

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

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**FORM 10-K**

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(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
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**Calix, Inc.**

(Exact Name of Registrant as Specified in Its Charter)

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Delaware (State or Other Jurisdiction of Incorporation or Organization)	68-0438710 (I.R.S. Employer Identification No.)
2777 Orchard Parkway San Jose, California (Address of Principal Executive Offices)	95134 (Zip Code)

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

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

<b>Title of each class</b> Common Stock, \$0.025 par value	<b>Trading symbol</b> CALX	<b>Name of each exchange on which registered</b> The New York Stock Exchange
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**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	<input type="checkbox"/>	Accelerated Filer	<input checked="" type="checkbox"/>
Non-accelerated filer	<input type="checkbox"/>	Smaller Reporting Company	<input type="checkbox"/>
Emerging Growth Company	<input type="checkbox"/>		

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.

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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-base 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](http://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](http://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](http://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**

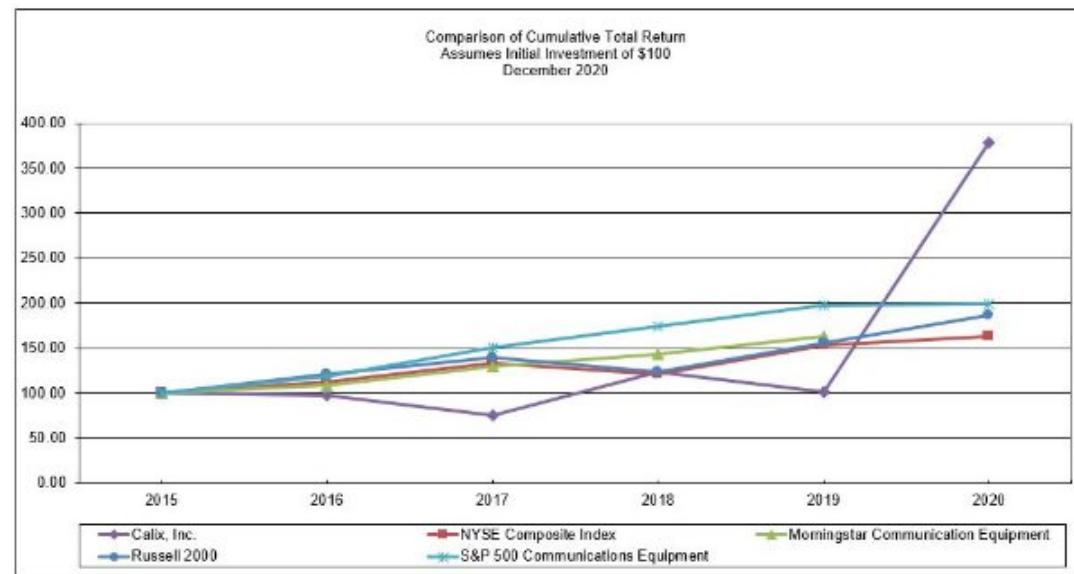
We have never declared or paid any cash dividends on our common stock, and we do not currently intend to pay any cash dividends on our common stock in the foreseeable future. In addition, our BofA Loan Agreement requires BofA's consent before dividends can be declared. See Note 5 “*Credit Agreements*” 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.

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	Years Ended December 31,				
	2020	2019	2018	2017	2016
	(In thousands, except per share data)				
<b>Statement of Operations Data:</b>					
Revenue	\$ 541,239	\$ 424,330	\$ 441,320	\$ 510,367	\$ 458,787
Cost of revenue <sup>(1)</sup>	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 <sup>(1)</sup>	94,185	82,553	86,432	82,781	83,675
Research and development <sup>(1)</sup>	85,258	81,184	89,963	127,541	106,869
General and administrative <sup>(1)</sup>	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)	\$ 33,484	\$ (17,694)	\$ (19,298)	\$ (83,032)	\$ (27,402)
Net income (loss) per common share:					
Basic	\$ 0.57	\$ (0.32)	\$ (0.37)	\$ (1.66)	\$ (0.56)
Diluted	\$ 0.54	\$ (0.32)	\$ (0.37)	\$ (1.66)	\$ (0.56)
Weighted-average number of shares used to compute net income (loss) per common share:					
Basic	59,074	54,993	52,609	50,155	48,730
Diluted	61,998	54,993	52,609	50,155	48,730
<sup>(1)</sup> 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
	\$ 13,960	\$ 11,181	\$ 17,473	\$ 12,368	\$ 14,285
December 31,					
	2020	2019	2018	2017	2016
(In thousands)					
<b>Balance Sheet Data:</b>					
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

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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.

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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.

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### **Results of Operations for Years Ended December 31, 2020 and 2019**

#### **Revenue**

The following table sets forth our revenue (dollars in thousands):

	<b>Years Ended December 31,</b>		<b>2020 vs 2019 Change</b>	
	<b>2020</b>	<b>2019</b>	<b>\$</b>	<b>%</b>
<b>Revenue:</b>				
Systems	\$ 508,552	\$ 393,231	\$ 115,321	29 %
Services	32,687	31,099	1,588	5 %
	<b>\$ 541,239</b>	<b>\$ 424,330</b>	<b>\$ 116,909</b>	<b>28 %</b>
Percent of total revenue:				
Systems	94 %	93 %		
Services	6 %	7 %		
	<b>100 %</b>	<b>100 %</b>		

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):

	<b>Years Ended December 31,</b>		<b>2020 vs 2019 Change</b>	
	<b>2020</b>	<b>2019</b>	<b>\$</b>	<b>%</b>
<b>Cost of revenue:</b>				
Systems	\$ 251,638	\$ 211,309	\$ 40,329	19 %
Services	22,582	25,096	(2,514)	(10)%
	<b>\$ 274,220</b>	<b>\$ 236,405</b>	<b>\$ 37,815</b>	<b>16 %</b>

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):

	<b>Years Ended December 31,</b>		<b>2020 vs 2019 Change</b>	
	<b>2020</b>	<b>2019</b>	<b>\$</b>	<b>%</b>
<b>Gross profit:</b>				
Systems	\$ 256,914	\$ 181,922	\$ 74,992	41 %
Services	10,105	6,003	4,102	68 %
	<b>\$ 267,019</b>	<b>\$ 187,925</b>	<b>\$ 79,094</b>	<b>42 %</b>
<b>Gross margin:</b>				
Systems	50.5 %	46.3 %		
Services	30.9 %	19.3 %		
	<b>49.3 %</b>	<b>44.3 %</b>		

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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 %		

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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 of 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.

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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,

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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 <sup>(1)</sup>	\$ 123,660	\$ 123,660	\$ —	\$ —	\$ —
Operating lease obligations <sup>(2)</sup>	18,653	3,935	7,729	6,947	42
Revenue share obligation <sup>(3)</sup>	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>

<sup>(1)</sup> 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.

<sup>(2)</sup> 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.

<sup>(3)</sup> 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
	100 %	100 %	100 %

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

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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
<b>ASSETS</b>		
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	<u>266,890</u>	<u>143,817</u>
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>
<b>LIABILITIES AND STOCKHOLDERS' EQUITY</b>		
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	<u>101,040</u>	<u>115,493</u>
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	<u>147,027</u>	<u>162,795</u>
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	<u>280,325</u>	<u>154,028</u>
	<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	267,019	187,925	197,382
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	36,846	(15,401)	(18,514)
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	34,284	(16,532)	(18,768)
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	\$ 0.57	\$ (0.32)	\$ (0.37)
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	59,074	54,993	52,609
Diluted	<u>61,998</u>	<u>54,993</u>	<u>52,609</u>
Net income (loss)	\$ 33,484	\$ (17,694)	\$ (19,298)
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					
<b>Balance as of December 31, 2017</b>	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)
<b>Balance as of December 31, 2018</b>	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)
<b>Balance as of December 31, 2019</b>	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
<b>Balance as of December 31, 2020</b>	62,122	\$ 1,553	\$ 948,055	\$ (191)	\$ (669,092)	\$ —	\$ 280,325

See accompanying notes to consolidated financial statements.

**CALIX, INC.**  
**CONSOLIDATED STATEMENTS OF CASH FLOWS**  
(In thousands)

	Years Ended December 31,		
	2020	2019	2018
<b>Operating activities:</b>			
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>
<b>Investing activities:</b>			
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>
<b>Financing activities:</b>			
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>
<b>Supplemental disclosures of cash flow information:</b>			
Interest paid	\$ 1,686	\$ 1,123	\$ 649
Income taxes paid	\$ 751	403	561
<b>Non-cash investing activities:</b>			
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

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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

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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

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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.

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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.

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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):

	<b>December 31,</b>	
	<b>2020</b>	<b>2019</b>
<b>Cash and cash equivalents:</b>		
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
<b>Restricted cash</b>		
Total cash, cash equivalents and restricted cash	80,807	47,457
<b>Marketable securities – U.S. government securities</b>		
	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):

<b>As of December 31, 2020</b>	<b>Level 1</b>
Money market funds	\$ 10,068
U.S. government securities	92,976
	\$ 103,044

<b>As of December 31, 2019</b>	<b>Level 1</b>
Money market funds	\$ 14

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### 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).

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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>

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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><u>\$ 9,208</u></u>	<u><u>\$ 7,294</u></u>	<u><u>\$ 8,547</u></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><u>\$ 1,244</u></u>	<u><u>\$ 132</u></u>	<u><u>\$ 1,376</u></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%.

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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)
	<hr/>
	\$ 15,940

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
	<hr/>
	\$ 15,940

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.

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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.

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### *Stock Options*

The following table summarizes the activity of stock options under the Company's equity incentive plans (in thousands, except per share data):

<b>Stock Options</b>	<b>Number of Shares</b>	<b>Weighted-Average Exercise Price Per Share</b>	<b>Weighted-Average Remaining Contractual Life (in years)</b>		<b>Aggregate Intrinsic Value <sup>(1)</sup></b>
			<b>Remaining Contractual Life (in years)</b>	<b>Aggregate Intrinsic Value <sup>(1)</sup></b>	
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):

	<b>Number of Shares</b>	<b>RSUs</b>	
		<b>Weighted-Average Grant Date Fair Value Per Share</b>	<b>Weighted-Average Fair Value Per Share</b>
Outstanding as of December 31, 2019	334	\$ 6.71	\$ 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 15<sup>th</sup> through February 14<sup>th</sup> and February 15<sup>th</sup> through August 14<sup>th</sup> of each year, with a transition period that began on May 15<sup>th</sup> 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

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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 15<sup>th</sup> through May 14<sup>th</sup> and May 15<sup>th</sup> through November 14<sup>th</sup> 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.

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- (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:

	Years Ended December 31,		
	2020	2019	2018
<b>Stock Options</b>			
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 %
<b>ESPP</b>			
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
	16,142

### **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	<u>\$ (191)</u>

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	<u>507</u>	<u>835</u>	<u>360</u>
Current income tax	792	1,148	465
Deferred foreign income tax	8	14	65
	<u>\$ 800</u>	<u>\$ 1,162</u>	<u>\$ 530</u>

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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 uncertainty 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

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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):

	<b>Years Ended December 31,</b>	
	<b>2020</b>	<b>2019</b>
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	<b>\$ 23,516</b>	<b>\$ 22,264</b>

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):

	<b>Years Ended December 31,</b>		
	<b>2020</b>	<b>2019</b>	<b>2018</b>
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	<b>61,998</b>	<b>54,993</b>	<b>52,609</b>
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
<b>Current:</b>		
Products and services	\$ 14,651	\$ 12,480
Extended warranty	4,538	4,678
	<u>19,189</u>	<u>17,158</u>
<b>Long-term:</b>		
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

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\$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 31<sup>st</sup>. Quarterly periods are based on a 4-4-5 fiscal calendar with the first quarter ending on the Saturday closest to March 31<sup>st</sup>. 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](http://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](http://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)

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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)

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**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.

<b>Signature</b>	<b>Title</b>	<b>Date</b>
/s/ Carl Russo Carl Russo	Chief Executive Officer and Director (Principal Executive Officer)	February 22, 2021
/s/ Cory Sindelar Cory Sindelar	Chief Financial Officer (Principal Financial Officer)	February 22, 2021
/s/ Don Listwin Don Listwin	Chairman of the Board of Directors	February 22, 2021
/s/ Christopher Bowick Christopher Bowick	Director	February 22, 2021
/s/ Kathy Crusco Kathy Crusco	Director	February 22, 2021
/s/ Kevin DeNuccio Kevin DeNuccio	Director	February 22, 2021
/s/ Michael Everett Michael Everett	Director	February 22, 2021
/s/ Kira Makagon Kira Makagon	Director	February 22, 2021
/s/ Michael Matthews Michael Matthews	Director	February 22, 2021
/s/ Kevin Peters Kevin Peters	Director	February 22, 2021
/s/ J. Daniel Plants J. Daniel Plants	Director	February 22, 2021



November 12, 2020

Michael Weening

[Redacted]

[Redacted]

[Redacted]

Re: Amendment to Letter Agreement dated November 27, 2019

Dear Michael:

The purpose of this letter is to confirm our recent discussions to amend the Letter Agreement dated November 27, 2019 between Calix, Inc. (the "Company") and you (the "Letter Agreement") to extend the deadline for your relocation to the general vicinity of the Company's offices in San Jose, California for one year until November 27, 2021.

Other than the extension of the deadline for you to relocate, the Letter Agreement remains in full force and effect in accordance with its terms.

Please indicate your acknowledgement and acceptance of the terms of this letter by signing in the space indicated below and returning a signed copy of this letter to me at your earliest convenience.

Sincerely,  
Calix, Inc.

/s/ Carl Russo

By: Carl Russo

Title: President and Chief Executive Officer

Accepted, Acknowledged and Agreed:

/s/ Michael Weening

Michael Weening

Date: 11/18/2020

## SECOND AMENDMENT TO LEASE

This Second Amendment to Lease (this "Second Amendment") is made effective as of December 10, 2020 ("Effective Date") by and between ORCHARD PARKWAY SJ, LLC, a California limited liability company ("Landlord") and CALIX, INC., a Delaware corporation ("Tenant"). Landlord and Tenant are sometimes individually referred to as a "party" and collectively as the "parties."

### RECITALS

- A. Tenant and Landlord's predecessor in interest Orchard Parkway San Jose, LLC, a California limited liability company entered into that certain Net Lease Agreement dated as of March 9, 2018 (the "Original Lease") and (ii) that certain First Amendment to Lease dated as of November 14, 2018 (collectively, the "Agreement") pursuant to which Tenant leases and occupies the Premises commonly known as 2777 Orchard Parkway, San Jose, California and more particularly described in the Agreement;
- B. Tenant presently maintains in force a letter of credit (the "LOC") in the amount of the Letter of Credit Amount as security for its obligations under the Agreement, all as more particularly described in Paragraph 5 of the Original Lease; and
- C. Tenant has requested that Landlord permit Tenant to substitute a cash security deposit in place of the LOC and Landlord is willing to accommodate Tenant's request on the terms and conditions herein.

### AGREEMENT

**NOW, THEREFORE**, for good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged, and incorporating all of the above as though set forth in full herein and in consideration of all the recitals, conditions and agreements contained herein, **the parties hereby agree as follows:**

1. **Capitalized Terms.** All capitalized terms used herein but not expressly defined or modified herein shall have the same meanings given such terms in the Agreement. The term "Lease" where used in the Agreement and this Second Amendment shall refer to the Agreement as revised, amended and modified by this Second Amendment.
  2. **Administrative Fee.** Within seven (7) business days following the Effective Date, Tenant shall deliver to Landlord \$5,000.00 in immediately available funds as reimbursement for administrative costs and attorney fees incurred in connection with this Second Amendment (the "Administrative Fee").
  3. **Amendment to Agreement.** Landlord and Tenant hereby agree to amend the Agreement as follows:
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a. **Cash Security Deposit.** On or before January 1, 2020, Tenant shall deliver to Landlord \$209,272.00 in immediately available funds as a new security deposit (the “Security Deposit”). The Security Deposit shall be held by Landlord as provided herein. The Security Deposit shall secure the full and faithful performance of every provision of this Lease to be performed by Tenant. If Tenant breaches any provision, covenant or condition of this Lease, including but not limited to the payment of Rent or Additional Rent beyond any applicable notice or cure period (provided, however, that no such notice and/or cure period(s) shall apply as of the expiration or earlier termination of this Lease), Landlord may (but shall not be required to) use all or any part of the Security Deposit for the payment of any sums in default, or to compensate Landlord for any other loss or damage which Landlord may suffer by reason of Tenant’s default. If any portion of said Security Deposit is so used or applied, Tenant shall, within five (5) business days after written demand therefor, deposit cash with Landlord in an amount sufficient to restore the Security Deposit to its full amount and Tenant’s failure to do so shall be a Default by Tenant. Landlord shall not be required to keep the Security Deposit separate from its general funds and Tenant shall not be entitled to interest on such deposit. Within ninety (90) days after the expiration or earlier termination of the Lease Term, and provided there exists no default by Tenant hereunder, the Security Deposit or any balance thereof shall be returned to Tenant (or, at Landlord’s option, to Tenant’s assignee), provided that subsequent to the expiration (or earlier termination) of this Lease, Landlord may retain from said Security Deposit (a) any and all amounts necessary to cure any default in the payment of Rent and/or Additional Rent, to repair any damage to the Premises caused by the Tenant, and to clean the Premises upon such expiration or termination of this Lease, (b) any amounts that Landlord may incur or be obligated to incur in exercising Landlord’s rights under this Lease and (c) any expense, loss or damage that Landlord reasonably estimates it may suffer because of Tenant’s default (including, without limitation, any and all amounts of Rent and/or Additional Rent that would have been due under this Lease had this Lease remained in effect for the entire term). Without limiting the generality of the preceding sentence, Landlord and Tenant hereby agree that Landlord may, in addition, claim and retain from the Security Deposit those sums necessary to compensate Landlord for any other loss or damage caused by any act or omission of Tenant or Tenant’s officers, agents, employees, independent contractors or invitees or the default of Tenant under this Lease, including, without limitation, the unamortized portion of any leasing commissions and tenant improvements costs (which commissions and tenant improvements costs shall be amortized over the Lease Term) incurred by Landlord in connection with this Lease and any damages to which Landlord is entitled under Law (including, without limitation, California Civil Code § 1951.2) as a result of Tenant’s default under this Lease. Should Landlord sell its interest in the Premises during the term hereof, and if Landlord deposits with the purchaser thereof the then unapplied funds deposited by Tenant as aforesaid, Landlord shall be discharged from any liability with respect to such Security Deposit. Tenant hereby waives the provisions of California Civil Code§ 1950.7, and all other provisions of Law now or hereafter in force, that provide that Landlord may claim from a security deposit only those sums reasonably necessary to remedy defaults in the payment of rent, to repair damage caused by Tenant, or to clean the Premises. Tenant may not assign or encumber the Security Deposit without the prior written consent of Landlord. Any attempt to do so will be void and will not be binding on Landlord.

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b. **Letter of Credit.** Following Landlord's timely receipt of the Security Deposit and the Administrative Fee, Tenant shall be relieved of its obligation under the Lease to maintain the Letter of Credit.

4. **Conditions Precedent.** Landlord's timely receipt of the Administrative Fee and the Security Deposit from Tenant is a condition precedent to the effectiveness of this Second Amendment. If Tenant fails to timely deliver to Landlord the Administrative Fee and the Security Deposit, then Landlord may at its option declare this Second Amendment terminated and voided, in which case the relationship of Landlord and Tenant as to the Premises shall continue to be governed by the Agreement as if this Second Amendment had never been entered into.

5. **Further Instruments.** Each party agrees to execute and deliver such further instruments and perform any and all acts reasonably requested by the other party to effectuate the purpose and terms of this Amendment.

6. **CASp Notification.** For purposes of Section 1938 of the California Civil Code, Landlord hereby discloses to Tenant, and Tenant hereby acknowledges, that the Premises have not undergone inspection by a Certified Access Specialist (CASp). The provisions of Paragraph 2.4 of the Original Lease are hereby incorporated herein by reference, reiterated and ratified by the parties.

7. **General Provisions.** Each party has received independent legal advice from its attorneys with respect to the advisability of executing this Second Amendment and the meaning of the provisions hereof. The provisions of this Second Amendment shall be construed as to the fair meaning and not for or against any party based upon any attribution of such party as the sole source of the language in question. Except as expressly amended pursuant to this Second Amendment, the terms and provisions of the Agreement shall remain unmodified and shall continue in full force and effect, and Tenant and Landlord hereby ratify and affirm all their respective rights and obligations under the Agreement. In the event of any conflict between this Second Amendment and the Agreement, this Second Amendment shall govern. The terms and provisions of this Second Amendment, together with the Agreement, shall constitute all of the terms and provisions to which Tenant and Landlord have agreed with respect the Tenant's tenancy at the Premises, and there are no other terms and provisions, oral or written, that apply to the Agreement and/or the Premises other than as set forth in the Agreement as modified by this Second Amendment. The provisions of this Second Amendment shall apply to, be binding upon, and inure to the benefit of the parties hereto and to their respective successors and assigns. This Second Amendment may be executed in multiple counterparts, all of which shall constitute an original, and all of which together shall constitute a single instrument. Counterparts of this Second Amendment executed and delivered by facsimile, email or other means of electronic delivery shall constitute originals for all purposes.

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SIGNATURES ON NEXT PAGE.]

**IN WITNESS WHEREOF**, the parties have executed this Second Amendment as of the Effective Date.

**TENANT:**

CALIX, INC.,  
a Delaware corporation

**LANDLORD:**

ORCHARD PARKWAY SJ, LLC,  
a California limited liability company

By: /s/ Tom M. Gemetti

Name: Tom M. Gemetti

Its: VP & Corporate Controller

By: /s/ Victor Lo

Name: Victor Lo

Its: Manager

## Notice of Grant of Stock Option and Option Agreement

Calix, Inc.  
ID: 68-0438710  
2777 Orchard Parkway  
San Jose, CA 95134  
(408) 514-3000

[Name]  
[Address]

Grant #:  
Plan:  
ID:

Pursuant to the Calix, Inc. (the “Company”) 2019 Equity Incentive Award Plan (the “Plan”), you (“Participant”) have been granted a nonqualified Stock Option (the “Option”) to buy shares of the Company’s common stock (“Stock”) as follows:

**Option Date**

**Option Price per share**

**Total Shares Granted**

**Total Option Price**

**Expiration Date**

Shares in each period will become fully vested on the date shown, subject to your continued service on each applicable vesting date.

Shares

Vest Type

Full Vest Date

By your signature and the Company’s signature below, you and the Company agree that this Option is granted under and governed by the terms and conditions of the Plan and the Stock Option Agreement attached hereto as Exhibit A, each of which are incorporated herein by reference.

**CALIX, INC.:**

By:

**PARTICIPANT:**

By:

[Name]  
[Title]

[Name]  
[Address]

**EXHIBIT A**  
**TO STOCK OPTION GRANT NOTICE**

**CALIX, INC. STOCK OPTION AGREEMENT**

Pursuant to the Stock Option Grant Notice (the “Grant Notice”) to which this Stock Option Agreement (this “Agreement”) is attached, Calix, Inc., a Delaware corporation (the “Company”), has granted to Participant an Option under the Company’s 2019 Equity Incentive Award Plan, as amended from time to time (the “Plan”), to purchase the number of shares of Stock indicated in the Grant Notice.

**ARTICLE 1.**

**GENERAL**

1.1 Defined Terms. Wherever the following terms are used in this Agreement they shall have the meanings specified below, unless the context clearly indicates otherwise. Capitalized terms not specifically defined herein shall have the meanings specified in the Plan and the Grant Notice.

1.2 Incorporation of Terms of Plan. The Option is subject to the terms and conditions of the Plan which are incorporated herein by reference. In the event of any inconsistency between the Plan and this Agreement, the terms of the Plan shall control.

**ARTICLE 2.**

**GRANT OF OPTION**

2.1 Grant of Option. In consideration of Participant’s past and/or continued employment with or service to the Company or a Subsidiary and for other good and valuable consideration, effective as of the Grant Date set forth in the Grant Notice (the “Grant Date”), the Company grants to Participant the Option to purchase any part or all of an aggregate of the number of shares of Stock set forth in the Grant Notice, upon the terms and conditions set forth in the Plan and this Agreement, subject to adjustments as provided in Section 12.2 of the Plan. Unless designated as a Non-Qualified Stock Option in the Grant Notice, the Option shall be an Incentive Stock Option to the maximum extent permitted by law.

2.2 Exercise Price. The exercise price of the shares of Stock subject to the Option shall be as set forth in the Grant Notice, without commission or other charge; *provided, however,* that the price per share of the shares of Stock subject to the Option shall not be less than 100% of the Fair Market Value of a share of Stock on the Grant Date. Notwithstanding the foregoing, if this Option is designated as an Incentive Stock Option and Participant owns (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” of the Company or any “parent corporation” of the Company (each within the meaning of Section 424 of the Code), the price per share of the shares of Stock subject to the Option shall not be less than 110% of the Fair Market Value of a share of Stock on the Grant Date.

2.3 Consideration to the Company. In consideration of the grant of the Option by the Company, Participant agrees to render faithful and efficient services to the Company or any Subsidiary. Nothing in the Plan or this Agreement shall confer upon Participant any right to continue in the employ or service of the Company or any Subsidiary or shall interfere with or restrict in any way the rights of the Company and its Subsidiaries, which rights are hereby expressly reserved, to discharge or terminate

the services of Participant at any time for any reason whatsoever, with or without cause, except to the extent expressly provided otherwise in a written agreement between the Company or a Subsidiary and Participant.

## **ARTICLE 3.**

### **PERIOD OF EXERCISABILITY**

#### **3.1 Commencement of Exercisability.**

(a) Subject to Sections 3.2, 3.3, 5.10 and 5.15 hereof, the Option shall become vested and exercisable in such amounts and at such times as are set forth in the Grant Notice.

(b) No portion of the Option which has not become vested and exercisable at the date of Participant's Termination of Service shall thereafter become vested and exercisable, except as may be otherwise provided by the Administrator or as set forth in a written agreement between the Company and Participant.

(c) Notwithstanding Section 3.1(a) hereof and the Grant Notice, but subject to Section 3.1(b) hereof, pursuant to Section 12.2(e) of the Plan, the Option shall become fully vested and exercisable with respect to all shares of Stock covered thereby in the event of a Change in Control, in connection with which the successor corporation does not assume the Option or substitute an equivalent right for the Option. Should the successor corporation assume the Option or substitute an equivalent right, then no such acceleration shall apply. Notwithstanding the preceding sentence, in the event the successor corporation in a Change in Control assumes or substitutes for the Option in accordance with Section 12.2(d) of the Plan, then if the Participant experiences a Termination of Service by the Company without Cause or a Constructive Termination, in each case, within the twelve (12) month period commencing upon a Change in Control, the Option shall vest with respect to one hundred percent (100%) of the shares of Stock subject to the Option as of immediately prior to such Termination of Service or Constructive Termination.

**3.2 Duration of Exercisability.** The installments provided for in the vesting schedule set forth in the Grant Notice are cumulative. Each such installment which becomes vested and exercisable pursuant to the vesting schedule set forth in the Grant Notice shall remain vested and exercisable until it becomes unexercisable under Section 3.3 hereof.

#### **3.3 Expiration of Option.** The Option may not be exercised to any extent by anyone after the first to occur of the following events:

(a) The Expiration Date set forth in the Grant Notice, which shall in no event be more than ten (10) years from the Grant Date;

(b) If this Option is designated as an Incentive Stock Option and Participant owned (within the meaning of Section 424(d) of the Code), at the time the Option was granted, more than 10% of the total combined voting power of all classes of stock of the Company or any "subsidiary corporation" of the Company or any "parent corporation" of the Company (each within the meaning of Section 424 of the Code), the expiration of five (5) years from the Grant Date;

(c) The expiration of three (3) months from the date of Participant's Termination of Service, unless such termination occurs by reason of Participant's death or disability; or

(d) The expiration of one (1) year from the date of Participant's Termination of Service by reason of Participant's death or disability.

3.4 Special Tax Consequences. Participant acknowledges that, to the extent that the aggregate Fair Market Value (determined as of the time the Option is granted) of all shares of Stock with respect to which Incentive Stock Options, including the Option (if applicable), are exercisable for the first time by Participant in any calendar year exceeds \$100,000, the Option and such other options shall be Non-Qualified Stock Options to the extent necessary to comply with the limitations imposed by Section 422(d) of the Code. Participant further acknowledges that the rule set forth in the preceding sentence shall be applied by taking the Option and other "incentive stock options" into account in the order in which they were granted, as determined under Section 422(d) of the Code and the Treasury Regulations thereunder. Participant also acknowledges that an Incentive Stock Option exercised more than three (3) months after Participant's Termination of Service, other than by reason of death or disability, will be taxed as a Non-Qualified Stock Option.

### 3.5 Tax Indemnity.

(a) The Participant agrees to indemnify and keep indemnified the Company, any Subsidiary and his/her employing company, if different, from and against any liability for or obligation to pay any Tax Liability (a "Tax Liability" being any liability for income tax, withholding tax and any other employment related taxes or social security contributions in any jurisdiction) that is attributable to (1) the grant or exercise of, or any benefit derived by the Participant from, the Option, (2) the acquisition by the Participant of the Stock on exercise of the Option, or (3) the disposal of any Stock.

(b) The Option cannot be exercised until the Participant has made such arrangements as the Company may require for the satisfaction of any Tax Liability that may arise in connection with the exercise of the Option and/or the acquisition of the Stock by the Participant. The Company shall not be required to issue, allot or transfer Stock until the Employee has satisfied this obligation.

## ARTICLE 4.

### EXERCISE OF OPTION

4.1 Person Eligible to Exercise. During the lifetime of Participant, only Participant may exercise the Option or any portion thereof. After the death of Participant, any exercisable portion of the Option may, prior to the time when the Option becomes unexercisable under Section 3.3 hereof, be exercised by Participant's personal representative or by any person empowered to do so under the deceased Participant's will or under the then applicable laws of descent and distribution.

4.2 Partial Exercise. Any exercisable portion of the Option or the entire Option, if then wholly exercisable, may be exercised in whole or in part at any time prior to the time when the Option or portion thereof becomes unexercisable under Section 3.3 hereof.

4.3 Manner of Exercise. The Option, or any exercisable portion thereof, may be exercised solely by delivery to the Secretary of the Company (or any third party administrator or other person or entity designated by the Company), during regular business hours, of all of the following prior to the time when the Option or such portion thereof becomes unexercisable under Section 3.3 hereof:

(a) An exercise notice in a form specified by the Administrator, stating that the Option or portion thereof is thereby exercised, such notice complying with all applicable rules established by the Administrator;

(b) The receipt by the Company of full payment for the shares of Stock with respect to which the Option or portion thereof is exercised, including payment of any applicable withholding tax, which shall be made by deduction from other compensation payable to Participant or in such other form of consideration permitted under Section 4.4 hereof that is acceptable to the Company;

(c) Any other written representations as may be required in the Administrator's reasonable discretion to evidence compliance with the Securities Act or any other applicable law, rule or regulation; and

(d) In the event the Option or portion thereof shall be exercised pursuant to Section 4.1 hereof by any person or persons other than Participant, appropriate proof of the right of such person or persons to exercise the Option.

Notwithstanding any of the foregoing, the Company shall have the right to specify all conditions of the manner of exercise, which conditions may vary by country and which may be subject to change from time to time.

**4.4 Method of Payment.** Payment of the exercise price shall be by any of the following, or a combination thereof, at the election of Participant:

(a) Cash or check;

(b) With the consent of the Administrator, surrender of shares of Stock (including, without limitation, shares of Stock otherwise issuable upon exercise of the Option) held for such period of time as may be required by the Administrator in order to avoid adverse accounting consequences and having a Fair Market Value on the date of delivery equal to the aggregate exercise price of the Option or exercised portion thereof; or

(c) Other property acceptable to the Administrator (including, without limitation, through the delivery of a notice that Participant has placed a market sell order with a broker with respect to shares of Stock then issuable upon exercise of the Option, 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 Option exercise price; *provided* that payment of such proceeds is then made to the Company at such time as may be required by the Company, but in any event not later than the settlement of such sale).

**4.5 Conditions to Issuance of Stock.** The shares of Stock deliverable upon the exercise of the Option, or any portion thereof, may be either previously authorized but unissued shares of Stock or issued shares of Stock which have then been reacquired by the Company. Such shares of Stock shall be fully paid and nonassessable. The Company shall not be required to issue or deliver any shares of Stock purchased upon the exercise of the Option or portion thereof prior to fulfillment of all of the following conditions:

(a) The admission of such shares of Stock to listing on all stock exchanges on which such Stock is then listed;

(b) The completion of any registration or other qualification of such shares of Stock under any state or federal law or under rulings or regulations of the Securities and Exchange Commission or of any other governmental regulatory body, which the Administrator shall, in its absolute discretion, deem necessary or advisable;

(c) The obtaining of any approval or other clearance from any state or federal governmental agency which the Administrator shall, in its absolute discretion, determine to be necessary or advisable;

(d) The receipt by the Company of full payment for such shares of Stock, including payment of any applicable withholding tax, which may be in one or more of the forms of consideration permitted under Section 4.4 hereof; and

(e) The lapse of such reasonable period of time following the exercise of the Option as the Administrator may from time to time establish for reasons of administrative convenience.

4.6 Rights as Stockholder. The holder of the Option shall not be, nor have any of the rights or privileges of, a stockholder of the Company, including, without limitation, voting rights and rights to dividends, in respect of any shares of Stock purchasable upon the exercise of any part of the Option unless and until such shares of Stock shall have been issued by the Company and held of record by such holder (as evidenced by the appropriate entry on the books of the Company or of a duly authorized transfer agent of the Company). No adjustment will be made for a dividend or other right for which the record date is prior to the date the shares of Stock are issued, except as provided in Section 12.2 of the Plan.

## ARTICLE 5.

### OTHER PROVISIONS

5.1 Administration. The Administrator shall have the power to interpret the Plan and this Agreement 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. All actions taken and all interpretations and determinations made by the Administrator in good faith shall be final and binding upon Participant, the Company and all other interested persons. No member of the Committee or the Board shall be personally liable for any action, determination or interpretation made in good faith with respect to the Plan, this Agreement or the Option.

5.2 Whole Shares. The Option may only be exercised for whole shares of Stock.

5.3 Option Not Transferable. Subject to Section 4.1 hereof, the Option may not be sold, pledged, assigned or transferred in any manner other than by will or the laws of descent and distribution, unless and until the shares of Stock underlying the Option have been issued, and all restrictions applicable to such shares of Stock have lapsed. Neither the Option nor any interest or right therein shall be liable for the debts, contracts or engagements of Participant or his or her successors in interest or shall be subject to disposition by transfer, alienation, anticipation, 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 attempted disposition thereof shall be null and void and of no effect, except to the extent that such disposition is permitted by the preceding sentence.

5.4 **Binding Agreement.** Subject to the limitation on the transferability of the Option contained herein, this Agreement will be binding upon and inure to the benefit of the heirs, legatees, legal representatives, successors and assigns of the parties hereto.

5.5 **Adjustments Upon Specified Events.** The Administrator may accelerate the vesting of the Option in such circumstances as it, in its sole discretion, may determine. In addition, upon the occurrence of certain events relating to the Stock contemplated by Section 12.2 of the Plan (including, without limitation, an extraordinary cash dividend on such Stock), the Administrator shall make such adjustments the Administrator deems appropriate in the number of shares of Stock subject to the Option, the exercise price of the Option and the kind of securities that may be issued upon exercise of the Option. Participant acknowledges that the Option is subject to adjustment, modification and termination in certain events as provided in this Agreement and Section 12.2 of the Plan.

5.6 **Notices.** Any notice to be given under the terms of this Agreement to the Company shall be addressed to the Company in care of the Secretary of the Company at the Company's principal office, and any notice to be given to Participant shall be addressed to Participant at Participant's last address reflected on the Company's records. By a notice given pursuant to this Section 5.6, either party may hereafter designate a different address for notices to be given to that party. Any notice which is required to be given to Participant shall, if Participant is then deceased, be given to the person entitled to exercise his or her Option pursuant to Section 4.1 hereof by written notice under this Section 5.6. Any notice shall be deemed duly given when sent via email or when sent by certified mail (return receipt requested) and deposited (with postage prepaid) in a post office or branch post office regularly maintained by the United States Postal Service.

5.7 **Titles.** Titles are provided herein for convenience only and are not to serve as a basis for interpretation or construction of this Agreement.

5.8 **Governing Law.** The laws of the State of Delaware shall govern the interpretation, validity, administration, enforcement and performance of the terms of this Agreement regardless of the law that might be applied under principles of conflicts of laws.

5.9 **Conformity to Securities Laws.** Participant acknowledges that the Plan and this Agreement are intended to conform to the extent necessary with all provisions of the Securities Act and the Exchange Act and any and all regulations and rules promulgated by the Securities and Exchange Commission thereunder, and state securities laws and regulations. Notwithstanding anything herein to the contrary, the Plan shall be administered, and the Option is granted and may be exercised, only in such a manner as to conform to such laws, rules and regulations. To the extent permitted by applicable law, the Plan and this Agreement shall be deemed amended to the extent necessary to conform to such laws, rules and regulations.

5.10 **Amendments, Suspension and Termination.** To the extent permitted by the Plan, this Agreement may be wholly or partially amended or otherwise modified, suspended or terminated at any time or from time to time by the Committee or the Board; *provided* that, except as may otherwise be provided by the Plan, no amendment, modification, suspension or termination of this Agreement shall adversely affect the Option in any material way without the prior written consent of Participant.

5.11 **Successors and Assigns.** The Company may assign any of its rights under this Agreement to single or multiple assignees, and this Agreement shall inure to the benefit of the successors and assigns of the Company. Subject to the restrictions on transfer herein set forth in

Section 5.3 hereof, this Agreement shall be binding upon Participant and his or her heirs, executors, administrators, successors and assigns.

5.12 Notification of Disposition. If this Option is designated as an Incentive Stock Option, Participant shall give prompt notice to the Company of any disposition or other transfer of any shares of Stock acquired under this Agreement if such disposition or transfer is made (a) within two (2) years from the Grant Date with respect to such shares of Stock or (b) within one (1) year after the transfer of such shares of Stock to Participant. 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 Participant in such disposition or other transfer.

5.13 Limitations Applicable to Section 16 Persons. Notwithstanding any other provision of the Plan or this Agreement, if Participant is subject to Section 16 of the Exchange Act, the Plan, the Option and this Agreement shall be subject to any additional limitations set forth in any applicable exemptive 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, this Agreement shall be deemed amended to the extent necessary to conform to such applicable exemptive rule.

5.14 Not a Contract of Employment. Nothing in this Agreement or in the Plan shall confer upon the Participant any right to continue to serve as an employee or other service provider of the Company or any of its Subsidiaries.

5.15 Section 409A. This Option is not intended to constitute “nonqualified deferred compensation” within the meaning of Section 409A of the Code (together with any 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 date hereof, “Section 409A”). However, notwithstanding any other provision of the Plan, the Grant Notice or this Agreement, if at any time the Administrator determines that the Option (or any portion thereof) may be subject to Section 409A, the Administrator shall have the right in its sole discretion (without any obligation to do so or to indemnify Participant or any other person for failure to do so) to adopt such amendments to the Plan, the Grant Notice or this Agreement, 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 either for the Option to be exempt from the application of Section 409A or to comply with the requirements of Section 409A.

5.16 Limitation on Participant’s Rights. Participation in the Plan confers no rights or interests other than as herein provided. This Agreement creates only a contractual obligation on the part of the Company as to amounts payable and shall not be construed as creating a trust. Neither the Plan nor any underlying program, in and of itself, has any assets. Participant shall have only the rights of a general unsecured creditor of the Company with respect to amounts credited and benefits payable, if any, with respect to the Option, and rights no greater than the right to receive the Stock as a general unsecured creditor with respect to options, as and when exercised pursuant to the terms hereof.

5.17 Data Privacy. Without limiting the generality of any other provision of this Agreement, Section 10.8 (“*Data Privacy*”) of the Plan is hereby expressly incorporated into this Agreement as if first set forth herein.

5.18 Additional Terms for Participants Providing Services Outside the United States. To the extent the Participant provides services to the Company in a country other than the United States, the Option shall be subject to such additional or substitute terms as shall be set forth for such country in Exhibit A-1 attached to this Agreement. If the Participant relocates to one of the countries included in Exhibit A-1 during the life of the Option, the special provisions for such country shall apply to the Participant, to the extent the Company determines that the application of such provisions is necessary or advisable in order to comply with local law or facilitate the administration of the Plan. In addition, the Company reserves the right to impose other requirements on the Option and the shares of Stock issued upon exercise of the Option, to the extent the Company determines it is necessary or advisable in order to comply with local laws or facilitate the administration of the Plan, and to require the Participant to sign any additional agreements or undertakings that may be necessary to accomplish the foregoing.

**EXHIBIT A-1**  
**TO STOCK OPTION AGREEMENT**

**ADDITIONAL TERMS AND CONDITIONS BY COUNTRY**

Certain capitalized terms used but not defined in this Exhibit A-1 shall have the meanings set forth in the Plan and/or the Agreement.

***TERMS AND CONDITIONS***

This Exhibit A-1 includes additional terms and conditions that govern any Options granted under the Plan if, under applicable law, you are a resident of, are deemed to be a resident of or are working in one of the countries listed below. Furthermore, the additional terms and conditions that govern any Option granted hereunder may apply to you if you transfer employment and/or residency to one of the countries listed below and the Company shall, in its discretion, determine to what extent the terms and conditions contained herein shall apply to you.

***NOTIFICATIONS***

This Exhibit A-1 also includes notifications relating to exchange control and other issues of which you should be aware with respect to your participation in the Plan. The information is based on the exchange control, securities and other laws in effect in the countries to which this Exhibit A-1 refers as of May 2019. Such laws are often complex and change frequently. As a result, the Company strongly recommends that you not rely on the notifications herein as the only source of information relating to the consequences of your participation in the Plan because the information may be outdated when you exercise the Option and acquire shares of Stock under the Plan, or when you subsequently sell shares of Stock acquired under the Plan.

In addition, the notifications are general in nature and may not apply to your particular situation, and the Company is not in a position to assure you of any particular result. Accordingly, you should seek appropriate professional advice as to how the relevant laws in your country may apply to your situation. Finally, if you are a citizen or resident of a country other than the one in which you are currently residing and/or working or are considered a resident of another country for local law purposes, the information contained herein may not be applicable to you or you may be subject to the provisions of one or more jurisdictions.

## **ALL NON-U.S. JURISDICTIONS**

### **NOTIFICATIONS**

**Insider Trading Restrictions/Market Abuse Laws.** You may be subject to insider trading restrictions and/or market abuse laws based on the exchange on which the shares of Stock are listed and in applicable jurisdictions including the United States and your country or your broker's country, if different, which may affect your ability to accept, acquire, sell or otherwise dispose of shares of Stock, rights to shares of Stock or rights linked to the value of shares of Stock during such times as you are considered to have "inside information" regarding the Company (as defined by the laws in applicable jurisdictions). Local insider trading laws and regulations may prohibit the cancellation or amendment of orders you place before you possessed inside information. Furthermore you could be prohibited from (i) disclosing the inside information to any third party, which may include fellow employees (other than on a "need to know" basis) and (ii) "tipping" third parties or causing them otherwise to buy or sell securities. Any restrictions under these laws or regulations are separate from and in addition to any restrictions that may be imposed under any applicable Company insider trading policy. You are responsible for ensuring your compliance with any applicable restrictions and you should speak with your personal legal advisor on this matter.

**Foreign Asset/Account, Tax Reporting Information.** Your country of residence may have certain foreign asset and/or account reporting requirements which may affect your ability to acquire or hold shares of Stock under the Plan or cash received from participating in the Plan (including from any dividends received, or sale proceeds arising from the sale of shares of Stock) in a brokerage or bank account outside of your country. You may be required to report such accounts, assets or transactions to the tax or other authorities in your country. You also may be required to repatriate sale proceeds or other funds received as a result of participating in the Plan to your country within a certain time after receipt. You are responsible for ensuring your compliance with such regulations, and you should speak with your personal legal advisor on this matter.

### **TERMS AND CONDITIONS**

For employment law purposes outside the United States, the Option, shares subject to the Option, and the income from and value of same, are not part of normal or expected compensation or salary for any purpose, including but not limited to for purposes of calculating any severance, resignation, termination, redundancy, dismissal, end of service payments, bonuses, holiday pay, long-service awards, pension or retirement benefits or similar mandatory payments.

Neither the Company nor any Subsidiary of the Company shall be liable for any foreign exchange rate fluctuation between your local currency and the United States Dollar that may affect the value of the Option or of any shares of Stock acquired upon exercise of the Option or the subsequent sale of any such shares.

## **CANADA**

### **TERMS AND CONDITIONS**

In respect of a Participant who is subject to tax under the Income Tax Act (Canada) in respect of the exercise or disposition of an Option, notwithstanding anything in the Grant Notice, the Agreement or the Plan, the Participant shall under no circumstances (without the prior written consent of the Company) have the right to transfer to the Company (as payment of the exercise price or otherwise) any shares of Stock which were received by the Participant upon exercise of the Option.

By accepting this grant of securities, Participant represents and warrants to the Company that the Participant's participation in the trade and acceptance of such securities is voluntary and that the Participant has not been induced to participate by expectation of engagement, appointment, employment, continued appointment or continued employment, as applicable.

The parties acknowledge that it is their express wish that the Agreement, as well as all documents, notices, and legal proceedings entered into, given or instituted pursuant hereto or relating directly or indirectly hereto, be drawn up in English.

*Les parties reconnaissent avoir exigé la rédaction en anglais de cette convention (« Agreement »), ainsi que de tous documents, avis et procédures judiciaires, exécutés, donnés ou intentés en vertu de, ou liés directement ou indirectement à, la présente convention.*

## **FRANCE**

### **TERMS AND CONDITIONS**

The following additional terms and conditions shall apply to the grant of Stock Options intended to qualify for specific French personal income tax and social security treatment in France applicable to stock options granted under Articles L. 225-177 to L. 225-186-1 of the French Commercial Code (hereafter defined as "French Stock Options") to qualifying employees and corporate officers (*i.e.*, *Président du Conseil d'Administration, Directeur Général, Directeur Général Délégué, Membre du Directoire, Gérant de Sociétés par actions*) in France who are residents in France for French tax purposes and/or subject to the French social security regime (hereafter the "French Award Participants").

French Award Participants will be granted French Stock Options only as set forth below. For the purposes hereof, the following terms shall have the following meanings:

"French Entity" shall have the meaning ascribed "Subsidiary" under Article L 225-180 of the French Commercial Code. A French Entity also means (i) a French permanent establishment of the Company and (ii) a French permanent establishment of a non-French subsidiary of the Company and (iii) the French permanent establishment of a non-French company of which the Company is a subsidiary.

"Closed Period" shall have the meaning ascribed in Article L. 225-177 of the French Commercial Code as:

(i) Ten quotation days preceding and following the date on which the consolidated financial statements or the annual statements of the Company are published; or

(ii) Any period during which the corporate management of the Company possesses confidential information which could, if disclosed to the public, significantly impact the market

price of the Shares, until ten quotation days after the day such information is disclosed to the public.

The Plan has been approved by the shareholders of the Company effective as of May 13, 2020 with authorization given to the Administrator to grant Options to purchase Shares at a specific exercise price. The authorization may be used by Administrator under the Plan for a maximum period of 76 months following the date on which the Plan was approved (or reapproved) by the Company's shareholders.

In addition, the Administrator shall not grant any Stock Options to a French Award Participants less than twenty quotation days after a coupon giving a right to a dividend or to a capital increase has been detached from the Shares.

If the French Commercial Code is amended after the grant of French Stock Options to modify the definition and/or applicability of the Closed Periods to French Stock Options, such amendments shall become applicable to any French Stock Options granted under the Plan, to the extent required or permitted under French law.

In order to be eligible for a French Stock Option hereunder, the French Award Participant represents and warrants that the French Award Participant (i) is not a director of a French Entity, unless the director is an employee or a corporate officer as defined under Article L. 225-185 of the French Commercial Code of a French Entity, (ii) is not an employee or corporate officer owning more than ten percent (10%) of the Company's share capital on the Grant Date and (iii) is an employee or corporate officer under French law.

For the purposes of French Stock Options, the Fair Market Value of a Share shall be determined according to the provisions of the Plan, subject to the following limitations:

(i) (a) If the Shares are listed on any established securities exchange or a national market system, or (b) if the Shares are regularly quoted by a recognized securities dealer but selling prices are not reported, the Fair Market Value will in no case be less than eighty percent (80%) of the average of the closing sales price for a Share as quoted on said securities exchange market during the twenty quotation days prior to the day of the Administrator's decision to grant the Stock Options; or

(ii) In the absence of an established market for the Shares, the Fair Market Value thereof shall be determined in good faith by the Administrator in connection with the price held at the time of the last operation affecting the share capital of the Company, unless otherwise decided by the Administrator by a well-founded decision, and in consideration of the applicable laws and regulations applicable on this date.

The Stock Option Exercise Price shall be determined on the Grant Date of the French Stock Options to the French Award Participant. Any adjustment made to the Stock Option Exercise Price and/or the number of French Stock Options awarded hereunder, shall not provide more advantages to the French Award Participant than those which would result from any adjustments that would be made in accordance with the provisions of Articles L. 225-181 of the French Commercial Code.

The French Award Participant will not be entitled to receive Dividend Equivalents with respect to the French Stock Options granted.

The French Award Participant is not a shareholder and shall not be entitled to any shareholder's rights, including but not limited to right to dividends or other distributions made or right to vote, in respect of the French Stock Options, until the underlying Shares have been issued or delivered to the French Award Participant.

As from the settlement date of Shares issued or delivered upon exercise of the French Stock Options, the French Award Participant shall be entitled to dividends, distributions, right to vote or any other rights attached to the shares as they arise.

The Shares issued or delivered to the French Award Participant pursuant to the exercise of the French Stock Options shall be recorded in an account in the name of the French Award Participant with the Company or a broker or in such other manner as the Company may otherwise determine in order to ensure compliance with applicable law.

Except in the case of death of the French Award Participant, French Stock Options may not be transferred or surrendered to any third party and the underlying Shares shall be delivered only to the French Award Participant during his or her lifetime. The French Award Participant's heirs shall be permitted to exercise any outstanding French Stock Options, whether or not vested, for a period of six months after the French Award Participant's death.

In the event of a corporate transaction or a Change in Control as set forth in Article 12 of the Plan, adjustments to the terms and conditions of the French Stock Options or underlying Shares may be made only in accordance with the Plan and pursuant to applicable French legal and tax rules. Nevertheless, the Administrator, at its discretion, may determine to make adjustments in the case of a transaction for which adjustments are not authorized under French law, in which case the French Stock Options might no longer qualify as French Stock Options.

Assumption or substitution of the French Stock Options in case of a corporate transaction as well as an acceleration of the exercise date or any other mechanism implemented upon a corporate transaction, or in any other event, may result in the French Stock Options being no longer eligible for the special French tax and social security regime.

It is intended that French Stock Options granted under the Plan shall qualify for the specific tax and social security treatment applicable to French Stock Options granted under Articles L. 225-177 to L. 225-186-1 of the French Commercial Code and in accordance with the relevant provisions set forth by French tax and social security laws, but no undertaking is made to maintain such status. The terms hereof shall be construed accordingly and in accordance with the relevant guidelines published by French tax and social security administrations and subject to the fulfillment of certain legal, tax and reporting obligations, if applicable. Both the French Participant and the Company or any Subsidiary shall each bear the tax and social security charges that each must bear. If some charge to be borne by one party shall have been paid by the other party, the party that should have borne such charge shall promptly reimburse the other party of such charges. However, certain corporate transactions may impact the qualification of the French Stock Options and the underlying Shares for the specific regime in France.

In the event of any conflict between the provisions hereof and the Plan, the provisions hereof shall control for any grants of French Stock Options made thereunder to French Award Participants.

The grant of the French Stock Options shall not confer upon the French Award Participants, any employment rights and shall, in particular, not be construed as part of any employment contracts that a French Entity has with its employees.

**SUBSIDIARIES OF THE REGISTRANT**

<b><u>Entity Name</u></b>	<b><u>Jurisdiction</u></b>
Calix Network Technology Development (Nanjing) Co. Ltd.	China
Calix Networks UK, Ltd.	England, UK
Calix Brasil Servicos Ltda.	Brazil

**Consent of Independent Registered Public Accounting Firm**

The Board of Directors  
Calix, Inc.:.

We consent to the incorporation by reference in the registration statements (333-166245, 333-172379, 333-185025, 333-194054, 333-202496, 333-209732, 333-216323, 333-218066, 333-223637, 333-226682, 333-230023, 333-234355, and 333-240106) on Form S-8 and (333-240105) on Form S-3 of Calix, Inc. of our report dated February 22, 2021, with respect to the consolidated balance sheets of Calix, Inc. as of December 31, 2020 and 2019, and 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, and the effectiveness of internal control over financial reporting as of December 31, 2020, which report appears in the Form 10-K of Calix, Inc.

Our report on the consolidated financial statements refers to the adoption of Financial Accounting Standards Board's Accounting Standards Codification Topic 842, Leases, as of January 1, 2019.

/s/ KPMG LLP

San Francisco, California  
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

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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

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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.