided to the Company within ninety (90) days of the first occurrence of such event or condition and such resignation is effective within thirty (30) days following the end of such notice period.

2.15 “Consultant” shall mean any consultant or adviser engaged to provide services to the Company or any Subsidiary who qualifies as a consultant or adviser under the applicable rules of the Securities and Exchange Commission for registration of shares on a Form S-8 Registration Statement.

2.16 “Director” shall mean a member of the Board, as constituted from time to time.

2.17 “Director Limit” shall have the meaning set forth in Section 4.6.

2.18 “Dividend Equivalent” shall mean a right to receive the equivalent value (in cash or Shares) of dividends paid on Shares, awarded under Section 9.2.

2.19 “DRO” shall mean a “domestic relations order” as defined by the Code or Title I of the Employee Retirement Income Security Act of 1974, as amended from time to time, or the rules thereunder.

2.20 “Effective Date” shall mean the date the Plan is adopted by the Board, subject to approval of the Plan by the Company’s stockholders.

2.21 “Eligible Individual” shall mean any person who is an Employee, a Consultant or a Non-Employee Director, as determined by the Administrator.

2.22 “Employee” shall mean any officer or other employee (as determined in accordance with Section 3401(c) of the Code and the Treasury Regulations thereunder) of the Company or of any Subsidiary.

2.23 “Equity Restructuring” shall mean a nonreciprocal transaction between the Company and its stockholders, such as a stock dividend, stock split, spin-off, rights offering or recapitalization through a large, nonrecurring cash dividend, that affects the number or kind of Shares (or other securities of the Company) or the share price of Common Stock (or other securities) and causes a change in the per-share value of the Common Stock underlying outstanding Awards.

2.24 “Exchange Act” shall mean the Securities Exchange Act of 1934, as amended from time to time.

2.25 “Expiration Date” shall have the meaning given to such term in Section 12.1(c).

2.26 “Fair Market Value” shall mean, as of any given date, the value of a Share determined as follows:

(a) If the Common Stock is (i) listed on any established securities exchange (such as the New York Stock Exchange, the NASDAQ Capital Market, the NASDAQ Global Market and the NASDAQ Global Select Market), (ii) listed on any national market system or (iii) quoted or traded on any automated quotation system, its Fair Market Value shall be the closing sales price for a Share as quoted on such exchange or system for such date or, if there is no closing sales price for a Share on the date in question, the closing sales price for a Share on the last preceding date for which such quotation exists, as reported in *The Wall Street Journal* or such other source as the Administrator deems reliable;

(b) If the Common Stock is not listed on an established securities exchange, national market system or automated quotation system, but the Common Stock is regularly quoted by a recognized securities dealer, its Fair Market Value shall be the mean of the high bid and low asked prices for such date or, if there are no high bid and low asked prices for a Share on such date, the high bid and low asked prices for a Share on the last preceding date for which such information exists, as reported in *The Wall Street Journal* or such other source as the Administrator deems reliable; or

(c) If the Common Stock is neither listed on an established securities exchange, national market system or automated quotation system nor regularly quoted by a recognized securities dealer, its Fair Market Value shall be established by the Administrator in good faith.

2.27 “Full-Value Award” shall mean any Award that is settled in Shares other than: (a) an Option, (b) a Stock Appreciation Right or (c) any other Award for which the Participant pays the intrinsic value existing as of the date of grant (whether directly or by forgoing a right to receive a payment from the Company or any Subsidiary).

2.28 “Greater Than 10% Stockholder” shall mean an individual then owning (within the meaning of Section 424(d) of the Code) more than 10% of the total combined voting power of all classes of stock of the Company or any subsidiary corporation (as defined in Section 424(f) of the Code) or parent corporation thereof (as defined in Section 424(e) of the Code).

2.29 “Holder” shall mean a person who has been granted an Award.

2.30 “Incentive Stock Option” shall mean an Option that is intended to qualify as an incentive stock option and conforms to the applicable provisions of Section 422 of the Code.

2.31 “Non-Employee Director” shall mean a Director of the Company who is not an Employee.

2.32 “Non-Employee Director Equity Compensation Policy” shall have the meaning set forth in Section 4.6.

2.33 “Non-Qualified Stock Option” shall mean an Option that is not an Incentive Stock Option or which is designated as an Incentive Stock Option but does not meet the applicable requirements of Section 422 of the Code.

2.34 “Option” shall mean a right to purchase Shares at a specified exercise price, granted under Article 5. An Option shall be either a Non-Qualified Stock Option or an Incentive Stock Option; provided, however, that Options granted to Non-Employee Directors and Consultants shall only be Non-Qualified Stock Options.

2.35 “Option Term” shall have the meaning set forth in Section 5.4.

2.36 “Organizational Documents” shall mean, collectively, (a) the Company’s articles of incorporation, certificate of incorporation, bylaws or other similar organizational documents relating to the creation and governance of the Company, and (b) the Committee’s charter or other similar organizational documentation relating to the creation and governance of the Committee.

2.37 “Other Stock or Cash Based Award” shall mean a cash payment, cash bonus award, stock payment, stock bonus award, performance award or incentive award that is paid in cash, Shares or a combination of both, awarded under Section 9.1, which may include, without limitation, deferred stock, deferred stock units, performance awards, retainers, committee fees and meeting-based fees.

2.38 “Permitted Transferee” shall mean, with respect to a Holder, any “family member” of the Holder, as defined in the General Instructions to Form S-8 Registration Statement under the Securities Act (or any successor form thereto), or any other transferee specifically approved by the Administrator after taking into account Applicable Law.

2.39 “Plan” shall have the meaning set forth in Article 1.

2.40 “Prior Plans” shall mean, collectively, the following plans of the Company: the Calix Networks, Inc. 2010 Equity Incentive Award Plan, the Calix Networks, Inc. 2000 Stock Plan and the Calix Networks, Inc. Amended and Restated 2002 Stock Plan, as each such plan may be amended from time to time.

2.41 “Program” shall mean any program adopted by the Administrator pursuant to the Plan containing the terms and conditions intended to govern a specified type of Award granted under the Plan and pursuant to which such type of Award may be granted under the Plan.

2.42 “Restricted Stock” shall mean Common Stock awarded under Article 7 that is subject to certain restrictions and may be subject to risk of forfeiture or repurchase.

2.43 “Restricted Stock Units” shall mean the right to receive Shares awarded under Article 8.

2.44 “Section 409A” shall mean Section 409A of the Code and the Department of Treasury regulations and other interpretive guidance issued thereunder, including, without limitation, any such regulations or other guidance that may be issued after the Effective Date.

2.45 “Securities Act” shall mean the Securities Act of 1933, as amended.

2.46 “Shares” shall mean shares of Common Stock.

2.47 “Stock Appreciation Right” shall mean an Award entitling the Holder (or other person entitled to exercise pursuant to the Plan) to exercise all or a specified portion thereof (to the extent then exercisable pursuant to its terms) and to receive from the Company an amount determined by multiplying the difference obtained by subtracting the exercise price per share of such Award from the Fair Market Value on the date of exercise of such Award by the number of Shares with respect to which such Award shall have been exercised, subject to any limitations the Administrator may impose.

2.48 “SAR Term” shall have the meaning set forth in Section 5.4.

2.49 “Subsidiary” shall mean any entity (other than the Company), whether domestic or foreign, in an unbroken chain of entities beginning with the Company if each of the entities other than the last entity in the unbroken chain beneficially owns, at the time of the determination, securities or interests representing at least fifty percent (50%) of the total combined voting power of all classes of securities or interests in one of the other entities in such chain.

2.50 “Substitute Award” shall mean an Award granted under the Plan in connection with a corporate transaction, such as a merger, combination, consolidation or acquisition of property or stock, in any case, upon the assumption of, or in substitution for, outstanding equity awards previously granted by a company or other entity; provided, however, that in no event shall the term “Substitute Award” be construed to refer to an award made in connection with the cancellation and repricing of an Option or Stock Appreciation Right.

2.51 “Termination of Service” shall mean:

(a) As to a Consultant, the time when the engagement of a Holder as a Consultant to the Company or a Subsidiary is terminated for any reason, with or without cause, including, without limitation, by resignation, discharge, death or retirement, but excluding terminations where the Consultant simultaneously commences or remains in employment or service with the Company or any Subsidiary.

(b) As to a Non-Employee Director, the time when a Holder who is a Non-Employee Director ceases to be a Director for any reason, including, without limitation, a termination by resignation, failure to be elected, death or retirement, but excluding terminations where the Holder simultaneously commences or remains in employment or service with the Company or any Subsidiary.

(c) As to an Employee, the time when the employee-employer relationship between a Holder and the Company or any Subsidiary is terminated for any reason, including, without limitation, a termination by resignation, discharge, death, disability or retirement; but excluding terminations where the Holder simultaneously commences or remains in employment or service with the Company or any Subsidiary.

The Administrator, in its sole discretion, shall determine the effect of all matters and questions relating to any Termination of Service, including, without limitation, whether a Termination of Service has occurred, whether a Termination of Service resulted from a discharge for cause and all questions of whether particular leaves of absence constitute a Termination of Service; provided, however, that, with respect to Incentive Stock Options, unless the Administrator otherwise provides in the terms of any Program, Award Agreement or otherwise, or as otherwise required by Applicable Law, a leave of absence, change in status from an employee to an independent contractor or other change in the employee-employer relationship shall constitute a Termination of Service only if, and to the extent that, such leave of absence, change in status or other change interrupts employment for the purposes of Section 422(a)(2) of the Code and the then-applicable regulations and revenue rulings under said Section. For purposes of the Plan, a Holder’s employee-employer relationship or consultancy relations shall be deemed to be terminated in the event that the Subsidiary employing or contracting with such Holder ceases to remain a Subsidiary following any merger, sale of stock or other corporate transaction or event (including, without limitation, a spin-off).

ARTICLE 3.

SHARES SUBJECT TO THE PLAN

3.1 Number of Shares.

(a) Subject to Sections 3.1(b) and 12.2, the aggregate number of Shares which may be issued or transferred pursuant to Awards under the Plan is 10,429,039 Shares, provided that no more than 10,429,039 Shares may be issued upon the exercise of Incentive Stock Options. Any Shares distributed pursuant to an Award may consist, in whole or in part, of authorized and unissued Common Stock, treasury Common Stock or Common Stock purchased on the open market. Notwithstanding the foregoing, the aggregate number of Shares available for issuance shall be reduced by 1.5 Shares for each Share delivered in settlement of any Full-Value Award.

(b) To the extent all or a portion of an Award or Prior Plan award is forfeited, expires or such Award, Prior Plan award or portion thereof is settled for cash (in whole or in part), the Shares subject to such Award, Prior Plan award or portion thereof, shall, to the extent of such forfeiture, expiration or cash settlement, again be available for future grants of Awards under the Plan. To the extent that all or any part of a Full-Value Award is forfeited, expires or such Full-Value Award is settled for cash (in whole or in part), in each case, whether under the Plan or a Prior Plan, the Shares available under the Plan shall be increased by 1.5 Shares for each Share subject to such Full-Value Award (or applicable portion thereof). Notwithstanding anything to the contrary contained herein, the following Shares shall not be added to the Shares authorized for grant under Section 3.1(a) and shall not be available for future grants of Awards: (i) Shares tendered by a Holder or withheld by the Company in payment of the exercise price of an Option; (ii) Shares tendered by the Holder or withheld by the Company to satisfy any tax withholding obligation with respect to an Award; (iii) Shares subject to a Stock Appreciation Right or other stock-settled Award (including Awards that may be settled in cash or stock) that are not issued in connection with the settlement or exercise, as applicable, of the Stock Appreciation Right or other stock-settled Award; and (iv) Shares purchased on the open market by the Company with the cash proceeds received from the exercise of Options. Any Shares repurchased by the Company under Section 7.4 at the same price paid by the Holder so that such Shares are returned to the Company shall again be available for Awards. The payment of Dividend Equivalents in cash in conjunction with any outstanding Awards shall not be counted against the Shares available for issuance under the Plan. Notwithstanding the provisions of this Section 3.1(b), no Shares may again be optioned, granted or awarded if such action would cause an Incentive Stock Option to fail to qualify as an incentive stock option under Section 422 of the Code.

(c) Substitute Awards shall not reduce the Shares authorized for grant under the Plan, except as may be required by reason of Section 422 of the Code. Additionally, in the event that a company acquired by the Company or any Subsidiary or with which the Company or any Subsidiary combines has shares available under a pre-existing plan approved by its stockholders and not adopted in contemplation of such acquisition or combination, the shares available for grant pursuant to the terms of such pre-existing plan (as adjusted, to the extent appropriate, using the exchange ratio or other adjustment or valuation ratio or formula used in such acquisition or combination to determine the consideration payable to the holders of common stock of the entities party to such acquisition or combination) may be used for Awards under the Plan and shall not reduce the Shares authorized for grant under the Plan; provided that Awards using such available Shares shall not be made after the date awards or grants could have been made under the terms of the pre-existing plan, absent the acquisition or combination, and shall only be made to individuals who were not employed by or providing services to the Company or its Subsidiaries immediately prior to such acquisition or combination.

3.2 Award Vesting Limitations. Notwithstanding any other provision of the Plan to the contrary, but subject to Section 12.2 of the Plan, Awards granted under the Plan shall vest no earlier than the first anniversary of the date the Award is granted and no Award Agreement shall reduce or eliminate such minimum vesting requirement; provided, however, that, notwithstanding the foregoing, (i) an Award may provide that such minimum vesting restrictions may lapse or be waived upon the Holder's Termination of Service, (ii) Awards that result in the issuance of an aggregate of up to 5% of the shares of Common Stock available pursuant to Section 3.1(a) may be granted to any one or more Eligible Individuals without respect to such minimum vesting provisions, and (iii) for purposes of Awards granted to Non-Employee Directors, a vesting period shall be deemed to be one year if it runs from the date of one annual meeting of the Company's stockholders to the next annual meeting of the Company's stockholders, so long as the period between such meetings is not less than 50 weeks.

ARTICLE 4.
GRANTING OF AWARDS

4.1 Participation. The Administrator may, from time to time, select from among all Eligible Individuals, those to whom an Award shall be granted and shall determine the nature and amount of each Award, which shall not be inconsistent with the requirements of the Plan. Except for any Non-Employee Director's right to Awards that may be required pursuant to the Non-Employee Director Equity Compensation Policy as described in Section 4.6, no Eligible Individual or other Person shall have any right to be granted an Award pursuant to the Plan and neither the Company nor the Administrator is obligated to treat Eligible Individuals, Holders or any other persons uniformly. Participation by each Holder in the Plan shall be voluntary and nothing in the Plan or any Program shall be construed as mandating that any Eligible Individual or other Person shall participate in the Plan.

4.2 Award Agreement. Each Award shall be evidenced by an Award Agreement that sets forth the terms, conditions and limitations for such Award as determined by the Administrator in its sole discretion (consistent with the requirements of the Plan and any applicable Program). Award Agreements evidencing Incentive Stock Options shall contain such terms and conditions as may be necessary to meet the applicable provisions of Section 422 of the Code.

4.3 Limitations Applicable to Section 16 Persons. Notwithstanding any other provision of the Plan, the Plan, and any Award granted or awarded to any individual who is then subject to Section 16 of the Exchange Act, shall be subject to any additional limitations set forth in any applicable exemptive rule under Section 16 of the Exchange Act (including Rule 16b-3 of the Exchange Act and any amendments thereto) that are requirements for the application of such exemptive rule. To the extent permitted by Applicable Law, the Plan and Awards granted or awarded hereunder shall be deemed amended to the extent necessary to conform to such applicable exemptive rule.

4.4 At-Will Service. Nothing in the Plan or in any Program or Award Agreement hereunder shall confer upon any Holder any right to continue in the employ of, or as a Director or Consultant for, the Company or any Subsidiary, or shall interfere with or restrict in any way the rights of the Company and any Subsidiary, which rights are hereby expressly reserved, to discharge any Holder at any time for any reason whatsoever, with or without cause, and with or without notice, or to terminate or change all other terms and conditions of employment or engagement, except to the extent expressly provided otherwise in a written agreement between the Holder and the Company or any Subsidiary.

4.5 Foreign Holders. Notwithstanding any provision of the Plan or applicable Program to the contrary, in order to comply with the laws in countries other than the United States in which the Company and its Subsidiaries operate or have Employees, Non-Employee Directors or Consultants, or in order to comply with the requirements of any foreign securities exchange or other Applicable Law, the Administrator, in its sole discretion, shall have the power and authority to: (a) determine which Subsidiaries shall be covered by the Plan; (b) determine which Eligible Individuals outside the United States are eligible to participate in the Plan; (c) modify the terms and conditions of any Award granted to Eligible Individuals outside the United States to comply with Applicable Law (including, without limitation, applicable foreign laws or listing requirements of any foreign securities exchange); (d) establish subplans and modify exercise procedures and other terms and procedures, to the extent such actions may be necessary or advisable; provided, however, that no such subplans and/or modifications shall increase the share limitation contained in Section 3.1 or the Director Limit; and (e) take any action, before or after an Award is made, that it deems advisable to obtain approval or comply with any necessary local governmental regulatory exemptions or approvals or listing requirements of any foreign securities exchange.

4.6 Non-Employee Director Awards.

(a) Non-Employee Director Equity Compensation Policy. The Administrator, in its sole discretion, may provide that Awards granted to Non-Employee Directors shall be granted pursuant to a written nondiscretionary formula established by the Administrator (the "Non-Employee Director Equity Compensation Policy"), subject to the limitations of the Plan. The Non-Employee Director Equity Compensation Policy shall set forth the type of Award(s) to be granted to Non-Employee Directors, the number of Shares to be subject to Non-Employee Director Awards, the conditions on which such Awards shall be granted, become exercisable and/or payable and expire, and such other terms and conditions as the Administrator shall determine in its sole discretion. The Non-Employee Director Equity Compensation Policy may be modified by the Administrator from time to time in its sole discretion, and pursuant to the exercise of its business judgment, taking into account such factors, circumstances and considerations as it shall deem relevant from time to time.

(b) Director Limit. Notwithstanding any provision to the contrary in the Plan or in the Non-Employee Director Equity Compensation Policy, the grant date fair value of equity-based Awards granted to a Non-Employee Director during any calendar year shall not exceed \$750,000 (the "Director Limit").

ARTICLE 5.

GRANTING OF OPTIONS AND STOCK APPRECIATION RIGHTS

5.1 Granting of Options and Stock Appreciation Rights to Eligible Individuals. The Administrator is authorized to grant Options and Stock Appreciation Rights to Eligible Individuals from time to time, in its sole discretion, on such terms and conditions as it may determine, which shall not be inconsistent with the Plan.

5.2 Qualification of Incentive Stock Options. The Administrator may grant Options intended to qualify as Incentive Stock Options only to employees of the Company, any of the Company's present or future "parent corporations" or "subsidiary corporations" as defined in Sections 424(e) or (f) of the Code, respectively, and any other entities the employees of which are eligible to receive Incentive Stock Options under the Code. No person who qualifies as a Greater Than 10% Stockholder may be granted an Incentive Stock Option unless such Incentive Stock Option conforms to the applicable provisions of Section 422 of the Code. To the extent that the aggregate fair market value of stock with respect to which "incentive stock options" (within the meaning of Section 422 of the Code, but without regard to Section 422(d) of the Code) are exercisable for the first time by a Holder during any calendar year under the Plan, and all other plans of the Company and any parent corporation or subsidiary corporation thereof (as defined in Section 424(e) and 424(f) of the Code, respectively), exceeds \$100,000, the Options shall be treated as Non-Qualified Stock Options to the extent required by Section 422 of the Code. The rule set forth in the immediately preceding sentence shall be applied by taking Options and other "incentive stock options" into account in the order in which they were granted and the fair market value of stock shall be determined as of the time the respective options were granted. Any interpretations and rules under the Plan with respect to Incentive Stock Options shall be consistent with the provisions of Section 422 of the Code. Neither the Company nor the Administrator shall have any liability to a Holder, or any other Person, (a) if an Option (or any part thereof) which is intended to qualify as an Incentive Stock Option fails to qualify as an Incentive Stock Option or (b) for any action or omission by the Company or the Administrator that causes an Option not to qualify as an Incentive Stock Option, including without limitation, the conversion of an Incentive Stock Option to a Non-Qualified Stock Option or the grant of an Option intended as an Incentive Stock Option that fails to satisfy the requirements under the Code applicable to an Incentive Stock Option.

5.3 Option and Stock Appreciation Right Exercise Price. The exercise price per Share subject to each Option and Stock Appreciation Right shall be set by the Administrator, but shall not be less than 100% of the Fair Market Value of a Share on the date the Option or Stock Appreciation Right, as applicable, is granted (or, as to Incentive Stock Options, on the date the Option is modified, extended or renewed for purposes of Section 424(h) of the Code). In addition, in the case of Incentive Stock Options granted to a Greater Than 10% Stockholder, such price shall not be less than 110% of the Fair Market Value of a Share on the date the Option is granted (or the date the Option is modified, extended or renewed for purposes of Section 424(h) of the Code). Notwithstanding the foregoing, in the case of an Option or Stock Appreciation Right that is a Substitute Award, the exercise price per share of the Shares subject to such Option or Stock Appreciation Right, as applicable, may be less than the Fair Market Value per share on the date of grant; provided that the exercise price of any Substitute Award shall be determined in accordance with the applicable requirements of Section 424 and 409A of the Code.

5.4 Option and SAR Term. The term of each Option (the "Option Term") and the term of each Stock Appreciation Right (the "SAR Term") shall be set by the Administrator in its sole discretion; provided, however, that the Option Term or SAR Term, as applicable, shall not be more than (a) ten (10) years from the date the Option or Stock Appreciation Right, as applicable, is granted to an Eligible Individual (other than a Greater Than 10% Stockholder), or (b) five (5) years from the date an Incentive Stock Option is granted to a Greater Than 10% Stockholder. Except as limited by the requirements of Section 409A or Section 422 of the Code and regulations and rulings thereunder or the first sentence of this Section 5.4 and without limiting the Company's rights under Section 10.7, the Administrator may extend the Option Term of any outstanding Option or the SAR Term of any outstanding Stock Appreciation Right, and may extend the time period during which vested Options or Stock Appreciation Rights may be exercised, in connection with any Termination of Service of the Holder or otherwise, and may amend, subject to Section 10.7 and 12.1, any other term or condition of such Option or Stock Appreciation Right relating to such Termination of Service of the Holder or otherwise.

5.5 Option and SAR Vesting. The period during which the right to exercise, in whole or in part, an Option or Stock Appreciation Right vests in the Holder shall be set by the Administrator and set forth in the applicable Award Agreement, subject to Section 3.2. Unless otherwise determined by the Administrator in the Award Agreement, the applicable Program or by action of the Administrator following the grant of the Option or Stock Appreciation Right, (a) no portion of an Option or Stock Appreciation Right which is unexercisable at a Holder's Termination of Service shall thereafter become exercisable and (b) the portion of an Option or Stock Appreciation Right that is unexercisable at a Holder's Termination of Service shall automatically expire on the date of such Termination of Service.

ARTICLE 6.

EXERCISE OF OPTIONS AND STOCK APPRECIATION RIGHTS

6.1 Exercise and Payment. An exercisable Option or Stock Appreciation Right may be exercised in whole or in part. However, an Option or Stock Appreciation Right shall not be exercisable with respect to fractional Shares and the Administrator may require that, by the terms of the Option or Stock Appreciation Right, a partial exercise must be with respect to a minimum number of Shares. Payment of the amounts payable with respect to Stock Appreciation Rights pursuant to this Article 6 shall be in cash, Shares (based on its Fair Market Value as of the date the Stock Appreciation Right is exercised), or a combination of both, as determined by the Administrator.

6.2 Manner of Exercise. All or a portion of an exercisable Option or Stock Appreciation Right shall be deemed exercised upon delivery of all of the following to the Secretary of the Company, the stock plan administrator of the Company or such other person or entity designated by the Administrator, or his, her or its office, as applicable:

(a) A written or electronic notice complying with the applicable rules established by the Administrator stating that the Option or Stock Appreciation Right, or a portion thereof, is exercised. The notice shall be signed or otherwise acknowledge electronically by the Holder or other person then entitled to exercise the Option or Stock Appreciation Right or such portion thereof;

(b) Such representations and documents as the Administrator, in its sole discretion, deems necessary or advisable to effect compliance with Applicable Law.

(c) In the event that the Option shall be exercised pursuant to Section 10.3 by any person or persons other than the Holder, appropriate proof of the right of such person or persons to exercise the Option or Stock Appreciation Right, as determined in the sole discretion of the Administrator; and

(d) Full payment of the exercise price and applicable withholding taxes for the Shares with respect to which the Option or Stock Appreciation Right, or portion thereof, is exercised, in a manner permitted by the Administrator in accordance with Sections 10.1 and 10.2.

6.3 Notification Regarding Disposition. The Holder shall give the Company prompt written or electronic notice of any disposition of Shares acquired by exercise of an Incentive Stock Option which occurs within (a) two years from the date of granting (including the date the Option is modified, extended or renewed for purposes of Section 424(h) of the Code) such Option to such Holder, or (b) one year after the date of transfer of such Shares to such Holder. Such notice shall specify the date of such disposition or other transfer and the amount realized, in cash, other property, assumption of indebtedness or other consideration, by the Holder in such disposition or other transfer.

ARTICLE 7.

AWARD OF RESTRICTED STOCK

7.1 Award of Restricted Stock. The Administrator is authorized to grant Restricted Stock to Eligible Individuals, and shall determine the terms and conditions, including the restrictions applicable to each award of Restricted Stock, which terms and conditions shall not be inconsistent with the Plan or any applicable Program, and may impose such conditions on the issuance of such Restricted Stock as it deems appropriate. The Administrator shall establish the purchase price, if any, and form of payment for Restricted Stock; provided, however, that if a purchase price is charged, such purchase price shall be no less than the par value, if any, of the Shares to be purchased, unless otherwise permitted by Applicable Law. In all cases, legal consideration shall be required for each issuance of Restricted Stock to the extent required by Applicable Law.

7.2 Rights as Stockholders. Subject to Section 7.4, upon issuance of Restricted Stock, the Holder shall have, unless otherwise provided by the Administrator, all the rights of a stockholder with respect to said Shares, subject to the restrictions in the Plan, any applicable Program and/or the applicable Award Agreement, including the right to receive all dividends and other distributions paid or made with respect to the Shares to the extent such dividends and other distributions have a record date that is on or after the date on which the Holder to whom such Restricted Stock are granted becomes the record holder of such Restricted Stock; provided, however, that, in the sole discretion of the Administrator, any extraordinary distributions with respect to the Shares may be subject to the restrictions set forth in Section 7.3. In addition, dividends payable in respect to Restricted Stock prior to vesting shall only be paid out to the Holder to the extent that the vesting conditions are subsequently satisfied and the share of Restricted Stock vests.

7.3 Restrictions. All shares of Restricted Stock (including any shares received by Holders thereof with respect to shares of Restricted Stock as a result of stock dividends, stock splits or any other form of recapitalization) shall be subject to such restrictions and vesting requirements as the Administrator shall provide in the applicable Program or Award Agreement, subject to Section 3.2. By action taken after the Restricted Stock is issued, the Administrator may, on such terms and conditions as it may determine to be appropriate, accelerate the vesting of such Restricted Stock by removing any or all of the restrictions imposed by the terms of the applicable Program or Award Agreement.

7.4 Repurchase or Forfeiture of Restricted Stock. Except as otherwise determined by the Administrator, if no price was paid by the Holder for the Restricted Stock, upon a Termination of Service during the applicable restriction period, the Holder's rights in unvested Restricted Stock then subject to restrictions shall lapse, and such Restricted Stock shall be surrendered to the Company and cancelled without consideration on the date of such Termination of Service. If a price was paid by the Holder for the Restricted Stock, upon a Termination of Service during the applicable restriction period, the Company shall have the right to repurchase from the Holder the unvested Restricted Stock then subject to restrictions at a cash price per share equal to the price paid by the Holder for such Restricted Stock or such other amount as may be specified in the applicable Program or Award Agreement. Notwithstanding the foregoing, except as otherwise provided by Section 3.2, the Administrator, in its sole discretion, may provide that upon certain events, including, without limitation, a Change in Control, the Holder's death, retirement or disability or any other specified Termination of Service or any other event, the Holder's rights in unvested Restricted Stock then subject to restrictions shall not lapse, such Restricted Stock shall vest and cease to be forfeitable and, if applicable, the Company shall cease to have a right of repurchase.

7.5 Section 83(b) Election. If a Holder makes an election under Section 83(b) of the Code to be taxed with respect to the Restricted Stock as of the date of transfer of the Restricted Stock rather than as of the date or dates upon which the Holder would otherwise be taxable under Section 83(a) of the Code, the Holder shall be required to deliver a copy of such election to the Company promptly after filing such election with the Internal Revenue Service along with proof of the timely filing thereof with the Internal Revenue Service.

ARTICLE 8.

AWARD OF RESTRICTED STOCK UNITS

8.1 Grant of Restricted Stock Units. The Administrator is authorized to grant Awards of Restricted Stock Units to any Eligible Individual selected by the Administrator in such amounts and subject to such terms and conditions as determined by the Administrator.

8.2 Term. Except as otherwise provided herein, the term of a Restricted Stock Unit award shall be set by the Administrator in its sole discretion.

8.3 Purchase Price. The Administrator shall specify the purchase price, if any, to be paid by the Holder to the Company with respect to any Restricted Stock Unit award; provided, however, that value of the consideration shall not be less than the par value of a Share, unless otherwise permitted by Applicable Law.

8.4 Vesting of Restricted Stock Units. At the time of grant, the Administrator shall specify the date or dates on which the Restricted Stock Units shall become fully vested and nonforfeitable, and may specify such conditions to vesting as it deems appropriate, including, without limitation, vesting based upon the Holder's duration of service to the Company or any Subsidiary, one or more performance criteria, Company performance, individual performance or other specific criteria, in each case on a specified date or dates or over any period or periods, as determined by the Administrator, subject to Section 3.2.

8.5 Maturity and Payment. At the time of grant, the Administrator shall specify the maturity date applicable to each grant of Restricted Stock Units, which shall be no earlier than the vesting date or dates of the Award and may be determined at the election of the Holder (if permitted by the applicable Award Agreement); provided that, except as otherwise determined by the Administrator, and subject to compliance with Section 409A, in no event shall the maturity date relating to each Restricted Stock Unit occur following the later of (a) the 15th day of the third month following the end of the calendar year in which the applicable portion of the Restricted Stock Unit vests; or (b) the 15th day of the third month following the end of the Company's fiscal year in which the applicable portion of the Restricted Stock Unit vests. On the maturity date, the Company shall, in accordance with the applicable Award Agreement and subject to Section 10.4(f), transfer to the Holder one unrestricted, fully transferable Share for each Restricted Stock Unit scheduled to be paid out on such date and not previously forfeited, or in the sole discretion of the Administrator, an amount in cash equal to the Fair Market Value of such Shares on the maturity date or a combination of cash and Common Stock as determined by the Administrator.

8.6 Payment upon Termination of Service. An Award of Restricted Stock Units shall only be payable while the Holder is an Employee, a Consultant or a member of the Board, as applicable; provided, however, that the Administrator, in its sole discretion, may provide (in an Award Agreement or otherwise) that a Restricted Stock Unit award may be paid subsequent to a Termination of Service in certain events, including a Change in Control, the Holder's death, retirement or disability or any other specified Termination of Service.

ARTICLE 9.

AWARD OF OTHER STOCK OR CASH BASED AWARDS AND DIVIDEND EQUIVALENTS

9.1 Other Stock or Cash Based Awards. The Administrator is authorized to grant Other Stock or Cash Based Awards, including awards entitling a Holder to receive Shares or cash to be delivered immediately or in the future, to any Eligible Individual. Subject to the provisions of the Plan and any applicable Program, the Administrator shall determine the terms and conditions of each Other Stock or Cash Based Award, including the term of the Award, any exercise or purchase price, performance goals, transfer restrictions, vesting conditions and other terms and conditions applicable thereto, which shall be set forth in the applicable Award Agreement, subject to Section 3.2. Other Stock or Cash Based Awards may be paid in cash, Shares, or a combination of cash and Shares, as determined by the Administrator, and may be available as a form of payment in the settlement of other Awards granted under the Plan, as stand-alone payments, as a part of a bonus, deferred bonus, deferred compensation or other arrangement, and/or as payment in lieu of compensation to which an Eligible Individual is otherwise entitled.

9.2 Dividend Equivalents. Dividend Equivalents may be granted by the Administrator, either alone or in tandem with another Award, based on dividends declared on the Common Stock, to be credited as of dividend payment dates during the period between the date the Dividend Equivalents are granted to a Holder and the date such Dividend Equivalents terminate or expire, as determined by the Administrator. Such Dividend Equivalents shall be converted to cash or additional Shares by such formula and at such time and subject to such restrictions and limitations as may be determined by the Administrator. In addition, Dividend Equivalents with respect to an Award that are based on dividends paid prior to the vesting of such Award shall only be paid out to the Holder to the extent that the vesting conditions are subsequently satisfied and the Award vests. Notwithstanding the foregoing, no Dividend Equivalents shall be payable with respect to Options or Stock Appreciation Rights.

ARTICLE 10.

ADDITIONAL TERMS OF AWARDS

10.1 Payment. The Administrator shall determine the method or methods by which payments by any Holder with respect to any Awards granted under the Plan shall be made, including, without limitation: (a) cash or check, (b) Shares (including, in the case of payment of the exercise price of an Award, Shares issuable pursuant to the exercise of the Award) or Shares held for such minimum period of time as may be established by the Administrator, in each case, having a Fair Market Value on the date of delivery equal to the aggregate payments required, (c) delivery of a written or electronic notice that the Holder has placed a market sell order with a broker acceptable to the Company with respect to Shares then issuable upon exercise or vesting of an Award, and that the broker has been directed to pay a sufficient portion of the net proceeds of the sale to the Company in satisfaction of the aggregate payments required; provided that payment of such proceeds is then made to the Company upon settlement of such sale, (d) other form of legal consideration acceptable to the Administrator in its sole discretion, or (e) any combination of the above permitted forms of payment. Notwithstanding any other provision of the Plan to the contrary, no Holder who is a Director or an "executive officer" of the Company within the meaning of Section 13(k) of the Exchange Act shall be permitted to make payment with respect to any Awards granted under the Plan, or continue any extension of credit with respect to such payment, with a loan from the Company or a loan arranged by the Company in violation of Section 13(k) of the Exchange Act.

10.2 Tax Withholding. The Company or any Subsidiary shall have the authority and the right to deduct or withhold, or require a Holder to remit to the Company, an amount sufficient to satisfy federal, state, local and foreign taxes (including the Holder's FICA, employment tax or other social security contribution obligation) required by law to be withheld with respect to any taxable event concerning a Holder arising as a result of the Plan or any Award. The Administrator may, in its sole discretion and in satisfaction of the foregoing requirement, allow a Holder to satisfy such obligations by any payment means described in Section 10.1 hereof, including without limitation, by allowing such Holder to have the Company or any Subsidiary withhold Shares otherwise issuable under an Award (or allow the surrender of Shares). The number of Shares which may be so withheld or surrendered shall be limited to the number of Shares which have a fair market value on the date of withholding or repurchase no greater than the aggregate amount of such liabilities based on the maximum statutory withholding rates for federal, state, local and foreign income tax and payroll tax purposes that are applicable to such supplemental taxable income (or such other number as would not result in adverse financial accounting consequences for the Company or any of its Subsidiaries). The Administrator shall determine the fair market value of the Shares, consistent with applicable provisions of the Code, for tax withholding obligations due in connection with a broker-assisted cashless Option or Stock Appreciation Right exercise involving the sale of Shares to pay the Option or Stock Appreciation Right exercise price or any tax withholding obligation.

10.3 Transferability of Awards.

(a) Except as otherwise provided in Sections 10.3(b) and 10.3(c):

(i) No Award under the Plan may be sold, pledged, assigned or transferred in any manner other than (A) by will or the laws of descent and distribution or (B) subject to the consent of the Administrator, pursuant to a DRO, unless and until such Award has been exercised or the Shares underlying such Award have been issued, and all restrictions applicable to such Shares have lapsed;

(ii) No Award or interest or right therein shall be liable for or otherwise subject to the debts, contracts or engagements of the Holder or the Holder's successors in interest or shall be subject to disposition by transfer, alienation, anticipation, pledge, hypothecation, encumbrance, assignment or any other means whether such disposition be voluntary or involuntary or by operation of law by judgment, levy, attachment, garnishment or any other legal or equitable proceedings (including bankruptcy) unless and until such Award has been exercised, or the Shares underlying such Award have been issued, and all restrictions applicable to such Shares have lapsed, and any attempted disposition of an Award prior to satisfaction of these conditions shall be null and void and of no effect, except to the extent that such disposition is permitted by Section 10.3(a)(i); and

(iii) During the lifetime of the Holder, only the Holder may exercise any exercisable portion of an Award granted to such Holder under the Plan, unless it has been disposed of pursuant to a DRO. After the death of the Holder, any exercisable portion of an Award may, prior to the time when such portion becomes unexercisable under the Plan or the applicable Program or Award Agreement, be exercised by the Holder's personal representative or by any person empowered to do so under the deceased Holder's will or under the then-applicable laws of descent and distribution.

(b) Notwithstanding Section 10.3(a), the Administrator, in its sole discretion, may determine to permit a Holder or a Permitted Transferee of such Holder to transfer an Award other than an Incentive Stock Option (unless such Incentive Stock Option is intended to become a Nonqualified Stock Option) to any one or more Permitted Transferees of such Holder, subject to the following terms and conditions: (i) an Award transferred to a Permitted Transferee shall not be assignable or transferable by the Permitted Transferee other than (A) to another Permitted Transferee of the applicable Holder or (B) by will or the laws of descent and distribution or, subject to the consent of the Administrator, pursuant to a DRO; (ii) an Award transferred to a Permitted Transferee shall continue to be subject to all the terms and conditions of the Award as applicable to the original Holder (other than the ability to further transfer the Award to any Person other than another Permitted Transferee of the applicable Holder); and (iii) the Holder (or transferring Permitted Transferee) and the receiving Permitted Transferee shall execute any and all documents requested by the Administrator, including, without limitation documents to (A) confirm the status of the transferee as a Permitted Transferee, (B) satisfy any requirements for an exemption for the transfer under Applicable Law and (C) evidence the transfer. In addition, and further notwithstanding Section 10.3(a), hereof, the Administrator, in its sole discretion, may determine to permit a Holder to transfer Incentive Stock Options to a trust that constitutes a Permitted Transferee if, under Section 671 of the Code and other Applicable Law, the Holder is considered the sole beneficial owner of the Incentive Stock Option while it is held in the trust.

(c) Notwithstanding Section 10.3(a), a Holder may, in the manner determined by the Administrator, designate a beneficiary to exercise the rights of the Holder and to receive any distribution with respect to any Award upon the Holder's death. A beneficiary, legal guardian, legal representative, or other person claiming any rights pursuant to the Plan is subject to all terms and conditions of the Plan and any Program or Award Agreement applicable to the Holder and any additional restrictions deemed necessary or appropriate by the Administrator. If the Holder is married or a domestic partner in a domestic partnership qualified under Applicable Law and resides in a community property state, a designation of a person other than the Holder's spouse or domestic partner, as applicable, as the Holder's beneficiary with respect to more than 50% of the Holder's interest in the Award shall not be effective without the prior written or electronic consent of the Holder's spouse or domestic partner. If no beneficiary has been designated or survives the Holder, payment shall be made to the person entitled thereto pursuant to the Holder's will or the laws of descent and distribution. Subject to the foregoing, a beneficiary designation may be changed or revoked by a Holder at any time; provided that the change or revocation is delivered in writing to the Administrator prior to the Holder's death.

10.4 Conditions to Issuance of Shares.

(a) The Administrator shall determine the methods by which Shares shall be delivered or deemed to be delivered to Holders. Notwithstanding anything herein to the contrary, the Company shall not be required to issue or deliver any certificates or make any book entries evidencing Shares pursuant to the exercise of any Award, unless and until the Administrator has determined, with advice of counsel, that the issuance of such Shares is in compliance with Applicable Law and the Shares are covered by an effective registration statement or applicable exemption from registration. In addition to the terms and conditions provided herein, the Administrator may require that a Holder make such reasonable covenants, agreements and representations as the Administrator, in its sole discretion, deems advisable in order to comply with Applicable Law.

(b) All share certificates delivered pursuant to the Plan and all Shares issued pursuant to book entry procedures are subject to any stop-transfer orders and other restrictions as the Administrator deems necessary or advisable to comply with Applicable Law. The Administrator may place legends on any share certificate or book entry to reference restrictions applicable to the Shares (including, without limitation, restrictions applicable to Restricted Stock).

(c) The Administrator shall have the right to require any Holder to comply with any timing or other restrictions with respect to the settlement, distribution or exercise of any Award, including a window-period limitation, as may be imposed in the sole discretion of the Administrator.

(d) No fractional Shares shall be issued and the Administrator, in its sole discretion, shall determine whether cash shall be given in lieu of fractional Shares or whether such fractional Shares shall be eliminated by rounding down.

(e) The Company, in its sole discretion, may (i) retain physical possession of any stock certificate evidencing Shares until any restrictions thereon shall have lapsed and/or (ii) require that the stock certificates evidencing such Shares be held in custody by a designated escrow agent (which may but need not be the Company) until the restrictions thereon shall have lapsed, and that the Holder deliver a stock power, endorsed in blank, relating to such Shares.

(f) Notwithstanding any other provision of the Plan, unless otherwise determined by the Administrator or required by Applicable Law, the Company shall not deliver to any Holder certificates evidencing Shares issued in connection with any Award and instead such Shares shall be recorded in the books of the Company (or, as applicable, its transfer agent or stock plan administrator).

10.5 Forfeiture and Clawback Provisions. All Awards (including any proceeds, gains or other economic benefit actually or constructively received by a Holder upon any receipt or exercise of any Award or upon the receipt or resale of any Shares underlying the Award and any payments of a portion of an incentive-based bonus pool allocated to a Holder) shall be subject to the provisions of any clawback policy implemented by the Company, including, without limitation, any clawback policy adopted to comply with the requirements of Applicable Law, including, without limitation, the Dodd-Frank Wall Street Reform and Consumer Protection Act and any rules or regulations promulgated thereunder, whether or not such clawback policy was in place at the time of grant of an Award, to the extent set forth in such clawback policy and/or in the applicable Award Agreement.

10.6 Prohibition on Repricing. Subject to Section 12.2, the Administrator shall not, without the approval of the stockholders of the Company, (a) authorize the amendment of any outstanding Option or Stock Appreciation Right to reduce its price per Share, or (b) cancel any Option or Stock Appreciation Right in exchange for cash or another Award when the Option or Stock Appreciation Right price per Share exceeds the Fair Market Value of the underlying Shares. Furthermore, for purposes of this Section 10.6, except in connection with a corporate transaction involving the Company (including, without limitation, any stock dividend, stock split, extraordinary cash dividend, recapitalization, reorganization, merger, consolidation, split-up, spin-off, combination or exchange of shares), the terms of outstanding Awards may not be amended to reduce the exercise price per Share of outstanding Options or Stock Appreciation Rights or cancel outstanding Options or Stock Appreciation Rights in exchange for cash, other Awards or Options or Stock Appreciation Rights with an exercise price per Share that is less than the exercise price per Share of the original Options or Stock Appreciation Rights without the approval of the stockholders of the Company.

10.7 Amendment of Awards. Subject to Applicable Law, the Administrator may amend, modify or terminate any outstanding Award, including but not limited to, substituting therefor another Award of the same or a different type, changing the date of exercise or settlement, and converting an Incentive Stock Option to a Non-Qualified Stock Option. The Holder's consent to such action shall be required unless (a) the Administrator determines that the action, taking into account any related action, would not materially and adversely affect the Holder, or (b) the change is otherwise permitted under the Plan (including, without limitation, under Section 12.2 or 12.10).

10.8 Data Privacy. As a condition of receipt of any Award, each Holder explicitly and unambiguously consents to the collection, use and transfer, in electronic or other form, of personal data as described in this Section 10.8 by and among, as applicable, the Company and its Subsidiaries for the exclusive purpose of implementing, administering and managing the Holder's participation in the Plan. The Company and its Subsidiaries may hold certain personal information about a Holder, including but not limited to, the Holder's name, home address and telephone number, date of birth, social security or insurance number or other identification number, salary, nationality, job title(s), any shares of stock held in the Company or any of its Subsidiaries, details of all Awards, in each case, for the purpose of implementing, managing and administering the Plan and Awards (the "Data"). The Company and its Subsidiaries may transfer the Data amongst themselves as necessary for the purpose of implementation, administration and management of a Holder's participation in the Plan, and the Company and its Subsidiaries may each further transfer the Data to any third parties assisting the Company and its Subsidiaries in the implementation, administration and management of the Plan. These recipients may be located in the Holder's country, or elsewhere, and the Holder's country may have different data privacy laws and protections than the recipients' country. Through acceptance of an Award, each Holder authorizes such recipients to receive, possess, use, retain and transfer the Data, in electronic or other form, for the purposes of implementing, administering and managing the Holder's participation in the Plan, including any requisite transfer of such Data as may be required to a broker or other third party with whom the Company or any of its Subsidiaries or the Holder may elect to deposit any Shares. The Data related to a Holder will be held only as long as is necessary to implement, administer, and manage the Holder's participation in the Plan. A Holder may, at any time, view the Data held by the Company with respect to such Holder, request additional information about the storage and processing of the Data with respect to such Holder, recommend any necessary corrections to the Data with respect to the Holder or refuse or withdraw the consents herein in writing, in any case without cost, by contacting his or her local human resources representative. The Company may cancel Holder's ability to participate in the Plan and, in the Administrator's discretion, the Holder may forfeit any outstanding Awards if the Holder refuses or withdraws his or her consents as described herein. For more information on the consequences of refusal to consent or withdrawal of consent, Holders may contact their local human resources representative.

ARTICLE 11. ADMINISTRATION

11.1 Administrator. The Committee shall administer the Plan (except as otherwise permitted herein). To the extent necessary to comply with Rule 16b-3 of the Exchange Act, the Committee shall take all action with respect to such Awards, and the individuals taking such action shall consist solely of two or more Non-Employee Directors, each of whom is intended to qualify as a "non-employee director" as defined by Rule 16b-3 of the Exchange Act or any successor rule. Additionally, to the extent required by Applicable Law, each of the individuals constituting the Committee shall be an "independent director" under the rules of any securities exchange or automated quotation system on which the Shares are listed, quoted or traded. Notwithstanding the foregoing, any action taken by the Committee shall be valid and effective, whether or not members of the Committee at the time of such action are later determined not to have satisfied the requirements for membership set forth in this Section 11.1 or the Organizational Documents. Except as may otherwise be provided in the Organizational Documents or as otherwise required by Applicable Law, (a) appointment of Committee members shall be effective upon acceptance of appointment, (b) Committee members may resign at any time by delivering written or electronic notice to the Board and (c) vacancies in the Committee may only be filled by the Board. Notwithstanding the foregoing, (i) the full Board, acting by a majority of its members in office, shall conduct the general administration of the Plan with respect to Awards granted to Non-Employee Directors and, with respect to such Awards, the terms "Administrator" as used in the Plan shall be deemed to refer to the Board and (ii) the Board or Committee may delegate its authority hereunder to the extent permitted by Section 11.6.

11.2 Duties and Powers of Administrator. It shall be the duty of the Administrator to conduct the general administration of the Plan in accordance with its provisions. The Administrator shall have the power to interpret the Plan, all Programs and Award Agreements, and to adopt such rules for the administration, interpretation and application of the Plan and any Program as are not inconsistent with the Plan, to interpret, amend or revoke any such rules and to amend the Plan or any Program or Award Agreement; provided that the rights or obligations of the Holder of the Award that is the subject of any such Program or Award Agreement are not materially and adversely affected by such amendment, unless the consent of the Holder is obtained or such amendment is otherwise permitted under Section 10.7 or Section 12.10. In its sole discretion, the Board may at any time and from time to time exercise any and all rights and duties of the Committee in its capacity as the Administrator under the Plan except with respect to matters which under Rule 16b-3 under the Exchange Act or any successor rule, or the rules of any securities exchange or automated quotation system on which the Shares are listed, quoted or traded are required to be determined in the sole discretion of the Committee.

11.3 Action by the Administrator. Unless otherwise established by the Board, set forth in any Organizational Documents or as required by Applicable Law, a majority of the Administrator shall constitute a quorum and the acts of a majority of the members present at any meeting at which a quorum is present, and acts approved in writing by all members of the Administrator in lieu of a meeting, shall be deemed the acts of the Administrator. Each member of the Administrator is entitled to, in good faith, rely or act upon any report or other information furnished to that member by any officer or other employee of the Company or any Subsidiary, the Company's independent certified public accountants, or any executive compensation consultant or other professional retained by the Company to assist in the administration of the Plan.

11.4 Authority of Administrator. Subject to the Organizational Documents, any specific designation in the Plan and Applicable Law, the Administrator has the exclusive power, authority and sole discretion to:

- (a) Designate Eligible Individuals to receive Awards;
- (b) Determine the type or types of Awards to be granted to each Eligible Individual (including, without limitation, any Awards granted in tandem with another Award granted pursuant to the Plan);
- (c) Determine the number of Awards to be granted and the number of Shares to which an Award will relate;
- (d) Determine the terms and conditions of any Award granted pursuant to the Plan, including, but not limited to, the exercise price, grant price, purchase price, any performance criteria, any restrictions or limitations on the Award, any schedule for vesting, lapse of forfeiture restrictions or restrictions on the exercisability of an Award, and accelerations or waivers thereof, and any provisions related to non-competition and clawback and recapture of gain on an Award, based in each case on such considerations as the Administrator in its sole discretion determines;
- (e) Determine whether, to what extent, and under what circumstances an Award may be settled in, or the exercise price of an Award may be paid in cash, Shares, other Awards, or other property, or an Award may be canceled, forfeited, or surrendered;
- (f) Prescribe the form of each Award Agreement, which need not be identical for each Holder;
- (g) Decide all other matters that must be determined in connection with an Award;
- (h) Establish, adopt, or revise any Programs, rules and regulations as it may deem necessary or advisable to administer the Plan;
- (i) Interpret the terms of, and any matter arising pursuant to, the Plan, any Program or any Award Agreement;
- (j) Make all other decisions and determinations that may be required pursuant to the Plan or as the Administrator deems necessary or advisable to administer the Plan; and
- (k) Accelerate wholly or partially the vesting or lapse of restrictions of any Award or portion thereof at any time after the grant of an Award, subject to whatever terms and conditions it selects Section 3.2 and Section 12.2.

11.5 Decisions Binding. The Administrator's interpretation of the Plan, any Awards granted pursuant to the Plan, any Program or any Award Agreement and all decisions and determinations by the Administrator with respect to the Plan are final, binding and conclusive on all Persons.

11.6 Delegation of Authority. The Board or Committee may from time to time delegate to a committee of one or more members of the Board or one or more officers of the Company the authority to grant or amend Awards or to take other administrative actions pursuant to this Article 11; provided, however, that in no event shall an officer of the Company be delegated the authority to grant Awards to, or amend Awards held by, the following individuals: (a) individuals who are subject to Section 16 of the Exchange Act or (b) officers of the Company (or Directors) to whom authority to grant or amend Awards has been delegated hereunder; provided, further, that any delegation of administrative authority shall only be permitted to the extent it is permissible under any Organizational Documents and Applicable Law. Any delegation hereunder shall be subject to the restrictions and limits that the Board or Committee specifies at the time of such delegation or that are otherwise included in the applicable Organizational Documents, and the Board or Committee, as applicable, may at any time rescind the authority so delegated or appoint a new delegatee. At all times, the delegatee appointed under this Section 11.6 shall serve in such capacity at the pleasure of the Board or the Committee, as applicable, and the Board or the Committee may abolish any committee at any time and re-vest in itself any previously delegated authority.

ARTICLE 12.

MISCELLANEOUS PROVISIONS

12.1 Amendment, Suspension or Termination of the Plan.

(a) Except as otherwise provided in Section 12.1(b), the Plan may be wholly or partially amended or otherwise modified, suspended or terminated at any time or from time to time by the Board; provided that, except as provided in Section 10.7 and Section 12.10, no amendment, suspension or termination of the Plan shall, without the consent of the Holder, materially and adversely affect any rights or obligations under any Award theretofore granted or awarded, unless the Award itself otherwise expressly so provides.

(b) Notwithstanding Section 12.1(a), the Board may not, except as provided in Section 12.2, take any of the following actions without approval of the Company's stockholders given within twelve (12) months before or after such action: (i) increase the limit imposed in Section 3.1 on the maximum number of Shares which may be issued under the Plan or the Director Limit, (ii) reduce the price per share of any outstanding Option or Stock Appreciation Right granted under the Plan or take any action prohibited under Section 10.6, or (iii) cancel any Option or Stock Appreciation Right in exchange for cash or another Award in violation of Section 10.6.

(c) No Awards may be granted or awarded during any period of suspension or after termination of the Plan, and notwithstanding anything herein to the contrary, in no event may any Award be granted under the Plan after the tenth (10th) anniversary of the earlier of (i) the date on which the Plan was adopted by the Board or (ii) the date the Plan was approved by the Company's stockholders (such anniversary, the "Expiration Date"). Any Awards that are outstanding on the Expiration Date shall remain in force according to the terms of the Plan, the applicable Program and the applicable Award Agreement.

12.2 Changes in Common Stock or Assets of the Company, Acquisition or Liquidation of the Company and Other Corporate Events.

(a) In the event of any stock dividend, stock split, combination or exchange of shares, merger, consolidation or other distribution (other than normal cash dividends) of Company assets to stockholders, or any other change affecting the shares of the Company's stock or the share price of the Company's stock other than an Equity Restructuring, the Administrator may make equitable adjustments, if any, to reflect such change with respect to: (i) the aggregate number and kind of Shares that may be issued under the Plan (including, but not limited to, adjustments of the limitations in Section 3.1 on the maximum number and kind of Shares which may be issued under the Plan); (ii) the number and kind of Shares (or other securities or property) subject to outstanding Awards; (iii) the terms and conditions of any outstanding Awards (including, without limitation, any applicable performance targets or criteria with respect thereto); (iv) the grant or exercise price per share for any outstanding Awards under the Plan; and (v) the number and kind of Shares (or other securities or property) for which automatic grants are subsequently to be made to new and continuing Non-Employee Directors pursuant to Section 4.6.

(b) In the event of any transaction or event described in Section 12.2(a) or any unusual or nonrecurring transactions or events affecting the Company, any Subsidiary of the Company, or the financial statements of the Company or any Subsidiary, or of changes in Applicable Law or Applicable Accounting Standards, the Administrator, in its sole discretion, and on such terms and conditions as it deems appropriate, either by the terms of the Award or by action taken prior to the occurrence of such transaction or event, is hereby authorized to take any one or more of the following actions whenever the Administrator determines that such action is appropriate in order to prevent dilution or enlargement of the benefits or potential benefits intended to be made available under the Plan or with respect to any Award under the Plan, to facilitate such transactions or events or to give effect to such changes in Applicable Law or Applicable Accounting Standards:

(i) To provide for the termination of any such Award in exchange for an amount of cash and/or other property with a value equal to the amount that would have been attained upon the exercise of such Award or realization of the Holder's rights (and, for the avoidance of doubt, if as of the date of the occurrence of the transaction or event described in this Section 12.2 the Administrator determines in good faith that no amount would have been attained upon the exercise of such Award or realization of the Holder's rights, then such Award may be terminated by the Company without payment);

(ii) To provide that such Award be assumed by the successor or survivor corporation, or a parent or subsidiary thereof, or shall be substituted for by similar options, rights or awards covering the stock of the successor or survivor corporation, or a parent or subsidiary thereof, with appropriate adjustments as to the number and kind of shares and applicable exercise or purchase price, in all cases, as determined by the Administrator;

(iii) To make adjustments in the number and type of Shares of the Company's stock (or other securities or property) subject to outstanding Awards, and/or in the terms and conditions of (including the grant or exercise price), and the criteria included in, outstanding Awards and Awards which may be granted in the future;

(iv) To provide that such Award shall be exercisable or payable or fully vested with respect to all Shares covered thereby, notwithstanding anything to the contrary in the Plan or the applicable Program or Award Agreement;

(v) To replace such Award with other rights or property selected by the Administrator; and/or

(vi) To provide that the Award cannot vest, be exercised or become payable after such event.

(c) In connection with the occurrence of any Equity Restructuring, and notwithstanding anything to the contrary in Sections 12.2(a) and 12.2(b):

(i) The number and type of securities subject to each outstanding Award and the exercise price or grant price thereof, if applicable, shall be equitably adjusted (and the adjustments provided under this Section 12.2(c)(i) shall be nondiscretionary and shall be final and binding on the affected Holder and the Company); and/or

(ii) The Administrator shall make such equitable adjustments, if any, as the Administrator, in its sole discretion, may deem appropriate to reflect such Equity Restructuring with respect to the aggregate number and kind of Shares that may be issued under the Plan (including, but not limited to, adjustments of the limitation in Section 3.1 on the maximum number and kind of Shares which may be issued under the Plan).

(d) Notwithstanding any other provision of the Plan but subject to Section 12.2(e), in the event of a Change in Control, each outstanding Award shall be assumed or an equivalent Award substituted by the successor corporation or a parent or subsidiary of the successor corporation. In the event a Holder experiences a Termination of Service by the Company without Cause or Constructive Termination within the twelve (12) month period commencing upon a Change in Control, each Award held by such Holder shall become fully vested and, if applicable, exercisable and all forfeiture restrictions on such Award shall lapse, in each case, as of immediately prior to such Termination of Service or Constructive Termination.

(e) In the event that the successor corporation in a Change in Control refuses to assume or substitute for an Award upon a Change in Control, such Award shall become fully vested and, if applicable, exercisable and all forfeiture restrictions on such Award shall lapse, in each case, as of immediately prior to the consummation of such Change in Control. If an Award is exercisable in lieu of assumption or substitution in the event of a Change in Control, the Administrator shall notify the Holder that the Award shall be fully exercisable for a period of fifteen (15) days from the date of such notice, contingent upon the occurrence of the Change in Control, and the Award shall terminate upon the expiration of such period.

(f) For the purposes of this Section 12.2, an Award shall be considered assumed if, following the Change in Control, the Award confers the right to purchase or receive, for each Share subject to the Award immediately prior to the Change in Control, the consideration (whether stock, cash, or other securities or property) received in the 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 Change in Control was 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 the Award, for each Share subject to an 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 Change in Control

(g) The Administrator, in its sole discretion, may include such further provisions and limitations in any Award, agreement or certificate, as it may deem equitable and in the best interests of the Company that are not inconsistent with the provisions of the Plan.

(h) Unless otherwise determined by the Administrator, no adjustment or action described in this Section 12.2 or in any other provision of the Plan shall be authorized to the extent it would (i) cause the Plan to violate Section 422(b)(1) of the Code, (ii) result in short-swing profits liability under Section 16 of the Exchange Act or violate the exemptive conditions of Rule 16b-3 of the Exchange Act, or (iii) cause an Award to fail to be exempt from or comply with Section 409A.

(i) The existence of the Plan, any Program, any Award Agreement and/or the Awards granted hereunder shall not affect or restrict in any way the right or power of the Company or the stockholders of the Company to make or authorize any adjustment, recapitalization, reorganization or other change in the Company's capital structure or its business, any merger or consolidation of the Company, any issue of stock or of options, warrants or rights to purchase stock or of bonds, debentures, preferred or prior preference stocks whose rights are superior to or affect the Common Stock or the rights thereof or which are convertible into or exchangeable for Common Stock, or the dissolution or liquidation of the Company, or any sale or transfer of all or any part of its assets or business, or any other corporate act or proceeding, whether of a similar character or otherwise.

(j) In the event of any pending stock dividend, stock split, combination or exchange of shares, merger, consolidation or other distribution (other than normal cash dividends) of Company assets to stockholders, or any other change affecting the Shares or the share price of the Common Stock including any Equity Restructuring, for reasons of administrative convenience, the Administrator, in its sole discretion, may refuse to permit the exercise of any Award during a period of up to thirty (30) days prior to the consummation of any such transaction.

12.3 Approval of Plan by Stockholders. The Plan shall be submitted for the approval of the Company's stockholders within twelve (12) months after the date of the Board's initial adoption of the Plan.

12.4 No Stockholders Rights. Except as otherwise provided herein or in an applicable Program or Award Agreement, a Holder shall have none of the rights of a stockholder with respect to Shares covered by any Award until the Holder becomes the record owner of such Shares.

12.5 Paperless Administration. In the event that the Company establishes, for itself or using the services of a third party, an automated system for the documentation, granting or exercise of Awards, such as a system using an internet website or interactive voice response, then the paperless documentation, granting or exercise of Awards by a Holder may be permitted through the use of such an automated system.

12.6 Effect of Plan upon Other Compensation Plans. The adoption of the Plan shall not affect any other compensation or incentive plans in effect for the Company or any Subsidiary. Nothing in the Plan shall be construed to limit the right of the Company or any Subsidiary: (a) to establish any other forms of incentives or compensation for Employees, Directors or Consultants of the Company or any Subsidiary, or (b) to grant or assume options or other rights or awards otherwise than under the Plan in connection with any proper corporate purpose including without limitation, the grant or assumption of options in connection with the acquisition by purchase, lease, merger, consolidation or otherwise, of the business, stock or assets of any corporation, partnership, limited liability company, firm or association.

12.7 Compliance with Laws. The Plan, the granting and vesting of Awards under the Plan and the issuance and delivery of Shares and the payment of money under the Plan or under Awards granted or awarded hereunder are subject to compliance with all Applicable Law (including but not limited to state, federal and foreign securities law and margin requirements), and to such approvals by any listing, regulatory or governmental authority as may, in the opinion of counsel for the Company, be necessary or advisable in connection therewith. Any securities delivered under the Plan shall be subject to such restrictions, and the person acquiring such securities shall, if requested by the Company, provide such assurances and representations to the Company as the Company may deem necessary or desirable to assure compliance with all Applicable Law. The Administrator, in its sole discretion, may take whatever actions it deems necessary or appropriate to effect compliance with Applicable Law, including, without limitation, placing legends on share certificates and issuing stop-transfer notices to agents and registrars. Notwithstanding anything to the contrary herein, the Administrator may not take any actions hereunder, and no Awards shall be granted, that would violate Applicable Law. To the extent permitted by Applicable Law, the Plan and Awards granted or awarded hereunder shall be deemed amended to the extent necessary to conform to Applicable Law.

12.8 Titles and Headings, References to Sections of the Code or Exchange Act. The titles and headings of the Sections in the Plan are for convenience of reference only and, in the event of any conflict, the text of the Plan, rather than such titles or headings, shall control. References to sections of the Code or the Exchange Act shall include any amendment or successor thereto.

12.9 Governing Law. The Plan and any Programs and Award Agreements hereunder shall be administered, interpreted and enforced under the internal laws of the State of Delaware without regard to conflicts of laws thereof or of any other jurisdiction.

12.10 Section 409A. To the extent that the Administrator determines that any Award granted under the Plan is subject to Section 409A, the Plan, the Program pursuant to which such Award is granted and the Award Agreement evidencing such Award shall incorporate the terms and conditions required by Section 409A. In that regard, to the extent any Award under the Plan or any other compensatory plan or arrangement of the Company or any of its Subsidiaries is subject to Section 409A, and such Award or other amount is payable on account of a Holder's Termination of Service (or any similarly defined term), then (a) such Award or amount shall only be paid to the extent such Termination of Service qualifies as a "separation from service" as defined in Section 409A, and (b) if such Award or amount is payable to a "specified employee" as defined in Section 409A then to the extent required in order to avoid a prohibited distribution under Section 409A, such Award or other compensatory payment shall not be payable prior to the earlier of (i) the expiration of the six-month period measured from the date of the Holder's Termination of Service, or (ii) the date of the Holder's death. To the extent applicable, the Plan, the Program and any Award Agreements shall be interpreted in accordance with Section 409A. Notwithstanding any provision of the Plan to the contrary, in the event that following the Effective Date the Administrator determines that any Award may be subject to Section 409A, the Administrator may (but is not obligated to), without a Holder's consent, adopt such amendments to the Plan and the applicable Program and Award Agreement or adopt other policies and procedures (including amendments, policies and procedures with retroactive effect), or take any other actions, that the Administrator determines are necessary or appropriate to (A) exempt the Award from Section 409A and/or preserve the intended tax treatment of the benefits provided with respect to the Award, or (B) comply with the requirements of Section 409A and thereby avoid the application of any penalty taxes under Section 409A. The Company makes no representations or warranties as to the tax treatment of any Award under Section 409A or otherwise. The Company shall have no obligation under this Section 12.10 or otherwise to take any action (whether or not described herein) to avoid the imposition of taxes, penalties or interest under Section 409A with respect to any Award and shall have no liability to any Holder or any other person if any Award, compensation or other benefits under the Plan are determined to constitute non-compliant, "nonqualified deferred compensation" subject to the imposition of taxes, penalties and/or interest under Section 409A.

12.11 Unfunded Status of Awards. The Plan is intended to be an "unfunded" plan for incentive compensation. With respect to any payments not yet made to a Holder pursuant to an Award, nothing contained in the Plan or any Program or Award Agreement shall give the Holder any rights that are greater than those of a general creditor of the Company or any Subsidiary.

12.12 Indemnification. To the extent permitted under Applicable Law and the Organizational Documents, each member of the Administrator shall be indemnified and held harmless by the Company from any loss, cost, liability, or expense that may be imposed upon or reasonably incurred by such member in connection with or resulting from any claim, action, suit, or proceeding to which he or she may be a party or in which he or she may be involved by reason of any action or failure to act pursuant to the Plan and against and from any and all amounts paid by him or her in satisfaction of judgment in such action, suit, or proceeding against him or her; provided he or she gives the Company an opportunity, at its own expense, to handle and defend the same before he or she undertakes to handle and defend it on his or her own behalf. The foregoing right of indemnification shall not be exclusive of any other rights of indemnification to which such persons may be entitled pursuant to the Organizational Documents, as a matter of law, or otherwise, or any power that the Company may have to indemnify them or hold them harmless.

12.13 Relationship to other Benefits. No payment pursuant to the Plan shall be taken into account in determining any benefits under any pension, retirement, savings, profit sharing, group insurance, welfare or other benefit plan of the Company or any Subsidiary except to the extent otherwise expressly provided in writing in such other plan or an agreement thereunder.

12.14 Expenses. The expenses of administering the Plan shall be borne by the Company and its Subsidiaries.

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CALIX, INC.
AMENDED AND RESTATED EMPLOYEE STOCK PURCHASE PLAN

Section 1. Establishment of the Plan.

The Calix, Inc. Amended and Restated Employee Stock Purchase Plan (as may be amended from time to time, the “Plan”) provides Eligible Employees with an opportunity to purchase the Company’s common stock so that they may increase their proprietary interest in the success of the Company. The Plan, which provides for the purchase of stock through payroll withholding, is intended to qualify under Section 423 of the Code. The Plan amends and restates the Amended and Restated Employee Stock Purchase Plan approved by our stockholders in May 2019 (the “Prior Plan”) in its entirety, subject to stockholder approval of this Plan at the annual meeting of the Company’s stockholders in 2021. In the event the Company’s stockholders fail to approve the Plan as set forth herein at the annual meeting of the Company’s stockholders in 2021, then this Plan shall be deemed *void ab initio* and the Prior Plan shall continue in effect in accordance with its terms.

Section 2. Definitions.

(a) “Board of Directors” or “Board” means the Board of Directors of the Company.

(b) “Code” means the Internal Revenue Code of 1986, as amended.

(c) “Company” means Calix, Inc., a Delaware corporation.

(d) “Company Affiliate” means any company which is either the parent corporation of the Company (as determined in accordance with Section 424 of the Code) or a Subsidiary.

(e) “Compensation” means the cash remuneration paid to a Participant during a Purchase Period that is reported on Form W-2 for federal income tax purposes (including salary deferrals to the Company’s 401(k) retirement savings plan and contributions to any Code Section 125 plan adopted by the Company). Compensation shall include incentive compensation, commissions, profit sharing payments and bonuses. Notwithstanding the foregoing, Compensation shall exclude overtime and shift differential payments and any special payments (e.g., moving or auto allowances, educational reimbursements, welfare benefits, amounts realized from the exercise, sale exchange or other disposition of any stock option and premiums for life and disability insurance).

(f) “Date of Exercise” means the last trading day of each Purchase Period.

(g) “Eligible Employee” means any Employee of a Participating Company (i) who is customarily employed for at least twenty (20) hours per week, (ii) who is customarily employed for more than five (5) months per calendar year, and (iii) who is an Employee at the commencement of a Purchase Period.

In the event an Eligible Employee fails to remain in the continuous employ of a Participating Company customarily for at least twenty (20) hours per week during a Purchase Period, he or she will be deemed to have elected to withdraw from the Plan and the payroll deductions credited to his or her account will be returned to him or her; provided that a Participant who goes on an unpaid leave of absence shall be permitted to remain in the Plan during such leave of absence. Notwithstanding the preceding sentence, if such Participant is not guaranteed reemployment by contract or statute and the leave of absence extends beyond ninety (90) days, such Participant shall be deemed to have terminated employment for purposes of the Plan on the ninety-first (91st) day of such leave of absence. Payroll deductions for a Participant who has been on an unpaid leave of absence will resume at the same rate as in effect prior to such leave upon return to work unless changed by such Participant.

(h) “Employee” means any person who renders services to a Participating Company in the status of an employee within the meaning of Code Section 3401(c). “Employee” shall not include any Board member of a Participating Company who does not render services to the Participating Company in the status of an employee within the meaning of Code Section 3401(c).

(i) “Fair Market Value” shall mean, as of any given date, the value of a share of Stock determined as follows:

(A) If the Stock is listed on any established stock exchange (such as the New York Stock Exchange, the NASDAQ Global Market and the NASDAQ Global Select Market) or national market system, its Fair Market Value shall be the closing sales price for a share of Stock as quoted on such exchange or system for such date or, if there is no closing sales price for a share of Stock on the date in question, the closing sales price for a share of Stock on the last preceding date for which such quotation exists, as reported in The Wall Street Journal or such other source as the Plan Administrator deems reliable;

(B) If the Stock is not listed on an established stock exchange or national market system, but the Stock is regularly quoted by a recognized securities dealer, its Fair Market Value shall be the mean of the high bid and low asked prices for such date or, if there are no high bid and low asked prices for a share of Stock on such date, the high bid and low asked prices for a share of Stock on the last preceding date for which such information exists, as reported in *The Wall Street Journal* or such other source as the Plan Administrator deems reliable; or

(C) If the Stock is neither listed on an established stock exchange or a national market system nor regularly quoted by a recognized securities dealer, its Fair Market Value shall be established by the Plan Administrator in good faith.

(j) "Participant" means an Eligible Employee who elects to participate in the Plan, as provided in Section 5 hereof.

(k) "Participating Company" means the Company and such present or future Subsidiaries of the Company as the Board of Directors shall from time to time designate.

(l) "Plan Account" means the account established for each Participant pursuant to Section 8(a).

(m) "Plan Administrator" means the committee appointed by the Board to administer the Plan pursuant to Section 4.

(n) "Purchase Period" shall mean the six (6)-month periods commencing on (i) August 15 and ending on February 14 and (ii) February 15 and ending on August 14 of each year. The duration and timing of Purchase Periods may be changed by the Plan Administrator, in its sole discretion. In no event may a Purchase Period exceed twenty-seven (27) months in length.

(o) "Purchase Price" means the price at which Participants may purchase Stock under Section 8 of the Plan, as determined pursuant to Section 6.

(p) "Stock" means the common stock, par value \$0.025, of the Company.

(q) "Stock Administrator" means the Company's Stock Administration Department or such other person(s) as may be retained by the Company to perform or otherwise be delegated some or all of the duties of the Stock Administrator under this Plan.

(r) "Subsidiary" means a subsidiary corporation as defined in Section 424(f) of the Code.

Section 3. Shares Authorized.

The maximum aggregate number of shares which may be issued under the Plan shall be 11,100,000 shares of Stock (subject to adjustment as provided in Section 12 hereof), which may be either authorized but unissued Stock or reacquired Stock, including shares of Stock purchased on the open market.

Section 4. Administration.

(a) Except as otherwise provided herein, the Plan shall be administered by the Board or by a committee (the "Plan Administrator") appointed by the Board of Directors which shall consist of not less than two members of the Board. References in this Plan to the "Plan Administrator" shall mean the Board if no Plan Administrator has been appointed. The interpretation and construction by the Plan Administrator of any provision of the Plan or of any right to purchase stock qualified hereunder shall be conclusive and binding on all persons.

(b) No member of the Board or the Plan Administrator shall be liable for any action or determination made in good faith with respect to the Plan or the right to purchase Stock hereunder. The Plan Administrator shall be indemnified by the Company against the reasonable expenses, including attorney's fees actually and necessarily incurred in connection with the defense of any action, suit or proceeding, or in connection with any appeal therein, to which it may be a party by reason of any action taken or failure to act under or in connection with the Plan or any stock purchased thereunder, and against all amounts paid by it in settlement thereof (provided such settlement is approved by independent legal counsel selected by the Company) or paid by it in satisfaction of a judgment in any such action, suit or proceeding, except in relation to matters as to which it shall be adjudged in such action, suit or proceeding that the Plan Administrator is liable for negligence or misconduct in the performance of its duties; provided that within sixty (60) days after institution of any such action, suit or proceeding, the Plan Administrator shall in writing offer the Company the opportunity, at its own expense, to handle and defend the same.

(c) All costs and expenses incurred in administering the Plan shall be paid by the Company. The Board or the Plan Administrator may request advice for assistance or employ such other persons as are necessary for proper administration of the Plan.

(d) At the discretion of the Plan Administrator, the Stock Administrator or such persons providing advice or assistance pursuant to Section 4(c), any elections, submission or filings made under the Plan by Eligible Employees and/or any statements or notices provided under the Plan to Eligible Employees in each case may be made electronically or through such "paperless" means as the Plan Administrator, the Stock Administrator or such persons may determine appropriate.

Section 5. Eligibility and Participation.

(a) Any person who qualifies or will qualify as an Eligible Employee on the first day of a Purchase Period may elect to participate in the Plan for such Purchase Period. An Eligible Employee may elect to participate by submitting the prescribed enrollment form. The enrollment form shall be filed with the Stock Administrator no later than the filing deadline imposed and communicated to Eligible Employees with respect to the Purchase Period for which such enrollment form is intended to be effective by the Stock Administrator, and if none is so imposed and/or communicated, then no later than five (5) days before the Purchase Period for which such enrollment form is intended to be effective. The Eligible Employee shall designate on the enrollment form the percentage of his or her Compensation which he or she elects to have withheld for the purchase of Stock, which may be any whole percentage from 1 to 15% of the Participant's compensation.

(b) By enrolling in the Plan, a Participant shall be deemed to have been granted an option on the first day of each Purchase Period for which he or she is enrolled to purchase the maximum number of whole shares of Stock which can be purchased with the amount of the Participant's Compensation which is withheld during the Purchase Period for which the Participation is enrolled. However, with respect to any Purchase Period, no Participant shall be eligible to purchase more than two thousand (2,000) shares of Stock provided that such amount shall not result in the limitations set forth in Section 13 being exceeded. Notwithstanding the foregoing, the Plan Administrator, or a committee appointed by the Plan Administrator, which committee may be comprised solely of employees of the Company, shall have the right to amend the limit set forth in this Section 5(b); provided, however, that in no event shall the limit exceed two thousand (2,000) shares of Stock per Purchase Period or the limitations set forth in Section 13.

(c) Once enrolled, a Participant will continue to participate in the Plan for each succeeding Purchase Period until he or she terminates participation or ceases to qualify as an Eligible Employee. A Participant who withdraws from the Plan in accordance with Section 9 may again become a Participant in a subsequent Purchase Period, if he or she then is an Eligible Employee, by following the procedure described in Section 5(a).

Section 6. Purchase Price.

The Purchase Price for each share of Stock shall be the lesser of (a) eighty-five percent (85%) of the Fair Market Value of such share on the first trading day of an applicable Purchase Period or (b) eighty-five percent (85%) of the Fair Market Value of such share on the Date of Exercise for an applicable Purchase Period.

Section 7. Employee Contributions.

A Participant may purchase shares of Stock solely by means of payroll deductions. Payroll deductions, as designated by the Participant pursuant to Section 5(a), shall commence with the first paycheck issued during the Purchase Period and shall be deducted from each subsequent paycheck throughout the Purchase Period; provided, however, that, with respect to a Participant, the Company shall be entitled to discontinue payroll deductions for such Participant during a Purchase Period to the extent that the Company determines that the payroll deductions for such Participant during such Purchase Period will cause the Participant to exceed the limitations set forth in Sections 5 or 13; provided, further, that the Company will recommence payroll deductions for such Participant on the first day of the next Purchase Period to the extent the limitation set forth in Section 13 has not been exceeded. If a Participant desires to decrease the rate of payroll withholding during a Purchase Period, he or she may do so one time during a Purchase Period by submitting the prescribed percentage change form with the Stock Administrator. Such decrease will be effective no later than the first day of the second payroll period which begins following the receipt of the new percentage change form. If a Participant desires to increase or decrease the rate of payroll withholding, he or she may do so effective for the next Purchase Period by submitting a new percentage change form with the Stock Administrator on or before the date imposed and communicated to Eligible Employees by the Stock Administrator, and if none is so imposed and/or communicated, then no later than five (5) days before the Purchase Period for which such change is to be effective.

Section 8. Plan Accounts; Purchase of Shares.

(a) The Company will maintain a Plan Account on its books in the name of each Participant. At the close of each pay period, the amount deducted from the Participant's Compensation will be credited to the Participant's Plan Account.

(b) As of each Date of Exercise, the amount then in the Participant's Plan Account will be divided by the Purchase Price, and the number of whole shares which results (subject to the limitations described in Sections 5(b), 8(c) and 13) shall be purchased from the Company with the funds in the Participant's Plan Account. The number of shares of Stock so purchased shall be delivered to a brokerage account designated by the Plan Administrator and kept in such account pursuant to the enrollment form (which shall be uniform) between each Participant and the Company and subject to the conditions described therein (which may include, without limitation, restrictions on transferability of the shares of Stock so purchased).

(c) In the event that the aggregate number of shares which all Participants elect to purchase during a Purchase Period shall exceed the number of shares remaining available for issuance under the Plan, then the number of shares to which each Participant shall become entitled shall be determined by multiplying the number of shares available for issuance by a fraction the numerator of which is the sum of the number of shares the Participant has elected to purchase pursuant to Section 5, and the denominator of which is the sum of the number of shares which all employees have elected to purchase pursuant to Section 5. Any cash amount remaining in the Participant's Plan Account under these circumstances shall be refunded to the Participant.

(d) Any amount remaining in the Participant's Plan Account caused by a surplus due to fractional shares after deducting the amount of the Purchase Price for the number of whole shares issued to the Participant shall be carried over in the Participant's Plan Account for the succeeding Purchase Period, without interest. Any amount remaining in the Participant's Plan Account caused by anything other than a surplus due to fractional shares shall be refunded to the Participant in cash, without interest.

(e) Unless otherwise determined by the Plan Administrator, as soon as practicable following the end of each Purchase Period, the Company shall deliver to each Participant a Plan Account statement setting forth the amount of payroll deductions, the Purchase Price, the number of shares purchased and the remaining cash balance, if any.

Section 9. Withdrawal from the Plan.

A Participant may elect to withdraw from participation under the Plan at any time up to seven (7) days prior to the last day of a Purchase Period by submitting the prescribed withdrawal form with the Stock Administrator. As soon as practicable after a withdrawal, payroll deductions shall cease and all amounts credited to the Participant's Plan Account will be refunded in cash, without interest. A Participant who has withdrawn from the Plan shall not be a Participant in future Purchase Periods, unless he or she again enrolls in accordance with the provisions of Section 5.

Section 10. Effect of Termination of Employment or Death.

(a) Termination of employment as an Eligible Employee for any reason, including death, shall be treated as an automatic withdrawal from the Plan under Section 9. A transfer from one Participating Company to another shall not be treated as a termination of employment.

(b) A Participant may file a written designation of a beneficiary who is to receive any shares and cash, if any, from the Participant's Account under the Plan in the event of such Participant's death subsequent to the purchase of shares but prior to delivery to him or her of such shares and cash. In addition, a Participant may file a written designation of a beneficiary who is to receive any cash from the Participant's Account under the Plan in the event of such Participant's death prior to the last day of a Purchase Period.

(c) Such designation of beneficiary may be changed by the Participant at any time by submitting the prescribed designation of beneficiary change form with the Stock Administrator. In the event of the death of a Participant in the absence of a valid designation of a beneficiary who is living at the time of such Participant's death, the Company shall deliver such shares and/or cash to the executor or administrator of the estate of the Participant; or if no such executor or administrator has been appointed (to the knowledge of the Company), the Company, in its discretion, may deliver such shares and/or cash to the spouse or to any one or more dependents or relatives of the Participant; or if no spouse, dependent or relative is known to the Company, then to such other person as the Company may designate.

Section 11. Rights Not Transferable.

The rights or interests of any Participant in the Plan, or in any Stock or moneys to which he or she may be entitled under the Plan, shall not be transferable by voluntary or involuntary assignment or by operation of law, or by any other manner other than as permitted by will or the laws of descent and distribution, and during the Participant's lifetime, purchase rights in the Plan shall be exercisable only by the Participant. If a Participant in any manner attempts to transfer, assign or otherwise encumber his or her rights or interest under the Plan, other than as permitted by will or the laws of descent and distribution, such act shall be treated as an automatic withdrawal under Section 9.

Section 12. Recapitalization, Etc.

(a) The aggregate number of shares of Stock offered under the Plan, the number and price of shares which any Participant has elected to purchase pursuant to Section 5 and the maximum number of shares which a Participant may elect to purchase under the Plan in any Purchase Period shall be proportionately adjusted for any increase or decrease in the number of issued shares of Stock resulting from a subdivision or consolidation of shares or any other capital adjustment, the payment of a stock dividend, or other increase or decrease in such shares affected without receipt of consideration by the Company.

(b) In the event of a dissolution or liquidation of the Company, this Plan shall terminate, and all amounts which each Participant has paid towards the Purchase Price of Stock hereunder shall be refunded, without interest.

(c) In the event of a sale of all or substantially all of the assets of the Company, an acquisition of the Company or the merger of the Company with or into another corporation, each outstanding Purchase Period shall be assumed or an equivalent Purchase Period substituted by the successor corporation or acquiror or a Parent or Subsidiary of the successor corporation or acquiror. In the event that the successor corporation or acquiror refuses to assume or substitute for the Purchase Period, the Purchase Period shall be shortened by setting a new Date of Exercise (the “New Exercise Date”). The New Exercise Date shall be before the date of the applicable transaction. The Company shall notify each Participant in writing at least five (5) days prior to the New Exercise Date, that the Date of Exercise for the Purchase Period has been changed to the New Exercise Date and that the purchase shall automatically occur on the New Exercise Date, unless prior to such date the Participant has withdrawn from the Purchase Period pursuant to Section 9.

(d) The Plan shall in no event be construed to restrict in any way the Company’s right to undertake a dissolution, liquidation, merger, consolidation, reorganization or other corporate transaction.

Section 13. Limitation on Stock Ownership.

Notwithstanding any provision herein to the contrary, no Participant shall be permitted to elect to participate in the Plan (i) if such Participant, immediately after his or her election to participate, would own stock possessing five percent (5%) or more of the total combined voting power or value of all classes of stock of the Company or any Company Affiliate, or (ii) if under the terms of the Plan the rights of the Employee to purchase Stock under this Plan and all other qualified employee stock purchase plans of the Company or its Company Affiliates would accrue at a rate which exceeds twenty-five thousand dollars (\$25,000) of Fair Market Value of such Stock (determined at the time such right is granted) for each calendar year for which such right is outstanding at any time. For purposes of this Section, ownership of stock shall be determined by the attribution rules of Section 424(d) of the Code, and Participants shall be considered to own any stock which they have a right to purchase under this or any other stock plan.

Section 14. No Rights as an Employee.

Nothing in the Plan shall be construed to give any person the right to remain in the employ of a Participating Company. Each Participating Company reserves the right to terminate the employment of any person at any time and for any reason.

Section 15. Rights as a Stockholder.

A Participant shall have no rights as a stockholder with respect to any shares he or she may have a right to purchase under the Plan until the date of issuance to the brokerage account designated by the Plan Administrator the shares of Stock issued pursuant to the Plan.

Section 16. Use of Funds.

All payroll deductions received or held by the Company under the Plan may be used by the Company for any corporate purpose, and the Company shall not be obligated to segregate such payroll deductions in separate accounts.

Section 17. Amendment or Termination of the Plan.

Except as otherwise provided herein, the Board of Directors shall have the right to amend, modify or terminate the Plan at any time without notice. An amendment of the Plan shall be subject to stockholder approval only to the extent required by applicable laws, regulations or rules. The Plan shall terminate upon the earlier of (i) such date as is determined by the Company in its sole discretion or (ii) the date on which all shares available for issuance under the Plan shall have been sold pursuant to purchase rights exercised under the Plan.

Section 18. Governing Law.

The Plan shall be governed by, and construed and interpreted in accordance with, the laws of the State of Delaware.

Section 19. Stockholder Approval.

No purchase rights granted under the Plan shall be exercised, and no shares of Stock shall be issued hereunder, until such time as (i) the Plan shall have been approved by the stockholders of the Company; and (ii) the Company shall have complied with all applicable requirements of the Securities Act of 1933, as amended (including the registration of the shares of Stock issuable under the Plan on a Form S-8 registration statement filed with the Securities and Exchange Commission), all applicable listing requirements of any securities exchange on which the Stock is listed for trading and all other applicable requirements established by law or regulation. Such stockholder approval shall be prior to the earlier to occur of: (a) the first Date of Exercise of the Plan and (b) the twelve (12) month anniversary of the adoption of the Plan, provided, however, that such approval may not occur prior to twelve (12) months before the adoption of the Plan. In the event the Plan shall not have been approved by the stockholders of the Company prior to the first Date of Exercise of the Plan, the Plan shall terminate and all purchase rights granted under the Plan shall be canceled and become null and void.

Section 20. Equal Rights and Privileges.

All Eligible Employees of the Company (or of any Subsidiary) will have equal rights and privileges under this Plan so that this Plan qualifies as an “employee stock purchase plan” within the meaning of Section 423 of the Code or applicable Treasury regulations thereunder. Any provision of this Plan that is inconsistent with Section 423 and the Treasury regulations and other guidance promulgated thereunder will, without further act or amendment by the Company, the Board or the Plan Administrator, be reformed to comply with the equal rights and privileges requirement of Section 423 or such Treasury regulations or guidance.

CALIX, INC.
AMENDED AND RESTATED 2017 NONQUALIFIED EMPLOYEE STOCK PURCHASE PLAN

ARTICLE I.
PURPOSE, SCOPE AND ADMINISTRATION OF THE PLAN

1.1. Purpose and Scope. The purpose of the Calix, Inc. Amended and Restated 2017 Nonqualified Employee Stock Purchase Plan (as amended from time to time, the “Plan”) is to assist employees of Calix, Inc., a Delaware corporation (the “Company”) and its Participating Subsidiaries in acquiring a stock ownership interest in the Company pursuant to a plan which is intended to help such employees provide for their future security and to encourage them to remain in the employment of the Company and its Subsidiaries. The Plan is not intended to qualify as an “employee stock purchase plan” under Section 423 of the Code. The Plan amends and restates the Amended and Restated 2017 Nonqualified Employee Stock Purchase Plan approved by our stockholders in May 2020 (the “Prior Plan”) in its entirety, subject to stockholder approval of this Plan at the annual meeting of the Company’s stockholders in 2021. In the event the Company’s stockholders fail to approve the Plan as set forth herein at the annual meeting of the Company’s stockholders in 2021, then this Plan shall be deemed *void ab initio* and the Prior Plan shall continue in effect in accordance with its terms.

ARTICLE II.
DEFINITIONS

2.1 “Agent” means the brokerage firm, bank or other financial institution, entity or person(s), if any, engaged, retained, appointed or authorized to act as the agent of the Company or an Employee with regard to the Plan.

2.2 “Administrator” shall mean the Committee, or such individuals to which authority to administer the Plan has been delegated under Section 7.1 hereof.

2.3 “Affiliate” shall mean the Company and any Parent or Subsidiary.

2.4 “Code” shall mean the Internal Revenue Code of 1986, as amended.

2.5 “Committee” shall mean the Compensation Committee of the Board, or another committee or subcommittee of the Board or the Compensation Committee described in Article 7 hereof.

2.6 “Common Stock” shall mean common stock, par value \$0.025, of the Company.

2.7 “Compensation” of an Employee shall mean the regular straight-time earnings, base salary, cash incentive compensation, cash bonuses (e.g., quarterly or annual bonuses or other corporate bonuses), one-time bonuses (e.g., retention or sign-on bonuses), taxable profit sharing payments, commissions, vacation pay, holiday pay, jury duty pay, funeral leave pay or military pay paid to the Employee from the Company or any Participating Subsidiary or any Affiliate on each Payday as compensation for services to the Company or any Participating Subsidiary or any Affiliate before deduction for any salary deferral contributions made by the Employee to any tax-qualified or nonqualified deferred compensation plan of the Company, any Participating Subsidiary or any Affiliate, but excluding overtime, shift differential payments, fringe benefits (including, without limitation, employer gifts), education or tuition reimbursements, imputed income arising under any Company, Participating Subsidiary or Affiliate group insurance or benefit program, travel expenses, business and moving reimbursements, income received in connection with any stock options, stock appreciation rights, restricted stock, restricted stock units or other compensatory equity awards and all contributions made by the Company, any Participating Subsidiary or any Affiliate for the Employee’s benefit under any employee benefit plan now or hereafter established. Such Compensation shall be calculated before deduction of any income or employment tax withholdings, but shall be withheld from the Employee’s net income.

2.8 “Effective Date” shall mean the date the Plan is adopted by the Board of Directors of the Company, subject to approval of the Plan by the Company’s stockholders.

2.9 “Eligible Employee” means an Employee of the Company or any Participating Subsidiary (i) who is customarily employed for at least twenty (20) hours per week and (ii) who is customarily employed for more than five (5) months per calendar year; but excluding (a) the Company’s Chief Executive Officer, (b) each senior management Employee who reports directly to the Company’s Chief Executive Officer, and (c) each other senior management Employee as identified in writing by the Administrator as being ineligible for the Plan.

2.10 “Employee” shall mean any person who renders services to the Company or a Participating Subsidiary in the status of an employee within the meaning of Section 3401(c) of the Code. “Employee” shall not include any director of the Company or a Participating Subsidiary who does not render services to the Company or a Participating Subsidiary in the status of an employee within the meaning of Section 3401(c) of the Code.

2.11 “Enrollment Date” shall mean the first date of each Offering Period.

2.12 “Exercise Date” shall mean the last trading day of each Offering Period, except as provided in Section 5.2 hereof.

2.13 “Exchange Act” shall mean the Securities Exchange Act of 1934, as amended.

2.14 “Fair Market Value” shall mean, as of any date, the value of a Share determined as follows:

(a) If the Common Stock is (i) listed on any established securities exchange (such as the New York Stock Exchange, the NASDAQ Global Market and the NASDAQ Global Select Market), (ii) listed on any national market system or (iii) listed, quoted or traded on any automated quotation system, its Fair Market Value shall be the closing sales price for a Share as quoted on such exchange or system for such date or, if there is no closing sales price for a Share on the date in question, the closing sales price for a Share on the last preceding date for which such quotation exists, as reported in *The Wall Street Journal* or such other source as the Administrator deems reliable;

(b) If the Common Stock is not listed on an established securities exchange, national market system or automated quotation system, but the Common Stock is regularly quoted by a recognized securities dealer, its Fair Market Value shall be the mean of the high bid and low asked prices for such date or, if there are no high bid and low asked prices for a Share on such date, the high bid and low asked prices for a Share on the last preceding date for which such information exists, as reported in *The Wall Street Journal* or such other source as the Administrator deems reliable; or

(c) If the Common Stock is neither listed on an established securities exchange, national market system or automated quotation system nor regularly quoted by a recognized securities dealer, its Fair Market Value shall be established by the Administrator in good faith.

2.15 “New Exercise Date” shall have such meaning as set forth in Section 5.2(b) hereof.

2.16 “Offering Period” shall mean, unless otherwise determined by the Administrator, the six (6)-month periods commencing on (i) November 15 and ending on May 14 and (ii) May 15 and ending on November 14 of each year.

2.17 “Option” shall mean the right to purchase Shares pursuant to the Plan during each Offering Period.

2.18 “Parent” shall mean any entity (other than the Company), whether domestic or foreign, in an unbroken chain of entities ending with the Company if each of the entities other than the Company beneficially owns, at the time of the determination, securities or interests representing more than fifty percent (50%) of the total combined voting power of all classes of securities or interests in one of the other entities in such chain.

2.19 “Participant” shall mean any Eligible Employee who elects to participate in the Plan.

2.20 “Participating Subsidiary” shall mean each Subsidiary that has been designated by the Board or Committee from time to time in its sole discretion as eligible to participate in the Plan in accordance with Section 7.2 hereof, in each case, including any Subsidiary in existence on the Effective Date and any Subsidiary formed or acquired following the Effective Date.

2.21 “Payday” shall mean the regular and recurring established day for payment of Compensation to an Employee of the Company or any Participating Subsidiary.

2.22 “Plan Account” shall mean a bookkeeping account established and maintained by the Company in the name of each Participant.

2.23 “Share” shall mean a share of Common Stock.

2.24 “Subsidiary” shall mean (a) a corporation, association or other business entity of which fifty percent (50%) or more of the total combined voting power of all classes of capital stock is owned, directly or indirectly, by the Company and/or by one or more Subsidiaries, (b) any partnership or limited liability company of which fifty percent (50%) or more of the equity interests are owned, directly or indirectly, by the Company and/or by one or more Subsidiaries, and (c) any other entity not described in clauses (a) or (b) above of which fifty percent (50%) or more of the ownership and the power (whether voting interests or otherwise), pursuant to a written contract or agreement, to direct the policies and management or the financial and the other affairs thereof, are owned or controlled by the Company and/or by one or more Subsidiaries.

2.25 “Withdrawal Election” shall have such meaning as set forth in Section 6.1(a) hereof.

ARTICLE III. PARTICIPATION

3.1 Eligibility. Any Eligible Employee who shall be employed by the Company or a Participating Subsidiary on a given Enrollment Date for an Offering Period shall be eligible to participate in the Plan during such Offering Period, subject to the requirements of Articles IV and V hereof.

3.2 Election to Participate; Payroll Deductions

(a) Except as provided in Section 3.3 hereof, an Eligible Employee may become a Participant in the Plan only by means of payroll deduction. Each individual who is an Eligible Employee as of the Enrollment Date of the applicable Offering Period may elect to participate in such Offering Period and the Plan by delivering to the Company an enrollment form for the Plan designating payroll deduction authorization by such date specified by the Company.

(b) Payroll deductions with respect to an Offering Period (i) shall be equal to at least one percent (1%) of the Participant’s Compensation as of each Payday during the applicable Offering Period, but not more than twenty-five percent (25%) of the Participant’s Compensation as of each Payday during the applicable Offering Period and (ii) may be expressed either as (A) a whole number percentage or (B) a fixed dollar amount (as determined by the Administrator). Amounts deducted from a Participant’s Compensation with respect to an Offering Period pursuant to this Section 3.2 shall be deducted each Payday through payroll deduction and credited to the Participant’s Plan Account.

(c) Following at least one (1) payroll deduction, a Participant may decrease (to as low as 0%) the amount deducted from such Participant’s Compensation only once during an Offering Period upon ten (10) calendar days’ prior written or electronic notice to the Company. A Participant may not increase the amount deducted from such Participant’s Compensation during an Offering Period.

(d) Notwithstanding the foregoing, upon the completion of an Offering Period, each Participant in such Offering Period shall automatically participate in the Offering Period that commences immediately following the completion of such Offering Period at the same payroll deduction percentage or fixed amount as in effect at the completion of the prior Offering Period, unless such Participant delivers to the Company a different election with respect to the successive Offering Period in accordance with Section 3.1 hereof, or unless such Participant becomes ineligible for participation in the Plan.

3.3 Leave of Absence. During leaves of absence approved by the Company meeting the requirements of Treasury Regulation Section 1.421-1(h)(2) under the Code, an individual shall be treated as an Employee of the Company or Participating Subsidiary that employs such individual immediately prior to such leave.

ARTICLE IV. PURCHASE OF SHARES

4.1 Grant of Option; Automatic Exercise. Each Participant shall be granted an Option with respect to an Offering Period on the applicable Exercise Date. On the Exercise Date for such Offering Period, the Option will be automatically exercised to (a) purchase that number of Shares calculated by dividing (i) such Participant’s payroll deductions accumulated on or prior to such Exercise Date and retained in the Participant’s Plan Account on such Exercise Date by (ii) the Fair Market Value of a Share on such Exercise Date (the “Purchased Shares”) and (b) acquire a number of Shares equal to the Purchased Shares that are subject to a risk of forfeiture (the “Restricted Shares”). The balance, if any, remaining in the Participant’s Plan Account (after exercise of such Participant’s Option) as of such Exercise Date shall be carried forward to the next Offering Period, unless the Participant has elected to withdraw from the Plan pursuant to Section 6.1 hereof or, pursuant to Section 6.2 hereof, such Participant has ceased to be an Eligible Employee.

4.2 Restricted Shares. The risk of forfeiture on the Restricted Shares shall automatically lapse on the first anniversary of the Exercise Date, subject to the Participant continuing to be an Employee through such date.

4.3 Share Issuance. As soon as practicable following the applicable Exercise Date (but in no event more than thirty (30) days thereafter), the Purchased Shares and Restricted Shares shall be delivered (either in share certificate or book entry form), in the Company's sole discretion, to either (i) the Participant or (ii) an account established in the Participant's name at a stock brokerage or other financial services firm designated by the Company. If the Company is required to obtain from any commission or agency authority to issue any such Shares, the Company shall seek to obtain such authority. Inability of the Company to obtain from any such commission or agency authority which counsel for the Company deems necessary for the lawful issuance of any such shares shall relieve the Company from liability to any Participant except to refund to the Participant such Participant's Plan Account balance, without interest thereon.

4.4 Transferability.

(a) An Option granted under the Plan shall not be transferable, other than by will or the applicable laws of descent and distribution, and shall be exercisable during the Participant's lifetime only by the Participant. No Option or interest or right to the Option shall be available to pay off any debts, contracts or engagements of the Participant or his or her successors in interest or shall be subject to disposition by pledge, encumbrance, assignment or any other means whether such disposition be voluntary or involuntary or by operation of law by judgment, levy, attachment, garnishment or any other legal or equitable proceedings (including bankruptcy), and any attempt at disposition of the Option shall have no effect.

(b) Unless otherwise determined by the Administrator, no Shares issued upon exercise of an Option under the Plan may be assigned, transferred, pledged or otherwise disposed of in any way by the Participant until the first anniversary of the Exercise Date upon which such Shares were purchased. Unless otherwise determined by the Administrator, in the event a Participant ceases to be an Employee prior to the first anniversary of the Exercise Date upon which Shares were purchased, the Restricted Shares acquired on such Exercise Date shall be forfeited for no consideration, and the transfer restrictions applicable to the Purchased Shares purchased on such Exercise Date shall immediately lapse.

4.5 Limitations on the Purchase of Shares. Notwithstanding any provision in the Plan to the contrary, no more than an aggregate of five hundred thousand (500,000) Shares (the "Offering Period Share Limit") shall be purchased by one or more Participants on any Exercise Date. Prior to the commencement of an Offering Period, the Administrator may provide for a limit on individual contributions or a maximum number of Shares a Participant may acquire in such Offering Period and any such limit or maximum shall be deemed to constitute an Offering Period Share Limit hereunder. In the event the Company determines that, on a given Exercise Date, the number of Shares with respect to which Options are to be exercised may exceed the Offering Period Share Limit, the Administrator shall make a pro rata allocation of the Shares available for issuance on such Exercise Date in as uniform a manner as shall be practicable and as it shall determine in its sole discretion to be equitable among all Participants exercising Options to purchase Shares on such Exercise Date. For the avoidance of doubt, any such pro rata allocation shall be applied to an equal extent between Purchased Shares and Restricted Shares.

ARTICLE V. PROVISIONS RELATING TO COMMON STOCK

5.1 Common Stock Reserved. Subject to adjustment as provided in Section 5.2 hereof, the maximum number of Shares that shall be made available for sale under the Plan shall be five million five hundred thousand (5,500,000) Shares. Shares made available for sale under the Plan may be authorized but unissued shares or reacquired shares reserved for issuance under the Plan.

5.2 Adjustments Upon Changes in Capitalization, Dissolution, Liquidation, Merger or Asset Sale.

(a) Changes in Capitalization. Subject to any required action by the stockholders of the Company, the number of Shares which have been authorized for issuance under the Plan but not yet placed under an Option, as well as the price per share and the number of Shares covered by each Option under the Plan which has not yet been exercised shall be proportionately adjusted for any increase or decrease in the number of issued Shares resulting from a stock split, reverse stock split, stock dividend, combination or reclassification of the Common Stock or any other increase or decrease in the number of Shares effected without receipt of consideration by the Company; provided, however, that conversion of any convertible securities of the Company shall not be deemed to have been "effected without receipt of consideration." Such adjustment shall be made by the Administrator, whose determination in that respect shall be final, binding and conclusive. Except as expressly provided herein, no issuance by the Company of shares of stock of any class, or securities convertible into shares of stock of any class, shall affect, and no adjustment by reason thereof shall be made with respect to, the number or price of Shares subject to an Option.

(b) Dissolution or Liquidation. In the event of the proposed dissolution or liquidation of the Company, the Offering Period then in progress shall be shortened by setting a new Exercise Date (the “New Exercise Date”), and such Offering Period shall terminate immediately prior to the consummation of such proposed dissolution or liquidation, unless provided otherwise by the Administrator. The New Exercise Date shall be before the date of the Company’s proposed dissolution or liquidation. The Administrator shall notify each Participant in writing, at least ten (10) business days prior to the New Exercise Date, that the next Exercise Date for the Participant’s Option has been changed to the New Exercise Date and that the Participant’s Option shall be exercised automatically on the New Exercise Date, unless prior to such date the Participant has withdrawn from the Offering Period as provided in Section 6.1(a)(i) hereof or the Participant has ceased to be an Eligible Employee as provided in Section 6.2 hereof.

(c) Merger or Asset Sale. In the event of a proposed sale of all or substantially all of the assets of the Company, or the merger of the Company with or into another corporation, each outstanding Option shall be assumed or an equivalent Option substituted by the successor corporation or a Parent or Subsidiary of the successor corporation. In the event that the Option is not assumed or substituted, any Offering Periods then in progress shall be shortened by setting a New Exercise Date and any Offering Periods then in progress shall end on the New Exercise Date. The New Exercise Date shall be before the date of the Company’s proposed sale or merger. The Administrator shall notify each Participant in writing, at least ten (10) business days prior to the New Exercise Date, that the next Exercise Date for the Participant’s Option has been changed to the New Exercise Date and that the Participant’s Option shall be exercised automatically on the New Exercise Date, unless prior to such date the Participant has withdrawn from the Offering Periods as provided in Section 6.1(a)(i) hereof or the Participant has ceased to be an Eligible Employee as provided in Section 6.2 hereof.

5.3 Insufficient Shares. If the Administrator determines that, on a given Exercise Date, the number of Shares with respect to which Options are to be exercised may exceed the number of Shares remaining available for sale under the Plan on such Exercise Date, the Administrator shall make a pro rata allocation of the Shares available for issuance on such Exercise Date in as uniform a manner as shall be practicable and as it shall determine in its sole discretion to be equitable among all Participants exercising Options to purchase Shares on such Exercise Date, and unless additional shares are authorized for issuance under the Plan, no further Offering Periods shall take place and the Plan shall terminate pursuant to Section 7.5 hereof. If an Offering Period is so terminated, then the balance of the amount credited to the Participant’s Plan Account which has not been applied to the purchase of Shares shall be paid to such Participant in one (1) lump sum in cash within thirty (30) days after such Exercise Date, without any interest thereon.

5.4 Rights as Stockholders. With respect to Shares subject to an Option, a Participant shall not be deemed to be a stockholder of the Company and shall not have any of the rights or privileges of a stockholder. A Participant shall have the rights and privileges of a stockholder of the Company when, but not until, Shares have been deposited in the designated brokerage account following exercise of his or her Option. Notwithstanding the foregoing, in the event a dividend is paid in respect of Restricted Shares, such dividend shall not be paid to the Participant holding such Restricted Shares unless and until the risk of forfeiture thereon lapses.

ARTICLE VI. TERMINATION OF PARTICIPATION

6.1 Cessation of Contributions; Voluntary Withdrawal.

(a) A Participant may cease payroll deductions during an Offering Period and elect to withdraw from the Plan by delivering written or electronic notice of such election (a “Withdrawal Election”) to the Company in such form and at such time prior to the Exercise Date for such Offering Period as may be established by the Administrator. A Participant electing to withdraw from the Plan may elect to either (i) withdraw all of the funds then credited to the Participant’s Plan Account as of the date on which the Withdrawal Election is received by the Company, in which case amounts credited to such Plan Account shall be returned to the Participant in one (1) lump-sum payment in cash within thirty (30) days after such election is received by the Company, without any interest thereon, and the Participant shall cease to participate in the Plan and the Participant’s Option for such Offering Period shall terminate; or (ii) subject to Section 6.2 below, exercise the Option for the maximum number of whole Shares on the applicable Exercise Date with any remaining Plan Account balance returned to the Participant in one (1) lump-sum payment in cash within thirty (30) days after such Exercise Date, without any interest thereon, and after such exercise cease to participate in the Plan. As soon as practicable following the Company’s receipt of a Withdrawal Election, the Participant’s payroll deduction authorization and his or her Option to purchase Shares under the Plan shall terminate.

(b) A Participant’s withdrawal from the Plan shall not have any effect upon his or her eligibility to participate in any similar plan which may hereafter be adopted by the Company or in succeeding Offering Periods which commence after the termination of the Offering Period from which the Participant withdraws.

(c) A Participant who ceases contributions to the Plan during any Offering Period shall not be permitted to resume contributions to the Plan during such Offering Period.

6.2 Termination of Eligibility. Upon a Participant's ceasing to be an Eligible Employee for any reason, such Participant's Option for the applicable Offering Period shall automatically terminate, he or she shall be deemed to have elected to withdraw from the Plan, and such Participant's Plan Account shall be paid to such Participant or, in the case of his or her death, to the person or persons entitled thereto as set forth in an applicable beneficiary designation form (or, if there is no such applicable form, pursuant to applicable law), within thirty (30) days after such cessation of being an Eligible Employee, without any interest thereon.

ARTICLE VII. GENERAL PROVISIONS

7.1 Administration.

(a) The Plan shall be administered by the Committee (or another committee or a subcommittee of the Board assuming the functions of the Committee under the Plan), which, unless otherwise determined by the Board, shall consist solely of two or more members of the Board, each of whom is intended to qualify as a "non-employee director" as defined by Rule 16b-3 of the Exchange Act and an "independent director" under the rules of any securities exchange or automated quotation system on which the Shares are listed, quoted or traded, in each case, to the extent required under such provision. The Committee may delegate administrative tasks under the Plan to the services of an Agent and/or Employees to assist in the administration of the Plan, including establishing and maintaining an individual securities account under the Plan for each Participant.

(b) It shall be the duty of the Administrator to conduct the general administration of the Plan in accordance with the provisions of the Plan. The Administrator shall have the power, subject to, and within the limitations of, the express provisions of the Plan:

- i. To establish and terminate Offering Periods;
- ii. To determine when and how Options shall be granted and the provisions and terms of each Offering Period (which need not be identical);
- iii. To select Participating Subsidiaries in accordance with Section 7.2 hereof; and
- iv. To construe and interpret the Plan, the terms of any Offering Period and the terms of the Options and to adopt such rules for the administration, interpretation, and application of the Plan as are consistent therewith and to interpret, amend or revoke any such rules. The Administrator, in the exercise of this power, may correct any defect, omission or inconsistency in the Plan, any Offering Period or any Option, in a manner and to the extent it shall deem necessary or expedient to make the Plan fully effective.

(c) The Administrator may adopt rules or procedures relating to the operation and administration of the Plan to accommodate the specific requirements of local laws and procedures. Without limiting the generality of the foregoing, the Administrator is specifically authorized to adopt rules and procedures regarding handling of participation elections, payroll deductions, payment of interest, conversion of local currency, payroll tax, withholding procedures and handling of stock certificates which vary with local requirements. In its absolute discretion, the Board may at any time and from time to time exercise any and all rights and duties of the Administrator under the Plan.

(d) The Administrator may adopt sub-plans applicable to particular Participating Subsidiaries or locations. The rules of such sub-plans may take precedence over other provisions of this Plan, with the exception of Section 5.1 hereof, but unless otherwise superseded by the terms of such sub-plan, the provisions of this Plan shall govern the operation of such sub-plan.

(e) All expenses and liabilities incurred by the Administrator in connection with the administration of the Plan shall be borne by the Company. The Administrator may, with the approval of the Committee, employ attorneys, consultants, accountants, appraisers, brokers or other persons. The Administrator, the Company and its officers and directors shall be entitled to rely upon the advice, opinions or valuations of any such persons. All actions taken and all interpretations and determinations made by the Administrator in good faith shall be final and binding upon all Participants, the Company and all other interested persons. No member of the Board or Administrator shall be personally liable for any action, determination or interpretation made in good faith with respect to the Plan or the options, and all members of the Board or Administrator shall be fully protected by the Company in respect to any such action, determination or interpretation.

7.2 Designation of Participating Subsidiaries. The Board or Committee shall designate from among the Subsidiaries, as determined from time to time, the Subsidiary or Subsidiaries that shall constitute Participating Subsidiaries. The Board or Committee may designate a Subsidiary, or terminate the designation of a Subsidiary, without the approval of the stockholders of the Company.

7.3 Accounts. Individual accounts shall be maintained for each Participant in the Plan.

7.4 No Right to Employment. Nothing in the Plan shall be construed to give any person (including any Participant) the right to remain in the employ of the Company, a Parent or a Subsidiary or to affect the right of the Company, any Parent or any Subsidiary to terminate the employment of any person (including any Participant) at any time, with or without cause, which right is expressly reserved.

7.5 Amendment, Suspension and Termination of the Plan

(a) The Board may, in its sole discretion, amend, suspend or terminate the Plan at any time and from time to time; provided, however, that without approval of the Company's stockholders given within twelve (12) months before or after action by the Board, the Plan may not be amended to increase the maximum number of Shares subject to the Plan or in any other manner that requires the approval of the Company's stockholders under applicable law or applicable stock exchange rules or regulations. No Option may be granted during any period of suspension of the Plan or after termination of the Plan. For the avoidance of doubt, without the approval of the Company's stockholders and without regard to whether any Participant rights may be considered to have been "adversely affected," the Board or the Committee, as applicable, shall be entitled to change the terms of an Offering Period, limit the frequency and/or number of changes in the amount withheld during an Offering Period, permit payroll withholding in excess of the amount designated by a Participant in order to adjust for delays or mistakes in the Company's processing of properly completed withholding elections, establish reasonable waiting and adjustment periods and/or accounting and crediting procedures to ensure that amounts applied toward the purchase of Shares for each Participant properly correspond with amounts withheld from the Participant's Compensation, and establish such other limitations or procedures as the Board or the Committee, as applicable, determines in its sole discretion advisable which are consistent with the Plan.

(b) In the event the Administrator determines that the ongoing operation of the Plan may result in unfavorable financial accounting consequences, the Administrator may, in its discretion and, to the extent necessary or desirable, modify or amend the Plan to reduce or eliminate such accounting consequence including, but not limited to:

i. shortening any Offering Period so that the Offering Period ends on a new Exercise Date, including an Offering Period underway at the time of the Administrator action; and

ii. allocating Shares.

Such modifications or amendments shall not require stockholder approval or the consent of any Participant.

(c) Upon termination of the Plan, the balance in each Participant's Plan Account shall be refunded as soon as practicable after such termination, without any interest thereon.

7.6 Use of Funds; No Interest Paid. All funds received by the Company by reason of purchase of Shares under the Plan shall be included in the general funds of the Company free of any trust or other restriction and may be used for any corporate purpose. No interest shall be paid to any Participant or credited under the Plan.

7.7 Effect Upon Other Plans. The adoption of the Plan shall not affect any other compensation or incentive plans in effect for the Company, any Parent or any Subsidiary. Nothing in the Plan shall be construed to limit the right of the Company, any Parent or any Subsidiary (a) to establish any other forms of incentives or compensation for Employees of the Company or any Parent or any Subsidiary or (b) to grant or assume Options otherwise than under the Plan in connection with any proper corporate purpose, including, but not by way of limitation, the grant or assumption of options in connection with the acquisition, by purchase, lease, merger, consolidation or otherwise, of the business, stock or assets of any corporation, firm or association.

7.8 Conformity to Securities Laws. Notwithstanding any other provision of the Plan, the Plan and the participation in the Plan by any individual who is then subject to Section 16 of the Exchange Act shall be subject to any additional limitations set forth in any applicable exemption rule under Section 16 of the Exchange Act (including any amendment to Rule 16b-3 of the Exchange Act) that are requirements for the application of such exemptive rule. To the extent permitted by applicable law, the Plan shall be deemed amended to the extent necessary to conform to such applicable exemptive rule.

7.9 Data Privacy. As a condition of participating in the Plan, each Participant explicitly and unambiguously consents to the collection, use and transfer, in electronic or other form, of personal data as described in this Section 7.9 by and among, as applicable, the Company and its Subsidiaries for the exclusive purpose of implementing, administering and managing the Participant's participation in the Plan. The Company and its Subsidiaries may hold certain personal information about a Participant, including but not limited to, the Participant's name, home address and telephone number, date of birth, social security or insurance number or other identification number, salary, nationality, job title(s), any shares of stock held in the Company or any of its Subsidiaries, details of all Purchased Shares, Restricted Shares and Options, in each case, for the purpose of implementing, managing and administering the Plan and Awards (the "Data"). The Company and its Subsidiaries may transfer the Data amongst themselves as necessary for the purpose of implementation, administration and management of a Participant's participation in the Plan, and the Company and its Subsidiaries may each further transfer the Data to any third parties assisting the Company and its Subsidiaries in the implementation, administration and management of the Plan. These recipients may be located in the Participant's country, or elsewhere, and the Participant's country may have different data privacy laws and protections than the recipients' country. Through participating in the Plan, each Participant authorizes such recipients to receive, possess, use, retain and transfer the Data, in electronic or other form, for the purposes of implementing, administering and managing the Participant's participation in the Plan, including any requisite transfer of such Data as may be required to a broker or other third party with whom the Company or any of its Subsidiaries or the Participant may elect to deposit any Shares. The Data related to a Participant will be held only as long as is necessary to implement, administer, and manage the Participant's participation in the Plan. A Participant may, at any time, view the Data held by the Company with respect to such Participant, request additional information about the storage and processing of the Data with respect to such Participant, recommend any necessary corrections to the Data with respect to the Participant or refuse or withdraw the consents herein in writing, in any case without cost, by contacting his or her local human resources representative. The Company may cancel Participant's ability to participate in the Plan and, in the Administrator's discretion, the Participant may forfeit any Restricted Shares for which the risk of forfeiture has not lapsed if the Participant refuses or withdraws his or her consents as described herein. For more information on the consequences of refusal to consent or withdrawal of consent, Participants may contact their local human resources representative.

7.10 Tax Withholding. The Company or any Participating Subsidiary shall have the authority and the right to deduct or withhold, or require a Participant to remit to the Company, an amount sufficient to satisfy federal, state, local and foreign taxes (including the Participant's FICA or employment tax obligation) required by law to be withheld with respect to any taxable event concerning a Participant arising as a result of the Plan. The Administrator may in its sole discretion and in satisfaction of the foregoing requirement withhold or have surrendered, or allow a Participant to elect to have the Company withhold or surrender, Restricted Shares for which the risk of forfeiture has lapsed. Unless determined otherwise by the Administrator, the number of Shares which may be so withheld or surrendered shall be limited to the number of shares which have a Fair Market Value on the date of withholding or surrender no greater than the aggregate amount of such liabilities based on the maximum statutory withholding rates for federal, state, local and foreign income tax and payroll tax purposes that are applicable to such supplemental taxable income. The Administrator shall also have the authority and right to initiate, or permit a Participant to initiate, a broker- assisted sell-to-cover transaction whereby Shares are sold by such broker and the proceeds of such sale are remitted to the Company to satisfy tax withholding obligations.

7.11 Governing Law. The Plan and all rights and obligations thereunder shall be construed and enforced in accordance with the laws of the State of Delaware.

7.12 Notices. All notices or other communications by a Participant to the Company under or in connection with the Plan shall be deemed to have been duly given when received in the form specified by the Company at the location, or by the person, designated by the Company for the receipt thereof (including without limitation the Company's stock plan administrator).

7.13 Conditions to Issuance of Shares.

(a) Notwithstanding anything herein to the contrary, the Company shall not be required to issue or deliver any certificates or make any book entries evidencing Shares pursuant to the exercise of an Option by a Participant, unless and until the Board or the Committee has determined, with advice of counsel, that the issuance of such Shares is in compliance with all applicable laws, regulations of governmental authorities and, if applicable, the requirements of any securities exchange or automated quotation system on which the Shares are listed or traded, and the Shares are covered by an effective registration statement or applicable exemption from registration. In addition to the terms and conditions provided herein, the Board or the Committee may require that a Participant make such reasonable covenants, agreements, and representations as the Board or the Committee, in its discretion, deems advisable in order to comply with any such laws, regulations or requirements.

(b) All certificates for Shares delivered pursuant to the Plan and all Shares issued pursuant to book entry procedures are subject to any stop-transfer orders and other restrictions as the Committee deems necessary or advisable to comply with federal, state or foreign securities or other laws, rules and regulations and the rules of any securities exchange or automated quotation system on which the Shares are listed, quoted or traded. The Committee may place legends on any certificate or book entry evidencing Shares to reference restrictions applicable to the Shares.

(c) The Committee shall have the right to require any Participant to comply with any timing or other restrictions with respect to the settlement, distribution or exercise of any Option, including a window-period limitation, as may be imposed in the sole discretion of the Committee.

(d) Notwithstanding any other provision of the Plan, unless otherwise determined by the Committee or required by any applicable law, rule or regulation, the Company may, in lieu of delivering to any Participant certificates evidencing Shares issued in connection with any Option, record the issuance of Shares in the books of the Company (or, as applicable, its transfer agent or stock plan administrator).

7.14 Section 409A. Neither the Plan nor any Option granted hereunder is intended to constitute or provide for “nonqualified deferred compensation” within the meaning of Section 409A of the Code and the Department of Treasury regulations and other interpretive guidance issued thereunder, including without limitation any such regulations or other guidance issued after the Effective Date (together, “Section 409A”). Notwithstanding any provision of the Plan to the contrary, if the Administrator determines that any Option may be or become subject to Section 409A of the Code, the Administrator may adopt such amendments to the Plan and/or adopt other policies and procedures (including amendments, policies and procedures with retroactive effect), or take any other actions as the Administrator determines are necessary or appropriate to avoid the imposition of taxes under Section 409A of the Code, either through compliance with the requirements of Section 409A of the Code or with an available exemption therefrom.

CALIX, INC.
RECONCILIATION OF GAAP TO NON-GAAP MEASURES
(UNAUDITED)
Reconciliation of GAAP to Non-GAAP Net Income (Loss) (In Thousands)

	2020			
	First Quarter	Second Quarter	Third Quarter	Fourth Quarter
GAAP net income (loss)	\$ (6,944)	\$ (4,212)	\$ 20,538	\$ 24,102
Adjustments to reconcile GAAP net income (loss) to non-GAAP net income (loss):				
Stock-based compensation	2,984	3,241	3,574	4,160
Intangible asset amortization	658	658	658	658
U.S. tariff and tariff-related costs	959	723	621	520
Restructuring charges	—	6,286	—	—
Component inventory accrual	—	1,793	—	—
Non-GAAP net income (loss)	<u>\$ (2,343)</u>	<u>\$ 8,489</u>	<u>\$ 25,391</u>	<u>\$ 29,440</u>

Reconciliation of GAAP to Non-GAAP Gross Margin

	2020			
	First Quarter	Second Quarter	Third Quarter	Fourth Quarter
GAAP gross margin	44.9%	47.4%	50.5%	52.4%
Adjustments to reconcile GAAP gross margin to non-GAAP gross margin:				
Stock-based compensation	0.2%	0.1%	0.2%	0.2%
Intangible asset amortization	0.6%	0.6%	0.4%	0.3%
U.S. tariff and tariff-related costs	1.0%	0.6%	0.4%	0.3%
Component inventory accrual	—	1.5%	0.0%	0.0%
Non-GAAP gross margin	<u>46.7%</u>	<u>50.2%</u>	<u>51.5%</u>	<u>53.2%</u>

Use of Non-GAAP Financial Information

Calix uses certain non-GAAP financial measures to supplement its consolidated financial statements, which are presented in accordance with GAAP. In this proxy statement, Calix has presented non-GAAP net income (loss) and non-GAAP gross margin. These non-GAAP measures are provided as performance targets in our executive cash incentive plan as the measure primarily excludes certain non-cash charges for stock-based compensation, intangible asset amortization, U.S. tariff and tariff-related costs, restructuring charges and certain component inventory accrual, which Calix believes are not indicative of its core operating results. The presentation of these non-GAAP measures is not meant to be a substitute for results presented in accordance with GAAP, but rather should be evaluated in conjunction with the comparable GAAP measure. A reconciliation of these non-GAAP measures to the most directly comparable GAAP measures are provided above. The non-GAAP financial measures used by Calix may be calculated differently from, and therefore may not be comparable to, similarly titled measures used by other companies.

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**UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
Washington, DC 20549**

FORM 10-K

(Mark One)

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

For the fiscal year ended December 31, 2020

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: 001-34674

Calix, Inc.

(Exact Name of Registrant as Specified in Its Charter)

Delaware
(State or Other Jurisdiction of
Incorporation or Organization)

2777 Orchard Parkway
San Jose, California
(Address of Principal Executive Offices)

68-0438710
(I.R.S. Employer
Identification No.)

95134
(Zip Code)

Registrant's telephone number, including area code (408) 514-3000

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

<u>Title of each class</u>	<u>Trading symbol</u>	<u>Name of each exchange on which registered</u>
Common Stock, \$0.025 par value	CALX	The New York Stock Exchange

Securities registered pursuant to section 12(g) of the Act:

None

(Title of class)

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 Section 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 the definitions of "large accelerated filer," "accelerated filer," "smaller reporting company," and "emerging growth company" in Rule 12b-2 of the Exchange Act.

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 has filed a report on and attestation to its management's assessment of the effectiveness of its internal control over financial reporting under Section 404(b) of the Sarbanes-Oxley Act (15 U.S.C. 7262(b)) by the registered public accounting firm that prepared or issued its audit report.

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 Common Stock held by non-affiliates of the registrant based upon the closing sale price on the New York Stock Exchange on June 26, 2020, the last business day of the Registrant's most recently completed second fiscal quarter, was approximately \$679 million. Shares held by each executive officer, director and by each other person (if any) who owns more than 10% of the outstanding common stock 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 10, 2021, the number of shares of the registrant's common stock outstanding was 62,452,057.

DOCUMENTS INCORPORATED BY REFERENCE

Portions of the registrant's definitive proxy statement for its 2021 annual meeting of stockholders are incorporated by reference in Items 10, 11, 12, 13 and 14 of Part III.

Calix, Inc.

Form 10-K

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SPECIAL NOTE REGARDING FORWARD-LOOKING STATEMENTS

Calix, Inc., together with its subsidiaries, is referred to in this document as “Calix,” “we,” “our” or “us”. This report includes forward-looking statements that involve substantial risks and uncertainties. All statements other than statements of historical facts contained in this report, including statements regarding Calix’s future financial position, business strategy and plans, product projections, anticipated market and industry trends and objectives of management for future operations, are forward-looking statements. In some cases, you can identify forward-looking statements by terminology such as “believe,” “could,” “expect,” “may,” “estimate,” “continue,” “anticipate,” “intend,” “should,” “plan,” “predict,” “will,” “would,” “project,” “potential” or the negative of these terms or other similar expressions. Forward-looking statements include Calix’s expectations concerning the outlook for its business, productivity, plans and goals for future operational improvements and capital investments, operational performance, future market conditions or economic performance and developments in the capital and credit markets and expected future financial performance.

Forward-looking statements involve a number of risks, uncertainties and assumptions, and actual results or events may differ materially from those projected or implied in those statements. Important factors that could cause such differences include:

- our ability to predict our revenue and reduce and control costs related to our products or service offerings;
- fluctuations in our gross margin;
- our ability to manage our relationships with our third-party vendors, including contract manufacturers, or CMs, original design manufacturers, or ODMs, logistics providers, component suppliers and development partners;
- our ability to forecast our manufacturing requirements and manage our inventory;
- our dependence on sole-, single- and limited-source suppliers, including suppliers located primarily or solely in China where there are a number of factors, including component shortages, longer lead times or supply interruptions due to the COVID-19 pandemic as well as increasing demand for components for computing needs, that could negatively impact our supply chain;
- our ability to build and sustain an adequate and secure information technology infrastructure;
- the quality of our products, including any undetected hardware and software defects or software bugs;
- the concentration of our customer base as well as our dependence on a limited number of key customers;
- our ability to ramp sales and achieve market acceptance of our new products and communications service providers’, or CSPs’, willingness to deploy our new products;
- the capital spending patterns of CSPs, and any decrease or delay in capital spending by CSPs due to macro-economic conditions, regulatory uncertainties or other reasons;
- the impact of government-sponsored programs on our customers and the impact to our customers of a U.S. government shutdown;
- intense competition;
- our ability to develop new products or enhancements that support technological advances and meet changing CSP requirements;
- the length and unpredictability of our sales cycles and timing of orders;
- our lack of long-term, committed-volume purchase contracts with our customers;
- our ability to increase our sales to larger CSPs globally;
- our exposure to the credit risks of our customers;
- the interoperability of our products with CSP networks;
- our ability to estimate future warranty obligations due to product failure rates;
- our products’ compliance with industry standards;
- our ability to expand our international operations;
- our ability to protect our intellectual property, or IP, and the cost of doing so;
- our ability to obtain necessary third-party technology licenses at reasonable costs;
- the regulatory and physical impacts of climate change and other natural events;
- the attraction and retention of qualified employees and key management personnel; and
- our ability to maintain proper and effective internal controls.

We caution you against placing undue reliance on forward-looking statements, which reflect our current beliefs and are based on information currently available to us as of the date a forward-looking statement is made. Forward-looking statements set forth in this Annual Report on Form 10-K speak only as of the date of its filing. We undertake no obligation to revise forward-looking statements to reflect future events, changes in circumstances or changes in beliefs. In the event that we do update any

forward-looking statements, no inference should be made that we will make additional updates with respect to that statement, related matters or any other forward-looking statements.

PART I

ITEM 1. Business

Company Overview

Calix was founded in 1999. We develop and market cloud and software platforms, systems and services to enable CSPs of all types and sizes to innovate and transform their businesses. These platforms empower our CSP customers to utilize real-time data and insights to simplify their businesses and deliver an increasing array of services to excite their subscribers. We believe these insights enable CSPs to grow their businesses through increased subscriber acquisition, loyalty and revenue, thereby increasing the value of their businesses and contributions to their communities.

This is our mission – to enable CSPs of all sizes to simplify, excite and grow.

We believe our platforms offer a competitive edge to CSPs at a critical time of increasing competition from over-the-top device providers as they expand their reach and focus on owning the connected home experience. For example, these device providers are entering the home by offering Wi-Fi enabled devices, and then leveraging the behavioral insights to expand their direct relationship and brand with the subscriber by offering additional consumer services. Over time, we expect this competition can erode a CSP's brand and relationship with their subscribers, by reducing broadband to an easy-to-replace commodity, which can increase churn and reduce revenue. Our platforms enable CSPs to compete with higher value managed services offerings for their subscribers.

Innovative CSPs, who are embracing our platforms, understand this competitive threat and that their brand's central position in the home is a strategic ground they must protect and expand continually. Our Intelligent Access EDGE network solution and Revenue EDGE subscriber solution are designed to allow the CSP to simplify their business and reduce operating expenses, or OpEx, while launching exciting new services in weeks instead of years. Our role-based clouds enable CSP teams, such as operations, marketing and support, to leverage real-time behavioral analytics to anticipate the subscriber's needs, whether that is optimized broadband speed or a new service offering. The CSP's teams can then utilize these insights to offer new and innovative services to those subscribers who have the propensity to buy, thereby growing revenue as they deliver a connected home experience at significantly lower OpEx. To expand our reach in the market, we will continue to pursue strategic technology and distribution relationships that align with CSPs' strategic priorities. At the same time, we offer our Calix Customer Success and Support Services that provide the CSP with best practices and programs to strengthen and grow their brand with their subscribers, thereby increasing subscriber loyalty and opportunities to grow their subscriber base.

Strategy Overview

Our strategy is to position Calix as the key partner providing cloud and software platforms, systems and services to enable and facilitate the transformation of CSP networks into networks that utilize real-time data generated in the access network and subscriber home network in order to provide an exceptional broadband experience for their subscribers. Most CSPs will require significant transformation of their business and operations in order to become an essential provider of data-driven, high value managed services to their subscribers. The principal elements of our strategy are:

Building and evolving our platforms – Our product strategy centers on our strategic platforms. These platforms simplify CSPs' businesses by delivering intelligence and automation across the entire subscriber facing network – from the data center edge to the subscriber's devices. Our platforms also enable critical functions within a CSP's business, such as marketing, support and operations, to leverage real-time data to continually understand and optimize the experience for their subscribers. Our strategy is to continually augment and extend these platforms with features and services directly or through partners to allow our customers to deliver cutting-edge services to their subscribers.

Engage Directly with Customers – We continue to invest in our direct sales capabilities so that we can engage deeply with our customers to help them understand the differentiable value that our platforms provide. As we deploy new solutions, we are building the expertise of our team by adding specialized resources in areas such as marketing, cloud platforms and network operations. Our direct model is complemented with selective programs for our channel partners, who have established local market expertise and have demonstrated the ability to generate new market opportunities and support sales of cutting-edge technologies for CSPs.

Expand Customer Footprint Across Our Total Addressable Market – Our total addressable market includes CSPs of any type and size, including local and competitive exchange carriers, cable multiple system operators, or cable MSOs, wireless internet service providers, or WISPs, fiber overbuilders such as municipalities and electric cooperatives and hospitality providers. In 2020, despite limited face-to-face interaction, we added 87 CSP customers purchasing directly or through our partners. Our

diverse and growing customer footprint is a critical source of our future growth as we expand our portfolio and sell additional platforms to both new and existing customers. Our platforms expand our total addressable market and recurring revenue streams by allowing us to address the needs of not only traditional wireline-focused CSPs, but also emerging service providers. As such, we intend to continue to engage emerging providers that are creating entirely new customer segments, including fiber overbuilders, utilities and municipalities. We will also continue to pursue service provider segments where our current share is relatively low, such as cable MSOs, large CSPs and international markets.

Extend Portfolio of Calix Services – Our services team, Calix Services, support our CSPs as they define their transformation strategies, build new skills, implement new technologies and deploy new subscriber services. Calix Services’ capabilities address a CSP’s entire network and service delivery lifecycle. These services allow CSPs to benefit directly from our deep expertise working with service providers to optimize their operations and leverage our advanced analytics to improve the operational efficiency of their teams.

Pursue Strategic Relationships – We will continue to pursue strategic technology and distribution relationships that help us align with CSPs’ strategic priorities. We continue to invest to provide interoperability across the ecosystems that support our customers’ most critical business processes through our partner programs. By adding new solutions to our platform ecosystem, we significantly enhance the value that our platforms deliver to CSPs.

Product Overview

Our product strategy centers on increasing the market adoption of our three product platforms - Calix Cloud[®], which comes in three role-based editions: Calix Marketing Cloud, Calix Support Cloud and Calix Operations Cloud; EXOS[®], which is marketed as the Experience Innovation Platform; and AXOS[®], which is marketed as the Network Innovation Platform. These platforms are sold independently and are also offered as two strategic solutions that make CSP adoption simple and quick: the “Revenue EDGE” and the “Intelligent Access EDGE.”

The Revenue EDGE

The Revenue EDGE is a subscriber experience solution designed to enable CSPs to rapidly deploy new subscriber services to grow their business. The solution is built on EXOS, our carrier class premises operating system, and fully integrated with our GigaSpire[®] family of systems to be ready for deployment as a complete subscriber experience solution for a CSP’s residential and business subscribers.

The Revenue EDGE also integrates real-time subscriber insights via our Calix Marketing Cloud, Calix Support Cloud and Calix Operations Cloud offerings, which are configurable to display role-based insights. These insights enable CSPs to anticipate and target new revenue-generating services and applications through our mobile application, CommandIQ[®], and expanding EDGE Suites offerings.

We offer additional cloud-based services with the Revenue EDGE, which we refer to as EDGE Suites. Today they include features for network security and parental controls. We will continue to expand these services with integrated third-party cloud offerings from our ecosystem Revenue EDGE partners such as Arlo Technologies, Inc., or Arlo, and Service Lee Technologies Private Limited, or Servify.

Finally, we offer Revenue EDGE Enablement resources to provide CSP teams with resources to quickly deploy, manage and monetize the services that they provide to subscribers. These resources include marketing content that can be easily customized with on-line tools, training programs, success services and professional services.

The Intelligent Access EDGE

The Intelligent Access EDGE solution is built on the award-winning Calix AXOS software platform and redefines the access edge of the network by simplifying its architecture and operations. AXOS is implemented in our E-Series family of modular, non-blocking systems, enabling our customers to meet a wide variety of deployment scenarios.

The Intelligent Access Edge allows customers to collapse multiple network elements in the access network into a single system and by using specialized software modules to add functionality and remove complexity, the solution reduces the total cost of ownership and the time to market for new services.

In addition, Intelligent Access EDGE Insights enable CSPs to more effectively monitor network performance and more efficiently address performance issues. Intelligent Access EDGE Enablement services are designed to ensure CSP teams are fully enabled to deploy and manage next generation networks. We offer a range of training, professional and success services to assist CSPs in every domain of network management from strategy to deployment and management.

Traditional Products

We continue to support and offer customers our traditional family of EXA and GigaCenter[®] Systems that are widely deployed in customer networks, primarily in North America. We expect that these products will continue to be utilized in our customers' networks for many years to come.

Customers

We market and sell our cloud and software platforms, systems and services to CSPs of all types and sizes. To date, we have focused primarily on CSPs in the North American market. Our customers span all sizes of broadband subscriber count from a few hundred to more than six million. Our customers include: Allo Communications; CityFibre Holdings Limited; Cox Communications; Frontier Communications Corporation, or Frontier; Forked Deer Connect, LLC; Gibson Connect, LLC; Lumen Technologies, Inc. (formerly known as CenturyLink, Inc.), or Lumen; Sky Cable Corporation; TDS Telecommunications LLC; Windstream Holdings, Inc., or Windstream; and Verizon Communications, Inc.

We classify CSPs into large, medium and small based on the number of broadband subscribers they serve. Large CSPs are those with wide geographic footprints and broadband subscribers of 2.5 million or more. Medium CSPs also operate typically within a wide geographic footprint but are smaller in scale with broadband subscribers that range from 250,000 to 2.5 million. Small CSPs consist primarily of over 1,000 predominantly local independent operating companies, or IOCs, typically focused on a single community or a cluster of communities. They include a growing number of municipalities, electric cooperatives, fiber overbuilders and WISPs. These entities range in size from a few hundred to 250,000 broadband subscribers.

Historically, Lumen has accounted for more than 10% of total revenue, representing 18% of total revenue in 2018 and 15% in 2019. Our efforts to grow our product platforms, add new CSP customers and shift away from low value deployment services have all contributed to Lumen representing 11% of our total revenue in 2020. No other customer represented more than 10% of total revenue in 2020, 2019 and 2018. Sales to customers outside the United States represented 13% of our revenue in 2020, 14% of our total revenue in 2019 and 12% in 2018. Our sales outside the United States have been and are currently predominantly to customers in Canada, the Caribbean, Europe and the Middle East.

Customer Engagement Model

We market, sell and support the success of our cloud and software platforms, systems and services predominantly through our direct sales force, supported by marketing, product management and customer success personnel. We have expanded this model to include select channel partners in North America and more than a dozen international channel partners. Even in circumstances where a channel partner is involved, our sales and marketing personnel are generally selling side-by-side with the channel partner. We believe that our direct customer engagement approach provides us with significant differentiation in the customer sales process and customer engagement programs by aligning us more closely with our customers' changing needs and successful implementation of our solutions.

Research and Development

Continued investment in research and development is critical to our business. We have made significant investments in our product portfolio, and we intend to continue to dedicate significant resources to research and development to develop, enhance and deliver new platform features and capabilities, including investments in innovative technologies that support our business strategy. Our research and development team is composed of engineers with expertise in software and cloud platforms, optics, wireless technologies and systems engineering. Our research and development team is responsible for designing, developing and enhancing our cloud and software platforms and systems, performing product and quality assurance testing and ensuring the compatibility of our products with third-party hardware and software products. Increasingly, our engineers are focused on enhancements to our cloud and software platforms. Our teams of engineers currently remain concentrated in San Jose and Petaluma, California; Minneapolis, Minnesota; Nanjing, China; and Richardson, Texas. We also outsource a portion of our software and cloud development to domestic and international third parties, and we depend on these partners to meet our development plans. In particular, certain of our research and development efforts may be extended by co-development partnerships with third-party developers such as Infosys whereby we can utilize their substantially larger product development teams to bring cutting edge, software-based products to market while creating new revenue opportunities for both parties.

Manufacturing and Supply Chain

We rely substantially on CMs, ODMs and logistics and other third-party partners for the supply and distribution of our products. We work closely with these third parties to source and procure materials, manufacture and deliver our products and, increasingly, provide hardware system design. Our global supply chain management organization consists primarily of supply chain managers, new product introduction personnel and test engineers. We tightly integrate our supply chain management and new product introduction activities with the activities outsourced to these third parties. We believe that our relationships with and our reliance on our CMs, ODMs and order fulfillment partners allow us to decrease new product introduction time, conserve working capital, reduce product costs and minimize delivery lead times while maintaining high product quality as well

as the ability to scale quickly to handle increased order volume. Over the past two years, we have reorganized our global supply chain to better align with our platform strategy as well as to reduce the impact from the imposition by the U.S. government of tariffs on goods imported from China. Such changes include the transition of manufacturing previously conducted in China to different manufacturing partners outside China in Taiwan and Vietnam as well as shifting a higher proportion of hardware systems design, management of raw materials used for manufacture and transition of global supply chain operations to our ODM partners. Order fulfillment is performed primarily by our logistics provider located in Texas. We continue to qualify and utilize other vendors for various portions of our supply chain from time to time, including order fulfillment of our circuit boards, optics and cabinets.

As a result of global restrictions and uncertainty related to the COVID-19 pandemic, we have experienced product supply delays as we and our supply chain partners experience longer lead times and shortages of components and materials. We believe the impact of the COVID-19 pandemic and government responses to the pandemic will continue to impact the ability of our third-party manufacturers to supply products to us at the cost and in the time frames and volumes required by us.

Seasonality

Fluctuations in our revenue occur due to many factors, including the varying budget cycles and seasonal buying patterns of our customers. More specifically, our customers tend to spend less in the first fiscal quarter as they are finalizing their annual capital spending budgets, and in certain regions, customers are also challenged by winter weather conditions that inhibit outside fiber deployment. Furthermore, we believe our customer deployments have benefited to some extent from higher demand for our products and solutions as a result of an increased reliance on CSP services due to the restrictions and uncertainty associated with the COVID-19 pandemic.

Competition

The communications software and systems equipment markets are highly competitive. Competition is largely based on any one or a combination of the following factors: functionality and features, price, existing business and customer relationships, product quality, installation capability, service and support, long-term returns, scalability, development and manufacturing capability.

We compete with several companies within the markets that we serve, and we anticipate that competition will intensify. Vendors with which we compete include ADTRAN, Inc.; Casa Systems, Inc.; Ciena Corporation; Cisco Systems, Inc.; CommScope Inc.; DZS Inc.; eero (an Amazon company); Huawei Technologies Co., Ltd.; Juniper Networks, Inc.; nest (a Google company); Plume Design, Inc.; Nokia Corporation and ZTE Corporation. In various geographic or vertical markets, there are also several smaller companies with which we compete. As we expand into adjacent markets, we expect to encounter new competitors. Many of our competitors have the financial resources to offer competitive products at a below market price, which could prevent us from competing effectively.

Intellectual Property

We rely on a combination of IP rights, including patents, trade secrets, copyrights and trademarks as well as customary contractual protections. These rights and protections are 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 IP laws.

As of December 31, 2020, we held 125 U.S. patents and had four pending U.S. patent applications. As of December 31, 2020, we had no pending international patent applications. U.S. patents generally have a term of twenty years from filing. The remaining terms on our individual patents vary from two months to 17 years. U.S. patent, copyright and trade secret laws afford us only limited protection, and the laws of some foreign countries do not protect proprietary rights to the same extent.

We believe that the frequency of assertions of patent infringement has and continues to increase in our industry. Any claim of infringement from a third party, even claims without merit, could cause us to incur substantial costs defending against such claims, could require us to pay substantial damages or include an injunction or other court order that could prevent us from selling our products. In addition, we might be required to seek a license 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.

Human Capital

We employ 785 employees globally as of December 31, 2020, with 74% employees located in the United States and 24% primarily in Canada and Nanjing, China. Except for one employee located in France and subject to customarily local collective bargaining arrangements, we do not have any employees represented by a labor union with respect to their employment with us. We have not experienced any work stoppages and consider our relations with our employees to be good. We consider our talent to be very important to our operations and execution on our business strategy as well as the overall success of our business. As such, we invest significant management attention, time and resources to attract, engage, develop and retain our talent. Our talent strategy focuses on our culture and core values, our talent programs and the overall wellbeing and safety of our talent.

Our culture and core values. We believe that by nurturing a strong culture based on our core values we are able to attract, hire and retain a highly engaged team. Our cultural pillars – to collaborate, create and communicate – reflect the way we lead and work with one another internally as well as externally with our customers, partners, suppliers and other stakeholders. We seek to embed our core values to act responsibly and with integrity, to instill a sense of individual role and purpose at Calix, to communicate openly and honestly and to “take care of our own” in how we lead and conduct our business. Our culture of collaboration creates an inclusive working environment and inclusive engagement with our stakeholders; our culture to create encourages innovation from a diversity of experiences, backgrounds and characteristics; and our culture to communicate encourages open and honest discussion.

Our talent programs. We invest in talent programs to identify and hire candidates who embody our culture and core values and will further our mission. Our compensation and rewards programs are designed to foster a happy, engaged and high-performing workforce. We hire and compensate our talent based on their role, experiences, contributions and performance, regardless of their gender, race or ethnic background or other personal characteristics. For example, our current programs include cash incentive bonuses designed to reward corporate and individual performance and cash bonus opportunities for internal promotions to leadership roles. We offer two employee stock purchase plans, because we believe stock ownership rewards employees for corporate performance aligned to our stockholders’ interests. Our programs are regularly reviewed and adjusted based on benchmarks against competitive industry programs. We encourage open communications with our teams and conduct both internal and third-party run surveys to improve how we engage with and support our talent.

Our wellness, safety and health programs. A centerpiece of our culture is “taking care of our own,” which means we foster a collaborative and supportive environment so that every member of our team has the opportunity to thrive. This mindset starts with our CEO and is embedded in how we lead as well as in our wellness, safety and health programs. Our programs seek to support wellbeing broadly, with comprehensive health benefit offerings, a 401(k) plan for retirement savings available upon hire and with employer match in the U.S. and pension programs for most of our non-U.S. locations, sick leave days and leave programs, unlimited time off, disability benefits and reimbursements under our wellness fund and remote office program. At the outset of the COVID-19 pandemic, we increased support and attention for our team in Nanjing, China, closely monitoring wellbeing and providing flexibility and tools to enable business continuity, while keeping our team safe. With the global onset of the pandemic, we initiated CEO-led bi-weekly sessions in an open forum with all employees addressing the impact of the pandemic and our response to support our workforce and business. We host a communications hub to provide and to enable our teams to share, resources and information such as public health and safety updates, resources for self-care, managing education and school-related challenges and leading remote teams, as well as interesting articles related to the pandemic. We implemented work and safety protocols that put the health and safety of our team first and transitioned our remote work program to apply to all employees in the U.S. and Canada. While our U.S. facilities remained closed, we reconfigured our offices and adjusted our office and health screening protocols to create a safe place to conduct essential tasks. We supplemented our wellness fund to cover broader health and wellness services, including in-home programs and child/family care, and expanded our home office program with ergonomic furniture, collaboration tools, virtual learning resources and telecommunications services to enable our teams.

Corporate Information

Our principal executive offices are located at 2777 Orchard Parkway, San Jose, California 95134, and our telephone number is (408) 514-3000. Our website address is www.calix.com. We do not incorporate the information on or accessible through our website into this Annual Report on Form 10-K, and you should not consider any information on, or that can be accessed through, our website as part of this Annual Report on Form 10-K. Calix[®], the Calix logo design, AXOS[®], Calix Cloud[®], CommandIQ[®], EXOS[®], GigaCenter[®], GigaSpire[®] and other trademarks or service marks of Calix appearing in this Annual Report on Form 10-K are the property of Calix. Trade names, trademarks and service marks of other companies appearing in this Annual Report on Form 10-K are the property of the respective holders. The Securities and Exchange Commission, or SEC, maintains a website at www.sec.gov that contains reports, proxy statements and other information regarding issuers that file electronically with the SEC. We post on the Investor Relations page of our website, www.calix.com, a link to our filings with the SEC free of charge, as soon as reasonably practical after they are filed electronically with the SEC.

ITEM 1A. Risk Factors

We have identified the following additional risks and uncertainties that may affect our business, financial condition and/or results of operations. Investors should carefully consider the risks described below, together with the other information set forth in this Annual Report on Form 10-K, before making any investment decision. The risks described below are not the only ones we face. Additional risks not currently known to us or that we currently believe are immaterial may also significantly impair our business operations. Our business could be harmed by any of these risks. The trading price of our common stock could decline due to any of these risks, and investors may lose all or part of their investment.

Business and Operational Risks

Our business and results of operations have been and are expected to continue to be negatively affected by the COVID-19 pandemic that has severely impacted the global economy.

Since late 2019, the COVID-19 pandemic has severely impacted the global economy, disrupting financial markets, global manufacturing activities, customer purchasing patterns and general business operations, resulting in business closures, significant unemployment rates and substantial and prolonged government restrictions on business, travel and personal activities. These measures have disrupted our global supply chain activities and significantly limited our business travel, customer engagements and normal business activities, all of which heighten our business and operational risks. Our U.S. offices remain closed and we continue to focus significant management resources on the safety, well-being and productivity of our workforce amid the pandemic. Furthermore, we have transitioned our workforce to a work-from-anywhere model. While these measures help to contain and mitigate the transmission of COVID-19 and the impact on productivity, such measures are disruptive, require transition to new business processes and detract our employees from normal business activities. We cannot predict the continued impact of the pandemic and the degree to which our business and results of operations may be affected, particularly given the extended duration of the COVID-19 impacts on the U.S. and other locations in which we operate. There are no assurances that the global economy will recover quickly or at all, or that impacted areas will be able to adequately contain COVID-19 infections.

In particular, the pandemic and related restrictions continue to adversely impact our global supply chain operations with materially longer lead times, increased competition for limited supplies, shortages of key components and materials and disruptions in operations, including office and factory closures, at our third-party manufacturers, logistics partners and suppliers. If the pandemic and related restrictive measures continue for a prolonged period, we may experience a sustained shortage of components and materials, which may have a material negative impact our ability to supply products to meet customer requirements and could materially adversely affect our business and results of operations. Business closures, infection outbreaks, travel restrictions and other impacts of the COVID-19 pandemic have also adversely affected economies, financial markets and the financial viability and liquidity of businesses in the U.S. and internationally, heightening our collections risk. Our customers' purchasing decisions may be impacted by the pandemic, which could in turn impact our sales and results of operations. For example, CSPs may choose not to invest at this time in our new platforms or delay infrastructure improvements due to the uncertainty in the global economy. The prolonged disruptions to our business and operations and other adverse impacts of the COVID-19 pandemic or further disruptions we may experience in future could have a material adverse effect on our business, results of operations and financial condition.

We have risks associated with material dependencies on third-party vendors for our global supply chain operations that could disrupt our business and adversely impact our gross margin and results of operations.

We have material dependencies on third-party vendors for our global supply chain operations, including for services to design, source components and materials, manufacture and supply our products, which heighten the complexity of our global supply chain operations. If any of these third-party vendors stop providing their services, for any reason, we would have to obtain similar services from alternative sources, which may not be available on commercially reasonable terms, if at all. We also have limited control over disruptions that may occur at the facilities of these third-party partners, such as supply interruptions, labor shortages, strikes, design and manufacturing failures, quality control issues, systems failures or even facility closures arising from the COVID-19 pandemic. In addition, switching development firms or manufacturers could delay the manufacture and availability of products and/or require us to re-qualify our products with our customers, which would be costly and time-consuming. For example, in recent years, we transitioned substantially all of our product manufacturing to locations outside of China, which required significant resources and involved unanticipated costs, disruptions in our operations and product shortages due to manufacturing and production delays that impaired our ability to fulfill customer orders and resulted in revenue below our plan in the first quarter of 2019. Any interruption in the development, supply or distribution of our products would adversely affect our ability to meet scheduled product deliveries to our customer and could result in lost revenue or higher costs, which would negatively impact our gross margin and operating results and harm our business.

Particular risks associated with management of our global supply chain operations include the following:

- Manufacturing constraints and disruptions.*** We do not have internal manufacturing capabilities and rely solely on a small number of manufacturing partners to manufacture and supply our products. Our business operations and ability to supply our products are highly dependent upon our ability to secure adequate third-party manufacturing capabilities and capacity and to effectively manage our manufacturing partners to meet our business needs. Our dependency solely on third-party manufacturers makes us vulnerable to possible supply and capacity constraints and reduces our control over manufacturing disruptions due to component availability, delivery schedules, quality, manufacturing yields and costs. If these manufacturing disruptions and constraints are prolonged, or if these manufacturing partners do not have adequate capabilities or business continuity plans to fulfill their obligations to us, our business could be disrupted. Furthermore, we expect to face increasing competition for manufacturing capacity and resources as more companies seek to transition manufacturing operations out of China due to the ongoing uncertainty of trade disputes. If we are unable to effectively manage our vendors or if we fail to invest adequate resources to manage our supply chain operations, our ability to meet customer orders and generate revenue may be negatively impacted. A substantial portion of our manufacturing is done at facilities outside of the U.S., largely in Asia, which presents increased supply risk, including the risk of supply interruptions or reductions in manufacturing quality or controls. Our international manufacturing also creates risks and uncertainties associated with regulatory changes or government actions such as local business requirements, trade restrictions and tariffs, economic sanctions or related legislation, which may complicate our export and import activities, be disruptive to the operations of our manufacturers and logistics partners or result in higher costs and variability of supply. Manufacturing in Asia further heightens our risk of meeting customer delivery requirements as we rely upon our logistics partners to transport and import significant volumes of products to the U.S. where we generate a substantial majority of our revenue.
- Extended lead times; component and materials shortages.*** We source components and materials to manufacture our products from a limited number of suppliers, resulting in our product supply being subject to such suppliers' lead times, volume constraints and increasing costs. We have experienced and continue to experience extended lead times and product unavailability due to factory disruptions or closures as well as delays and unanticipated costs associated with the supply of our products, particularly in light of the current COVID-19 pandemic. We also expect continued shortages and/or delay of critical components as a result of growing demand in the industry or other sectors. For example, increases in computing needs, Internet-of-Things devices, wireless products, automotive electronics and artificial intelligence all drive increased demand for certain components, such as chipsets and memory products, which may result in lower availability and increased prices for such components. More recently, one of our silicon suppliers extended their lead time out from 32 to 50 weeks. Extended lead times and shortages could impair our ability to meet our customer requirements, require us to pay higher prices or incur expedite fees, which would harm our business and negatively impact our gross margin and results of operations.
- Limited sources and sole-sourced supply.*** We have sole-source or limited-source dependencies with suppliers for some key product components such as chipsets and certain of our application-specific integrated circuit processors and resistor components, including certain components sourced solely through suppliers located in China. Any of these suppliers upon whom we or our business partners rely could stop producing our components, be subject to higher costs or tariffs, epidemics or other conditions that disrupt their operations, cease operations or enter into exclusive arrangements with our competitors. For example, we are encountering disruptions in our supply of certain components that are sourced from suppliers in China, Southeast Asia, Mexico and other countries as a result of the COVID-19 pandemic, which have caused delays in supply of our products due to production disruptions, factory closures and longer lead times for components and from uncertainty around trade and tariff policies between the U.S. and China. Sole-source or limited-source dependencies on these suppliers limit our ability to mitigate these disruptions in our supply chain and such disruptions, particularly if prolonged, may adversely affect our ability to obtain components and materials needed to manufacture our products at acceptable prices or at all, which would adversely affect our ability to meet scheduled product deliveries to our customers, increase costs and in turn harm our business and results of operations.
- Limitations on ability to manage third-party risks.*** Our business with third-party manufacturers typically represents a relatively small percentage of their total revenue, and our orders may not be given adequate priority if such manufacturers have to allocate limited capacity among competing customers, which could delay supplies of product to us or limit our ability to ramp product volumes within desired timeframes. If any of our manufacturing partners are unable or unwilling to continue manufacturing our products in required volumes and at high quality levels, we would have to identify, qualify and select acceptable alternative manufacturers, which could disrupt our ability to maintain continuous supply of product to meet customer requirements. An alternative manufacturer may not be available to us when needed or may not be in a position to satisfy our production requirements at commercially reasonable prices and quality. In addition, we and/or our manufacturers may not be able to negotiate commercially reasonable terms and sufficient quantities of component supplies with component and materials suppliers to meet our manufacturing needs because our purchase volumes may be too low for us to be considered a priority customer for securing supplies,

particularly when there are shortages or limited availability of key components and materials. As a result, suppliers could stop selling to us and our manufacturers at commercially reasonable prices, or at all. Any such interruption or delay may force us and our manufacturers to seek components or materials from alternative sources, which may not be available, or result in higher prices. Switching suppliers could also require that we redesign our products to accommodate new components and could require us to re-qualify our products with our customers, which would be costly and time consuming. Any significant interruption in manufacturing or supply availability, including labor shortages or competition for components, would require us to reduce our product supply to customers, which would result in lost revenue and harm our customer relationships.

- ***Ability to forecast and manage inventory liability with vendors.*** We have experienced unanticipated increases in demand from customers, including from higher consumer demand for internet services and improved WiFi due to COVID-19, which in turn has resulted in delayed shipments and variable shipping patterns. If we underestimate our product demand, our manufacturers may have inadequate component inventory, which could interrupt our product manufacturing, increase our cost of product revenue associated with expedite fees and air freight and/or result in delays or cancellation of sales. If we are unable to deliver products in a timely fashion to our customers, we may lose customer goodwill or our customers may choose to purchase from other vendors, all of which may have a material negative impact on our revenue and operating results. If we overestimate our product demand, our manufacturers may purchase excess components and build excess inventory, and we could be required to pay for these excess parts or products and their storage costs. Long lead times for component supply, which have been exacerbated by factory closures and shortages due to the COVID-19 pandemic, and unanticipated demand for our products have in the past and are expected to continue to impact our ability to accurately forecast our production requirements. We may incur liabilities for certain component inventory purchases that have been rendered excess or obsolete, which may have an adverse effect on our gross margin, financial condition and results of operations.

We are subject to business and operational risks associated with our international operations that could harm our business.

We are subject to business and operational risks associated with our international operations, which include our global supply chain operations, our development center located in Nanjing, China and dependencies on third-party development partners in India, and, to a lesser extent, our international sales operations. We face a number of risks associated with our international operations, including costs of complying with differing and changing laws and regulatory requirements, tariffs, export quotas, custom duties and other trade restrictions; effects of inflation, currency controls and/or fluctuations in currency exchange rates; limited or unfavorable IP protection; and uncertainties associated with political conflicts and instabilities, variable economic conditions, terrorist attacks or acts of war. Our development operations and activities in China and India involve these and other significant risks, including: local labor conditions and regulations; knowledge transfer related to our technology and exposure to misappropriation of IP or confidential information, including information that is proprietary to us, our customers and third parties; heightened exposure to changes in the economic, security, political and pandemic conditions; international trade agreements and U.S. tax provisions that could adversely affect our international operations; complexities of managing development timelines and deliverables from abroad; and differences in local business practices and customs that may not align with our expectations and standards.

In addition to the foregoing risks, our international sales operations involve risks associated with greater costs and complexity localizing and supporting our products and platforms in local markets; trade regulations, compliance requirements and incremental costs applicable to the qualification, production, sale and delivery of our products; longer collection periods, financial instability and other difficulties impacting collection of accounts receivable in certain jurisdictions; more intense competition including from local equipment suppliers; and our reliance on value added resellers to sell and support our products in international markets given our limited presence and infrastructure outside the U.S. To expand our international operations, we will need to invest time and resources to attract key talent, execute on our international strategy and drive international market demand for our products. If we invest substantial time and resources to expand our international operations and are unable to do so successfully and in a timely manner, our business, financial condition and results of operations may suffer.

Security breaches and data loss may expose us to liability, harm our reputation and adversely affect our business.

As part of our business operations, we collect, store, process, use and/or disclose sensitive data relating to our business, including in connection with the provision of our cloud services and in our information systems and data centers (including third-party data centers). We also engage third-party providers to assist in the development of our products and for services that may include the collection, handling, processing and/or storage of personal data on our behalf. In addition, we host our customers' subscriber data in third-party data centers in the course of providing our products and cloud-based platform solutions and services to our customers. While we and our third-party providers apply multiple layers of security to control access to data and use encryption and authentication technologies to secure data from unauthorized access, use, alteration and disclosure, these security measures may be compromised. Malicious hackers may attempt to gain access to our network or data centers; steal proprietary information related to our business, products, employees and customers; or interrupt our systems and services or those of our customers or others. In particular, there has been a spike in cybersecurity attacks as shelter-in-place

orders and work-from-home requirements due to COVID-19 have led businesses to increase reliance on virtual environments and communications systems, which have been subjected to increasing third-party vulnerabilities and security risks. Although we monitor our networks and continue to enhance our security protections, particularly as we transition to a work-from-anywhere workforce, hackers are increasingly more sophisticated and aggressive, and our efforts may be inadequate to prevent all incidents of data breach or theft. The theft, loss or misuse of proprietary or personal data collected, stored or processed by us or our service providers to run our business could result in significantly increased security and remediation costs or costs related to defending legal claims. If we or our third-party providers do not allocate and effectively implement and manage the resources necessary to maintain adequate security measures, we could be subjected to data loss, unauthorized data disclosure or a compromise or breach of our systems, products or those of our third-party data centers. As we continue to grow our cloud-based platforms and services portfolio and rely on third-party development partners, risks arising from or related to security breaches or data loss are likely to increase. Any loss of data or compromise of our systems or data centers could result in loss of confidence in the security of our offerings and loss of customer goodwill, damage our reputation, cause the loss of current or potential customers or partners, lead to legal and regulatory liability and adversely affect our business, financial condition, operating results and cash flows.

We have a history of losses and fluctuations in our gross margin and operating results, which make it difficult to predict our future performance and could cause the market price of our stock to decline.

We have a history of net operating losses and fluctuations in our quarterly and annual gross margin and operating results, including due to factors outside of our control. Factors that impact variability of our operating results include our ability to predict our revenue and reduce and control our costs, our ability to predict product functions and features desired by our customers, the impact of global economic conditions, our ability to effectively manage our global supply chain operations, our ability to effectively manage third parties upon whom we depend to conduct our business, our customers' spending patterns and purchasing decisions, the impact of competition, customer adoption of our products, our ability to manage our legal, contractual and regulatory obligations and liabilities, and other risk factors identified in "Special Note Regarding Forward-Looking Statements" above and in this "Risk Factors" section. Our gross margin is further impacted by customer, geographic and product mix, the impact of competition on our prices, our ability to manage our costs associated with components and materials, excess and obsolescence, expedite fees and logistics-related activities, contractual commitments and other product costs. Fluctuating results make it difficult to predict our future performance and could cause the market price of our stock to decline. We expect to continue to incur significant expenses and cash outlays as we expand our business and operations and target new customer opportunities. Given our anticipated growth and the intense competitive pressures we face, we may be unable to adequately control our operating expenses or maintain positive operating income. Comparing our operating results on a period-to-period basis may not be meaningful, and you should not rely on our past results as an indication of our future performance. If our revenue or operating results fall below the expectations of investors or securities analysts, or below any guidance we may provide to the market, the market price of our stock would likely decline.

We cannot guarantee that we will achieve sustained profitability. We will have to generate and sustain significant and consistent increased revenue, while continuing to control our expenses, to maintain profitability. If we are unable to generate positive operating income and positive cash flows from operations, our liquidity, results of operations and financial condition will be adversely affected. If we are unable to generate cash flows or obtain other sources of liquidity to support our operational needs, we will be forced to limit our development activities, reduce our investment in growth initiatives and institute cost-cutting measures, all of which would adversely impact our business and growth.

If we do not successfully execute on our business strategy to increase our sales to new and existing CSPs, our operating results, financial condition, cash flows and long-term growth may be negatively impacted.

Our growth is dependent upon our ability to increase sales to existing and new CSP customers of all types and sizes, and the execution of our strategy to increase sales to CSPs involves significant risk. The majority of our revenue is not recurring in nature, and our customers generally have no committed purchase requirements, may cancel orders and may cease to purchase our products at any time. If our customers stop purchasing our products for any reason, our business and results of operations would be harmed. If we are unable to successfully increase our sales to new and existing CSPs, our operating results, financial condition, cash flows and long-term growth may be negatively impacted. Our strategy includes investing in regional sales teams and select channel partners to sell to smaller regional CSPs. A large portion of our current sales are to customers with relatively smaller regional networks and limited capital expenditure budgets. The spending patterns of many of these customers are generally less formal and often characterized by small and sporadic purchases, and the potential revenue from any one of these customers is limited. We rely primarily on channel partners, including value added resellers, internationally and for certain U.S. markets. We face fierce competition for business with key channel partners. If we are unable to secure the services of channel partners that we believe are key to our strategy, we may fail to grow our sales as planned. Furthermore, we rely on our channel partners to promote and sell our products. The loss of a key channel partner or the failure of our partners to provide adequate services could have a negative effect on customer satisfaction and could cause harm to our business.

Our selling efforts to larger CSPs require substantial investments of technical, marketing and sales resources through lengthy equipment qualification and sales cycles without any assurance of generating sales. We may be required to invest in costly upgrades to meet more stringent performance criteria and interoperability requirements, develop new customer-specific features or adapt our products to meet required standards. We have invested and expect to continue to invest considerable time, effort and expenditures, including investment in product research and development, related to these opportunities without any assurance that our efforts will result in revenue.

The quality of our support and services offerings is important to sustain and increase our sales to new and existing customers. Our services to customers have increasingly broadened to help them deploy our products within their networks. Once our products are deployed within our customers' networks, they depend on our support organization to resolve any issues relating to those products. If we do not effectively assist our customers in deploying our products, succeed in helping them quickly resolve post-deployment issues or provide effective support, it could adversely affect our ability to sell our products to existing customers and harm our reputation with potential new customers. As a result, our failure to maintain high quality support and services could result in the loss of customers, which would harm our business.

If we do not successfully increase our sales through adoption of our platform offerings, our operating results, financial condition, cash flows and long-term growth may be negatively impacted.

We have platform offerings that are new and early in their life cycles and subject to uncertain market demand. If our customers are unwilling to adopt these new offerings, install our new products or deploy our new services, or if we are unable to achieve market acceptance of our products and platforms, our business and financial results may be harmed. Moreover, adoption of our cloud product offerings, such as our Revenue EDGE, is dependent on the success of our customers in investing, marketing, selling and deploying broader services—including ancillary services—to their subscribers, and our ability to differentiate our products from competing or substitutive product and service offerings. For example, our EDGE Suites include network security, parental controls and a growing ecosystem of services from partners like Arlo and Servify. However, if subscriber demand for such services does not grow as expected or declines, or our customers are unable or unwilling to invest in our platforms to deploy and market these services, demand for our products may decrease or fail to grow at rates we anticipate.

Changing market and customer requirements may adversely affect the valuation of our inventory.

Customer demand for our products can change rapidly in response to market and technology developments. We may, from time to time, adjust inventory valuations downward or end of life certain of our products in response to our assessment of our business strategy as well as consideration of demand from our customers for specific products or product lines. If we fail to accurately plan our inventory levels, we may have to write off excess or obsolete inventory. Such write-offs could have a material adverse effect on our gross margin, financial condition and results of operations.

We may have difficulty evolving and scaling our business and operations to meet customer and market demand, which could result in lower profitability or cause us to fail to execute on our business strategies.

In order to grow our business, we will need to continually evolve and scale our business and operations to meet customer and market demand. Evolving and scaling our business and operations places increased demands on our management as well as our financial and operational resources to effectively manage organizational change; design scalable processes; accelerate and/or refocus research and development activities; expand our manufacturing, supply chain and distribution capacity; increase our sales and marketing efforts; broaden our customer-support and services capabilities; maintain or increase operational efficiencies; scale support operations in a cost-effective manner; implement appropriate operational and financial systems; and maintain effective financial disclosure controls and procedures. If we cannot evolve and scale our business and operations effectively, we may not be able to execute our business strategies in a cost-effective manner and our business, financial condition, profitability and results of operations could be adversely affected.

As our customer base is concentrated, the loss of any of our key customers would adversely impact our revenue and results of operations, and any delays in payment by a key customer could negatively impact our cash flows and working capital.

Historically, a large portion of our sales has been, and in the future may be, to a limited number of customers. Changes in the CSP market, such as financial difficulties, spending cuts or corporate consolidations that impact purchasing decisions by these customers have and may continue to negatively impact our revenue, and as a result, revenue from such customers may remain flat or continue to decline. For example, Lumen, our only greater than 10% customer in 2018, 2019 and 2020, completed a large acquisition in 2017 and more recently reorganized and rebranded, which disrupted its historical levels of purchases with us and have continued to result in significantly reduced levels of purchases. There is no assurance that purchasing levels by Lumen will increase from current levels. We have continued to experience delays or declines in purchases by certain CSPs due to deterioration in their financial condition. For example, Windstream, one of our medium-sized customers, completed its financial restructuring and emerged from Chapter 11 bankruptcy in September 2020. In April 2020, Frontier filed a voluntary petition for relief under Chapter 11 of the U.S. Bankruptcy Code in order to facilitate a financial restructuring plan and expects to emerge from bankruptcy in early 2021. Any decrease or delay in purchases and/or capital expenditure plans of any of our key

customers, particularly if prolonged or sustained, or our inability to grow our sales with existing customers, may have a material negative impact on our revenue and results of operations.

We anticipate that a large portion of our revenue will continue to depend on sales to a limited number of customers. In addition, some larger customers may demand discounts and rebates or desire to purchase their access systems and software from multiple providers. As a result of these factors, our future revenue opportunities may be limited, and we may face pricing pressures, which in turn could adversely impact our gross margin and our profitability. The loss of, reduction in or pricing discounts associated with orders from any key customer would significantly reduce our revenue and harm our business. Furthermore, delays in payment and/or extended payment terms from any of our key or larger customers could have a material negative impact on our cash flows and working capital to support our business operations.

Over the years, the CSP market has undergone substantial consolidation, reducing the number of potential customers and delays or decreases in capital spending. Continued consolidation of the CSP industry and among independent local exchange carriers and IOC customers, who represent a large part of our business, could make it more difficult for us to grow our customer base, increase sales of our products and maintain adequate gross margin.

We are exposed to customer credit risks that could adversely affect our operating results and financial condition.

We generally extend credit terms for sales to our customers which exposes us to credit risk. If we are unable to collect our accounts receivable balances as anticipated, our operating results and financial condition will be harmed. A number of factors contribute to this risk, including our ability to adequately assess a customer's creditworthiness and financial condition, changes in a customer's financial condition and/or liquidity, our ability to timely collect our accounts receivable from customers, disagreements with customers on invoiced balances and economic downturns or other unanticipated events impacting a customer's ability to pay. Furthermore, some of our international customers operate in countries with developing economies, volatile financial markets or currency regulations that impact their ability to make payments in U.S. dollars. The COVID-19 pandemic has also presented financial challenges to numerous businesses, which may result in liquidity issues leading to heightened difficulties with collections. While we take measures to pursue collections on our accounts receivable, we have from time to time written down accounts receivable and written off doubtful accounts and may need to do so in future periods. The determination of allowances for doubtful accounts involves significant judgment, and if we underestimate our allowance for doubtful accounts, we will have to make further write-downs. Such write-downs or write-offs could negatively affect our operating results for the period in which they occur and could harm our cash flow or our financial condition.

We could become subject to litigation that could harm our business or negatively impact our results of operations.

In the ordinary course of business we are subject to legal claims, or may become involved in regulatory proceedings, related to disputes over commercial, competition, IP, labor and employment and other matters. Regardless of the merits of any such claims, litigation and regulatory proceedings are inherently uncertain, costly, disruptive to our business and operations, harmful to our reputation, and distracting to management. In particular, as a technology company, we may be subject to IP claims asserting patent, copyright, trademark and/or other infringement claims that are costly to defend and could limit our ability to use some technologies in the future. The risk of such claims is heightened as we expand our products and services and increasingly rely on more technologies, including third-party IP rights that we license and incorporate into our products and services. Third parties from whom we license IP may be unable or unwilling to indemnify us for such claims or offer any other remedy to us. Increasingly, patent infringement claims are asserted by patent holding companies, which are non-practicing entities that do not conduct business as an operating company and hold and own patents only for the purpose of aggressively pursuing royalties through infringement assertions or patent infringement litigation. We have received and expect to continue to receive assertions from non-practicing entities and other third parties alleging that we may be infringing their patents or other IP rights; offering licenses to such IP; and/or threatening litigation. Any claims asserting that our products infringe the proprietary rights of third parties, with or without merit, could be time-consuming, result in costly litigation and divert the efforts of our engineering teams and management. These claims could also result in the suspension of ability to import, market and sell our products and services, product shipment delays or requirements to modify our products or enter into costly settlements or licensing agreements. Such royalty or licensing agreements, if required, may not be available to us on acceptable terms, if at all. Furthermore, we may additionally be financially responsible for claims made against our customers, including costs of litigation and damages awarded, under indemnity obligations which could further negatively impact our results of operations. Protracted litigation could cause us to incur significant defense costs, which would negatively impact our results of operations.

If we lose any of our key personnel, or are unable to attract, train and retain qualified personnel, our ability to manage our business and continue our growth would be negatively impacted.

Our success depends, in large part, on the continued contributions of our key personnel who are highly skilled and would be difficult to replace. Competition for skilled personnel is intense. We cannot be certain that we will be successful in attracting and retaining qualified personnel, or that newly hired personnel will function effectively, both individually and as a group. If we are unable to effectively recruit, hire and utilize new employees to align with our company objectives, execution of our business strategy and our ability to react to changing market conditions may be impeded, and our business, financial condition and results of operations may suffer. None of our key personnel are bound by a written employment contract to remain with us for a

specified period. In addition, we do not currently maintain key person life insurance covering our key personnel. If we lose the services of any key personnel, our business, financial condition and results of operations may suffer.

If we experience disruptions with our enterprise resource planning system, we may not be able to effectively transact business or produce financial statements, which would adversely affect our business, results of operations and cash flows.

In January 2020, we migrated our Oracle enterprise resource planning, or ERP, system to Oracle's cloud platform. This migration involved significant complexity, requiring us to move and reconfigure all of our current system processes, transactions, data and controls to a new Oracle platform. We may experience difficulties and delays in effectively transacting our business due to system challenges, limitations in functionality, inadequate change management or process deficiencies in the production use of the ERP system. With the migration to Oracle's cloud platform, we are highly dependent upon Oracle to host, manage and maintain our ERP system, and any disruptions to their business or processes, or delays in their ability to provide services to us, may in turn disrupt our business operations or increase costs. Furthermore, we will receive quarterly system updates and enhancements on the cloud platform according to Oracle's release timeline and change management processes, which if not managed properly may disrupt our business operations and delay our ability to process transactions and produce reports necessary to conduct our business. We are highly dependent upon our ERP system for critical business functions, including order processing and management, supply chain and procurement operations, financial planning, accounting and reporting; accordingly, protracted disruption in functionality or processing capabilities of the ERP system could materially impair our ability to conduct our business, process transactions timely or produce accurate financial statements on a timely basis. If our ability to conduct our business, process transactions or produce accurate financial statements on a timely basis remains impaired, our business, results of operations and cash flows would be adversely affected.

As a public company we are subject to significant accounting, legal and regulatory requirements; our failure to comply with these requirements may adversely affect our operating results and financial condition.

We are subject to significant accounting, legal and regulatory requirements, including requirements and rules under the Sarbanes-Oxley Act, or SOX, and the Dodd-Frank Wall Street Reform and Consumer Protection Act, or Dodd-Frank, among other rules and regulations implemented by the SEC, as well as listing requirements of the New York Stock Exchange, or NYSE. We incur significant accounting, legal and other expenses and must invest substantial time and resources to comply with public company reporting and compliance requirements, including costs to ensure we have adequate internal controls over accounting and financial reporting, proper documentation and testing procedures among other requirements. We cannot be certain that the actions we have taken to implement internal controls over financial reporting will be sufficient. Our recent migration of our ERP system to Oracle's cloud platform required us to expend substantial time to re-evaluate and update our internal controls. We have in the past discovered, and may in the future discover, areas of our internal financial and accounting controls and procedures that need improvement, particularly as we adjust to the new Oracle cloud ERP platform. New laws and regulations as well as changes to existing laws and regulations affecting public companies, including the provisions of SOX and Dodd-Frank and rules adopted by the SEC and the NYSE, would likely result in increased costs to us as we respond to their requirements. We continue to invest resources to comply with evolving laws and regulations, and this investment may result in increased general and administrative expense.

If we fail to maintain proper and effective internal controls, our ability to produce accurate financial statements on a timely basis could be impaired, which would adversely affect our operating results and our stock price.

Our management is responsible for establishing and maintaining adequate internal control over financial reporting to provide reasonable assurance regarding the reliability of our financial reporting and the preparation of financial statements in accordance with U.S. generally accepted accounting principles. Our management does not expect that our internal control over financial reporting will prevent or detect all error 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. 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, within our company will have been detected. If we are unable to produce accurate financial statements on a timely basis, investors could lose confidence in the reliability of our financial statements, which could cause the market price of our common stock to decline and make it more difficult for us to finance our operations and growth.

Risks Related to Our Products

Our products are highly technical and may contain undetected hardware or software defects or software bugs, which could harm our reputation and adversely affect our business.

Our products, including our smart home and business systems and our cloud and software platforms, are highly technical and, when deployed, are critical to the operation of many networks. Our products have contained and may contain undetected defects, bugs or security vulnerabilities, which risks may be exacerbated as we continue to expand our cloud and software portfolio. Some defects in our products may only be discovered after a product has been installed and used by customers and may in some cases only be detected under certain circumstances or after extended use. Any errors, bugs, defects or security

vulnerabilities discovered in our products after commercial release could result in loss of revenue or delay in revenue recognition, loss of customers and increased service and warranty and retrofit costs, any of which could adversely affect our business, operating results and financial condition. In addition, we could face claims for security and data breach, product liability, tort or breach of warranty. Our contracts with customers contain provisions relating to warranty disclaimers and liability limitations, which may not be upheld. Defending a lawsuit, regardless of its merit, is costly and may divert management's attention and adversely affect the market's perception of us and our products. In addition, if our business liability insurance coverage proves inadequate or future coverage is unavailable on acceptable terms or at all, our business, operating results and financial condition could be adversely impacted.

If we are unable to ensure that our products interoperate properly and as required within our customers' networks, our business will be harmed.

Our products must interoperate with our customers' existing and planned networks, which often have varied and complex specifications, utilize multiple protocol standards, include software applications and customizations and products from multiple vendors and contain multiple generations of products that have been added over time. As a result, we must continually ensure that our products interoperate properly with these existing and planned networks. To meet these requirements, we must undertake development efforts, including test protocols, that require substantial capital investment and employee resources. We may not accomplish these development goals quickly or cost-effectively, if at all. If we fail to maintain compatibility with other software or equipment found in our customers' existing and planned networks, we may face substantially reduced demand for our products, which would reduce our revenue opportunities and market share. We rely upon interoperability arrangements with equipment and software vendors for the use or integration of their technology with our products. If these relationships fail, we may have to devote substantially more resources to the development of alternative products and processes and our efforts may not be as effective as the combined solutions under our current arrangements. In some cases, these other vendors are either companies that we compete with directly or companies that have extensive relationships with our existing and potential customers and may have influence over the purchasing decisions of those customers. Some of our competitors have stronger relationships with some of our interoperability partners, and as a result, our ability to have successful interoperability arrangements with these companies may be harmed. Our failure to establish or maintain key relationships with key interoperability vendors may harm our ability to successfully sell and market our products.

Our estimates regarding warranty or product obligations are highly subjective. If our estimates change, the liability for warranty or product obligations may be increased, impacting future cost of revenue.

Our products are highly complex, and our product testing may not be adequate to detect all defects, errors, failures and quality issues. Accordingly, our estimates regarding future warranty or product obligations are highly subjective, and if our estimates change, the liability for warranty or product obligations may be increased, impacting future cost of revenue. Quality or performance problems for products covered under warranty could adversely impact our reputation and negatively affect our operating results and financial position. The development and production of new products with high complexity often involves problems with software, components and manufacturing methods. If significant warranty or other product obligations arise due to reliability or quality issues arising from defects in software, faulty components or improper manufacturing methods, our operating results and financial position could be negatively impacted by cost associated with fixing software or hardware defects; high service and warranty expenses; high inventory obsolescence expense; delays in collecting accounts receivable; payment of liquidated damages for performance failures; and loss of customer goodwill and future sales.

Our business and operations depend on proprietary technologies, and our financial performance may suffer if we cannot protect and enforce the intellectual property rights.

Our success and ability to compete depend on proprietary technology. We rely significantly upon patent, copyright, trademark, trade secret and other IP laws, IP registration rights and agreements with our employees, customers, partners, suppliers and other parties, to establish and maintain IP rights necessary for our business and operations. U.S. IP laws afford us only limited protection, and the laws of some foreign countries do not protect proprietary rights to the same extent. Our patent applications may not result in issued patents, and our issued patents may not be enforceable. Our IP rights could be challenged, invalidated, infringed or circumvented any of which could impair or harm our business and operations and be costly to defend. Our failure to adequately protect our IP rights could result in our competitors offering similar products, resulting in the loss of our competitive advantage and decreased sales.

We and our third-party providers may be unable to adequately prevent unauthorized third-party copying or use of our IP. For example, contractual provisions protecting our IP could be breached, our IP could be reverse engineered or unlawfully distributed. It may become more difficult to adequately protect our IP as we expand our reliance on third parties for the design, development and/or manufacture of our products. In addition, we may become subject to increased risks arising from or related to security breaches or data loss and have greater difficulty protecting our IP as our work-from-anywhere workforce and work product become more distributed. Policing the unauthorized use of our IP is difficult and costly. Litigation, which could result in substantial costs, diversion of resources and harm to our business, may be necessary to enforce our IP rights, protect our trade secrets or determine the validity and scope of proprietary rights.

If we are unable to obtain third-party technology licenses needed for our products and platform solutions, our business and operations will be impaired, and our operating results could be adversely affected.

We increasingly rely on technology licensed from third parties for our products and platform solutions. We may not be able to secure or maintain necessary technology licenses from these third parties on commercially reasonable terms or at all. Third parties may also choose to not renew licenses with us, demand unreasonable license fees or cease to offer technologies that we require. The inability to obtain necessary third-party licenses or to secure reasonable license terms at a cost acceptable to us could harm the competitiveness of our products and solutions, result in lost revenue and adversely affect our operating results. For example, we may be forced to forego product features or platform offerings, including features and offerings we believe are critical to our strategy, accept substitute technology of lower quality or performance standards or incur higher costs, or the time-to-market of our products or product features could be delayed. Furthermore, our ability to utilize third-party technology may be disrupted by disputes over IP rights, including claims of IP infringement, which could prevent us from offering or selling the products that utilize the disputed technology and adversely affect our operating results.

Our use of open source software could impose limitations on our ability to commercialize our products.

We incorporate open source software into our products. The terms of many open source software licenses have not been interpreted by the 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 sell our products. In such event, we could be required to make our proprietary software generally available to third parties, including competitors, at no cost, 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 on a timely basis or at all, any of which could adversely affect our revenue and operating expenses.

Macroeconomic and Industry Risks

Adverse global economic conditions, geopolitical issues and other conditions that impact our increasingly global operations could have a negative effect on our business, results of operations and financial condition and liquidity.

As a global company, our performance is affected by global economic conditions as well as geopolitical issues and other conditions with global reach. In recent years, concerns about the global economic outlook have adversely affected market and business conditions in general. Macroeconomic weakness and uncertainty make it more difficult for us to manage our operations and accurately forecast revenue, gross margin and expenses. Geopolitical issues, such as ongoing conflicts between the United States and China, tariff and trade policy changes and the withdrawal of the United Kingdom from the European Union, have resulted in increasing global tensions and create uncertainty for global commerce. In particular, we incurred substantial costs and diversion of resources realigning our supply chain operations to move substantially all of our product manufacturing to locations outside of China as a result of U.S. tariff and trade policy changes. The global impact of the COVID-19 pandemic continues to create shortages in component and supplies and otherwise disrupt and delay our global supply chain operations. Sustained or worsening of global economic conditions, geopolitical issues and other adverse global economic conditions may increase our cost of doing business, materially disrupt our supply chain operations, cause our customers to reduce or delay spending and intensify pricing pressures. Any or all of these factors could negatively affect demand for our products and our business, financial condition and result of operations.

We face intense competition that could reduce our revenue and adversely affect our financial results.

The market for our products is highly competitive, and we expect competition from both established and new companies to increase. Our ability to compete successfully depends on a number of factors, including our ability to successfully develop new products and solutions that anticipate CSP and market requirements and changes in technology and industry standards; CSP acceptance and adoption of our products and solutions; our ability to differentiate our products from our competitors' offerings based on performance, features, cost-effectiveness or other factors; our product capabilities to meet customer network requirements and preferences; and our success in marketing and selling our products and platform solutions.

Many of our current or potential competitors have longer operating histories, greater name recognition, broader product lines, larger customer bases and significantly greater financial, technical, sales, marketing and other resources than we do and are better positioned to acquire and offer complementary products and services. The broadband access equipment market has undergone and continues to undergo consolidation, as participants have merged, made acquisitions or entered into partnerships or other strategic relationships with one another to offer more comprehensive solutions than they individually had offered. Potential customers may also prefer to purchase from their existing suppliers rather than a new supplier, regardless of product performance or features, because the products that we and our competitors offer require a substantial investment of time and funds to qualify and install. The recent demand on network capacity due to shelter-in-place restrictions and shift towards remote workforces may attract new market entrants with competitive or substitutive products, which may lead to increased sales cycles, cause pricing pressure and impact adoption of our platforms due to the broader availability of product offerings. Some of our competitors may offer substantial discounts or rebates to win or retain customers. If we are forced to reduce prices to secure customers, we may be unable to sustain gross margin at desired levels or profitability. Competitive pressures could result in

increased pricing pressure, reduced profit margin, increased sales and marketing expenses and failure to increase, or the loss of, market share, any of which could reduce our revenue and adversely affect our financial results.

Our industry is characterized by rapid technological advance and if we fail to develop new products or enhancements that meet changing CSP requirements, we could experience lower sales.

Our industry is characterized by rapid technological change, changing needs of CSPs, evolving industry standards and frequent introductions of new products and platforms. We invest significant amounts to pursue innovative technologies that we believe will be adopted by CSPs. For example, we have invested and continue to invest resources in our cloud and software platforms. In addition, on an ongoing basis, we expect to reposition our product and service offerings and introduce new offerings as we encounter rapidly changing CSP requirements and increasing competitive pressures. If we cannot increase sales of our new platforms and services, keep pace with rapid technological developments to meet customer needs and compete with evolving standards or if the technologies we choose to invest in fail to meet customer needs or are not adopted by customers in the timeframes that we expect, our financial condition and results of operations would be adversely affected.

Developing our products is complex and involves uncertainties, including pricing risks for key materials, component shortages and limited suppliers. We may experience design, manufacturing, software development quality, support, marketing and other difficulties that could delay or prevent the development, introduction or marketing of new products and enhancements. If we fail to meet our development targets, demand for our products will decline. If we are unable to anticipate and develop new products or enhancements to our existing products on a timely and cost-effective basis, our products may become technologically obsolete more rapidly than anticipated over time, resulting in lower sales which would harm our business. Furthermore, the introduction of new or enhanced products also requires that we manage the transition from older products in accordance with customer requirements. If we fail to maintain compatibility requirements in our customers' networks, demand for our products would decline, which would reduce our revenue opportunities and market share.

Increasingly, we have relied on third-party development partners to meet our development needs to remain competitive. Investment in third-party development services for our product and service platforms reduces our direct control and may result in increased challenges in design, integration and support of the third-party features in our product and service offerings. In addition, these investments may take several years to generate positive returns, if ever. We have engineering services arrangements that include future revenue-share payments on our sale of the developed products and that require us to make minimum payments whether or not we achieve the desired revenue levels. If our actual demand falls short of expectations, we will be obligated to make the minimum payments, and we may be required to write-down the value of the developed products, which could adversely affect our financial results.

Our sales cycles can be long and unpredictable, and our sales efforts require considerable time and expense. As a result, our sales are difficult to predict and may vary substantially, which may cause our operating results to fluctuate significantly.

The timing of our revenue is difficult to predict. Our sales efforts often involve educating CSPs about the use and benefits of our products, platforms and services. CSPs typically undertake a significant evaluation process, which frequently involves not only our products, platforms and services, but also those of our competitors and results in a lengthy sales cycle. Sales cycles for larger customers are relatively longer and require considerably more time and expense. We spend substantial time, effort and money in our sales efforts without any assurance that our efforts will produce sales. In addition, product purchases are frequently subject to budget constraints, multiple approvals and unplanned administrative, processing and other delays. The timing of revenue related to sales of products and services that have installation requirements may be difficult to predict due to interdependencies that may be beyond our control, such as CSP testing and turn-up protocols or other vendors' products, services or installations of equipment upon which our products and services rely. Such delays may result in fluctuations in our quarterly revenue. If sales expected from a specific customer for a particular quarter are not realized in that quarter or at all, we may not achieve our revenue forecasts and our financial results would be adversely affected.

Our business is dependent on the capital spending patterns and decisions of CSPs, and any decrease or delay in capital spending by CSPs, including due to the timing and availability of capital, would reduce our revenue and harm our business.

Demand for our products depends on the magnitude and timing of capital spending by CSPs as they construct, expand, upgrade and maintain their access networks as well as CSPs' adoption of our platforms and cloud-based services. Capital spending is cyclical in our industry, sporadic among individual CSPs and can change on short notice, which gives us little visibility into changes in spending behavior in any particular quarter. Capital spending for network infrastructure projects could be delayed or canceled in response to factors outside our control, such as reduced consumer spending, challenging capital markets or declining liquidity trends. CSP spending is also affected by reductions in budgets, delays in purchasing cycles, access to government funding programs or capital markets, and seasonality and delays in capital allocation decisions. Historically, our customers may spend less or have less deployments in the first quarter due to pending annual budgets or, in certain regions, due to weather conditions that inhibit outside fiber deployment, resulting in weaker demand for our products in the first quarter. Softness in demand in any of our customer markets, including due to macro-economic conditions beyond our control or uncertainties associated with regulatory reforms, has in the past and could in the future lead to unexpected decline or slowdown

in customer capital expenditure. Further, CSPs may pursue capital investment in network technologies other than those offered by us or may choose not to adopt our products and platform solutions in their networks. Reductions in capital expenditures by CSPs, particularly our significant customers, would have a material negative impact on our revenue and results of operations and slow our rate of revenue growth. As a consequence, our results for a particular period may be difficult to predict, and our prior results are not necessarily indicative of results in future periods.

Government-sponsored programs and U.S. federal government shutdowns could impact the timing and buying patterns of CSPs, which may cause fluctuations in our operating results.

We sell to CSPs, which include U.S.-based IOCs, which have revenue that is particularly dependent upon interstate and intrastate access charges and federal and state subsidies. The Federal Communications Commission, or FCC, and some states may consider changes to such payments and subsidies, and these changes could reduce IOC revenue. Furthermore, many IOCs use or expect to use government-supported loan programs or grants, such as Rural Utility Service loans and grants, to finance capital spending. These government-supported loan programs and grants generally include conditions such as deployment criteria, domestic preference provisions and other requirements that apply to the project and selected equipment as conditions for funding. Changes to the terms or administration of these programs, including uncertainty from government and administrative change, potential funding limitations that impact our ability to meet program requirements or delays due to U.S. federal government shutdowns could reduce the ability of IOCs to access capital or secure funding these programs to purchase our products and services and thus reduce our revenue opportunities. Many of our customers depend heavily on grants, loans or funds distributed under government stimulus programs such as the FCC's Connect America Fund, or CAF, the CARES Act or the more recent Rural Digital Opportunity Fund. Customers may curtail purchases if they receive less funding than planned, are negatively impacted by federal government shutdowns or changes in government regulations and subsidies, or as funding winds down, any of which could have an adverse effect on our operating results and financial condition.

Government and Regulatory Risks

Increasing data privacy regulations could impact our business and expose us to increased liability.

Government and regulatory authorities in the United States and around the world have implemented and are continuing to implement broader and more stringent laws and regulations concerning data protection. The interpretation and application of these data protection laws and regulations are often uncertain and changing, and it is possible that they may be interpreted and applied in a manner that is inconsistent with our data practices. For example, the General Data Protection Regulation, or GDPR, adopted by the European Union, or EU, imposes specific duties and requirements upon companies that collect, process or control personal data of EU residents. Although we currently do not have material operations or business in the EU, we would incur substantial costs in order to expand our business and operations to the EU. Furthermore, the GDPR imposes significant penalties for noncompliance of up to the greater of €20 million or 4% of a company's worldwide revenue; accordingly, any non-compliance with the GDPR could result in a material adverse effect on our business, financial condition and results of operations. In January 2020, the California Consumer Privacy Act became effective, imposing significant new data privacy rights for consumers and requirements for the handling of consumer personal data. More recently, the Court of Justice of the EU invalidated the EU-U.S. Privacy Shield as a valid mechanism for the transfer of personal data from the EU to the United States, and California adopted the Consumer Privacy Rights Act expected to take effect in 2023. Complying with new and changing laws could cause us to incur substantial costs in order to market and sell our cloud-based solutions in the U.S. and internationally, deter customers from adopting our cloud-based solutions or require us to redesign our platform in order to meet customer requirements related to such laws. Regulatory actions or claims involving our practices in the collection, storage, processing, use or disclosure of consumer information or other personal data, even if unfounded, could damage our reputation and adversely affect our operating results. The failure or perceived failure to comply may result in government or civil proceedings or actions against us, or could cause us to lose customers, which could have an adverse effect on our business.

If we fail to comply with evolving industry standards, sales of our products would be adversely affected.

The markets for our products are characterized by a significant number of domestic and international standards which evolve as new technologies are developed and deployed. As we expand into new global markets, we are likely to encounter additional standards. Our products must comply with these standards in order to be widely marketable. In some cases, we are required to obtain certifications or authorizations before our products can be introduced, marketed or sold in new markets or to new customers. For example, our ability to maintain Operations System Modification for Intelligent Network Elements certification for our products will affect our ongoing ability to continue to sell our products to large CSPs. In addition, our ability to expand our international operations may be limited by standards in countries or may require us to redesign our products or develop new products to meet local standards. We may not be able to design our products to comply with local requirements, which would harm our ability to grow our business. Moreover, as we expand our business and operations globally, will require us to make increasing investments to maintain compliance with evolving standards across a broader global footprint. The costs of complying with evolving standards or failure to obtain timely domestic or foreign authorizations or certification could prevent us from selling our products where these standards or regulations apply, which would result in lower revenue and lost market share.

Our failure or the failure of our manufacturers to comply with environmental and other legal regulations could adversely impact our results of operations.

The manufacture, assembly and testing of our products may require the use and disposal of hazardous materials that are subject to environmental, health and safety regulations, or materials subject to laws restricting the use of conflict minerals. We depend substantially on our third-party manufacturers to comply with these requirements. Any failure by us or our third-party manufacturers to comply with these requirements could result in regulatory penalties, legal claims or disruption of production of our products. In addition, any failure to properly manage the use, transportation, emission, discharge, storage, recycling or disposal of hazardous materials could subject us to increased costs or liabilities. Existing and future environmental regulations and other legal requirements may restrict our use of certain materials to manufacture, assemble and test products. Any of these consequences could adversely impact our results of operations by increasing our expenses and/or requiring us to alter our manufacturing processes.

We are subject to governmental export and import controls that could subject us to liability or impair our ability to compete in additional international markets.

Our products are subject to U.S. export and trade controls and restrictions. International shipments of certain of our products may require export licenses or are subject to additional export requirements. In addition, the import laws of other countries may limit our ability to distribute our products, or our customers' ability to buy and use our products, in those countries. Changes in our products or changes in export and import regulations or duties may create delays in the introduction of our products in international markets, prevent our customers with international operations from deploying our products or, in some cases, prevent the export or import of our products to certain countries altogether. Any change in export or import regulations, duties or related legislation, shift in approach to the enforcement or scope of existing regulations, or change in the countries, persons or technologies targeted by such regulations, could negatively impact our ability to sell, profitably or at all, our products to existing or potential international customers.

Regulatory and physical impacts of climate change and other natural events may affect our customers and our manufacturers, resulting in adverse effects on our operating results.

As emissions of greenhouse gases continue to alter the composition of the atmosphere, affecting large-scale weather patterns and the global climate, any new regulation of greenhouse gas emissions may result in additional costs to our customers and our manufacturers. In addition, the physical impacts of climate change and other natural events, including changes in weather patterns, drought, rising ocean and temperature levels, earthquakes and tsunamis may impact our customers, suppliers and manufacturers, and our operations. These potential physical effects may adversely affect our revenue, costs, production and delivery schedules, and cause harm to our results of operations and financial condition.

Our customers are subject to government regulation, and changes in current or future laws or regulations that negatively impact our customers could harm our business.

The FCC has jurisdiction over our U.S. customers and FCC regulatory policies that create disincentives for investment in access network infrastructure or impact the competitive environment in which our customers operate may harm our business. For example, adoption of regulation that affect providers of broadband Internet access services could impede the penetration of our customers into certain markets or affect the prices they may charge in such markets. Similarly, changes to regulatory tariff requirements or other regulations relating to pricing or terms of carriage on communication networks could slow the development or expansion of network infrastructures, which could adversely affect the sale of our products and services. Many of our customers are subject to FCC rate regulation of interstate telecommunications services and are recipients of CAF incentive payments. The imposition of limits or restrictions on access to these programs could affect the ability of IOCs to access capital, which would in turn reduce our revenue opportunities. In addition, many of our customers are subject to state regulation of intrastate telecommunications services, including rates for such services, and may also receive funding from state universal service funds. Changes in rate regulations or universal service funding rules, either at the U.S. federal or state level, could adversely affect our customers' revenue and capital spending plans. Moreover, various international regulatory bodies have jurisdiction over certain of our non-U.S. customers. Changes in these domestic and international standards, laws and regulations, or judgments in favor of plaintiffs in lawsuits against CSPs based on changed standards, laws and regulations could adversely affect the development of broadband networks and services. This, in turn, could directly or indirectly adversely impact the communications industry in which our customers operate.

Risks Related to Ownership of Our Common Stock

Our stock price may continue to be volatile, and the value of an investment in our common stock may decline.

The trading price of our common stock has been, and is likely to continue to be, volatile, which means that it could decline substantially within a short period of time and could fluctuate widely in response to various factors, some of which are beyond our control. These factors include those discussed above and others such as quarterly variations in our results of operations or those of our competitors; failure to meet any guidance that we have previously provided regarding our anticipated results; changes in earnings estimates or recommendations by securities analysts; failure to meet securities analysts' estimates;

announcements by us or our competitors of new products, significant contracts, commercial relationships, acquisitions or capital commitments; developments with respect to IP rights; our ability to develop and market new and enhanced products on a timely basis; our commencement of, or involvement in, litigation and developments relating to such litigation; changes in governmental regulations; and a slowdown in the communications industry or the general economy.

In recent years, the stock market in general, and the market for technology companies in particular, has experienced extreme price and volume fluctuations that have often been unrelated or disproportionate to the operating performance of those companies. Broad market and industry factors may seriously affect the market price of our common stock, regardless of our actual operating performance. Recently, the COVID-19 pandemic has severely impacted U.S. markets, causing dramatic swings in the U.S. stock exchanges that resulted in increased volatility in the trading price of our common stock. Historically, following periods of volatility in the overall market and the market price of a particular company's securities, securities class action litigation has often been instituted against these companies. Such litigation, if instituted against us, could result in substantial costs and a diversion of our management's attention and resources.

If securities or industry analysts do not publish research or reports about our business or if they issue an adverse or misleading opinion regarding our stock, our stock price and trading volume could decline.

The trading market for our common stock is influenced by the research and reports that industry or securities analysts publish about us or our business. If any of the analysts who cover us issue an adverse or misleading opinion regarding our stock, our stock price would likely decline. If several of these analysts cease coverage of our company or fail to publish reports on us regularly, we could lose visibility in the financial markets, which could cause our stock price or trading volume to decline.

Provisions in our charter documents and under Delaware law could discourage a takeover that stockholders may consider favorable and may lead to entrenchment of our management and Board of Directors.

Our amended and restated certificate of incorporation and amended and restated bylaws contain provisions that could have the effect of delaying or preventing changes in control or changes in our management or our Board of Directors. These provisions include: (1) a classified Board of Directors with three-year staggered terms, which may delay the ability of stockholders to change the membership of a majority of our Board of Directors; (2) no cumulative voting in the election of directors, which limits the ability of minority stockholders to elect director candidates; (3) the exclusive right of our Board of Directors to elect a director to fill a vacancy created by the expansion of the Board of Directors or the resignation, death or removal of a director, which prevents stockholders from being able to fill vacancies on our Board of Directors; (4) the ability of our Board of Directors to issue shares of preferred stock and to determine the price and other terms of those shares, including preferences and voting rights, without stockholder approval, which could be used to significantly dilute the ownership of a hostile acquirer; (5) a prohibition on stockholder action by written consent, which forces stockholder action to be taken at an annual or special meeting of our stockholders; (6) the requirement that a special meeting of stockholders may be called only by the chairman of the Board of Directors, the chief executive officer or the Board of Directors, which may delay the ability of our stockholders to force consideration of a proposal or to take action, including the removal of directors; and (7) advance notice procedures that stockholders must comply with in order to nominate candidates to our Board of Directors or to propose matters to be acted upon at a stockholders' meeting, which may discourage or deter a potential acquirer from conducting a solicitation of proxies to elect the acquirer's own slate of directors or otherwise attempting to obtain control of us. We are also subject to certain anti-takeover provisions under Delaware law. Under Delaware law, a corporation may not, in general, engage in a business combination with any holder of 15% or more of its capital stock unless the holder has held the stock for three years or, among other things, the Board of Directors has approved the transaction.

We may need additional capital in the future to finance our business.

Our working capital needs and cash use have continued to increase to support our business operations and growth, and we may need additional capital if our current plans and assumptions change. Under our loan and security agreement with Bank of America, or BofA Loan Agreement, our available borrowing base is subject to our financial condition. If our financial position deteriorates, our borrowing capacity under the credit facility may be reduced. Failure to maintain certain restrictive covenants and requirements under the BofA Loan Agreement could result in limiting the amount of borrowings that are available to us, increase the cost of borrowings under the credit facility and/or cause us to make immediate payments to reduce borrowings or result in an event of default. If future financings involve the issuance of equity securities, our then-existing stockholders would suffer dilution. If we raise additional debt financing, we may be subject to restrictive covenants that limit our ability to conduct our business. If we are unable to sustain positive operating income and cash flows from operations, our liquidity, results of operations and financial condition may be adversely affected. Furthermore, if we are unable to generate sufficient cash flows to support our operational needs, we may need to seek additional sources of liquidity, including borrowings, to support our working capital needs. In addition, we may choose to seek other sources of liquidity even if we believe we have generated sufficient cash flows to support our operational needs. There is no assurance that any other sources of liquidity may be available to us on acceptable terms or at all. If we are unable to generate sufficient cash flows or obtain other sources of liquidity, we will be forced to limit our development activities, reduce our investment in growth initiatives and institute cost-cutting measures, all of which would adversely impact our business and growth.

Our ability to incur debt could be limited by covenants in our loan and security agreement for our revolving credit facility.

The BofA Loan Agreement includes covenants that place certain restrictions on our ability to, among other things, borrow secured debt or unsecured debt beyond a certain amount, create or suffer to exist any liens, sell or transfer any assets, make distributions, liquidate, dissolve, merge, amalgamate, combine or consolidate, or become a party to certain agreements restricting our ability to incur or repay debt, grant liens, make distributions or modify loan agreements, in each case subject to certain exceptions. Failure to maintain these covenants can limit the amount of borrowings that are available to us, increase the cost of borrowings under the facility and/or require us to make immediate payments to reduce borrowings. The BofA Loan Agreement covenants may also affect our ability to obtain future financing and to pursue attractive business opportunities and our flexibility in planning for, and reacting to, changes in business conditions. These covenants could place us at a disadvantage compared to some of our competitors.

We do not currently intend to pay dividends on our common stock and, consequently, our stockholders' ability to achieve a return on their investment will depend on appreciation in the price of our common stock.

We do not currently intend to pay any cash dividends on our common stock for the foreseeable future. We currently intend to invest our future earnings, if any, to fund our growth. Additionally, the terms of our credit facility restrict our ability to pay dividends under certain circumstances. Therefore, our stockholders are not likely to receive any dividends on our common stock for the foreseeable future.

Our failure to adequately address and resolve risks and uncertainties associated with acquisitions could have a material adverse impact on our financial condition and results of operations.

We may in the future acquire businesses, products or technologies to expand our product offerings and capabilities, customer base and business. We have evaluated and expect to continue to evaluate a wide array of potential strategic transactions. Such investments may involve significant risks and uncertainties, including distraction of management from current operations, unanticipated costs, and legal and regulatory challenges, all of which could have a material adverse impact on our financial condition and results of operations. In addition, the anticipated benefit of any acquisition may never materialize or the process of integrating acquired businesses, products or technologies may create unforeseen operating difficulties and expenditures.

ITEM 1B. Unresolved Staff Comments

None.

ITEM 2. Properties

We currently lease our corporate headquarters in San Jose, California. In addition to our headquarters site, we lease additional office space in the United States and China.

We believe that our facilities are in good condition and are generally suitable to meet our needs for the foreseeable future. We believe that prior to expiration of our current office space leases that we can renew or obtain suitable lease space on commercially reasonable terms for our business needs. In addition, we may continue to seek additional space as needed, and we believe this space will be available on commercially reasonable terms.

ITEM 3. Legal Proceedings

From time to time, we are involved in various legal proceedings arising from the normal course of business. We are not currently a party to any legal proceedings that, if determined adversely to us, in our opinion, are currently expected to individually or in the aggregate have a material adverse effect on our business, operating results or financial condition taken as a whole.

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

Comparative Stock Prices

Our common stock has been trading on the New York Stock Exchange, under the trading symbol "CALX" since our initial public offering on March 24, 2010. Prior to this time, there was no public market for our common stock.

Number of Common Stockholders

As of February 10, 2021, the approximate number of holders of our common stock was 498 (not including beneficial owners of stock held in street name).

Dividends

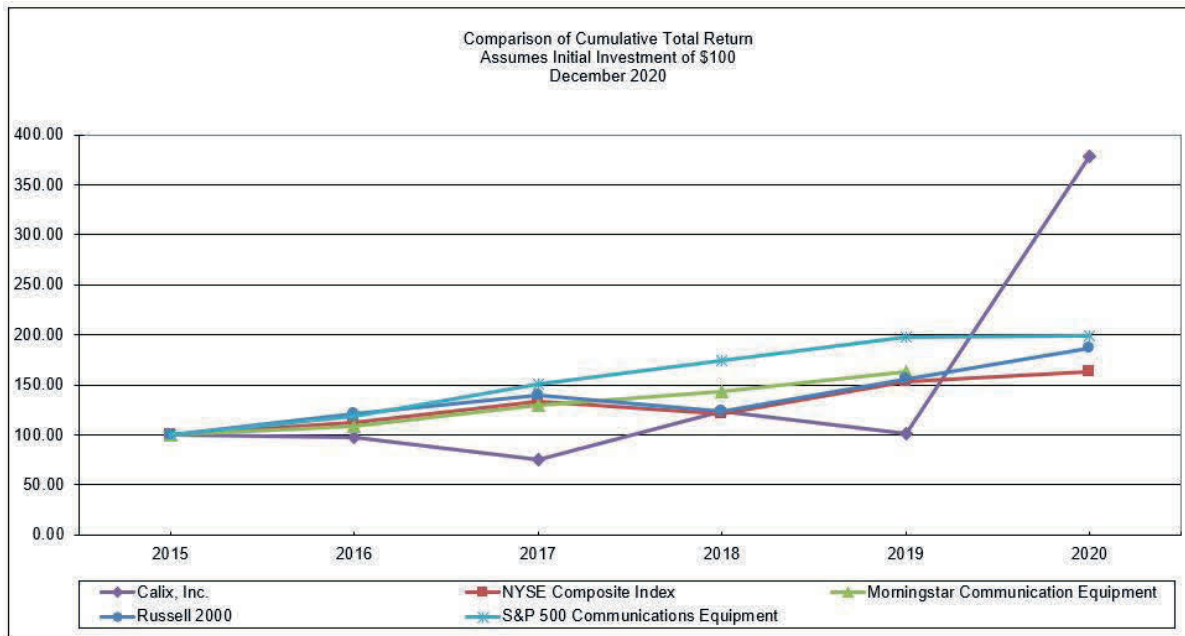
We have never declared or paid any cash dividends on our common stock, and we do not currently intend to pay any cash dividends on our common stock in the foreseeable future. In addition, our BofA Loan Agreement requires BofA's consent before dividends can be declared. See Note 5 "*Credit Agreements*" of Notes to Consolidated Financial Statements included in this Annual Report on Form 10-K.

Recent Sales of Unregistered Securities

None.

Performance Graph

The following graph shows a comparison of the cumulative total stockholder return on our common stock with the cumulative total returns of the NYSE Composite Index, Russell 2000 Index and the S&P 500 Communications Equipment Index. The S&P 500 Communications Equipment Index replaces the Morningstar Communication Equipment Index in this analysis and going forward, as the latter data is no longer accessible. The latter index has been included with data through 2019. The graph tracks the performance of a \$100 investment in our common stock and in each of the indexes during the last five fiscal years ended December 31, 2020. Data for the Russell 2000 Index and S&P 500 Communications Equipment assume reinvestment of dividends. Stockholder returns over the indicated period are based on historical data and should not be considered indicative of future stockholder returns.



This performance graph shall not be deemed “soliciting material” or to be “filed” with the SEC for purposes of Section 18 of the Securities Exchange Act of 1934, as amended, or otherwise subject to the liabilities under that Section, and shall not be deemed to be incorporated by reference into any filing of Calix, Inc. under the Securities Act of 1933, as amended.

ITEM 6. Selected Financial Data

The following selected consolidated financial data should be read in conjunction with our consolidated financial statements and the related notes thereto, of this Annual Report on Form 10-K, the section titled “Management’s Discussion and Analysis of Financial Condition and Results of Operations” and the other financial information and data appearing elsewhere in this Annual Report on Form 10-K. The selected financial data included in this section is not intended to replace and is not a substitute for, the consolidated financial statements and related notes in this Annual Report on Form 10-K.

We derived the statements of operations data for the years ended December 31, 2020, 2019 and 2018 and the balance sheet data as of December 31, 2020 and 2019 from our audited consolidated financial statements and related notes thereto of this Annual Report on Form 10-K. We derived the statements of operations data for the years ended December 31, 2017 and 2016 and the balance sheet data as of December 31, 2018, 2017 and 2016 from our audited consolidated financial statements and related notes which are not included in this Annual Report on Form 10-K. Historical results for any prior period are not necessarily indicative of future results for any period.

Years Ended December 31,

	<u>2020</u>	<u>2019</u>	<u>2018</u>	<u>2017</u>	<u>2016</u>
	(In thousands, except per share data)				
Statement of Operations Data:					
Revenue	\$ 541,239	\$ 424,330	\$ 441,320	\$ 510,367	\$ 458,787
Cost of revenue ⁽¹⁾	274,220	236,405	243,938	337,477	257,569
Gross profit	267,019	187,925	197,382	172,890	201,218
Operating expenses:					
Sales and marketing ⁽¹⁾	94,185	82,553	86,432	82,781	83,675
Research and development ⁽¹⁾	85,258	81,184	89,963	127,541	106,869
General and administrative ⁽¹⁾	44,444	37,115	40,500	39,875	41,592
Restructuring charges	6,286	—	5,705	4,249	—
Loss on asset retirement	—	2,474	—	—	—
Gain on sale of product line	—	—	(6,704)	—	—
Amortization of intangible assets	—	—	—	—	1,701
Litigation settlement gain	—	—	—	—	(4,500)
Total operating expenses	230,173	203,326	215,896	254,446	229,337
Income (loss) from operations	36,846	(15,401)	(18,514)	(81,556)	(28,119)
Interest and other income (expense), net	(2,562)	(1,131)	(254)	(233)	1,064
Income (loss) before provision for income taxes	34,284	(16,532)	(18,768)	(81,789)	(27,055)
Provision for income taxes	800	1,162	530	1,243	347
Net income (loss)	<u>\$ 33,484</u>	<u>\$ (17,694)</u>	<u>\$ (19,298)</u>	<u>\$ (83,032)</u>	<u>\$ (27,402)</u>
Net income (loss) per common share:					
Basic	<u>\$ 0.57</u>	<u>\$ (0.32)</u>	<u>\$ (0.37)</u>	<u>\$ (1.66)</u>	<u>\$ (0.56)</u>
Diluted	<u>\$ 0.54</u>	<u>\$ (0.32)</u>	<u>\$ (0.37)</u>	<u>\$ (1.66)</u>	<u>\$ (0.56)</u>

Weighted-average number of shares used to compute net income (loss) per common share:

Basic	<u>59,074</u>	<u>54,993</u>	<u>52,609</u>	<u>50,155</u>	<u>48,730</u>
Diluted	<u>61,998</u>	<u>54,993</u>	<u>52,609</u>	<u>50,155</u>	<u>48,730</u>

⁽¹⁾Includes stock-based compensation as follows:

Cost of revenue	\$ 1,025	\$ 896	\$ 1,248	\$ 749	\$ 672
Sales and marketing	4,736	3,415	5,787	3,433	4,586
Research and development	4,273	3,913	5,969	4,869	5,125
General and administrative	3,926	2,957	4,469	3,317	3,902
	<u>\$ 13,960</u>	<u>\$ 11,181</u>	<u>\$ 17,473</u>	<u>\$ 12,368</u>	<u>\$ 14,285</u>

December 31,

	<u>2020</u>	<u>2019</u>	<u>2018</u>	<u>2017</u>	<u>2016</u>
	(In thousands)				
Balance Sheet Data:					
Cash, cash equivalents, restricted cash and marketable securities	\$ 133,789	\$ 47,457	\$ 50,274	\$ 39,775	\$ 78,107
Working capital	165,850	28,324	31,079	34,123	97,926
Total assets	427,352	316,823	317,080	295,070	355,475
Common stock and additional paid-in capital	949,608	897,444	877,555	852,475	837,931
Total stockholders' equity	280,325	154,028	151,934	144,963	212,964

ITEM 7. Management’s Discussion and Analysis of Financial Condition and Results of Operations

The Management’s Discussion and Analysis of Financial Condition and Results of Operations contains forward-looking statements regarding future events and our future results that are subject to the safe harbors created under the Securities Act of 1933 (the “Securities Act”) and the Securities Exchange Act of 1934 (the “Exchange Act”). All statements other than statements of historical facts are statements that could be deemed forward-looking statements. These statements are based on current expectations, estimates, forecasts and projections about the industry in which we operate and the beliefs and assumptions of our management. In some cases, forward-looking statements can be identified by the use of words such as “believe,” “could,” “expect,” “may,” “estimate,” “continue,” “anticipate,” “intend,” “should,” “plan,” “predict,” “will,” “would,” “project,” “potential,” or the negative thereof or other comparable terminology. In addition, any statements that refer to projections of our future financial performance, our anticipated growth and trends in our business and industry and other characterizations of future events or circumstances are forward-looking statements. Readers are cautioned that these forward-looking statements are only predictions and are subject to risks, uncertainties and assumptions that are difficult to predict, including those identified in the Risk Factors discussed in Item 1A, in the discussion below, as well as in other sections of this Annual Report on Form 10-K. Therefore, actual results may differ materially and adversely from those expressed in any forward-looking statements. All forward-looking statements and reasons why results may differ included in this report are made as of the date hereof, and we assume no obligation to update these forward-looking statements or reasons why actual results might differ.

Overview

We are the leading global provider of cloud and software platforms, systems and services that focus on the access network, the portion of the network that governs available bandwidth and determines the range and quality of services that can be offered to subscribers. These cloud and software platforms enable CSPs of all types and sizes to innovate and transform their businesses. Our CSP customers are empowered to utilize real-time data and insights from Calix platforms to simplify their businesses and deliver experiences that excite their subscribers. These insights enable CSPs to grow their businesses through increased subscriber acquisition, loyalty and revenue, thereby increasing the value of their businesses and contributions to their communities.

We market our cloud and software platforms, systems and services to CSPs globally through our direct sales force as well as select resellers. Our customers range from smaller, regional CSPs to some of the world’s largest CSPs. We have enabled approximately 1,600 CSP customers purchasing directly and through partners to deploy passive optical, Active Ethernet and point-to-point Ethernet fiber access networks.

In the third quarter of 2020, we completed an underwritten public offering of 3,220,000 shares of our common stock at \$20.00 per share, including a full exercise by the underwriters of their option to purchase an additional 420,000 shares of common stock, for net proceeds of \$60.1 million after deducting the underwriting discount and estimated expenses payable by us.

Beginning in 2018, the United States enacted a series of tariffs on certain goods manufactured in China. As a result of these tariffs, we incurred U.S. tariff and tariff-related costs of \$2.8 million in 2020, \$6.2 million in 2019 and \$3.2 million in 2018. In order to mitigate the impact of the tariffs enacted by the United States, we undertook a broad plan to realign our global supply chain by moving substantially all of our production outside of China in addition to other supply chain improvements in the first half of 2019. As a result of the tariffs imposed on a broader list of products in September 2019, we expanded the scope of our global supply chain realignment plan, which was substantially completed in 2020.

Our revenue increased to \$541.2 million in 2020 from \$424.3 million in 2019 and \$441.3 million in 2018. Our revenue and potential revenue growth will depend on our ability to sell and license our cloud and software platforms, systems and services to strategically aligned customers of all types such as wireless internet service providers, fiber overbuilders, cable MSOs, municipalities and electric cooperatives in the United States and internationally.

Revenue fluctuations result from many factors, including, but not limited to: increases or decreases in customer orders for our products and services, market, financial or other factors that may delay or materially impact customer purchasing decisions, non-availability of products due to supply chain challenges, including disruptions as a result of the COVID-19 pandemic, contractual terms with customers that result in delayed revenue recognition and varying budget cycles and seasonal buying patterns of our customers. More specifically, our customers tend to spend less in the first quarter as they are finalizing their annual budgets, and in certain regions, customers are challenged by winter weather conditions that inhibit fiber deployment in outside infrastructure. Our revenue is also dependent upon our customers’ timing of purchases, capital expenditure plans and decisions to upgrade their network or adopt new technologies, including adoption of our software and cloud platform solutions, as well as our ability to grow our customer base.

Cost of revenue is strongly correlated to revenue and tends to fluctuate due to all of the above factors that may cause revenue fluctuations. Factors that impacted our cost of revenue in 2020, and that we expect will impact cost of revenue in future periods, also include: changes in the mix of products delivered, customer location and regional mix, changes in the cost of our

inventory, including higher costs due to materials shortages including components, supply constraints or unfavorable changes in trade policies, investments to support expansion of cloud and customer support offerings, changes in product warranty and incurrence of retrofit costs, tariffs and associated costs to mitigate the impact of tariffs, amortization of intangibles, asset write-offs, silicon support fees and inventory write-downs. In particular, given the recent supply chain disruptions due to the COVID-19 pandemic, we have seen increases in our global freight charges as we have elected to ship by air in order to meet delivery commitments to our customers as well as air freight rates have increased from prior year levels. Cost of revenue also includes fixed expenses related to our internal operations, which could increase our cost of revenue as a percentage of revenue if there are declines in revenue.

Our gross profit and gross margin fluctuate based on timing of factors such as changes in customer mix and changes in the mix of products demanded and sold (and any related write-downs of existing inventory) and have in the past been negatively impacted by increases in mix of revenue towards professional services, increases in mix of revenue from channel sales rather than direct sales or other unfavorable customer or product mix, shipment volumes and any related volume discounts, changes in our product and services costs, pricing decreases or discounts, new product introductions or upgrades to existing products, customer rebates and incentive programs due to competitive pressure or materials shortages, supply constraints, investments to support expansion of cloud and customer support offerings, tariffs or unfavorable changes in trade policies.

Our operating expenses fluctuate based on the following factors among others: changes in headcount and personnel costs, which comprise a significant portion of our operating expenses; variable compensation due to fluctuations in shipment volumes or level of achievement against performance targets; timing of research and development expenses, including investments in innovative solutions and new customer segments, prototype builds and outsourced development resources; asset write-offs; investments in our business and information technology infrastructure; and fluctuations in stock-based compensation expenses due to timing of equity grants or other factors affecting vesting.

We had net income of \$33.5 million in 2020 and net losses of \$17.7 million in 2019 and \$19.3 million in 2018. As of December 31, 2020, we had an accumulated deficit of \$669.1 million as a result of losses in previous years. Further, as a result of factors contributing to the fluctuations described above among other factors, many of which are outside our control, our quarterly operating results fluctuate from period to period. Comparing our operating results on a period-to-period basis may not be meaningful, and you should not rely on our past results as an indication of our future performance.

COVID-19 Pandemic

We are subject to risks and uncertainties as a result of the COVID-19 pandemic. The extent of the impact of the COVID-19 pandemic on our business is highly uncertain and difficult to predict as coronavirus continues to spread around the world. The availability of vaccines has been limited, and there are no assurances as to when the pandemic will be contained. Since March 2020, we have instituted office closures, travel restrictions and a mandatory work-from-home policy for substantially all of our employees. The spread of COVID-19 has had a prolonged impact on our supply chain operations due to restrictions, reduced capacity and limited availability from suppliers whom we rely on for sourcing components and materials and from third-party partners whom we rely on for manufacturing, warehousing and logistics services. Although demand for our products has been strong in the short-term as subscribers seek more bandwidth and better Wi-Fi, customers' purchasing decisions over the long-term may be impacted by the pandemic and its impact on the economy, which could in turn impact our revenue and results of operations. Furthermore, our supply chain continues to face constraints primarily due to challenges in sourcing components and materials for our products, including due to plant closures. The prolonged impact of COVID-19 could exacerbate these constraints or cause further supply chain disruptions.

In the second quarter of 2020, we transitioned to a work-from-anywhere culture, and many of our employees elected to work remotely on a permanent basis. This operating model reduces our physical facilities requirements, and consequently, we established and implemented a restructuring plan to align our business to a work-from-anywhere culture and incurred facilities-related restructuring charges of \$5.1 million. Furthermore, in the second quarter of 2020, we realigned our product portfolio to reduce and consolidate certain legacy product lines as customers accelerated their interest in our all-platform offerings. These actions resulted in a charge of \$1.8 million related to our reduction and consolidation of legacy product lines and severance-related charges of \$1.2 million.

Critical Accounting Policies and Estimates

Our financial statements are prepared in accordance with U.S. generally accepted accounting principles. These accounting principles require us to make certain estimates and judgments that can affect the reported amounts of assets and liabilities as of the date of the financial statements, as well as the reported amounts of revenue and expenses during the periods presented. We base our estimates, assumptions and judgments on historical experience and on various other factors that are believed to be reasonable under the circumstances. To the extent there are material differences between these estimates and actual results, our financial statements may be affected. We evaluate our estimates, assumptions and judgments on an ongoing basis.

We believe the following critical accounting policies affect our significant judgments and estimates used in the preparation of our financial statements.

Revenue Recognition

We derive revenue from contracts with customers primarily from the following and categorize our revenue as follows:

- Systems include revenue from the sale of access and premises systems, software platform licenses and cloud-based software subscriptions.
- Services include revenue from professional services, customer support, software- and cloud-based maintenance, extended warranty subscriptions, training and managed services.

Revenue is recognized when a performance obligation is satisfied, which occurs when control of the promised goods or services is transferred to the customer, in an amount that reflects the consideration we expect to be entitled to in exchange for those goods or services. Specifically, revenue from software platform licenses, which provides the customer with a right to use the software as it exists, is generally recognized upfront when product is made available to the customer. Revenue from cloud-based software subscriptions, customer support, maintenance, extended warranty subscriptions and managed services is generally recognized ratably over the contract term. Revenue from professional services and training is recognized as the services are delivered.

A performance obligation is a promise in a contract to transfer a distinct good or service to the customer and is the unit of account. A contract's transaction price is allocated to each distinct performance obligation and recognized as revenue when, or as, the performance obligation is satisfied. Our hardware products contain both software and non-software components that function together to deliver the products' essential functionality and therefore constitutes a single performance obligation as the promise to transfer the individual software and non-software components is not separately identifiable and, therefore, not distinct. Our contracts may include multiple performance obligations. For such arrangements, we allocate the contract's transaction price to each performance obligation using the relative stand-alone selling price of each distinct good or service in the contract. We generally determine stand-alone selling prices based on the prices charged to customers or our best estimate of stand-alone selling price. Our estimate of stand-alone selling price is established considering multiple factors including, but not limited to, geographies, market conditions, competitive landscape, internal costs, gross margin objectives, characteristics of targeted customers and pricing practices. The determination of estimated stand-alone selling price is made through consultation with and formal approval by management, taking into consideration the go-to-market strategy.

For certain revenue arrangements involving delivery of both systems and professional services, each is considered a distinct performance obligation. Systems revenue is recognized at a point in time when management has determined that control over systems has transferred to the customer, which is generally when legal title has transferred to the customer. For the same revenue arrangements, management believes that the output of the associated professional services is transferred to the customer over time. As such, professional services revenue is recognized over the period in which the services are provided using a cost input measure. We recognize revenue when control of the systems and services has been transferred to the customer, which may be earlier than system installation or customer acceptance, in accordance with the agreed-upon specifications in the contract.

Inventory Valuation

Inventory, which primarily consists of finished goods purchased from CMs or ODMs, is stated at the lower of cost (determined by the first-in, first-out method) and net realizable value. Inbound shipping costs and tariffs are included in the cost of inventory. In addition, we, from time to time, procure component inventory primarily as a result of manufacturing discontinuation of critical components by suppliers. We regularly monitor inventory quantities on-hand and record write-downs for excess and obsolete inventory based on our estimate of demand for our products, potential obsolescence of technology, product life cycle and whether pricing trends or forecasts indicate that the carrying value of inventory exceeds our estimated selling price. These factors are impacted by market and economic conditions, technology changes and new product introductions and require estimates that may include elements that are uncertain. Actual demand may differ from forecasted demand and may have a material effect on gross profit. If inventory is written down, a new cost basis is established that cannot be increased in future periods. The sale of previously reserved inventory has not had a material impact on our gross margin.

Recent Accounting Pronouncements Not Yet Adopted

There have been no additional accounting pronouncements or changes in accounting pronouncements that are significant or potentially significant to us.

Results of Operations for Years Ended December 31, 2020 and 2019

Revenue

The following table sets forth our revenue (dollars in thousands):

	Years Ended December 31,		2020 vs 2019 Change	
	2020	2019	\$	%
Revenue:				
Systems	\$ 508,552	\$ 393,231	\$ 115,321	29 %
Services	32,687	31,099	1,588	5 %
	<u>\$ 541,239</u>	<u>\$ 424,330</u>	<u>\$ 116,909</u>	<u>28 %</u>
Percent of total revenue:				
Systems	94 %	93 %		
Services	6 %	7 %		
	<u>100 %</u>	<u>100 %</u>		

Our revenue is principally derived in the United States. Revenue generated in the United States represented approximately 87% of our total revenue in 2020 and 86% in 2019.

Our revenue increased by \$116.9 million during 2020 compared with 2019 mostly due to higher systems revenue of \$115.3 million. Services revenue increased \$1.6 million in 2020 compared with 2019. The increase in systems revenue was primarily due to higher revenue from our small, regional customers and, to a lesser extent, our large-sized customers, as service providers accelerated some deployments to respond to increased demand for network capacity and relieve network capacity constraints as well as provide a better Wi-Fi experience. The increase in services revenue was due to the continued ramp in our service offerings aligned with cloud and software products partially offset by lower professional services related to CAF deployments.

Lumen accounted for more than 10% of our total revenue in 2020 and 2019. See Note 12 “Revenue from Contracts with Customers” to the Consolidated Financial Statements set forth in this report for more details on concentration of revenue for the periods presented.

Cost of Revenue, Gross Profit and Gross Margin

The following table sets forth our cost of revenue (dollars in thousands):

	Years Ended December 31,		2020 vs 2019 Change	
	2020	2019	\$	%
Cost of revenue:				
Systems	\$ 251,638	\$ 211,309	\$ 40,329	19 %
Services	22,582	25,096	(2,514)	(10)%
	<u>\$ 274,220</u>	<u>\$ 236,405</u>	<u>\$ 37,815</u>	<u>16 %</u>

Cost of revenue increased by \$37.8 million during 2020 as compared with 2019. The \$40.3 million increase in systems cost of revenue was less than the percentage increase in revenue compared with 2019 and was due to continued growth in our All Platform offerings along with favorable customer and product mix. The increase in costs of revenue in 2020 as compared to 2019 includes a charge of \$1.8 million related to our reduction and consolidation of legacy product lines taken in the second quarter of 2020. The \$2.5 million decrease in services cost of revenue was mainly due to improved mix towards our higher gross margin support services versus lower gross margin deployment services.

The following table sets forth our gross profit and gross margin (dollars in thousands):

	Years Ended December 31,		2020 vs 2019 Change	
	2020	2019	\$	%
Gross profit:				
Systems	\$ 256,914	\$ 181,922	\$ 74,992	41 %
Services	10,105	6,003	4,102	68 %
	<u>\$ 267,019</u>	<u>\$ 187,925</u>	<u>\$ 79,094</u>	<u>42 %</u>
Gross margin:				
Systems	50.5 %	46.3 %		
Services	30.9 %	19.3 %		
	<u>49.3 %</u>	<u>44.3 %</u>		

Gross profit increased by \$79.1 million to \$267.0 million during 2020 from \$187.9 million during 2019. Gross margin increased to 49.3% during 2020 from 44.3% during 2019. During 2020 and 2019, systems gross margin was negatively impacted by U.S. tariff and tariff-related costs of \$2.8 million and \$6.2 million, or 55 and 160 basis points, respectively, and intangible asset amortization of \$2.6 million and \$1.0 million, or 50 and 25 basis points, respectively. Excluding the impact of U.S. tariff and tariff-related costs and intangible assets amortization, systems gross margin was 51.6% and 48.1% for 2020 and 2019, respectively. This increase of 350 basis points was mainly due to continued growth in our all-platform offerings along with favorable product and customer mix.

Services gross margin increased in 2020 primarily due to lower personnel costs as our service revenue mix shifts away from low gross margin deployment services to higher gross margin software maintenance and services aligned with our platform offerings.

Operating Expenses

Sales and Marketing Expenses

Sales and marketing expenses consist of personnel costs, employee sales commissions, marketing programs and events, software tools and travel-related expenses. The following table sets forth our sales and marketing expenses (dollars in thousands):

	Years Ended December 31,		2020 vs 2019 Change	
	2020	2019	\$	%
Sales and marketing	\$ 94,185	\$ 82,553	\$ 11,632	14 %
Percent of total revenue	17 %	19 %		

Sales and marketing expenses increased by \$11.6 million during 2020 compared with 2019 primarily due to higher personnel expenses of \$12.2 million, mainly related to investments in sales headcount and higher sales incentive compensation expense, higher marketing expenses of \$2.3 million and higher stock-based compensation of \$0.9 million. These increases were partially offset by a decrease in travel expenses of \$4.9 million.

We expect to increase our investments in sales and marketing in absolute dollars in order to extend our market reach and grow our business in support of our key strategic initiatives.

Research and Development Expenses

Research and development expenses include personnel costs, outside contractor and consulting services, depreciation on lab equipment, costs of prototypes and overhead allocations. The following table sets forth our research and development expenses (dollars in thousands):

	Years Ended December 31,		2020 vs 2019 Change	
	2020	2019	\$	%
Research and development	\$ 85,258	\$ 81,184	\$ 4,074	5 %
Percent of total revenue	16 %	19 %		

The increase in research and development expenses of \$4.1 million during 2020 compared with 2019 was primarily due to higher outside services expenses of \$5.2 million, higher personnel expenses of \$1.8 million, primarily related to incentive compensation expense, and higher stock-based compensation of \$0.8 million. These increases were partially offset by lower facilities expenses of \$2.1 million, decreases in depreciation and amortization expense of \$0.6 million, lower travel expenses of \$0.6 million and lower equipment expenses of \$0.4 million.

We expect to increase our investments in research and development in absolute dollars to expand the functionality and capabilities of our platforms.

General and Administrative Expenses

General and administrative expenses consist primarily of personnel costs related to our executive, finance, human resources, information technology and legal organizations, outside consulting services, insurance, allocated facilities and fees for professional services. Professional services consist of outside audit, legal, accounting and tax services. The following table sets forth our general and administrative expenses (dollars in thousands):

	Years Ended December 31,		2020 vs 2019 Change	
	2020	2019	\$	%
General and administrative	\$ 44,444	\$ 37,115	\$ 7,329	20 %
Percent of total revenue	8 %	9 %		

The increase in general and administrative expenses of \$7.3 million during 2020 compared with 2019 was primarily due to increased amortization and subscription expenses of \$4.1 million, primarily related to our cloud-based ERP system that went live in January of 2020, personnel expenses of \$2.8 million, primarily related to the capitalization of internal resources related to our cloud-based ERP implementation that lowered personnel expenses in 2019 as well as an increase in incentive compensation expense in 2020, stock-based compensation of \$1.0 million and bad debt allowance of \$0.8 million. These increases were partially offset by lower professional services fees of \$1.4 million.

Restructuring Charges

Responding to changes caused by the COVID-19 pandemic, we initiated a restructuring plan in June 2020 to accelerate our all-platform future and to align with a work-from-anywhere culture. We incurred restructuring charges of \$6.3 million, consisting of facilities-related charges and severance and other termination related benefits. See Note 4, “Balance Sheet Details” of the Notes to Consolidated Financial Statements included in this Annual Report on Form 10-K.

Loss on Asset Retirement

During 2019, we recognized a charge of \$2.5 million relating to the retirement of an asset consisting of licensed software. Please refer to Note 4 “Balance Sheet Details” of the Notes to Consolidated Financial Statements included in this Annual Report on Form 10-K.

Interest and Other Expense, Net

The following table sets forth our interest and other expense, net (dollars in thousands):

	Years Ended December 31,		2020 vs 2019 Change	
	2020	2019	\$	%
Interest and other expense, net	\$ (2,562)	\$ (1,131)	\$ (1,431)	127 %

Interest and other expense increased by \$1.4 million in 2020 compared with 2019 mainly due to higher interest expense related to the line of credit being outstanding for nearly six months more than in 2019 and foreign currency losses due to the weakening of the U.S. dollar to the Chinese Renminbi and higher interest expense related to the early settlement our financing agreements in 2020.

Provision for Income Taxes

The provision for income taxes primarily consist of state and foreign income taxes. The following table sets forth our provision for income taxes (dollars in thousands):

	Years Ended December 31,		2020 vs 2019 Change	
	2020	2019	\$	%
Provision for income taxes	\$ 800	\$ 1,162	\$ (362)	(31)%
Effective tax rate	2.3 %	(7.0)%		

The provision for income taxes decreased by \$0.4 million from \$1.2 million in 2019 to \$0.8 million in 2020. The decrease was primarily due to a decrease in accrued withholding taxes related to the anticipated repatriation of foreign subsidiary earnings.

As of December 31, 2020, we had unrecognized tax benefits of \$23.5 million, none of which would affect our effective tax rate if recognized.

2019 Compared to 2018

For a comparison of our results of operations for the years ended December 31, 2019 and 2018, see Item 7 “Management’s Discussion and Analysis of Financial Condition and Results of Operations” of our Annual Report on Form 10-K for the year ended December 31, 2019 filed with the SEC on February 21, 2020.

Liquidity and Capital Resources

We have funded our operations and investing activities primarily through cash generated from operations, borrowings on our line of credit, financing arrangements for certain lab equipment and consulting services and sales of our common stock. As of December 31, 2020, we had cash, cash equivalents and marketable securities of \$133.8 million. This includes \$3.0 million of cash primarily held by our foreign subsidiaries. As of December 31, 2020, our liability for taxes that would be payable as a result of repatriation of undistributed earnings of our foreign subsidiaries to the United States was not significant and limited to withholding taxes considering our existing net operating loss carryovers.

The following table presents the cash inflows and outflows by activity during 2020 and 2019 (in thousands):

	Years Ended December 31,	
	2020	2019
Net cash provided by operating activities	\$ 51,409	\$ 4,654
Net cash used in investing activities	(60,801)	(13,353)
Net cash provided by financing activities	42,147	5,971

Operating Activities

Our operating activities provided cash of \$51.4 million in 2020 and \$4.7 million in 2019. The increase in net cash provided by operating activities during 2020 as compared to 2019 was due primarily to a favorable change in our net operating results of \$58.6 million after adjustment of non-cash charges partially offset by a \$11.9 million net cash outflow resulting from changes in operating assets and liabilities.

In 2020, cash outflows from changes in operating assets and liabilities primarily consisted of increases in accounts receivable of \$22.9 million due to higher sales in the fourth quarter of 2020 as compared to 2019 and in inventory of \$12.1 million to support revenue growth. Cash inflows from changes in operating assets and liabilities primarily consisted of increases in accrued liabilities of \$11.9 million due to higher incentive compensation, inventory held at suppliers and warranty costs, in deferred revenue of \$3.6 million due to support contracts, software maintenance and Calix Cloud subscriptions, in other long-term liabilities of \$2.9 million due to accrued payroll taxes and restructuring charges, and in accounts payable of \$2.2 million, primarily due to timing of inventory purchases. Non-cash charges primarily consisted of stock-based compensation of \$14.0 million, depreciation and amortization of \$13.7 million and asset retirements and write-downs of \$3.9 million.

Investing Activities

In 2020 cash used in investing activities of \$60.8 million consisted of net purchases of marketable securities of \$53.0 million and capital expenditures of \$7.8 million, primarily related to purchases of test equipment and computer equipment.

Financing Activities

In 2020, net cash provided by financing activities of \$42.1 million primarily consisted of proceeds from our common stock offering of \$60.1 million, proceeds from the issuance of common stock under our employee stock purchase plans of \$9.1 million and from stock option exercises of \$9.0 million. These inflows were partially offset by the re-payment of our line of credit of \$30.0 million and payments related to financing arrangements of \$5.8 million.

2019 Compared to 2018

For a discussion of our liquidity and capital resources and our cash flow activities for the years ended December 31, 2019 and 2018, see Item 7 “*Management’s Discussion and Analysis of Financial Condition and Results of Operations*,” of our Annual Report on Form 10-K for the year ended December 31, 2019, filed with the SEC on February 21, 2020.

Working Capital and Capital Expenditure Needs

In the third quarter of fiscal 2020, we completed an underwritten public offering of 3,220,000 shares of our common stock at \$20.00 per share, including a full exercise by the Underwriters of their option to purchase an additional 420,000 shares of Common Stock, for net proceeds of \$60.1 million after deducting the underwriting discount and expenses paid by us. We believe this additional cash position will allow us to invest in future growth needs.

Our material cash commitments include non-cancelable firm purchase commitments, contractual obligations under the BofA Loan Agreement, normal recurring trade payables, compensation-related and expense accruals, operating leases and minimum revenue-share obligations. We believe that our outsourced approach to manufacturing provides us significant flexibility in both managing inventory levels and financing our inventory. In the event that our revenue plan does not meet our expectations, we may be required to curtail or eliminate expenditures to mitigate the impact on our working capital.

In January 2020, we terminated our Silicon Valley Bank loan and security agreement and entered into a new loan and security agreement with Bank of America, N.A. The BofA Loan Agreement provides for a revolving facility up to a principal amount of up to \$35.0 million, including a \$10.0 million sublimit for letters of credit. The BofA Loan Agreement matures, and all outstanding amounts become due and payable, in January 2023. The BofA Loan Agreement is secured by substantially all of our assets, including our IP. Loans under the credit facility bear interest at a rate per annum equal to either LIBOR (customarily defined) plus an applicable margin between 1.5% to 2.0% or Prime Rate (customarily defined) plus an applicable margin between 0.5% to 1.0%, in each case largely based on a fixed charge coverage ratio measured at the end of each fiscal quarter. The availability of borrowings under the BofA Loan Agreement is subject to certain conditions and requirements, including among others, if at any time our availability is less than \$5.0 million, we must maintain a minimum fixed charge coverage ratio,

of 1.0 to 1.0. As of December 31, 2020, we were in compliance with these requirements, had no outstanding borrowings and had the full availability of \$35.0 million. Our interest rate on the line of credit was 3.75% as of December 31, 2020.

In March 2018, we entered into an agreement with a vendor to develop software products pursuant to which we would become obligated, if the vendor delivered software that meets our technical requirements for commercial sale, to make minimum revenue-share payments of \$15.8 million over the subsequent three years. The payments are based on a revenue-share rate applied to revenue from developed product sales subject to a minimum and a maximum aggregate amount over the three-year sales period. We had our first sale in August 2019. Revenue-share payments are paid quarterly in arrears, and we began making payments in the fourth quarter of 2020. In December 2020, we amended the agreement to increase the revenue-share rate, limit the revenue-share payments to \$15.8 million and extend the revenue-share period until March 2024.

During 2018, we entered into financing arrangements to purchase lab equipment for approximately \$5.1 million. In the fourth quarter of 2020, we paid \$1.4 million to settle the remainder of the balance.

From 2019 to 2020, in connection with our ERP implementation, we entered into financing arrangements for consulting services of \$3.8 million. In the fourth quarter of 2020, we paid \$1.4 million to settle the remainder of the balance.

We believe, based on our current operating plan and expected operating cash flows, that our existing cash, cash equivalents and marketable securities, along with available borrowings under our BofA Loan Agreement, will be sufficient to meet our anticipated cash needs for at least the next twelve months. If we are unable to execute on our current operating plan or continue to generate operating income and positive cash flows, our liquidity, results of operations and financial condition will be adversely affected, and we may need to seek other sources of liquidity, including the sale of additional equity or incremental borrowings, to support our working capital needs. In addition, we may choose to seek other sources of liquidity even if we believe we have generated sufficient cash flows to support our operational needs. There is no assurance that any other sources of liquidity may be available to us on acceptable terms or at all. If we are unable to generate sufficient cash flows or obtain other sources of liquidity, we will be forced to limit our development activities, reduce our investment in growth initiatives and institute cost-cutting measures, all of which may adversely impact our business and potential growth.

Contractual Obligations and Commitments

Our principal commitments as of December 31, 2020 consisted of our contractual obligations under non-cancelable outstanding purchase obligations, operating lease obligations for office space and a revenue share obligation. The following table summarizes our contractual obligations as of December 31, 2020 (in thousands):

	Payments Due by Period				
	Total	Less Than 1 Year	1-3 Years	3-5 Years	More Than 5 Years
Non-cancelable purchase commitments ⁽¹⁾	\$ 123,660	\$ 123,660	\$ —	\$ —	\$ —
Operating lease obligations ⁽²⁾	18,653	3,935	7,729	6,947	42
Revenue share obligation ⁽³⁾	15,314	2,925	8,342	4,047	—
	<u>\$ 157,627</u>	<u>\$ 130,520</u>	<u>\$ 16,071</u>	<u>\$ 10,994</u>	<u>\$ 42</u>

⁽¹⁾ Represents outstanding purchase commitments to be delivered by our third-party manufacturers or other vendors. See Note 6 “*Commitments and Contingencies*” of the Notes to Consolidated Financial Statements included in this Annual Report on Form 10-K for further discussion regarding our outstanding purchase commitments.

⁽²⁾ Future minimum operating lease obligations in the table above include primarily payments for our office locations, which expire at various dates through 2026. See Note 6 “*Commitments and Contingencies*” of the Notes to Consolidated Financial Statements included in this Annual Report on Form 10-K for further discussion regarding our operating leases.

⁽³⁾ Represents remaining payments related to a revenue-share obligation, including imputed interest associated with developed software product and related enhancements by an engineering service provider. The schedule reflects our expected revenue-share payments based on our revenue projections for the developed products over a sales period through March 2024. If the minimum revenue-share payments are not achieved by the end of that period, a true-up payment will be due. See Note 4 “*Balance Sheet Details*” of the Notes to Consolidated Financial Statements included in this Annual Report on Form 10-K for further discussion regarding our outstanding liability.

Off-Balance Sheet Arrangements

As of December 31, 2020 and 2019, we did not have any off-balance sheet arrangements.

ITEM 7A. Quantitative and Qualitative Disclosures About Market Risk

Interest Rate Risk

The primary objectives of our investment activity are to preserve principal, provide liquidity and maximize income without significantly increasing risk. By policy, we do not enter into investments for trading or speculative purposes. As of December 31, 2020, we had cash, cash equivalents and marketable securities of \$133.8 million, which was held primarily in cash, money market funds and highly liquid marketable securities such as U.S. government securities. Due to the nature of these money market funds and highly liquid marketable securities, we believe that we do not have any material exposure to changes in the fair value of our cash equivalents and marketable securities as a result of changes in interest rates.

Our exposure to interest rate risk also relates to the amount of interest we must pay on our borrowings under our Loan Agreement with BofA. Borrowings under the BofA Loan Agreement will bear interest through maturity at a variable annual rate based upon an annual rate of either a prime rate or a LIBOR rate, plus an applicable margin between 0.5% to 1.0% for prime rate advances and between 1.5% and 2.0% for LIBOR advances based on our fixed charge coverage ratio. As of December 31, 2020, we had no outstanding borrowings under the BofA Loan Agreement.

Foreign Currency Exchange Risk

Our primary foreign currency exposures are described below.

Economic Exposure

The direct effect of foreign currency fluctuations on our sales and expenses has not been material because our sales and expenses are primarily denominated in U.S. dollars, or USD. However, we are indirectly exposed to changes in foreign currency exchange rates to the extent of our use of foreign CMs whom we pay in USD. Increases in the local currency rates of these vendors in relation to USD could cause an increase in the price of products that we purchase. Additionally, if the USD strengthens relative to other currencies, such strengthening could have an indirect effect on our sales to the extent it raises the cost of our products to non-U.S. customers and thereby reduces demand. A weaker USD could have the opposite effect. The precise indirect effect of currency fluctuations is difficult to measure or predict because our sales are influenced by many factors in addition to the impact of such currency fluctuations.

Translation Exposure

Our sales contracts are primarily denominated in USD and, therefore, the majority of our revenue is not subject to foreign currency risk. We are directly exposed to changes in foreign exchange rates to the extent such changes affect our expenses related to our foreign assets and liabilities with our subsidiaries in China and the United Kingdom, whose functional currencies are Chinese Renminbi, or RMB, and British Pounds Sterling, or GBP.

Our operating expenses are incurred primarily in the United States, in China associated with our research and development operations that are maintained there and in the United Kingdom for our international sales and marketing activities. Our operating expenses are generally denominated in the functional currencies of our subsidiaries in which the operations are located. The percentages of our operating expenses denominated in the following currencies for the indicated fiscal years were as follows:

	Years Ended December 31,		
	2020	2019	2018
USD	92 %	90 %	89 %
RMB	6	7	7
GBP	2	3	4
	<u>100 %</u>	<u>100 %</u>	<u>100 %</u>

If USD had appreciated or depreciated by 10%, relative to RMB and GBP, our operating expenses for 2020 would have decreased or increased by approximately \$1.8 million, or approximately 1%. We do not currently enter into forward exchange contracts to hedge exposure denominated in foreign currencies or any derivative financial instruments. In the future, we may consider entering into hedging transactions to help mitigate our foreign currency exchange risk.

Foreign exchange rate fluctuations may also adversely impact our financial position as the assets and liabilities of our foreign operations are translated into USD in preparing our Consolidated Balance Sheets. The effect of foreign exchange rate fluctuations on our consolidated financial position for the year ended December 31, 2020 was a net translation gain of \$0.7 million. This gain is recognized as an adjustment to stockholders' equity through accumulated other comprehensive loss.

Transaction Exposure

We have certain assets and liabilities, primarily receivables and accounts payable (including inter-company transactions) that are denominated in currencies other than the relevant entity's functional currency. In certain circumstances, changes in the functional currency value of these assets and liabilities create fluctuations in our reported consolidated financial position, cash flows and results of operations. Transaction gains and losses on these foreign currency denominated assets and liabilities are recognized each period within "Other income (expense), net" in our Consolidated Statements of Comprehensive Income (Loss). During the year ended December 31, 2020, we recognized a net loss related to these foreign exchange assets and liabilities of approximately \$0.6 million.

ITEM 8. Financial Statements and Supplementary Data

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Report of Independent Registered Public Accounting Firm

To the Stockholders and Board of Directors
Calix, Inc.:

Opinions on the Consolidated Financial Statements and Internal Control Over Financial Reporting

We have audited the accompanying consolidated balance sheets of Calix, Inc. and subsidiaries (the Company) as of December 31, 2020 and 2019, the related consolidated statements of comprehensive income (loss), stockholders' equity, and cash flows for each of the years in the three-year period ended December 31, 2020, and the related notes (collectively, the consolidated financial statements). We also have audited the Company's internal control over financial reporting as of December 31, 2020, based on criteria established in *Internal Control – Integrated Framework (2013)* issued by the Committee of Sponsoring Organizations of the Treadway Commission.

In our opinion, the consolidated financial statements referred to above present fairly, in all material respects, the financial position of the Company as of December 31, 2020 and 2019, and the results of its operations and its cash flows for each of the years in the three-year period ended December 31, 2020, in conformity with U.S. generally accepted accounting principles. Also in our opinion, the Company maintained, in all material respects, effective internal control over financial reporting as of December 31, 2020 based on criteria established in *Internal Control – Integrated Framework (2013)* issued by the Committee of Sponsoring Organizations of the Treadway Commission.

Change in Accounting Principle

As discussed in Note 1 to the consolidated financial statements, the Company has changed its method of accounting for leases as of January 1, 2019 due to the adoption of Financial Accounting Standard Board (FASB), Accounting Standards Update No. 2016-02, Leases (Topic 842).

Basis for Opinions

The Company's management is responsible for these consolidated financial statements, 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 consolidated financial statements and an opinion on the Company's internal control over financial reporting based on our audits. We are a public accounting firm registered with the Public Company Accounting Oversight Board (United States) (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 audits to obtain reasonable assurance about whether the consolidated financial statements are free of material misstatement, whether due to error or fraud, and whether effective internal control over financial reporting was maintained in all material respects.

Our audits of the consolidated financial statements included performing procedures to assess the risks of material misstatement of the consolidated 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 consolidated 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 consolidated financial statements. Our audit of internal control over financial reporting included obtaining an understanding of internal control over financial reporting, assessing the risk that a material weakness exists, and testing and evaluating the design and operating effectiveness of internal control based on the assessed risk. Our audits also included performing such other procedures as we considered necessary in the circumstances. We believe that our audits provide a reasonable basis for our opinions.

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.

Critical Audit Matter

The critical audit matter communicated below is a matter arising from the current period audit of the consolidated financial statements that was communicated or required to be communicated to the audit committee and that: (1) relates to accounts or disclosures that are material to the consolidated financial statements and (2) involved our especially challenging, subjective, or complex judgments. The communication of a

critical audit matter does not alter in any way our opinion on the consolidated financial statements, taken as a whole, and we are not, by communicating the critical audit matter below, providing a separate opinion on the critical audit matter or on the accounts or disclosures to which it relates.

Evaluation of net realizable value of inventory

As discussed in Note 4 to the consolidated financial statements, the Company has finished goods inventories with a carrying value of \$52,234 thousand as of December 31, 2020. As discussed in Note 1 to the consolidated financial statements, the Company adjusts the inventory carrying value for excess or obsolete inventory based on assumptions about future demand for products, potential obsolescence of technology, product life cycle, and whether pricing trends or forecasts indicate that the carrying value of inventory exceeds the estimated selling price.

We identified the evaluation of net realizable value of inventory for excess and obsolescence as a critical audit matter. Evaluation of the Company's forecasted demand, including the Company's determination of the effect of market and economic conditions and technology changes, required significant auditor judgment.

The following are primary procedures we performed to address this critical audit matter. We evaluated the design and tested the operating effectiveness of certain internal controls related to the Company's inventory process. This included controls over the forecasted demand and the Company's determination of the effect of market and economic conditions and technology changes. For a sample of inventory, we reperformed the analysis provided by the Company to assess the accuracy of the net realizable value. We evaluated the Company's forecasted demand for a selection of certain inventory by assessing historical sales trends and customer orders. We inquired of Company's personnel and inspected documents regarding market and economic conditions and technology changes for a selection of certain inventory. We compared the Company's forecasted demand to analyst reports.

/s/ KPMG LLP

We have served as the Company's auditor since 2016.

San Francisco, California
February 22, 2021

CALIX, INC.
CONSOLIDATED BALANCE SHEETS
(In thousands, except par value)

	December 31,	
	2020	2019
ASSETS		
Current assets:		
Cash and cash equivalents	\$ 80,807	\$ 46,829
Restricted cash	—	628
Marketable securities	52,982	—
Accounts receivable, net	69,419	46,509
Inventory	52,268	40,153
Prepaid expenses and other current assets	11,414	9,698
Total current assets	266,890	143,817
Property and equipment, net	20,381	21,527
Right-of-use operating leases	11,741	15,864
Goodwill	116,175	116,175
Other assets	12,165	19,440
	<u>\$ 427,352</u>	<u>\$ 316,823</u>
LIABILITIES AND STOCKHOLDERS' EQUITY		
Current liabilities:		
Accounts payable	\$ 13,115	\$ 10,789
Accrued liabilities	68,736	57,546
Deferred revenue	19,189	17,158
Line of credit	—	30,000
Total current liabilities	101,040	115,493
Long-term portion of deferred revenue	19,904	18,340
Operating leases	12,946	14,337
Other long-term liabilities	13,137	14,625
Total liabilities	147,027	162,795
Commitments and contingencies (See Note 6)		
Stockholders' equity:		
Preferred stock, \$0.025 par value; 5,000 shares authorized; no shares issued and outstanding as of December 31, 2020 and 2019	—	—
Common stock, \$0.025 par value; 100,000 shares authorized; 62,122 shares issued and outstanding as of December 31, 2020, and 61,778 shares issued and 56,448 shares outstanding as of December 31, 2019	1,553	1,545
Additional paid-in capital	948,055	895,899
Accumulated other comprehensive loss	(191)	(854)
Accumulated deficit	(669,092)	(702,576)
Treasury stock, no shares as of December 31, 2020 and 5,330 shares as of December 31, 2019	—	(39,986)
Total stockholders' equity	280,325	154,028
	<u>\$ 427,352</u>	<u>\$ 316,823</u>

See accompanying notes to consolidated financial statements.

CALIX, INC.

CONSOLIDATED STATEMENTS OF COMPREHENSIVE INCOME (LOSS)
(In thousands, except per share data)

	Years Ended December 31,		
	2020	2019	2018
Revenue:			
Systems	\$ 508,552	\$ 393,231	\$ 405,923
Services	32,687	31,099	35,397
Total revenue	<u>541,239</u>	<u>424,330</u>	<u>441,320</u>
Cost of revenue:			
Systems	251,638	211,309	216,529
Services	22,582	25,096	27,409
Total cost of revenue	<u>274,220</u>	<u>236,405</u>	<u>243,938</u>
Gross profit	<u>267,019</u>	<u>187,925</u>	<u>197,382</u>
Operating expenses:			
Sales and marketing	94,185	82,553	86,432
Research and development	85,258	81,184	89,963
General and administrative	44,444	37,115	40,500
Restructuring charges	6,286	—	5,705
Loss on asset retirement	—	2,474	—
Gain on sale of product line	—	—	(6,704)
Total operating expenses	<u>230,173</u>	<u>203,326</u>	<u>215,896</u>
Income (loss) from operations	<u>36,846</u>	<u>(15,401)</u>	<u>(18,514)</u>
Interest and other expense, net:			
Interest expense, net	(1,585)	(958)	(632)
Other income (expense), net	(977)	(173)	378
Total interest and other expense, net	<u>(2,562)</u>	<u>(1,131)</u>	<u>(254)</u>
Income (loss) before provision for income taxes	<u>34,284</u>	<u>(16,532)</u>	<u>(18,768)</u>
Provision for income taxes	800	1,162	530
Net income (loss)	<u>\$ 33,484</u>	<u>\$ (17,694)</u>	<u>\$ (19,298)</u>
Net income (loss) per common share:			
Basic	<u>\$ 0.57</u>	<u>\$ (0.32)</u>	<u>\$ (0.37)</u>
Diluted	<u>\$ 0.54</u>	<u>\$ (0.32)</u>	<u>\$ (0.37)</u>
Weighted-average number of shares used to compute net income (loss) per common share:			
Basic	<u>59,074</u>	<u>54,993</u>	<u>52,609</u>
Diluted	<u>61,998</u>	<u>54,993</u>	<u>52,609</u>
Net income (loss)	<u>\$ 33,484</u>	<u>\$ (17,694)</u>	<u>\$ (19,298)</u>
Other comprehensive income (loss), net of tax - foreign currency translation adjustments, net	663	(101)	(584)
Comprehensive income (loss)	<u>\$ 34,147</u>	<u>\$ (17,795)</u>	<u>\$ (19,882)</u>

See accompanying notes to consolidated financial statements.

CALIX, INC.

CONSOLIDATED STATEMENTS OF STOCKHOLDERS' EQUITY
(In thousands)

	Common Stock		Additional Paid-in Capital	Accumulated Other Comprehensive Loss	Accumulated Deficit	Treasury Stock	Total Stockholders' Equity
	Shares	Amount					
Balance as of December 31, 2017	51,509	\$ 1,421	\$ 851,054	\$ (169)	\$ (667,357)	\$ (39,986)	\$ 144,963
Stock-based compensation	—	—	17,473	—	—	—	17,473
Exercise of stock options	57	1	383	—	—	—	384
Issuance of vested performance restricted stock units and restricted stock units, net of taxes withheld	913	22	(96)	—	—	—	(74)
Stock issued under employee stock purchase plans	1,476	38	7,259	—	—	—	7,297
Cumulative effect of accounting change	—	—	—	—	1,773	—	1,773
Net loss	—	—	—	—	(19,298)	—	(19,298)
Other comprehensive loss	—	—	—	(584)	—	—	(584)
Balance as of December 31, 2018	53,955	1,482	876,073	(753)	(684,882)	(39,986)	151,934
Stock-based compensation	—	—	11,181	—	—	—	11,181
Exercise of stock options	75	2	440	—	—	—	442
Issuance of vested performance restricted stock units and restricted stock units, net of taxes withheld	611	15	(182)	—	—	—	(167)
Stock issued under employee stock purchase plans	1,807	46	8,387	—	—	—	8,433
Net loss	—	—	—	—	(17,694)	—	(17,694)
Other comprehensive loss	—	—	—	(101)	—	—	(101)
Balance as of December 31, 2019	56,448	1,545	895,899	(854)	(702,576)	(39,986)	154,028
Stock-based compensation	—	—	13,960	—	—	—	13,960
Exercise of stock options	1,088	27	8,957	—	—	—	8,984
Issuance of vested performance restricted stock units and restricted stock units, net of taxes withheld	314	7	(7)	—	—	—	—
Stock issued under employee stock purchase plans	1,052	26	9,117	—	—	—	9,143
Issuance of common stock in connection with public offering, net of expenses	3,220	82	59,981	—	—	—	60,063
Treasury stock retirement	—	(134)	(39,852)	—	—	39,986	—
Net income	—	—	—	—	33,484	—	33,484
Other comprehensive income	—	—	—	663	—	—	663
Balance as of December 31, 2020	<u>62,122</u>	<u>\$ 1,553</u>	<u>\$ 948,055</u>	<u>\$ (191)</u>	<u>\$ (669,092)</u>	<u>\$ —</u>	<u>\$ 280,325</u>

See accompanying notes to consolidated financial statements.

CALIX, INC.

CONSOLIDATED STATEMENTS OF CASH FLOWS
(In thousands)

	Years Ended December 31,		
	2020	2019	2018
Operating activities:			
Net income (loss)	\$ 33,484	\$ (17,694)	\$ (19,298)
Adjustments to reconcile net income (loss) to net cash provided by operating activities:			
Stock-based compensation	13,960	11,181	17,473
Depreciation and amortization	13,718	10,316	9,187
Asset retirements and write-downs	3,914	2,636	326
Gain on sale of product line	—	—	(6,704)
Changes in operating assets and liabilities:			
Accounts receivable, net	(22,910)	20,517	13,858
Inventory	(12,116)	9,998	(20,639)
Prepaid expenses and other assets	773	(63)	3,579
Accounts payable	2,190	(29,440)	4,596
Accrued liabilities	11,922	(1,836)	2,791
Deferred revenue	3,596	2,401	(1,426)
Other long-term liabilities	2,878	(3,362)	(183)
Net cash provided by operating activities	<u>51,409</u>	<u>4,654</u>	<u>3,560</u>
Investing activities:			
Purchases of property and equipment	(7,819)	(13,353)	(10,426)
Purchases of marketable securities	(72,982)	—	—
Maturities of marketable securities	20,000	—	—
Proceeds from sale of product line	—	—	10,350
Net cash used in investing activities	<u>(60,801)</u>	<u>(13,353)</u>	<u>(76)</u>
Financing activities:			
Proceeds from exercise of stock options	8,984	442	384
Proceeds from employee stock purchase plans	9,143	8,433	7,297
Taxes paid for awards vested under equity incentive plan	—	(167)	(74)
Payments related to financing arrangements	(5,758)	(2,737)	—
Proceeds from the sale of common stock in connection with public offering, net of expenses	60,063	—	—
Proceeds from line of credit	30,000	143,300	557,915
Repayments of line of credit	(60,000)	(143,300)	(557,915)
Payments to originate the line of credit	(285)	—	(115)
Net cash provided by financing activities	<u>42,147</u>	<u>5,971</u>	<u>7,492</u>
Effect of exchange rate changes on cash and cash equivalents	595	(89)	(477)
Net increase (decrease) in cash, cash equivalents and restricted cash	33,350	(2,817)	10,499
Cash, cash equivalents and restricted cash at beginning of year	47,457	50,274	39,775
Cash and cash equivalents at end of year	<u>\$ 80,807</u>	<u>\$ 47,457</u>	<u>\$ 50,274</u>
Supplemental disclosures of cash flow information:			
Interest paid	\$ 1,686	\$ 1,123	\$ 649
Income taxes paid	\$ 751	403	561
Non-cash investing activities:			
Changes in accounts payable and accrued liabilities related to purchases of property and equipment	\$ (597)	\$ (2,435)	\$ 8,459

See accompanying notes to consolidated financial statements.

CALIX, INC.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

1. Description of Business and Significant Accounting Policies

Company

Calix, Inc. (together with its subsidiaries, “Calix” or the “Company”) was incorporated in August 1999 and is a Delaware corporation. The Company is the leading global provider of cloud and software platforms, systems and services that focus on the access network, the portion of the network that governs available bandwidth and determines the range and quality of services that can be offered to subscribers. These cloud and software platforms enable communications service providers (“CSPs”) of all types and sizes to innovate and transform their businesses. The Company’s CSP customers are empowered to utilize real-time data and insights from Calix platforms to simplify their businesses and deliver experiences that excite their subscribers. These insights enable CSPs to grow their businesses through increased subscriber acquisition, loyalty and revenue, thereby increasing the value of their businesses and contributions to their communities.

Basis of Presentation and Accounting Guidance

The accompanying consolidated financial statements have been prepared in accordance with the requirements of the U.S. Securities and Exchange Commission (“SEC”) and U.S. generally accepted accounting principles (“GAAP”). All significant intercompany balances and transactions have been eliminated in consolidation. Any reference in these notes to applicable accounting guidance (“guidance”) is meant to refer to the authoritative U.S. GAAP as found in the Financial Accounting Standards Board (“FASB”) Accounting Standards Codification (“ASC”).

Risks and Uncertainties

The Company is subject to risks and uncertainties as a result of the COVID-19 pandemic. The extent of the impact of the COVID-19 pandemic on the Company's business is highly uncertain and difficult to predict as coronavirus continues to spread around the world. The availability of vaccines has been limited, and there are no assurances as to when the pandemic will be contained. Since March 2020, the Company has instituted office closures, travel restrictions and a mandatory work-from-home policy for substantially all of its employees. The spread of COVID-19 has had a prolonged impact on the Company's supply chain operations due to restrictions, reduced capacity and limited availability from suppliers whom the Company relies on for sourcing components and materials and from third-party partners whom the Company relies on for manufacturing, warehousing and logistics services. Although demand for the Company's products has been strong in the short-term as subscribers seek more bandwidth and better Wi-Fi, customers’ purchasing decisions over the long-term may be impacted by the pandemic and its impact on the economy, which could in turn impact the Company's revenue and results of operations. Furthermore, the Company's supply chain continues to face constraints primarily due to challenges in sourcing components and materials for the Company's products, including due to plant closures. The prolonged impact of COVID-19 could exacerbate these constraints or cause further supply chain disruptions. As of the issuance date of these consolidated financial statements, the extent to which the COVID-19 pandemic may materially impact the Company's financial condition, liquidity or results of operations is uncertain.

Use of Estimates

The preparation of financial statements is in conformity with U.S. GAAP, which requires management to make estimates and assumptions that affect the amounts reported in the consolidated financial statements and accompanying notes. For the Company, these estimates include, but are not limited to: allowances for doubtful accounts and sales returns, excess and obsolete inventory, allowances for obligations to its contract manufacturers, valuation of stock-based compensation, useful lives assigned to long-lived assets, standard and extended warranty costs and contingencies. Actual results could differ from those estimates, and such differences could be material to the Company’s financial position and results of operations.

Revenue Recognition

The Company derives revenue from contracts with customers primarily from the following and categorizes its revenue as follows:

- Systems include revenue from the sale of access and premises systems, software platform licenses and cloud-based software subscriptions.
- Services include revenue from professional services, customer support, software- and cloud-based maintenance, extended warranty subscriptions, training and managed services.

Revenue is recognized when a performance obligation is satisfied, which occurs when control of the promised goods or services is transferred to the customer, in an amount that reflects the consideration the Company expects to be entitled to in exchange for

those goods or services. Specifically, revenue from software platform licenses, which provides the customer with a right to use the software as it exists, is generally recognized upfront when made available to the customer. Revenue from cloud-based software subscriptions, customer support, maintenance, extended warranty subscriptions and managed services is generally recognized ratably over the contract term. Revenue from professional services and training is recognized as the services are delivered.

A performance obligation is a promise in a contract to transfer a distinct good or service to the customer and is the unit of account. A contract's transaction price is allocated to each distinct performance obligation and recognized as revenue when, or as, the performance obligation is satisfied. The Company's hardware products contain both software and non-software components that function together to deliver the products' essential functionality and therefore constitutes a single performance obligation as the promise to transfer the individual software and non-software components is not separately identifiable and, therefore, not distinct. The Company's contracts may include multiple performance obligations. For such arrangements, the Company allocates the contract's transaction price to each performance obligation using the relative stand-alone selling price of each distinct good or service in the contract. The Company generally determines stand-alone selling prices based on the prices charged to customers or its best estimate of stand-alone selling price. The Company's estimate of stand-alone selling price is established considering multiple factors including, but not limited to, geographies, market conditions, competitive landscape, internal costs, gross margin objectives, characteristics of targeted customers and pricing practices. The determination of estimated stand-alone selling price is made through consultation with and formal approval by management, taking into consideration the go-to-market strategy.

For certain revenue arrangements involving delivery of both systems and professional services, each is considered a distinct performance obligation. Systems revenue is recognized at a point in time when management has determined that control over systems has transferred to the customer, which is generally when legal title has transferred to the customer. For the same revenue arrangements, management believes that the output of the associated professional services is transferred to the customer over time. As such, professional services revenue is recognized over the period in which the services are provided using a cost input measure. The Company recognizes revenue when control of the systems and services has been transferred to the customer, which may be earlier than system installation or customer acceptance, in accordance with the agreed-upon specifications in the contract.

Cost of Revenue

Cost of revenue consists primarily of finished goods inventory purchased from the Company's contract manufacturers, payroll and related expenses associated with managing the relationships with contract manufacturers, depreciation of manufacturing test equipment, warranty and retrofit costs, excess and obsolete inventory costs, shipping charges and amortization of certain intangible assets. It also includes contractor and other costs of services incurred directly related to the delivery of services to customers.

Warranty and Retrofit

The Company offers limited warranties for its hardware products for a period of one, three or five years, depending on the product type. The Company recognizes estimated costs related to warranty activities as a component of cost of revenue upon product shipment or upon identification of a specific product failure. Under certain circumstances, the Company also provides fixes on specifically identified performance failures for products that are outside of the standard warranty period and recognizes estimated costs related to retrofit activities as a component of cost of revenue upon identification of such product failures. The Company recognizes estimated warranty and retrofit costs when it is probable that a liability has been incurred and the amount of loss is reasonably estimable. The estimates are based upon historical and projected product failure and claim rates, historical costs incurred in correcting product failures and information available related to any specifically identified product failures. Judgment is required in estimating costs associated with warranty and retrofit activities, and the Company's estimates are limited to information available to the Company at the time of such estimates. In some cases, such as when a specific product failure is first identified or a new product is introduced, the Company may initially have limited information and limited historical failure and claim rates upon which to base its estimates, and such estimates may require revision in future periods. The recorded amount is adjusted from time to time for specifically identified warranty and retrofit exposure. Actual warranty and retrofit expenses are charged against the Company's estimated warranty and retrofit liability when incurred. Factors that affect the Company's warranty and retrofit liability include the number of active installed units and historical and anticipated rates of warranty and retrofit claims and cost per claim.

Stock-Based Compensation

Stock-based compensation expense associated with stock options, performance stock options ("PSOs"), restricted stock units ("RSUs") and purchase rights under the Amended and Restated Employee Stock Purchase Plan (the "ESPP") and the Amended and Restated 2017 Nonqualified Employee Stock Purchase Plan (the "NQ ESPP") is measured at the grant date based on the

fair value of the award, and is recognized, net of forfeitures, as expense over the remaining requisite service period (generally the vesting period) on a straight-line basis.

The fair value of stock option and employee stock purchase right under the ESPP is estimated at the grant date using the Black-Scholes option valuation model. The fair value of RSUs and employee stock purchase right under the Nonqualified ESPP is based on closing market price of the Company's common stock on the date of grant.

Stock-based compensation expense associated with PSOs with graded vesting features and which contain both a performance and a service condition is measured based on fair value of stock options estimated at the grant date using the Black-Scholes option valuation model, and is recognized, net of forfeitures, as expense over the requisite service period using the graded vesting attribution method.

Compensation expense is only recognized if the Company has determined that it is probable that the performance condition will be met. The Company reassesses the probability of vesting at each reporting period and adjusts compensation expense based on its probability assessment.

Loss Contingencies

From time to time, the Company is involved in legal proceedings arising from the normal course of business activities. The Company evaluates the likelihood of an unfavorable outcome of legal proceedings to which it is a party and accrues a loss contingency when the loss is probable and reasonably estimable. Assessing legal contingencies involves significant judgment and estimates, and the outcome of litigation is inherently uncertain and subject to numerous factors outside the Company's control. Significant judgment is required when the Company assesses the likelihood of any adverse judgments or outcomes, including the potential range of possible losses, and whether losses are probable and reasonably estimable.

Because of uncertainties related to these matters, the Company bases its estimates of whether a loss contingency is probable or reasonably possible, as well as the reasonable range of possible losses associated with each loss contingency, only on the information available at the time. As additional information becomes available, and at least quarterly, the Company reassesses the potential liability on each significant matter and may revise its estimates. These revisions could have a material impact on the Company's business, operating results or financial condition. The actual outcome of these legal proceedings may materially differ from the Company's estimates of potential liability, which could have a material adverse effect on the Company's business, operating results or financial condition.

Credit Risk and Inventory Supplier Concentrations

Financial instruments that potentially subject the Company to significant concentrations of credit risk consist primarily of cash, cash equivalents, marketable securities and accounts receivable. Cash equivalents consist of money market funds and marketable securities with a maturity at the date of purchase of ninety days or less, which are invested through financial institutions in the United States. Deposits in and investments held by these financial institutions may, at times, exceed federally insured limits. The Company has not experienced any losses in such accounts. The Company also has approximately \$3.0 million of cash held by its foreign subsidiaries in Brazil, China and the United Kingdom. Management believes that the financial institutions that hold the Company's cash and cash equivalents are financially sound and, accordingly, minimal credit risk exists with respect to these cash and cash equivalents.

The Company depends primarily on a small number of outside contract manufacturers ("CMs") and original design manufacturers ("ODMs") for the bulk of its finished goods inventory. The Company generally purchases its products through purchase orders with its suppliers. While the Company seeks to maintain a sufficient supply of its products, the Company's business and results of operations could be adversely affected by a stoppage or delay in receiving such products, the receipt of defective parts, an increase in price of such products or the Company's inability to obtain lower prices from its CMs, ODMs and other suppliers in response to competitive pressures.

Fair Value of Financial Instruments

The carrying amounts of cash and cash equivalents, trade receivables, accounts payable, line of credit and other accrued liabilities approximate their fair value due to their relatively short-term nature. Marketable securities are valued using quoted market prices in active markets to determine fair value.

Cash, Cash Equivalents and Marketable Securities

Cash equivalents and marketable securities are stated at amounts that approximate fair value based on quoted market prices.

The Company has invested its excess cash primarily in money market funds and highly liquid marketable securities such as U.S. treasury bonds, corporate debt instruments, commercial paper and U.S. government securities. The Company considers all investments with maturities of three months or less when purchased to be cash equivalents. Marketable securities represent highly liquid U.S. treasury bonds, corporate debt instruments, commercial paper and U.S. government securities with maturities

greater than 90 days at date of purchase. Marketable securities with maturities greater than one year are classified as current because management considers all marketable securities to be available for current operations.

The Company's investments have been classified and accounted for as available-for-sale. Such investments are recorded at fair value and unrealized holding gains and losses are reported as a separate component of comprehensive loss in the stockholders' equity until realized. Realized gains and losses on sales of marketable securities, if any, are determined on the specific identification method and are reclassified from accumulated other comprehensive loss to results of operations as "Other income (expense), net". The Company had no investments as of December 31, 2019. See Note 2 "Cash, Cash Equivalents, Restricted Cash and Marketable Securities".

Allowance for Doubtful Accounts

The Company maintains an allowance for doubtful accounts for expected credit losses at contract inception resulting from the inability of its customers to make required payments. The Company records a specific allowance and revises the expected loss based on an analysis of individual past-due balances. Additionally, based on historical write-offs and the Company's collection experience, the Company records an additional allowance based on a percentage of outstanding receivables. The Company performs credit evaluations of its customers' financial condition. These evaluations require judgment and are based on a variety of factors including, but not limited to, current economic trends, payment history and a financial review of the customer. Actual collection losses may differ from management's estimates, and such differences could be material to the Company's financial position and results of operations.

Inventory Valuation

Inventory, which primarily consists of finished goods purchased from CMs or ODMs, is stated at the lower of cost (determined by the first-in, first-out method) or market value. Inbound shipping costs and U.S. tariffs are included in cost of inventory. In addition, the Company, from time to time, procures component inventory primarily as a result of manufacturing discontinuation of critical components by suppliers. The Company regularly monitors inventory quantities on hand and records write-downs for excess and obsolete inventories based on the Company's estimate of demand for its products, potential obsolescence of technology, product life cycles and whether pricing trends or forecasts indicate that the carrying value of inventory exceeds its estimated selling price. These factors are impacted by market and economic conditions, technology changes and new product introductions and require significant estimates that may include elements that are uncertain. Actual demand may differ from forecasted demand and may have a material effect on gross profit. If inventory is written down, a new cost basis is established that cannot be increased in future periods. Shipments from suppliers before the Company receives them are recorded as in-transit inventory when title and the significant risks and rewards of ownership have passed to the Company.

Contract Costs

The Company capitalizes sales commissions primarily related to extended warranty for which the expected amortization period is greater than one year.

Capitalized commissions are amortized as sales and marketing expenses over the period that the related revenue is recognized, which can be up to five years for extended warranty. The Company classifies the unamortized portion of deferred commissions as current or noncurrent based on the timing of when the Company expects to recognize the expense. The current and noncurrent portions of deferred commissions are included in prepaid expenses and other current assets and other assets, respectively, in the Company's Consolidated Balance Sheets.

Property and Equipment

Property and equipment are stated at cost, less accumulated depreciation, and are depreciated using the straight-line method over the estimated useful life of each asset. Generally, computer equipment is depreciated over two years; purchased software is depreciated over three to five years; test equipment is depreciated over three years; furniture and fixtures are depreciated over seven years; and leasehold improvements are depreciated over the shorter of the respective lease term or the estimated useful life of the asset. Maintenance and repairs are charged to expense as incurred.

Goodwill

Goodwill was recorded as a result of the Company's acquisitions of Occam Networks, Inc. in February 2011 and Optical Solutions, Inc. in February 2006. The Company records goodwill when consideration paid in a business acquisition exceeds the fair value of the net tangible assets and the identified intangible assets acquired. Goodwill is not amortized but instead is subject to an annual impairment test or more frequently if events or changes in circumstances indicate that it may be impaired. The Company evaluates goodwill on an annual basis as of the end of the second quarter of each fiscal year. Management has determined that it operates as a single reporting unit and, therefore, evaluates goodwill impairment at the enterprise level.

At the end of the second quarter of 2020, the Company completed its annual goodwill impairment test. Based on its assessment of certain qualitative factors such as market capitalization, management concluded that the fair value of the Company was more likely than not greater than its carrying amount as of June 27, 2020. As such, it was not necessary to perform the two-step quantitative goodwill impairment test at the time.

There have been no significant events or changes in circumstances subsequent to the 2020 annual impairment test that would more likely than not indicate that the carrying value of goodwill may have been impaired as of December 31, 2020. There were no impairment losses for goodwill for the years ended December 31, 2020, 2019 or 2018.

Deferred Revenue

Deferred revenue results from transactions where the Company billed the customer for products or services and when cash payments are received or due prior to transferring control of the promised goods or services to the customer.

Payment terms to customers typically range from net 30 to net 90 days and vary by the size and location of customer and the products or services offered. The period between the transfer of control of the promised good or service to a customer and when payment is due is not significant.

Income Taxes

The Company evaluates its tax positions and estimates its current tax exposure along with assessing temporary differences that result from different book to tax treatment of items not currently deductible for tax purposes. These differences result in deferred tax assets and liabilities on the Company's Consolidated Balance Sheets, which are estimated based upon the difference between the financial statement and tax bases of assets and liabilities using the enacted tax rates that will be in effect when these differences reverse. In general, deferred tax assets represent future tax benefits to be received when certain expenses previously recognized in the Company's Consolidated Statements of Comprehensive Loss 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 against which these deductions, losses and credits can be utilized.

The Company must assess the likelihood that the Company's deferred tax assets will be recovered from future taxable income, and to the extent the Company believes that recovery is not more likely than not, the Company must establish a valuation allowance. 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. Excluding foreign operations, the Company recorded a full valuation allowance at each balance sheet date presented because, based on the available evidence, the Company believes it is more likely than not that it will not be able to utilize all of its deferred tax assets in the future. The Company intends to maintain the full valuation allowance until sufficient evidence exists to support the reversal of the valuation allowance.

Newly Adopted Accounting Standards

The Company did not adopt any new accounting standard in 2020 that were significant to the Company.

Leases

In February 2016, the FASB issued Accounting Standards Update No. 2016-02, Leases (Topic 842), which requires recognition of an asset and liability for lease arrangements longer than twelve months. The Company adopted the new standard effective January 1, 2019 using the effective date approach which eliminates the need to restate amounts presented prior to that date. The Company also elected the package of practical expedients but not the hindsight practical expedient. The adoption had a material impact on the Company's Consolidated Balance Sheets but did not impact the Company's Consolidated Statements of Comprehensive Loss, Cash Flows or Stockholders' Equity. Upon adoption on January 1, 2019, the Company recognized an operating lease right-of-use asset of \$15.8 million and a lease liability of \$16.7 million.

Recent Accounting Pronouncements Not Yet Adopted

There have been no accounting pronouncements or changes in accounting pronouncements that are significant or potentially significant to the Company.

2. Cash, Cash Equivalents, Restricted Cash and Marketable Securities

The Company has invested its excess cash primarily in money market funds and highly liquid marketable securities such as corporate debt instruments, commercial paper and U.S. government securities. The Company considers all investments with maturities of three months or less when purchased to be cash equivalents. Marketable securities represent highly liquid corporate debt instruments, commercial paper and U.S. government securities with maturities greater than 90 days at date of purchase. Marketable securities with maturities greater than one year are classified as current because management considers all marketable securities to be available for current operations.

Cash equivalents are stated at amounts that approximate fair value based on quoted market prices. Marketable securities are recorded at their fair values.

The Company’s investments have been classified and accounted for as available-for-sale. Such investments are recorded at fair value and unrealized holding gains and losses are reported as a separate component of accumulated other comprehensive loss in the stockholders’ equity until realized. Realized gains and losses on sales of marketable securities, if any, are determined on the specific identification method and are reclassified from accumulated other comprehensive income (loss) to results of operations as other income (expense), net. Realized and unrealized gains and losses were de minimis for 2020.

Cash, cash equivalents, restricted cash and marketable securities consisted of the following (in thousands):

	December 31,	
	2020	2019
Cash and cash equivalents:		
Cash	\$ 30,745	\$ 46,815
U.S. government securities	39,994	—
Money market funds	10,068	14
Total cash and cash equivalents	80,807	46,829
Restricted cash	—	628
Total cash, cash equivalents and restricted cash	80,807	47,457
Marketable securities – U.S. government securities	52,982	—
	\$ 133,789	\$ 47,457

The carrying amounts of the Company’s money market funds approximate their fair values due to their nature, duration and short maturities. As of December 31, 2020, all marketable securities were due in one year or less.

3. Fair Value Measurements

The Company measures its cash equivalents and marketable securities at fair value on a recurring basis. Fair value is an exit price, representing the amount that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants. As such, fair value is a market-based measurement that should be determined based on assumptions that market participants would use in pricing an asset or liability. The Company utilizes the following three-tier value hierarchy which prioritizes the inputs used in measuring fair value:

Level 1 – Observable inputs that reflect quoted prices (unadjusted) for identical assets or liabilities in active markets.

Level 2 – Observable inputs other than quoted prices included in Level 1 for similar instruments in active markets, quoted prices for identical or similar instruments in markets that are not active, and model-driven valuations in which all significant inputs and significant value drivers are observable in active markets.

Level 3 – Unobservable inputs to the valuation derived from fair valuation techniques in which one or more significant inputs or significant value drivers are unobservable. The fair value hierarchy also requires the Company to maximize the use of observable inputs, when available, and to minimize the use of unobservable inputs when determining inputs and determining fair value.

The following tables sets forth the Company’s financial assets measured at fair value on a recurring basis based on the three-tier fair value hierarchy (in thousands):

As of December 31, 2020	Level 1
Money market funds	\$ 10,068
U.S. government securities	92,976
	\$ 103,044

As of December 31, 2019	Level 1
Money market funds	\$ 14

4. Balance Sheet Details

Accounts receivable, net consisted of the following (in thousands):

	December 31,	
	2020	2019
Accounts receivable	\$ 70,824	\$ 46,883
Allowance for doubtful accounts	(1,405)	(374)
	<u>\$ 69,419</u>	<u>\$ 46,509</u>

The table below summarizes the changes in allowance for doubtful accounts and product return liability for the periods indicated (in thousands):

	Balance at Beginning of Year	Additions Charged to Costs or Expenses or Revenue	Deductions and Write Offs	Balance at End of Year
Year Ended December 31, 2020				
Allowance for doubtful accounts	\$ 374	\$ 1,085	\$ (54)	\$ 1,405
Product return liability	919	3,391	(2,422)	1,888
Year Ended December 31, 2019				
Allowance for doubtful accounts	\$ 370	\$ 168	\$ (164)	\$ 374
Product return liability	880	1,620	(1,581)	919
Year Ended December 31, 2018				
Allowance for doubtful accounts	\$ 579	\$ (5)	\$ (204)	\$ 370
Product return liability	822	771	(713)	880

Inventory consisted of the following (in thousands):

	December 31,	
	2020	2019
Raw materials	\$ 34	\$ 656
Finished goods	52,234	39,497
	<u>\$ 52,268</u>	<u>\$ 40,153</u>

Property and equipment, net consisted of the following (in thousands):

	December 31,	
	2020	2019
Test equipment	\$ 37,670	\$ 37,001
Software	16,093	20,646
Computer equipment	9,062	10,835
Furniture and fixtures	2,069	2,342
Leasehold improvements	1,345	2,047
	66,239	72,871
Accumulated depreciation and amortization	(45,858)	(51,344)
	<u>\$ 20,381</u>	<u>\$ 21,527</u>

Depreciation and amortization expenses were \$13.7 million, \$10.3 million and \$9.2 million for the years ended December 31, 2020, 2019 and 2018, respectively.

Loss on Asset Retirement

In July 2018, in connection with establishing a direct relationship with Verizon Communications, Inc. (“Verizon”), the Company licensed software from a former partner to support the Company's deployments at Verizon. During the third quarter of 2019, Verizon informed the Company that it no longer required this software. As a result, the Company wrote off the software in the third quarter of 2019, resulting in a \$2.5 million charge in the Company's Consolidated Statements of Comprehensive Income (Loss).

Other long-term assets consisted of the following (in thousands):

	December 31,	
	2020	2019
Intangible asset	\$ 9,517	\$ 12,148
Capitalized cloud implementation costs	1,287	6,089
Other long-term assets	1,361	1,203
	<u>\$ 12,165</u>	<u>\$ 19,440</u>

Intangible Asset Acquisition

In March 2018, the Company entered into an agreement with a vendor to develop certain software product and related enhancements pursuant to which the Company may be obligated to make minimum revenue-share payments under the program of up to \$15.8 million over the three years following availability for sale. The payments are based on a revenue-share rate applied to revenue from the developed-product and the corresponding hardware sales subject to a minimum and a maximum aggregate amount over the three-year sales period. The Company had its first sale in August 2019, and as a result, the Company capitalized an intangible asset with a value of \$13.2 million in the third quarter of 2019 and also recognized a liability of \$13.2 million (a non-cash investing activity). The liability balance is \$13.9 million of which \$2.9 million is included in accrued liabilities and \$11.0 million in other long-term liabilities in the accompanying Consolidated Balance Sheet as of December 31, 2020. The intangible asset has an estimated five-year useful life and is being amortized using the greater of the ratio of current gross revenue for the products to the total of current and anticipated future gross revenue for the products or the straight-line method. In December 2020, the Company amended the agreement to increase the revenue-share rate, limit the revenue-share payments to \$15.8 million and extend the revenue-share period until March 2024.

Capitalized Cloud Implementation Costs

In January 2020, the Company went live with its cloud-based enterprise resource planning (“ERP”) system. As a result, the Company capitalized \$7.5 million of implementation costs in both prepaid expenses and other current assets and other long-term assets in the Company's Consolidated Balance Sheet. This amount is being amortized over a period of 29 months, representing the remaining contractual term. The amortization expense for the year ended December 31, 2020 was \$3.1 million.

Accrued liabilities consisted of the following (in thousands):

	December 31,	
	2020	2019
Compensation and related benefits	\$ 23,740	\$ 19,010
Warranty and retrofit	9,208	7,294
Customer advances or rebates	8,374	7,252
Professional and consulting fees	4,497	4,996
Component inventory held by suppliers	3,992	1,925
Taxes payable	3,476	2,021
Operating leases	2,994	2,663
Current portion of financing arrangements	2,925	4,044
Freight	1,955	808
Product returns	1,888	919
Operations	950	1,053
Other	4,737	5,561
	<u>\$ 68,736</u>	<u>\$ 57,546</u>

Changes in the Company's accrued warranty and retrofit liability were as follows (in thousands):

	Years Ended December 31,		
	2020	2019	2018
Balance at beginning of year	\$ 7,294	\$ 8,547	\$ 8,708
Provision for warranty and retrofit charged to cost of revenue	5,888	4,425	5,215
Utilization of reserve	(3,974)	(5,678)	(5,376)
Balance at end of year	<u>\$ 9,208</u>	<u>\$ 7,294</u>	<u>\$ 8,547</u>

Accrued Restructuring Charges

Responding to trends caused by the COVID-19 pandemic, the Company initiated a restructuring plan in June 2020 to accelerate the Company's all platform future and to align with a work-from-anywhere culture. The Company incurred restructuring charges of approximately \$6.3 million, consisting of facilities-related charges and severance and other termination related benefits for the year ended December 31, 2020.

As part of its work-from-anywhere culture, many of the Company's employees elected to work remotely on a permanent basis. In light of this shift, the Company evaluated its space needs and determined that a portion of the Company's leased office spaces in Richardson, Texas and San Jose, California would no longer be utilized. As a result, the right-of-use assets related to these leases were written down, resulting in a charge of \$3.5 million for the year ended December 31, 2020. In addition, the Company wrote off assets with net book value of \$0.3 million and accrued common areas maintenance fees and property taxes related to the unused office space totaling \$1.4 million for the year ended December 31, 2020.

The following table summarizes the activities pursuant to the above restructuring plans (in thousands):

	Facilities	Severance and Related Benefits	Total
Balance as of March 28, 2020	\$ —	\$ —	\$ —
Restructuring charges	5,112	1,174	6,286
Asset write-down	(3,748)	—	(3,748)
Cash payments	(120)	(1,042)	(1,162)
Balance as of December 31, 2020	<u>\$ 1,244</u>	<u>\$ 132</u>	<u>\$ 1,376</u>

The Company initiated a restructuring plan in February 2018 to further align its business resources based on the production releases of its platform offerings. The Company incurred restructuring charges of approximately \$5.7 million for the year ended December 31, 2018, consisting primarily of severance and other termination related benefits.

5. Credit Agreements

Line of Credit

In January 2020, the Company terminated its loan and security agreement with Silicon Valley Bank and entered into a new loan and security agreement with Bank of America, N.A. ("BofA Loan Agreement"). The BofA Loan Agreement provides for a revolving facility up to a principal amount of \$35.0 million, including a \$10.0 million sublimit for letters of credit. The BofA Loan Agreement matures, and all outstanding amounts become due and payable, in January 2023. The BofA Loan Agreement is secured by substantially all of the Company's assets, including the Company's intellectual property. Loans under the credit facility bear interest at a rate per annum equal to either LIBOR (customarily defined) plus an applicable margin between 1.5% to 2.0% or Prime Rate (customarily defined) plus an applicable margin between 0.5% to 1.0%, in each case largely based on a fixed charge coverage ratio measured at the end of each fiscal quarter. The interest rate on the line of credit was 3.75% as of December 31, 2020.

The availability of borrowings under the BofA Loan Agreement is subject to certain conditions and requirements, including among others, if at any time the Company's availability is less than \$5.0 million, the Company must maintain a minimum fixed charge coverage ratio of 1.0 to 1.0. As of December 31, 2020, the Company was in compliance with these requirements, had no outstanding borrowings and had full availability to \$35.0 million.

Financing Arrangements

During 2018, the Company entered into financing arrangements to purchase lab and test equipment for approximately \$5.1 million, which were non-cash investing activities. In the fourth quarter of 2020, the Company paid \$1.4 million to settle the remainder of the balance. The weighted average interest rate was 6.2%.

During 2018 and 2019, the Company entered into financing arrangements for consulting services of \$3.8 million in connection with the Company's ERP implementation. These were non-cash investing activities of \$2.0 million and \$1.8 million for years ended December 31, 2019 and 2018, respectively. In the fourth quarter of 2020, the Company paid \$1.4 million to settle the remainder of the balance. The weighted average interest rate was 6.3%.

6. Commitments and Contingencies

Lease Commitments

The Company leases office space under non-cancelable operating leases. Certain of the Company's operating leases contain renewal options and rent acceleration clauses. Future minimum payments under the non-cancelable operating leases consisted of the following as of December 31, 2020 (in thousands):

Year Ending December 31,	Future Minimum Lease Payments
2021	\$ 3,935
2022	3,812
2023	3,917
2024	3,727
2025	3,220
Thereafter	42
Total future minimum lease payments	18,653
Less imputed interest	(2,713)
	<u>\$ 15,940</u>

As of December 31, 2020, the operating lease liability consisted of the following (in thousands):

Accrued liabilities - current portion of operating leases	\$ 2,994
Operating leases	12,946
	<u>\$ 15,940</u>

The Company leases its headquarters office space in San Jose, California under a lease agreement that expires in December 2025. The future minimum lease payments under the lease are \$11.9 million and are included in the table for the year ended December 31, 2020 above.

In October 2020, the Company entered into a lease extension for its facility in Nanjing, China. The lease extension will commence in February 2021 for a term of 60 months. The future minimum lease payments of \$1.7 million are included in the table for the year ended December 31, 2020 above. The Company recorded a right-of-use operating lease asset and operating lease liability of \$1.5 million in the fourth quarter of 2020. The Company's previous lease in Nanjing, China expires in February 2021.

The above tables also include future minimum lease payments for the Company's office facilities in Petaluma, California; Plymouth, Minnesota; Richardson, Texas; and West Jordan, Utah, which expire at various dates through 2025.

The weighted average discount rate for the Company's operating leases as of December 31, 2020 was 6.7%. The weighted average remaining lease term as of December 31, 2020 was 4.2 years.

For the years ended December 31, 2020, 2019 and 2018, total rent expense of the Company was \$4.0 million, \$4.7 million and \$3.4 million, respectively. Cash paid within operating cash flows for operating leases was \$3.8 million for year ended December 31, 2020.

Purchase Commitments

The Company's CMs and ODMs place orders for certain component inventory in advance based upon the Company's build forecasts in order to reduce manufacturing lead times and ensure adequate component supply. The components are used by the CMs and ODMs to build the products included in the build forecasts. The Company generally does not take ownership of the components held by CMs and ODMs. The Company places purchase orders with its CMs and ODMs in order to fulfill its monthly finished product inventory requirements. The Company incurs a liability when the CMs and ODMs convert the component inventory to a finished product and takes ownership of the finished goods inventory. In the event of termination of services with a manufacturing partner, the Company has purchased, and may be required to purchase in the future, certain of the remaining components inventory held by the CM or ODM as well as any outstanding orders pursuant to the contractual provisions with such CM or ODM. As of December 31, 2020, the Company had approximately \$123.7 million of outstanding purchase commitments for inventories to be delivered by its suppliers, including CMs and ODMs, within one year.

The Company has from time to time, and subject to certain conditions, reimbursed certain suppliers for component inventory purchases when this inventory has been rendered excess or obsolete, for example due to manufacturing and engineering change orders resulting from design changes, manufacturing discontinuation of products by its suppliers, or in cases where the Company has committed inventory levels that greatly exceed projected demand. The estimated excess and obsolete inventory liabilities related to such manufacturing and engineering change orders and other factors, which are included in accrued liabilities in the accompanying Consolidated Balance Sheets, were \$4.0 million and \$1.9 million as of December 31, 2020 and 2019, respectively. The Company records the related charges in cost of systems revenue in its Consolidated Statements of Comprehensive Income (Loss).

Litigation

From time to time, the Company is involved in various legal proceedings arising from the normal course of business activities. The Company is not currently a party to any legal proceedings that, if determined adversely to the Company, in management's opinion, are currently expected to individually or in the aggregate have a material adverse effect on the Company's business, operating results or financial condition taken as a whole.

Indemnifications

The Company from time to time enters into contracts that require it to indemnify various parties against claims from third parties. These contracts primarily 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, (ii) agreements with the Company's officers, directors and certain employees, under which the Company may be required to indemnify such persons for liabilities arising out of their relationship with the Company, (iii) contracts under which the Company may be required to indemnify customers against third-party claims that a Company product infringes a patent, copyright or other intellectual property right and (iv) agreements under which the Company may be required to indemnify the counterparty for certain claims that may be brought against them arising from the Company's acts or omissions with respect to the transactions contemplated by such agreements.

Because any potential obligation associated with these types of contractual provisions are not quantified or stated, the overall maximum amount of the obligation cannot be reasonably estimated. Historically, the Company has not been required to make payments under these obligations, and no liabilities have been recorded for these obligations in the accompanying Consolidated Balance Sheets.

7. Stockholders' Equity

Stock Offering

In August 2020, the Company completed an underwritten public offering of 3,220,000 shares of its common stock at \$20.00 per share, including a full exercise by the underwriters of their option to purchase an additional 420,000 shares of Common Stock, resulting in net proceeds of \$60.1 million, after deducting the underwriting discount and expenses paid by the Company.

Treasury Stock Retirement

In August 2020, the Company's Board of Directors authorized the retirement of the 5,329,817 shares of common stock held as treasury stock. Under Delaware law these shares return to the authorized but unissued common stock pool. As a result, the Company eliminated the \$40.0 million treasury stock balance, offsetting this against common stock by \$0.1 million and additional paid-in capital by \$39.9 million.

Preferred Stock

The Board of Directors has the authority, without action by stockholders with the exception of stockholders who hold board positions, to designate and issue up to 5.0 million shares of preferred stock in one or more series and to fix the rights, preferences, privileges and restrictions thereof. These rights, preferences and privileges could include dividend rights, conversion rights, voting rights, terms of redemption, liquidation preferences, sinking fund terms and the number of shares constituting any series or the designation of such series, any or all of which may be greater than the rights of common stock. The issuance of the Company's preferred stock could adversely affect the voting power of holders of common stock and the likelihood that such holders will receive dividend payments and payments upon liquidation. In addition, the issuance of preferred stock could have the effect of delaying, deferring or preventing a change in control of the Company or other corporate action. Since the Company's initial public offering, the Board of Directors has not designated any rights, preference or powers of any preferred stock and no shares of preferred stock have been issued.

Common Stock

Holders of the Company's common stock are entitled to receive dividends, if any, as may be declared from time to time by the Board of Directors out of legally available funds. No dividends have been declared or paid as of December 31, 2020. In the

event of the Company's liquidation, dissolution or winding up, holders of the Company's common stock will be entitled to share ratably in the net assets legally available for distribution to stockholders after the payment of all of the Company's debts and other liabilities and the satisfaction of any liquidation preference granted to the holders of any then outstanding shares of preferred stock.

Equity Incentive Plans

2019 Equity Incentive Award Plan

At the Company's 2019 annual meeting of stockholders, the stockholders approved the 2019 Equity Incentive Award Plan (the "2019 Plan"). The 2019 Plan supersedes and replaces the 2010 Equity Incentive Award Plan (the "2010 Plan") and preceding plans. No further awards will be granted under the 2010 Plan following the effectiveness of the 2019 Plan; however, the terms and conditions of the 2010 Plan will continue to govern any outstanding awards granted under the 2010 Plan.

Employees and consultants of the Company, its subsidiaries and affiliates, as well as members of the Company's Board of Directors, are eligible to receive awards under the 2019 Plan. The 2019 Plan provides for the grant of stock options, stock appreciation rights, restricted stock, RSUs or other stock or cash-based awards and dividend equivalents to eligible individuals.

The number of shares available for issuance under the 2019 Plan includes an initial reserve of 1.7 million shares of common stock, any shares of common stock that are available for issuance under the 2010 Plan as of the effective date of the 2019 Plan and any shares of common stock subject to issued and outstanding awards under the 2010 Plan that expire, are cancelled or otherwise terminate following the effective date of the 2019 Plan. At the Company's 2020 annual meeting of stockholders, the stockholders approved an increase in the number of shares of common stock issuable under the 2019 Plan by 3.5 million shares. As of December 31, 2020, there were 4.3 million shares available for issuance under the 2019 Plan.

Stock options granted under the 2019 Plan are granted at a price not less than 100% of the fair market value of the common stock on the date of grant. Stock options issued under the 2019 Plan generally vest 25% on the first anniversary of the vesting commencement date and on a quarterly basis thereafter for a period of an additional three years. The options have a maximum term of ten years.

Each RSU granted under the 2019 Plan represents a right to receive one share of the Company's common stock (subject to adjustment for certain specified changes in the capital structure of the Company) upon the completion of a specific period of continued service.

In February 2019, PSOs exercisable for up to an aggregate of 2.0 million shares of common stock were granted to Company executives with a grant date fair value of \$8.03 per share. These PSOs contain a one-year performance period and a subsequent three-year service period. The actual number of shares earned was contingent upon the achievement of both annual and quarterly corporate financial targets for revenue, non-GAAP gross margin and non-GAAP net income per share for 2019 (collectively, the "2019 Performance Targets") during the one-year performance period. In August 2019, the Compensation Committee of the Company's Board of Directors amended the 2019 Performance Targets to provide for the award of up to 40% of the total number of shares subject to a stock option award in the event the annual corporate financial targets are not met but the quarterly corporate financial targets are met. In February 2020, the Compensation Committee of the Company's Board of Directors certified that 30% of the PSOs were earned, of which 25% of the shares of common stock vested on that date and the remaining 75% of the shares of common stock earned will vest in substantially equal quarterly installments over the subsequent 3 years, subject to the executive's continuous service with the Company through the respective vesting dates.

In February 2020, PSOs exercisable for up to an aggregate of 0.8 million shares of common stock were granted to certain Company executives with a grant date fair value of \$9.16 per share. The actual number of shares earned is contingent upon achievement of annual corporate financial targets for bookings and non-GAAP net income for 2020 (collectively, the "2020 Performance Targets") during the one-year performance period. Under the 2020 Performance Targets, if non-GAAP net income is below 80% of target and bookings are below 90% of target, no shares are awarded. From this base, shares are awarded on a 50% weighting for both non-GAAP net income and bookings up to 100% for each 2020 Performance Target using a sliding scale. In February 2021, the Compensation Committee of the Company's Board of Directors certified the full achievement of the 2020 Performance Targets subject to the four year services condition. As such, 25% of the shares of the PSOs were vested on that date, and the remaining 75% of the shares of common stock will vest substantially equal quarterly installments over the subsequent 36 months, subject to the executive's continuous service with the Company through the respective vesting dates. Stock-based compensation expense of \$1.6 million was recognized for the year ended December 31, 2020 related to these awards.

Stock Options

The following table summarizes the activity of stock options under the Company's equity incentive plans (in thousands, except per share data):

Stock Options	Number of Shares	Weighted-Average Exercise Price Per Share	Weighted-Average Remaining Contractual Life (in years)	Aggregate Intrinsic Value ⁽¹⁾
Outstanding as of December 31, 2019	6,877	\$ 7.66		
Granted	2,379	14.25		
Exercised	(1,088)	8.25		
Canceled	(1,367)	8.19		
Outstanding as of December 31, 2020	6,801	\$ 9.76	7.50	\$ 136,032
Vested and expected to vest as of December 31, 2020	6,629	\$ 9.63	7.45	\$ 133,412
Options exercisable as of December 31, 2020	3,171	\$ 7.30	5.82	\$ 71,208

(1) Amounts represent the difference between the exercise price and the fair market value of common stock at December 31, 2020 of \$29.76 per share for all in the money options outstanding.

During the years ended December 31, 2020, 2019 and 2018, total intrinsic value of stock options exercised was \$6.7 million, \$0.2 million and \$0.1 million, respectively. Total cash received from employees as a result of stock option exercises in 2020, 2019 and 2018 was \$9.0 million, \$0.4 million and \$0.4 million, respectively. Total fair values of stock options vested during 2020, 2019 and 2018 were \$4.4 million, \$7.6 million and \$2.7 million, respectively.

Restricted Stock Units

The following table summarizes the activities of the Company's RSUs under the Company's equity incentive plans (in thousands, except per share data):

	RSUs	
	Number of Shares	Weighted-Average Grant Date Fair Value Per Share
Outstanding as of December 31, 2019	334	\$ 6.71
Granted	112	11.22
Vested	(314)	6.70
Canceled	(5)	6.78
Outstanding as of December 31, 2020	127	\$ 10.71

Employee Stock Purchase Plans

The Company maintains two employee stock purchase plans - the Amended and Restated Employee Stock Purchase Plan (the "ESPP") and the Amended and Restated 2017 Nonqualified Employee Stock Purchase Plan (the "NQ ESPP").

The ESPP allows eligible employees to purchase shares of the Company's common stock through payroll deductions of up to 15% of their annual compensation subject to certain Internal Revenue Code limitations. In addition, no participant may purchase more than 2,000 shares of common stock in each offering period.

During 2020, the Company revised the ESPP's two six-month offering periods to August 15th through February 14th and February 15th through August 14th of each year, with a transition period that began on May 15th and ended on August 14, 2020. The price of common stock purchased under the ESPP is 85% of the lower of the fair market value of the common stock on the commencement date and the end date of each six-month offering period. In May 2019, the stockholders approved an increase in the number of shares of common stock issuable under the ESPP by 2.5 million shares. The total shares authorized for issuance under the ESPP increased from 7.3 million shares to 9.8 million shares. As of December 31, 2020, there were 2.6 million shares available for issuance under the ESPP. During the year ended December 31, 2020, 0.6 million shares were purchased under the

ESPP, respectively. As of December 31, 2020, unrecognized stock-based compensation expense of \$0.4 million related to the ESPP is expected to be recognized over a remaining service period of 0.1 years.

The NQ ESPP allows eligible employees to purchase shares of the Company's common stock through payroll deductions of up to 25% of their annual compensation. Eligible employees have the right to (a) purchase the maximum number of whole shares of common stock that can be purchased with the elected payroll deductions during each offering period for which the employee is enrolled at a purchase price equal to the closing price of the Company's common stock on the last day of such offering period and (b) receive an equal number of shares of the Company's common stock that are subject to a risk of forfeiture in the event the employee terminates employment within the one year period immediately following the purchase date. Beginning in the fourth quarter of 2020, the NQ ESPP's two six-month offering periods changed to November 15th through May 14th and May 15th through November 14th of each year, with a transition period that began on June 21, 2020 and ended on November 14, 2020. In May 2020, the stockholders approved an amendment of certain terms and an increase in the number of shares of common stock issuable under the NQ ESPP by 1.2 million shares. The maximum number of shares of common stock currently authorized for issuance under the NQ ESPP is 4.7 million shares, with a maximum of 0.5 million shares allocated per purchase period. As of December 31, 2020, there were 2.3 million shares available for issuance under the NQ ESPP, including the stockholder-approved 1.2 million share increase. During the year ended December 31, 2020, 0.5 million shares were purchased and issued. As of December 31, 2020, unrecognized stock-based compensation expense of \$5.2 million related to the NQ ESPP is expected to be recognized over a remaining weighted-average service period of 1.1 years.

Stock-Based Compensation

During the years ended December 31, 2020, 2019 and 2018, the Company recorded stock-based compensation expense of \$14.0 million, \$11.2 million and \$17.5 million, respectively.

The following table summarizes stock-based compensation expense (in thousands):

	Years Ended December 31,		
	2019	2019	2018
Cost of revenue:			
Products	\$ 575	\$ 507	\$ 885
Services	450	389	363
Sales and marketing	4,273	3,415	5,787
Research and development	4,736	3,913	5,969
General and administrative	3,926	2,957	4,469
	<u>\$ 13,960</u>	<u>\$ 11,181</u>	<u>\$ 17,473</u>

The following table summarizes the weighted-average grant date fair values of the Company's stock-based awards granted in the periods indicated:

	Years Ended December 31,		
	2020	2019	2018
Stock options	\$ 8.55	\$ 3.66	\$ 3.41
RSUs	\$ 11.22	\$ 6.62	\$ 6.66
ESPP	\$ 5.52	\$ 2.04	\$ 2.21
Nonqualified ESPP	\$ 19.40	\$ 7.24	\$ 7.34

The Company values the RSUs and employee stock purchase rights under the Nonqualified ESPP at the closing market price of the Company's common stock on the date of grant.

The Company estimates the fair value of stock options and employee stock purchase right under the ESPP at the grant date using the Black-Scholes option-pricing model. This model requires the use of the following assumptions:

- (i) Expected volatility of the Company's common stock – The Company computes its expected volatility assumption based on a blended volatility (50% historical volatility and 50% implied volatility from traded options on the Company's common stock). The selection of a blended volatility assumption was based upon the Company's assessment that a blended volatility is more representative of the Company's future stock price trend as it weighs the historical volatility with the future implied volatility.
- (ii) Expected life of the option award – Represents the weighted-average period that the stock options are expected to remain outstanding. The Company's computation of expected life utilizes the simplified method in accordance with Staff Accounting Bulletin No. 110 due to the lack of sufficient historical exercise data to provide a reasonable basis upon which to estimate expected term. The mid-point between the vesting date and the expiration date is used as the expected term under this method.

- (iii) Expected dividend yield – Assumption is based on the Company’s history of not paying dividends and no future expectations of dividend payouts.
- (iv) Risk-free interest rate – Based on the U.S. Treasury yield curve in effect at the time of grant with maturities approximating the grant’s expected life.

The following table summarizes the weighted-average assumptions used in estimating the grant-date fair value of stock options and of each employee’s purchase right under the ESPP in the periods indicated:

Stock Options	Years Ended December 31,		
	2020	2019	2018
Expected volatility	53 %	47 %	50 %
Expected life (years)	6.11	6.11	6.11
Expected dividend yield	—	—	—
Risk-free interest rate	0.48 %	1.67 %	2.83 %

ESPP	Years Ended December 31,		
	2020	2019	2018
Expected volatility	70 %	48 %	42 %
Expected life (years)	0.39	0.49	0.50
Expected dividend yield	—	—	—
Risk-free interest rate	0.12 %	2.03 %	2.21 %

In addition, the Company applies an estimated forfeiture rate to awards granted and records stock-based compensation expense only for those awards that are expected to vest. Forfeiture rates are estimated at the time of grant based on the Company’s historical experience. Further, to the extent the Company’s actual forfeiture rate is different from management’s estimate, stock-based compensation is adjusted accordingly.

As of December 31, 2020, unrecognized stock-based compensation expense by award type, net of estimated forfeitures, and their expected weighted-average recognition periods are summarized in the following table (in thousands).

	Stock Option	RSU	ESPPs
Unrecognized stock-based compensation expense	\$ 15,604	\$ 518	\$ 5,530
Weighted-average amortization period (in years)	3.0	0.4	1.0

The Company expects to recognize stock-based compensation expense of \$10.6 million in 2021, \$5.1 million in 2022, \$4.0 million in 2023 and \$2.0 million in 2024.

Shares Reserved for Future Issuance

As of December 31, 2020, the Company had common shares reserved for future issuance as follows (in thousands):

Stock options outstanding	6,801
Restricted stock units outstanding	127
Shares available for future grant under 2019 Plan	4,344
Shares available for future issuance under ESPP	2,596
Shares available for future issuance under Nonqualified ESPP	2,274
	<u>16,142</u>

8. Employee Benefit Plan

The Company sponsors a 401(k) tax-deferred savings plan for all employees who meet certain eligibility requirements. Participants may contribute, on a pre-tax basis, a percentage of their annual compensation, but not to exceed a maximum contribution amount pursuant to Section 401(k) of the Internal Revenue Code. The Company, at the discretion of the Board of Directors, may make additional matching contributions on behalf of the participants. The Company made matching contributions totaling \$2.7 million, \$2.5 million and \$2.5 million in 2020, 2019 and 2018, respectively.

9. Accumulated Other Comprehensive Loss

The table below summarizes the changes in accumulated other comprehensive loss by component:

	Foreign Currency Translation Adjustments
Balance as of December 31, 2018	\$ (753)
Other comprehensive loss	(101)
Balance as of December 31, 2019	(854)
Other comprehensive income	663
Balance as of December 31, 2020	\$ (191)

Assets and liabilities of the Company's wholly owned foreign subsidiaries are translated from their respective functional currencies at exchange rates in effect at the balance sheet date, and revenue and expenses are translated at the monthly average exchange rates. These translations result in differences called foreign currency translation adjustments. Realized foreign currency transaction gains or losses were not significant during the years ended December 31, 2020, 2019 and 2018 and are recorded in "Other income (expense), net" in the Company's Consolidated Statements of Comprehensive Loss.

10. Income Taxes

The domestic and foreign components of income (loss) before provision for incomes taxes were as follows (in thousands):

	Years Ended December 31,		
	2020	2019	2018
Domestic	\$ 33,777	\$ (17,935)	\$ (20,463)
Foreign	507	1,403	1,695
	<u>\$ 34,284</u>	<u>\$ (16,532)</u>	<u>\$ (18,768)</u>

Provision for income taxes consisted of the following (in thousands):

	Years Ended December 31,		
	2020	2019	2018
Current:			
State	\$ 285	\$ 313	\$ 105
Foreign	507	835	360
Current income tax	792	1,148	465
Deferred foreign income tax	8	14	65
	<u>\$ 800</u>	<u>\$ 1,162</u>	<u>\$ 530</u>

The differences between the statutory and effective tax rates, expressed as a percentage of net income (loss) before income taxes, were as follows:

	Years Ended December 31,		
	2020	2019	2018
Federal statutory rate	21.0 %	21.0 %	21.0 %
State statutory rate	0.1	5.6	5.7
Foreign operations	0.6	(2.8)	0.3
R&D tax credits	(4.8)	6.2	7.2
Foreign income inclusion	—	(1.3)	(1.2)
Stock-based compensation	(4.1)	(5.1)	(4.3)
Other permanent items	0.6	(2.0)	(1.6)
Tax true-up	(0.4)	(11.8)	(2.3)
Valuation allowance	(48.1)	(16.8)	(25.6)
Net operating loss expiration	37.4	—	—
ASC 606 adjustment	—	—	(2.0)
	<u>2.3 %</u>	<u>(7.0)%</u>	<u>(2.8)%</u>

The significant components of the Company's deferred tax assets were as follows (in thousands):

	December 31,	
	2020	2019
Deferred tax assets:		
Net operating loss carryforwards	\$ 114,973	\$ 135,019
Tax credit carryforwards	49,978	47,324
Depreciation and amortization	681	1,541
Accruals and reserves	10,753	9,316
Deferred revenue	9,219	8,488
Stock-based compensation	4,821	4,761
Intangible assets	(568)	(111)
Other	(18)	(10)
Gross deferred tax assets	189,839	206,328
Valuation allowance	(189,858)	(206,339)
	<u>\$ (19)</u>	<u>\$ (11)</u>

All deferred taxes, along with any related valuation allowance, are classified in the Consolidated Balance Sheet as long-term.

Management reviews the recognition of deferred tax assets to determine if realization of such assets is more likely than not. The realization of the Company's deferred tax assets is dependent upon the evaluation of historic losses, reversing temporary differences, and future earnings. As of December 31, 2020, the positive evidence includes 3 years of cumulative U.S. profitability. The negative evidence includes historic cumulative losses from 1999 through the third quarter of 2020, expiring attributes that are unavailable for utilization, uneven financial results from year to year, and uncertainly related to the COVID-19 pandemic which makes the evaluation of future earnings challenging. Using the more likely than not criteria specified in the applicable accounting guidance, this negative evidence cannot be overcome by positive evidence currently available to the Company. As a result, the Company has maintained a full valuation allowance against its deferred tax assets with the exception of certain foreign deferred tax assets. The Company's valuation allowance decreased by \$16.5 million in 2020 and increased by \$2.8 million in 2019.

As of December 31, 2020, the Company had U.S. federal and state net operating losses of approximately \$518.4 million and \$110.6 million, respectively. The U.S. federal net operating loss carryforwards have begun to expire and will continue to expire at various dates through 2040 if not utilized. The state net operating loss carryforwards have begun to expire and will continue to expire at various dates through 2040, if not utilized. Additionally, the Company has U.S. federal, California and other U.S. states research and development credits of approximately \$37.3 million, \$38.0 million and \$3.1 million, respectively, as of December 31, 2020. The U.S. federal research and development credits will begin to expire in 2020 and the California research

and development credits have no expiration date. The credits related to other various U.S. states have begun to expire and will continue to expire at various dates through 2035.

In 2019, the Company reassessed its plan to continue to reinvest its foreign earnings overseas. The Company no longer asserts ASC 740-30 indefinite reinvestment of its historical non-U.S. earnings or future non-U.S. earnings. As such, for the year ended December 31, 2020, the Company recorded a current and cumulative tax expense of \$0.1 million and \$0.6 million, respectively, for the estimated withholding, state income tax and foreign income tax associated with repatriating non-U.S. earnings back to the United States.

Uncertain Tax Positions

ASC 740, "Income Taxes," prescribes a recognition threshold and measurement attribute to the financial statement recognition and measurement of a tax position taken or expected to be taken in a tax return. The guidance also provides guidance on derecognition, classification, accounting in interim periods and disclosure requirements for uncertain tax positions. The standard requires the Company to recognize the financial statement effects of an uncertain tax position when it is more likely than not that such position will be sustained upon audit. The Company recognizes accrued interest and penalties related to unrecognized tax benefits as interest expense and income tax expense, respectively, in statements of comprehensive loss.

The following table reconciles the Company's unrecognized tax benefits (in thousands):

	Years Ended December 31,	
	2020	2019
Balance at beginning of year	\$ 22,264	\$ 21,998
Addition (reduction) for tax positions related to prior year	(163)	(382)
Additions for tax positions related to current year	1,415	648
Balance at end of year	<u>\$ 23,516</u>	<u>\$ 22,264</u>

As of December 31, 2020 and 2019, the Company had unrecognized tax benefits of \$23.5 million and \$22.3 million, respectively, none of which would affect the Company's effective tax rate if recognized. There were no accrued interest or penalties for uncertain income tax as of December 31, 2020.

The Company files tax returns in the United States and various state jurisdictions, the United Kingdom, China and Brazil. The tax years 2000 through 2020 remain open and subject to examination by the appropriate governmental agencies due to tax attribute carryforwards.

11. Net Income (Loss) Per Common Share

The following table sets forth the computation of basic and diluted net income (loss) per common share for the periods indicated (in thousands, except per share data):

	Years Ended December 31,		
	2020	2019	2018
Numerator:			
Net income (loss)	\$ 33,484	\$ (17,694)	\$ (19,298)
Denominator:			
Weighted-average common shares — basic	59,074	54,993	52,609
Effect of dilutive potential common shares	2,924	—	—
Weighted-average common shares — diluted	<u>61,998</u>	<u>54,993</u>	<u>52,609</u>
Basic net income (loss) per common share	\$ 0.57	\$ (0.32)	\$ (0.37)
Diluted net income (loss) per common share	\$ 0.54	\$ (0.32)	\$ (0.37)
Potentially dilutive shares excluded, weighted-average	753	6,607	5,833

Unvested restricted stock awards are included in the calculation of basic weighted-average shares because such shares are participating securities; however, the impact was immaterial.

Potentially dilutive shares have been excluded from the computation of diluted net income (loss) per common share when their effect is antidilutive. These antidilutive shares were primarily from stock options and RSUs. For each of the periods presented where the Company reported a net loss, the effect of all potentially dilutive securities would be antidilutive, and as a result diluted net loss per common share is the same as basic net loss per common share.

12. Revenue from Contracts with Customers

The Company develops, markets and sells communications access systems and software, and there are no segment managers who are held accountable for operations, operating results and plans for levels or components below the Company unit level. Accordingly, the Company is considered to be in a single reporting segment and operating unit structure. The Company's chief operating decision maker is the Company's Chief Executive Officer, who reviews financial information presented on a Company-wide basis, for purposes of allocating resources and evaluating financial performance.

Geographic Information:

The following is a summary of revenue by geographic region based upon the location of the customers (in thousands):

	Years Ended December 31,		
	2020	2019	2018
United States	\$ 469,649	\$ 365,586	\$ 386,341
Europe	22,924	11,480	8,858
Canada	16,842	14,531	10,542
Middle East	14,071	18,664	18,814
Caribbean	9,864	5,809	7,075
Other	7,889	8,260	9,690
	<u>\$ 541,239</u>	<u>\$ 424,330</u>	<u>\$ 441,320</u>

The Company's property and equipment, net of accumulated depreciation, are located in the following geographical areas (in thousands):

	December 31,	
	2020	2019
United States	\$ 19,383	\$ 20,510
China	998	1,017
	<u>\$ 20,381</u>	<u>\$ 21,527</u>

Contract Asset

The primary contract asset is revenue recognized on professional services contracts where the services are transferred to the customer over time, which has yet to be billed, and is classified within accounts receivable. Amounts are billed in accordance with the agreed-upon contractual terms. The balance at December 31, 2019 was \$5.0 million of which \$0.4 million remained in the Company's Consolidated Balance Sheet at December 31, 2020. The closing balance as of December 31, 2020 was \$2.3 million of which the Company expects to bill 92% of the balance during 2021. The decrease in the contract asset was driven by billings for past services as well as the timing and volume of professional services contracts.

Contract Liability

Deferred revenue consisted of the following (in thousands):

	December 31,	
	2020	2019
Current:		
Products and services	\$ 14,651	\$ 12,480
Extended warranty	4,538	4,678
	<u>19,189</u>	<u>17,158</u>
Long-term:		
Products and services	1,879	790
Extended warranty	18,025	17,550
	<u>19,904</u>	<u>18,340</u>
	<u>\$ 39,093</u>	<u>\$ 35,498</u>

The increase in the deferred revenue balance for the year ended December 31, 2020 is primarily driven by cash payments received or due in advance of satisfying the Company's performance obligations, offset by \$15.8 million of revenue recognized that was included in the deferred revenue balance at the beginning of the year.

Revenue allocated to remaining performance obligations represent contract revenue that has not yet been recognized, which includes deferred revenue and amounts that will be invoiced and recognized as revenue in future periods. This amount was

\$71.1 million as of December 31, 2020, and the Company expects to recognize 40% of such revenue over the next 12 months and the remainder thereafter.

Contract Costs

The Company capitalizes certain sales commissions related primarily to extended warranty support for which the expected amortization period is greater than one year. As of December 31, 2020, the unamortized balance of deferred commissions was \$0.7 million. For the year ended December 31, 2020, the amount of amortization was \$0.2 million, and there was no impairment loss in relation to the costs capitalized.

Concentration of Customer Risk

Concentrations of credit risk in relation to customers with an accounts receivable balance of 10% or greater of total accounts receivable and customers with net revenue of 10% or greater of total revenue are presented below for the periods indicated.

	Percentage of Accounts Receivable		Percentage of Revenue		
	December 31,		Years Ended December 31,		
	2020	2019	2020	2019	2018
Lumen Technologies, Inc. (formerly CenturyLink, Inc.)	< 10%	17%	11%	15%	18%

13. Product Line Divestiture

In February 2018, the Company sold its outdoor cabinet product line to Clearfield, Inc. (“Clearfield”) for \$10.4 million in cash as well as the assumption by Clearfield of the related product warranty liabilities and open purchase order commitments with a CM. The Company transferred \$2.1 million in net inventory and agreed to solicit orders on Clearfield’s behalf on the newly transferred outdoor cabinets product lines free of charge for 15 months. The Company established a liability of \$1.6 million in deferred revenue for providing this service and amortized this amount to service revenue over the corresponding 15-month period. The Company also recognized a \$6.7 million gain for the year ended December 31, 2018 within operating expenses in the accompanying Consolidated Statements of Comprehensive Loss.

14. Quarterly Financial Data—Unaudited

The Company’s fiscal year begins on January 1st and ends on December 31st. Quarterly periods are based on a 4-4-5 fiscal calendar with the first quarter ending on the Saturday closest to March 31st. As a result, the Company had one fewer day in the first quarter of 2020 and two more days in the fourth quarter of 2020 than in the respective 2019 periods.

The following table presents selected unaudited quarterly financial data of the Company (in thousands, except per share data). The Company’s quarterly results of operations for these periods are not necessarily indicative of future results of operations.

	2020 Quarter Ended			
	March 28	June 27	September 26	December 31
Revenue	\$ 101,682	\$ 119,023	\$ 150,508	\$ 170,026
Gross profit	45,624	56,405	75,975	89,015
Operating income (loss)	(6,340)	(3,338)	21,750	24,774
Net income (loss)	(6,944)	(4,212)	20,538	24,102
Net income (loss) per common share, basic	\$ (0.12)	\$ (0.07)	\$ 0.34	\$ 0.39
Net income (loss) per common share, diluted	\$ (0.12)	\$ (0.07)	\$ 0.32	\$ 0.37

	2019 Quarter Ended			
	March 30	June 29	September 28	December 31
Revenue	\$ 89,350	\$ 100,304	\$ 114,485	\$ 120,191
Gross profit	38,343	44,668	50,202	54,712
Operating income (loss)	(9,113)	(4,931)	(2,851)	1,494
Net income (loss)	(9,767)	(5,045)	(3,379)	497
Net income (loss) per common share, basic and diluted	\$ (0.18)	\$ (0.09)	\$ (0.06)	\$ 0.01

ITEM 9. Changes in and Disagreements with Accountants on Accounting and Financial Disclosure

There were no changes in nor any disagreements with accountants on accounting principles or practices, financial statement disclosure, auditing scope or procedures, or other reportable events requiring disclosure pursuant to Item 304(b) of Regulation S-K.

ITEM 9A. Controls and Procedures

Evaluation of Disclosure Controls and Procedures

As of the end of the period covered by this report, which we refer to as the evaluation date, we carried out an evaluation under the supervision and with the participation of management, including our principle executive officer and principle financial officer, of our disclosure controls and procedures (as defined in Rules 13a-15(e) and 15d-15(e) under the Exchange Act).

The purpose of this evaluation was to determine whether as of the evaluation date our disclosure controls and procedures were effective to provide reasonable assurance that the information we are required to disclose in our filings with the SEC, (i) is recorded, processed, summarized and reported within the time periods specified in the SEC's rules and forms and (ii) accumulated and communicated to our management, including our principal executive officer and our principal financial officer, as appropriate to allow timely decisions regarding required disclosure. Based upon this evaluation, our principal executive officer and our principal financial officer concluded that our disclosure controls and procedures were effective at the reasonable assurance level as of the end of the period covered by this report.

Management's Report on Internal Control Over Financial Reporting

Management is responsible for establishing and maintaining adequate internal control over financial reporting. Our internal control over financial reporting is 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. 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. Management has evaluated the effectiveness of our internal control over financial reporting as of December 31, 2020 using the criteria set forth in the Internal Control—Integrated Framework issued by the Committee of Sponsoring Organizations of the Treadway Commission, or COSO, (2013 framework). Based on our evaluation, management has concluded that we maintained effective control over financial reporting as of December 31, 2020 based on the COSO criteria. The effectiveness of our internal control over financial reporting as of December 31, 2020 has been audited by KPMG LLP, an independent registered public accounting firm, as stated in their report included in this Annual Report on Form 10-K.

Limitations on the Effectiveness of Controls

Our disclosure controls and procedures provide our principal executive officer and our principal financial officer reasonable assurances that our disclosure controls and procedures will achieve their objectives. However, our management, including our principal executive officer and our principal financial officer, does not expect that our disclosure controls and procedures or our internal control over financial reporting can or will prevent all human error. A control system, no matter how well designed and implemented, can provide only reasonable, not absolute, assurance that the objectives of the control system are met. Furthermore, the design of a control system must reflect the fact that there are internal resource constraints, and the benefit of controls must be weighed relative to their corresponding costs. Because of the limitations in all control systems, no evaluation of controls can provide complete assurance that all control issues and instances of error, if any, within our company are detected. These inherent limitations include the realities that judgments in decision-making can be faulty, and that breakdowns can occur due to human error or mistake. Additionally, controls, no matter how well designed, could be circumvented by the individual acts of specific persons within the organization. The design of any system of controls is also based in part upon certain assumptions about the likelihood of future events, and there can be no assurance that any design will succeed in achieving its stated objectives under all potential future conditions.

Changes in Internal Control over Financial Reporting

There was no change in our internal control over financial reporting identified in connection with the evaluation required by Rule 13a-15(d) and 15d-15(d) of the Exchange Act that occurred during the fourth quarter of 2020 that has materially affected, or is reasonably likely to materially affect, our internal control over financial reporting.

ITEM 9B. Other Information

None.

PART III

ITEM 10. Directors, Executive Officers and Corporate Governance

Information required by this Item 10 relating to our directors is incorporated by reference to the information set forth under the captions “Proposal No. 1—Election of Directors” and “Director Compensation” and in other applicable sections of the Proxy Statement for the 2021 Annual Meeting of Stockholders to be filed with the Securities and Exchange Commission pursuant to Regulation 14A of the Exchange Act, or the Proxy Statement, to be filed within 120 days of the end of the fiscal year covered by this Report. Information required by this Item 10 relating to our officers is incorporated by reference to the information set forth under the captions “Executive Officers” and “Executive Compensation” and in other applicable sections of the Proxy Statement. Information regarding our Section 16 reporting compliance is incorporated by reference to the information set forth under the captions “Security Ownership of Certain Beneficial Owners and Management” and “Section 16(a) Beneficial Ownership Reporting Compliance” of the Proxy Statement.

We have adopted a code of ethics, which applies to all employees, officers and directors of Calix. The Code of Business Conduct and Ethics meets the requirements of a “code of ethics” as defined by Item 406 of Regulation S-K, and applies to our Chief Executive Officer, Chief Financial Officer and all other employees, as indicated above. The Code of Business Conduct and Ethics also meets the requirements of a code of conduct under NYSE listing standards. The Code of Business Conduct and Ethics is posted on our website at www.calix.com under the links “About - Investor Relations - Governance - Code of Conduct.” We intend to disclose any amendments to the Code of Business Conduct and Ethics, as well as any waivers for executive officers or directors, on our website at www.calix.com.

ITEM 11. Executive Compensation

Information required by this Item 11 relating to executive compensation and other matters is incorporated by reference to the information set forth under the caption “Compensation Discussion and Analysis” and in other applicable sections of the Proxy Statement.

ITEM 12. Security Ownership of Certain Beneficial Owners and Management and Related Stockholder Matters

Information required by this Item 12 relating to security ownership of certain beneficial owners and management and related stockholder matters is incorporated by reference to the information set forth under the caption “Security Ownership of Certain Beneficial Owners and Management” and in other applicable sections of the Proxy Statement. Information regarding securities authorized for issuance under our equity compensation plans is incorporated by reference to the information set forth under the caption “Equity Compensation Plan Information” of the Proxy Statement.

ITEM 13. Certain Relationships and Related Transactions, and Director Independence

Information required by this Item 13 relating to certain relationships and related transactions and director independence is incorporated by reference to the information set forth under the caption “Certain Relationships and Related Transactions” and in other applicable sections of the Proxy Statement.

ITEM 14. Principal Accountant Fees and Services

Information required by this Item 14 relating to principal account fees and services is incorporated by reference to the information set forth under the caption “Principal Accountant Fees and Services” of the Proxy Statement.

PART IV

ITEM 15. Exhibits, Financial Statement Schedules

(a) The following documents are filed as part of this Report:

1. Consolidated Financial Statements

The consolidated financial statements of Calix and the report of independent registered public accounting firm thereon are set forth under Part II, Item 8 of this report.

Report of Independent Registered Public Accounting Firm	40
Consolidated Balance Sheets, As of December 31, 2020 and 2019	42
Consolidated Statements of Comprehensive Income (Loss), Years Ended December 31, 2020, 2019 and 2018	43
Consolidated Statements of Stockholders' Equity, Years Ended December 31, 2020, 2019 and 2018	44
Consolidated Statements of Cash Flows, Years Ended December 31, 2020, 2019 and 2018	45
Notes to Consolidated Financial Statements	46

2. Consolidated Financial Statement Schedules

All schedules have been omitted because they are not applicable, not required, not presently in amounts sufficient to require submission of the schedule, or the information required to be set forth therein is included in the consolidated financial statements or notes thereto.

3. Exhibits

The following exhibits are filed with or incorporated by reference in this report. Where such filing is made by incorporation by reference to a previously filed registration statement or report, such registration statement or report is identified in parentheses. We will furnish any exhibit upon request to: Calix Investor Relations, Thomas J. Dinges at Tom.Dinges@calix.com.

Exhibit Number	Description
3.1	Amended and Restated Certificate of Incorporation of Calix, Inc. (filed as Exhibit 3.3 to Amendment No. 7 to Calix's Registration Statement on Form S-1 filed with the Securities and Exchange Commission on March 23, 2010 (File No. 333-163252) and incorporated by reference)
3.2	Amended and Restated Bylaws of Calix, Inc. (filed as Exhibit 3.5 to Amendment No. 7 to Calix's Registration Statement on Form S-1 filed with the Securities and Exchange Commission on March 23, 2010 (File No. 333-163252) and incorporated by reference)
4.1	Form of Calix, Inc.'s Common Stock Certificate (filed as Exhibit 4.1 to Amendment No. 7 to Calix's Registration Statement on Form S-1 filed with the Securities and Exchange Commission on March 23, 2010 (File No. 333-163252) and incorporated by reference)
4.2	Description of Securities (filed as Exhibit 4.2 to Calix's Form 10-K filed with the SEC on February 21, 2020 (File No. 001-34674) and incorporated by reference).
10.1*	Calix, Inc. 2010 Equity Incentive Award Plan and related documents (filed as Exhibit 10.4 to Amendment No. 6 to Calix's Registration Statement on Form S-1 filed with the SEC on March 8, 2010 (File No. 333-163252) and incorporated by reference)
10.2	Form of Indemnification Agreement made by and between Calix, Inc. and each of its directors, executive officers and some employees (filed as Exhibit 10.5 to Amendment No. 6 to Calix's Registration Statement on Form S-1 filed with the SEC on March 8, 2010 (File No. 333-163252) and incorporated by reference)
10.3*	Offer Letter between Calix, Inc. and Carl Russo dated November 1, 2006 (filed as Exhibit 10.8 to Amendment No. 1 to Calix's Registration Statement on Form S-1 filed with the SEC on December 31, 2009 (File No. 333-163252) and incorporated by reference)
10.4*	Offer Letter by and between Calix, Inc. and Michael Weening dated May 20, 2016 (filed as Exhibit 10.1 to Calix's Form 10-Q filed with the SEC on August 3, 2016 (File No. 001-34674) and incorporated by reference)
10.5*	Letter Agreement dated November 27, 2019 by and between Calix, Inc. and Michael Weening (filed as Exhibit 10.2 to Calix's Form 8-K filed with the SEC on December 3, 2019 (File No. 001-34674) and incorporated by reference)
10.6*	Amendment to Letter Agreement dated November 12, 2020 between Calix, Inc. and Michael Weening
10.7*	Offer Letter between Calix, Inc. and Cory Sindelar dated September 28, 2017 (filed as Exhibit 10.2 to Calix's Form 10-Q filed with the SEC on August 11, 2017 (File No. 001-34674) and incorporated by reference)

Exhibit Number	Description
10.8*	Nonstatutory Inducement Stock Option Grant Notice between Calix, Inc. and Cory Sindelar dated October 1, 2017 (filed as Exhibit 10.3 to Calix's Form 10-Q filed with the SEC on August 11, 2017 (File No. 001-34674) and incorporated by reference)
10.9*	Letter Agreement dated November 27, 2019 by and between Calix, Inc. and Cory Sindelar (filed as Exhibit 10.1 to Calix's Form 8-K filed with the SEC on December 3, 2019 (File No. 001-34674) and incorporated by reference)
10.10	Net Lease Agreement by and between Calix, Inc. and Orchard Parkway San Jose, LLC dated March 9, 2018 (filed as Exhibit 10.2 to Calix's Form 10-Q filed with the SEC on May 5, 2018 (File No. 001-34674) and incorporated by reference)
10.11	First Amendment to Net Lease Agreement by and between Calix, Inc. and Orchard Parkway San Jose, LLC dated November 14, 2018 (filed as Exhibit 10.30 to Calix's Form 10-K filed with the SEC on March 1, 2019 (File No. 001-34674) and incorporated by reference)
10.12	Second Amendment to Net Lease Agreement by and between Calix, Inc. and Orchard Parkway San Jose, LLC dated December 10, 2020
10.13*	Calix, Inc. 2019 Equity Incentive Award Plan (incorporated by reference to Appendix A to the Registrant's definitive proxy statement on Schedule 14A, filed with the SEC on April 1, 2020 (File No. 001-34674))
10.14*	Calix, Inc. 2019 Equity Incentive Award Plan - Form of Notice of Grant of Stock Option and Option Agreement
10.15*	Calix, Inc. Non-Employee Director Cash Compensation Policy, as amended May 16, 2019 (filed as Exhibit 10.1 to Calix's Form 10-Q filed with the SEC on July 25, 2019 (File No. 001-34674) and incorporated by reference)
10.16*	Calix, Inc. Non-Employee Director Equity Compensation Policy, as amended May 16, 2019 (filed as Exhibit 10.2 to Calix's Form 10-Q filed with the SEC on July 25, 2019 (File No. 001-34674) and incorporated by reference)
10.17†	Loan and Security Agreement dated January 27, 2020 by and between Bank of America, N.A. and Calix, Inc. (filed as Exhibit 10.22 to Calix's Form 10-K filed with the SEC on February 21, 2020 (File No. 001-34674) and incorporated by reference)
10.18	Waiver Agreement dated January 27, 2020 by and between Silicon Valley Bank and Calix, Inc. (filed as Exhibit 10.23 to Calix's Form 10-K filed with the SEC on February 21, 2020 (File No. 001-34674) and incorporated by reference)
10.19*	Amended and Restated Employee Stock Purchase Plan effective April 24, 2020 (filed as Exhibit 10.1 to Calix's Form 10-Q filed with the SEC on July 21, 2020 (File No. 001-34674) and incorporated by reference)
10.20*	Amended and Restated 2017 Nonqualified Employee Stock Purchase Plan effective April 24, 2020 (filed as Exhibit 10.2 to Calix's Form 10-Q filed with the SEC on July 21, 2020 (File No. 001-34674) and incorporated by reference)
10.21*	Amended and Restated Executive Change in Control and Severance Plan effective August 13, 2020 (filed as Exhibit 10.1 to Calix's Form 10-Q filed with the SEC on October 20, 2020 (File No. 001-34674) and incorporated by reference)
10.22	First Amendment to Loan and Security Agreement dated December 30, 2020 by and among Calix, Inc., the financial institutions party thereto from time to time as Lenders and Bank of America, N.A. (filed as Exhibit 10.1 to Calix's Form 8-K filed with the SEC on January 6, 2021 (File No. 001-34674) and incorporated by reference)
21.1	Subsidiaries of the Registrant
23.1	Consent of KPMG LLP, independent registered public accounting firm
24.1	Power of Attorney (included on signature page to this Annual Report on Form 10-K)
31.1	Certification of Principal Executive Officer of Calix, Inc. Pursuant to Rule 13a-14(a) of the Securities Exchange Act of 1934
31.2	Certification of Principal Financial Officer of Calix, Inc. Pursuant to Rule 13a-14(a) of the Securities Exchange Act of 1934
32.1	Certification of Principal Executive Officer and Principal Financial Officer of Calix, Inc. 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

* Indicates management contract or compensatory plan or arrangement.

† Information in this exhibit identified by [*] is confidential and has been excluded pursuant to Item 601(b)(10)(iv) of Regulation S-K because it (i) is not material or (ii) would likely cause competitive harm to Calix if publicly disclosed.

ITEM 16. Form 10-K Summary

None.

SIGNATURES

Pursuant to the requirements 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.

Calix, Inc.
(Registrant)

Dated: February 22, 2021

By: /s/ Carl Russo
Carl Russo
Chief Executive Officer
(Principal Executive Officer)

Dated: February 22, 2021

By: /s/ Cory Sindelar
Cory Sindelar
Chief Financial Officer
(Principal Financial Officer)

POWER OF ATTORNEY

Each person whose individual signature appears below hereby authorizes and appoints Carl Russo and Cory Sindelar, and each of them, with full power of substitution and re-substitution and full power to act without the other, as his true and lawful attorney-in-fact and agent to act in his name, place and stead and to execute in the name and on behalf of each person, individually and in each capacity stated below, and to file any and all amendments to this Annual Report on Form 10-K, and to file the same, with all exhibits thereto, and other documents in connection therewith, with the Securities and Exchange Commission, granting unto said attorneys-in-fact and agents, and each of them, full power and authority to do and perform each and every act and thing, ratifying and confirming all that said attorneys-in-fact and agents or any of them or their or his substitute or substitutes may lawfully do or cause to be done by virtue thereof.

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 indicated on February 22, 2021.

<u>Signature</u>	<u>Title</u>	<u>Date</u>
<u>/s/ Carl Russo</u> Carl Russo	Chief Executive Officer and Director (Principal Executive Officer)	February 22, 2021
<u>/s/ Cory Sindelar</u> Cory Sindelar	Chief Financial Officer (Principal Financial Officer)	February 22, 2021
<u>/s/ Don Listwin</u> Don Listwin	Chairman of the Board of Directors	February 22, 2021
<u>/s/ Christopher Bowick</u> Christopher Bowick	Director	February 22, 2021
<u>/s/ Kathy Crusco</u> Kathy Crusco	Director	February 22, 2021
<u>/s/ Kevin DeNuccio</u> Kevin DeNuccio	Director	February 22, 2021
<u>/s/ Michael Everett</u> Michael Everett	Director	February 22, 2021
<u>/s/ Kira Makagon</u> Kira Makagon	Director	February 22, 2021
<u>/s/ Michael Matthews</u> Michael Matthews	Director	February 22, 2021
<u>/s/ Kevin Peters</u> Kevin Peters	Director	February 22, 2021
<u>/s/ J. Daniel Plants</u> J. Daniel Plants	Director	February 22, 2021

**CERTIFICATION OF PRINCIPAL EXECUTIVE OFFICER
PURSUANT TO SECTION 302 OF
THE SARBANES-OXLEY ACT OF 2002**

I, Carl Russo, certify that:

1. I have reviewed this annual report on Form 10-K of Calix, Inc. for the year ended December 31, 2020;
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;
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.

Date: February 22, 2021

/s/ Carl Russo

Carl Russo

Chief Executive Officer
(Principal Executive Officer)

**CERTIFICATION OF PRINCIPAL FINANCIAL OFFICER
PURSUANT TO SECTION 302 OF
THE SARBANES-OXLEY ACT OF 2002**

I, Cory Sindelar, certify that:

1. I have reviewed this annual report on Form 10-K of Calix, Inc. for the year ended December 31, 2020;
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;
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.

Date: February 22, 2021

/s/ Cory Sindelar

Cory Sindelar

Chief Financial Officer
(Principal Financial Officer)

**CERTIFICATION OF PRINCIPAL EXECUTIVE OFFICER AND PRINCIPAL FINANCIAL OFFICER
PURSUANT TO 18 U.S.C. SECTION 1350,
AS ADOPTED PURSUANT TO
SECTION 906 OF THE SARBANES-OXLEY ACT OF 2002**

I, Carl Russo, certify, pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, that the Annual Report of Calix, Inc. (the "Company") on Form 10-K for the fiscal year ended December 31, 2020 fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934 and that information contained in such Annual Report on Form 10-K fairly presents in all material respects the financial condition and results of operations of the Company.

Date: February 22, 2021

/s/ Carl Russo

Carl Russo

Chief Executive Officer
(Principal Executive Officer)

I, Cory Sindelar, certify, pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, that the Annual Report of Calix, Inc. (the "Company") on Form 10-K for the fiscal year ended December 31, 2020 fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934 and that information contained in such Annual Report on Form 10-K fairly presents in all material respects the financial condition and results of operations of the Company.

Date: February 22, 2021

/s/ Cory Sindelar

Cory Sindelar

Chief Financial Officer
(Principal Financial Officer)

This certification accompanies the 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 Calix, Inc. 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 Form 10-K), irrespective of any general incorporation language contained in such filing.

