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

# FORM 10-Q

(Mark One)

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

**For the quarterly period ended April 1, 2017**

**OR**

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

**For the transition period from to**

**Commission File Number: 001-34674**

# Calix, Inc.
**(Exact Name of Registrant as Specified in Its Charter)**

| | |
|---|---|
| **Delaware** | **68-0438710** |
| **(State or Other Jurisdiction of Incorporation or Organization)** | **(I.R.S. Employer Identification No.)** |

**1035 N. McDowell Blvd., Petaluma, CA 94954**
**(Address of Principal Executive Offices) (Zip Code)**

**(707) 766-3000**
**(Registrant's Telephone Number, Including Area Code)**

Indicate by check mark whether the registrant: (1) has filed all reports required to be filed by Section 13 or 15(d) 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 and posted on its corporate Web site, if any, every Interactive Data File required to be submitted and posted 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 and post such files). Yes: ☒ No: ☐

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

| | | | |
|---|---|---|---|
| Large Accelerated Filer | ☐ | Accelerated Filer | ☒ |
| Non-accelerated filer | ☐ (Do not check if a smaller reporting company) | Smaller Reporting Company | ☐ |
| Emerging Growth Company | ☐ | | |

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

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

As of May 3, 2017 , there were 49,875,750 shares of the Registrant's common stock, par value $0.025 outstanding.

**Calix, Inc.**

**Form 10-Q**

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## PART I. FINANCIAL INFORMATION

### ITEM 1. Financial Statements

### CALIX, INC.

### CONDENSED CONSOLIDATED BALANCE SHEETS
**(In thousands, except par value and share data)**

| | April 1, 2017 | December 31, 2016 |
|---|---|---|
| | (Unaudited) | (See Note 1) |
| **ASSETS** | | |
| Current assets: | | |
| Cash and cash equivalents | $ 26,318 | $ 50,359 |
| Marketable securities | 25,215 | 27,748 |
| Accounts receivable, net | 64,188 | 51,336 |
| Inventory | 46,538 | 44,545 |
| Deferred cost of revenue | 40,454 | 34,763 |
| Prepaid expenses and other current assets | 11,911 | 10,571 |
| Total current assets | 214,624 | 219,322 |
| Property and equipment, net | 18,144 | 17,984 |
| Goodwill | 116,175 | 116,175 |
| Intangible assets, net | — | 813 |
| Other assets | 816 | 1,181 |
| Total assets | $ 349,759 | $ 355,475 |
| **LIABILITIES AND STOCKHOLDERS' EQUITY** | | |
| Current liabilities: | | |
| Accounts payable | $ 24,520 | $ 23,827 |
| Accrued liabilities | 77,015 | 69,715 |
| Deferred revenue | 44,416 | 27,854 |
| Total current liabilities | 145,951 | 121,396 |
| Long-term portion of deferred revenue | 20,876 | 20,237 |
| Other long-term liabilities | 775 | 878 |
| Total liabilities | 167,602 | 142,511 |
| Commitments and contingencies (See Note 7) | | |
| Stockholders' equity: | | |
| Preferred stock, $0.025 par value; 5,000,000 shares authorized; no shares issued and outstanding as of April 1, 2017 and December 31, 2016 | — | — |
| Common stock, $0.025 par value; 100,000,000 shares authorized; 54,956,348 shares issued and 49,626,531 shares outstanding as of April 1, 2017, and 54,722,135 shares issued and 49,392,318 shares outstanding as of December 31, 2016 | 1,374 | 1,368 |
| Additional paid-in capital | 839,018 | 836,563 |
| Accumulated other comprehensive loss | (599) | (656) |
| Accumulated deficit | (617,650) | (584,325) |
| Treasury stock, 5,329,817 shares as of April 1, 2017 and December 31, 2016 | (39,986) | (39,986) |
| Total stockholders' equity | 182,157 | 212,964 |
| Total liabilities and stockholders' equity | $ 349,759 | $ 355,475 |

See accompanying notes to condensed consolidated financial statements.

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**CALIX, INC.**

**CONDENSED CONSOLIDATED STATEMENTS OF COMPREHENSIVE LOSS**
**(In thousands, except per share data)**
**(Unaudited)**

| | Three Months Ended | |
|---|---|---|
| | April 1, 2017 | March 26, 2016 |
| Revenue: | | |
| Systems | 91,605 | 91,680 |
| Services | 25,913 | 6,695 |
| Total revenue | 117,518 | 98,375 |
| Cost of revenue: | | |
| Systems [(1)] | 57,373 | 47,693 |
| Services [(1)] | 25,768 | 5,200 |
| Total cost of revenue | 83,141 | 52,893 |
| Gross profit | 34,377 | 45,482 |
| Operating expenses: | | |
| Research and development [(1)] | 33,808 | 22,773 |
| Sales and marketing [(1)] | 22,429 | 19,062 |
| General and administrative [(1)] | 10,257 | 12,684 |
| Amortization of intangible assets | — | 1,701 |
| Restructuring charges | 699 | — |
| Total operating expenses | 67,193 | 56,220 |
| Loss from operations | (32,816) | (10,738) |
| Interest and other income (expense), net: | | |
| Interest income | 88 | 211 |
| Interest expense | (44) | (164) |
| Other income (expense), net | 120 | 83 |
| Loss before provision for income taxes | (32,652) | (10,608) |
| Provision for income taxes | 673 | 121 |
| Net loss | $ (33,325) | $ (10,729) |
| Net loss per common share: | | |
| Basic and diluted | $ (0.67) | $ (0.22) |
| Weighted-average number of shares used to compute net loss per common share: | | |
| Basic and diluted | 49,525 | 48,591 |
| | | |
| Net loss | $ (33,325) | $ (10,729) |
| Other comprehensive income (loss), net of tax: | | |
| Unrealized gains (losses) on available-for-sale marketable securities, net | (4) | 65 |
| Foreign currency translation adjustments, net | 61 | (18) |
| Total other comprehensive income (loss), net of tax | 57 | 47 |
| Comprehensive loss | $ (33,268) | $ (10,682) |

| | | |
|---|---|---|
| (1) Includes stock-based compensation as follows: | | |
| Cost of revenue: | | |
| Systems | $ 116 | $ 90 |
| Services | 56 | 37 |
| Research and development | 1,326 | 1,047 |
| Sales and marketing | 1,111 | 822 |

| | | |
|---|---|---|
| General and administrative | 931 | 725 |

See accompanying notes to condensed consolidated financial statements.

**CALIX, INC.**

**CONDENSED CONSOLIDATED STATEMENTS OF CASH FLOWS**
**(In thousands)**
**(Unaudited)**

| | Three Months Ended | |
|---|---|---|
| | April 1, 2017 | March 26, 2016 |
| **Operating activities:** | | |
| Net loss | $ (33,325) | $ (10,729) |
| Adjustments to reconcile net loss to net cash provided by (used in) operating activities: | | |
| Depreciation and amortization | 2,463 | 1,955 |
| Loss on retirement of property and equipment | 80 | — |
| Amortization of intangible assets | 813 | 3,364 |
| Amortization of premiums related to available-for-sale securities | (5) | 114 |
| Stock-based compensation | 3,540 | 2,721 |
| Changes in operating assets and liabilities: | | |
| Accounts receivable, net | (12,852) | 3,351 |
| Inventory | (1,993) | 6,540 |
| Deferred cost of revenue | (5,691) | 810 |
| Prepaid expenses and other assets | (968) | (576) |
| Accounts payable | 276 | (8,459) |
| Accrued liabilities | 7,110 | 8,471 |
| Deferred revenue | 17,201 | (2,195) |
| Other long-term liabilities | (103) | (98) |
| Net cash provided by (used in) operating activities | (23,454) | 5,269 |
| **Investing activities:** | | |
| Purchases of property and equipment | (2,106) | (1,453) |
| Purchases of marketable securities | (8,732) | — |
| Maturities of marketable securities | 11,266 | 7,020 |
| Net cash provided by investing activities | 428 | 5,567 |
| **Financing activities:** | | |
| Proceeds from exercise of stock options | 13 | 14 |
| Payments for repurchases of common stock | — | (12,809) |
| Taxes paid for awards vested under equity incentive plans | (1,093) | (251) |
| Net cash used in financing activities | (1,080) | (13,046) |
| Effect of exchange rate changes on cash and cash equivalents | 65 | (51) |
| Net decrease in cash and cash equivalents | (24,041) | (2,261) |
| Cash and cash equivalents at beginning of period | 50,359 | 23,626 |
| Cash and cash equivalents at end of period | $ 26,318 | $ 21,365 |

See accompanying notes to condensed consolidated financial statements.

CALIX, INC.

NOTES TO CONDENSED CONSOLIDATED FINANCIAL STATEMENTS
(Unaudited)

**1. Company and Basis of Presentation**

*Company*

Calix, Inc. (together with its subsidiaries, "Calix," the "Company," "our," "we," or "us") was incorporated in August 1999, and is a Delaware corporation. The Company is a leading global provider of broadband communications access platforms, systems and software for fiber- and copper-based network architectures and a pioneer in software defined access that enables communications service providers ("CSPs") to transform their networks and enhance how they connect to their residential and business subscribers. The Company develops and sells carrier-class hardware and software products, referred to as the Calix portfolio that are designed to enhance and transform CSP access networks to meet the changing demands of subscribers rapidly and cost-effectively. The Company enables CSPs to provide a wide range of revenue-generating services, from basic voice and data to advanced broadband services, over legacy and next-generation access networks. The Company focuses solely on CSP access networks, the portion of the network that governs available bandwidth and determines the range and quality of services that can be offered to subscribers.

*Basis of Presentation*

The accompanying unaudited condensed consolidated financial statements, including the accounts of Calix, Inc. and its wholly-owned subsidiaries, have been prepared in accordance with the requirements of the U.S. Securities and Exchange Commission ("SEC") for interim reporting. As permitted under those rules, certain footnotes or other financial information that are normally required by U.S. generally accepted accounting principles ("GAAP") can be condensed or omitted. In the opinion of management, the financial statements include all normal and recurring adjustments that are considered necessary for the fair presentation of the Company's financial position and operating results. All significant intercompany balances and transactions have been eliminated in consolidation. The Condensed Consolidated Balance Sheet at December 31, 2016 has been derived from the audited financial statements at that date.

The results of the Company's operations can vary during each quarter of the year. Therefore, the results and trends in these interim financial statements may not be the same as those for the full year or any future periods. The information included in this Quarterly Report on Form 10-Q should be read in conjunction with the audited financial statements included in the Company's Annual Report on Form 10-K for the year ended December 31, 2016 .

The Company's fiscal year begins on January 1st and ends on December 31st. Quarterly periods are based on a 4-4-5 fiscal calendar with the first, second and third fiscal quarters ending on the 13th Saturday of each fiscal period. As a result, the Company had five more days in the three months ended April 1, 2017 than in the three months ended March 26, 2016 . The preparation of financial statements in conformity with GAAP for interim financial reporting requires management to make estimates and assumptions that affect the amounts reported in the condensed consolidated financial statements and accompanying notes. Actual results could differ from those estimates.

*Prior Period Recast*

The Company's revenue from services for the three months ended April 1, 2017 represents more than 10% of its total revenue; hence, the revenue derived from services along with its associated cost of revenue are presented separately in the accompanying Condensed Consolidated Statements of Comprehensive Loss. Services include professional services, software support services for access systems, extended warranty and training services. Accordingly, revenue and cost of revenue for the three months ended March 26, 2016 are recast solely to conform with the current period presentation. The recast does not affect total revenue, total cost of revenue and operating expenses, loss from operations, or net loss.

**2. Significant Accounting Policies**

The Company's significant accounting policies are disclosed in its Annual Report on Form 10-K for the year ended December 31, 2016 . The Company's significant accounting policies did not change during the three months ended April 1, 2017 , except for those impacted by the newly adopted accounting standards below.

*Newly Adopted Accounting Standards*

*Stock-Based Compensation*

In March 2016, the Financial Accounting Standards Board ("FASB") issued Accounting Standards Update No. 2016-09, Compensation - Stock Compensation (Topic 718): Improvements to Employee Share-Based Payment Accounting ("ASU 2016-09"), which simplifies several aspects of the accounting for employee share-based payment transactions for both public and nonpublic entities, including the accounting for income taxes, forfeitures, and statutory tax withholding requirements, as well as classification in the statement of cash flows. The Company adopted ASU 2016-09 in the first quarter of fiscal 2017 and had the following impact:

a. Accounting for Income Taxes - The primary impact of the adoption was the recognition of excess tax benefits and tax deficiencies through the statement of operations when the awards vest or are settled rather than through paid-in capital. The new guidance eliminates the requirement to delay the recognition of excess tax benefits until it reduces current taxes payable and requires the recognition of excess tax benefits and tax deficiencies in the period they arise. The Company adopted this guidance on a modified retrospective basis beginning on January 1, 2017, and the adoption had a cumulative-effect adjustment to the beginning balance of deferred tax asset and was fully offset by the corresponding valuation allowance as of January 1, 2017. The adoption had no cumulative-effect adjustment on January 1, 2017 accumulated deficit as the Company's net operating loss carryforwards are offset by a full valuation allowance.

b. Classification of Excess Tax Benefits on the Statement of Cash Flows - ASU 2016-09 requires all tax-related cash flows resulting from share-based payments to be reported as operating activities on the statement of cash flows, a change from the current requirement to present windfall tax benefits as an inflow from financing activities and an outflow from operating activities. The Company adopted this guidance prospectively beginning on January 1, 2017. The adoption of ASU 2016-09 as it relates to this matter had no impact to the Company's consolidated financial statements.
c. Forfeitures - The Company has historically recognized stock-based compensation expense net of estimated forfeitures on all unvested awards and elected to continuously do so with the adoption of this new guidance. Hence, the adoption of ASU 2016-09 as it relates to this matter had no impact to the Company's consolidated financial statements.
d. Minimum Statutory Tax Withholding Requirements - ASU 2016-09 allows companies to withhold an amount up to the employee's maximum individual tax rate in the relevant jurisdiction without resulting in liability classification of the award. The Company adopted this guidance using a modified retrospective approach. The adoption had no impact on the January 1, 2017 accumulated deficit as the Company had no outstanding liability awards that would otherwise qualify for equity classification under this new guidance.
e. Classification of Employee Taxes Paid on the Statement of Cash Flows When an Employer Withholds Shares for Tax-Withholding Purposes - ASU 2016-09 clarifies that all cash payments made to taxing authorities on the employees' behalf for withheld shares should be presented as financing activities on the statement of cash flows. The Company has historically presented the taxes paid related to net share settlement of equity awards as a financing activity on the statements of cash flows. Hence, the adoption of ASU 2016-09 as it relates to this matter had no impact to the Company's consolidated financial statements.

*Inventory*

In July 2015, the FASB issued Accounting Standards Update No. 2015-11, Inventory (Topic 330): Simplifying the Measurement of Inventory ("ASU 2015-11"), which requires measurement of inventory at lower of cost and net realizable value, versus lower of cost or market. Net realizable value is the estimated selling price in the ordinary course of business, less reasonably predictable costs of completion, disposal, and transportation. The Company adopted ASU 2015-11 prospectively beginning on January 1, 2017. The adoption of this standard had no material impact on the Company's consolidated financial statements.

*Recent Accounting Pronouncements Not Yet Adopted*

*Leases*

In February 2016, the FASB issued Accounting Standards Update No. 2016-02, Leases (Topic 842) ("ASU 2016-02"), which requires recognition of an asset and liability for lease arrangements longer than twelve months. ASU 2016-02 will be effective for the Company beginning in the first quarter of fiscal 2019. Early application is permitted, and it is required to recognize and measure leases at the beginning of the earliest period presented using a modified retrospective approach. The Company expects its assets and liabilities to increase as a result of the adoption of this standard. The Company is currently assessing the potential impact of adopting this new guidance on its consolidated financial statements.

*Revenue from Contracts with Customers*

In May 2014, the FASB issued Accounting Standards Update No. 2014-09, Revenue from Contracts with Customers (Topic 606) ("ASU 2014-09"), which provides guidance for revenue recognition. ASU 2014-09 supersedes the revenue recognition requirements in Topic 605, Revenue Recognition, and most industry-specific guidance. Additionally, it supersedes some cost guidance included in Subtopic 605-35, Revenue Recognition-Construction-Type and Production-Type Contracts, and creates new Subtopic 340-40, Other Assets and Deferred Costs-Contracts with Customers. The standard's core principle is that a company will recognize revenue when it transfers promised goods or services to customers in an amount that reflects the consideration to which the company expects to be entitled in exchange for those goods or services. In doing so, companies will need to use more judgment and make more estimates than under the previous guidance. These may include identifying performance obligations in the contract, estimating the amount of variable consideration to include in the transaction price and allocating the transaction price to each separate performance obligation. On August 12, 2015, the FASB issued Accounting Standards Update No. 2015-14, Revenue from Contracts with Customers (Topic 606), Deferral of the Effective Date ("ASU 2015-14") to defer the effective date of ASU 2014-09 by one year. ASU 2015-14 permits early adoption of the new revenue standard, but not before its original effective date. In April 2016, the FASB issued Accounting Standards Update No. 2016-10, Revenue from Contracts with Customers (Topic 606): Identifying Performance Obligations and Licensing ("ASU 2016-10") which further clarifies guidance related to identifying performance obligations and licensing implementation guidance contained in ASU 2014-09. In May 2016, the FASB issued Accounting Standards Update No. 2016-12, Revenue from Contracts with Customers (Topic 606): Narrow-Scope Improvements and Practical Expedients ("ASU 2016-12") which addresses narrow-scope improvements to the guidance on collectibility, non-cash consideration, and completed contracts at transition and provides a practical expedient for contract modifications at transition and an accounting policy election related to the presentation of sales taxes and other similar taxes collected from customers.

The new standard permits adoption either by using (i) a full retrospective approach for all periods presented in the period of adoption or (ii) a modified retrospective approach with the cumulative effect of initially applying the new standard recognized at the date of initial application and providing certain additional disclosures. The Company has not yet determined which transition method it will adopt. Its determination will depend on a number of factors, such as the significance of the impact of the new standard on its financial results, system readiness and its ability to accumulate and analyze the information necessary to assess the impact on prior period financial statements, as necessary. The standard will be effective for the Company in the first quarter of fiscal 2018, with early adoption permitted for annual reporting period beginning in the first quarter of fiscal 2017. The Company is not planning to early adopt, and accordingly, it will adopt the new standard effective January 1, 2018.

The Company is in the initial stages of its evaluation of the impact of the new standard on its accounting policies, processes, and system requirements. The Company has assigned internal resources in addition to the engagement of third party service providers to assist in its evaluation. Additionally, the Company expects to make investments in new systems or enhancement of existing systems to enable timely and accurate reporting under the new standard. While the Company continues to perform further assessment of all potential impacts under the new standard, the Company expects the timing of revenue recognition to be accelerated for certain performance obligations related to certain revenue arrangements which are currently deferred until customer acceptance. Depending on the outcome of the Company's final evaluation, the timing of when revenue is recognized could change significantly for those revenue arrangements under the new standard.

As part of its preliminary evaluation, the Company also considered the impact of the guidance in ASC 340-40, Other Assets and Deferred Costs - Contracts with Customers with respect to capitalization and amortization of incremental costs of obtaining a contract. As a result of this new guidance, the Company may need to capitalize additional costs of obtaining a contract, including sales commissions, as the new cost guidance requires the capitalization of all incremental costs incurred to obtain a contract with a customer that it would not have incurred if the contract had not been obtained, provided it expects to recover the costs. Accordingly, the Company may need to defer certain sales commissions and amortize them over the period that the related revenue is recognized.

While the Company continues to assess all the potential impacts of the new standard, including the areas described above, and anticipates this standard could have a material impact on its consolidated financial statements, the Company is not able to quantify or cannot reasonably estimate quantitative information related to the impact of the new standard on its consolidated financial statements at this time.

*Concentration of Customer Risk*

The Company had two customers that each accounted for more than 10% of its total revenue for the three months ended April 1, 2017 and March 26, 2016 . These two customers together represented 55% and 29% of the Company's total revenue for the three months ended April 1, 2017 and March 26, 2016 , respectively. Each of these two customers represented 10% or more of the Company's accounts receivable as of April 1, 2017 and December 31, 2016 .

**3. Cash, Cash Equivalents 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 agency 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 agency securities with maturities greater than 90 days at date of purchase. Marketable securities with maturities greater than one year are classified as current because management considers all marketable securities to be available for current operations.

Cash equivalents are stated at amounts that approximate fair value based on quoted market prices. Marketable securities are recorded at their fair values.

The Company's investments have been classified and accounted for as available-for-sale. Such investments are recorded at fair value and unrealized holding gains and losses are reported as a separate component of accumulated other comprehensive income (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).

The Company, to date, has not determined that any of the unrealized losses on its investments are considered to be other-than-temporary. The Company reviews its investment portfolio to determine if any security is other-than-temporarily impaired, which would require the Company to record an impairment charge in the period any such determination is made. In making this judgment, the Company evaluates, among other things: the duration and extent to which the fair value of a security is less than its cost; the financial condition of the issuer and any changes thereto; and the Company's intent and ability to hold its investment for a period of time sufficient to allow for any anticipated recovery in market value, or whether the Company will more likely than not be required to sell the security before recovery of its amortized cost basis. The Company has evaluated its investments as of April 1, 2017 and has determined that no investments with unrealized losses are other-than-temporarily impaired. No investments have been in a continuous loss position for greater than one year.

Cash, cash equivalents and marketable securities consisted of the following (in thousands):

| | April 1, 2017 | December 31, 2016 |
|---|---|---|
| Cash and cash equivalents: | | |
| Cash | $ 17,675 | $ 34,340 |
| Money market funds | 8,197 | 15,020 |
| Corporate debt securities | 446 | — |
| Commercial paper | — | 999 |
| Total cash and cash equivalents | 26,318 | 50,359 |
| Marketable securities: | | |
| Corporate debt securities | 10,843 | 17,272 |
| Commercial paper | 10,174 | 6,275 |
| U.S. government agency securities | 4,198 | 4,201 |
| Total marketable securities | 25,215 | 27,748 |
| Total cash, cash equivalents and marketable securities | $ 51,533 | $ 78,107 |

The carrying amounts of the Company's money market funds approximate their fair values due to their nature, duration and short maturities.

As of April 1, 2017 , the amortized cost and fair value of marketable securities were as follows (in thousands):

| | Amortized Cost | Gross Unrealized Gains | Gross Unrealized Losses | Fair Value |
|---|---|---|---|---|
| Corporate debt securities | $ 10,851 | $ — | $ (8) | $ 10,843 |
| Commercial paper | 10,174 | — | — | 10,174 |
| U.S. government agency securities | 4,200 | — | (2) | 4,198 |
| Total marketable securities | $ 25,225 | $ — | $ (10) | $ 25,215 |

As of December 31, 2016 , the amortized cost and fair value of marketable securities were as follows (in thousands):

| | Amortized Cost | Gross Unrealized Gains | Gross Unrealized Losses | Fair Value |
|---|---|---|---|---|
| Corporate debt securities | $ 17,279 | $ 1 | $ (8) | $ 17,272 |
| Commercial paper | 6,275 | — | — | 6,275 |
| U.S. government agency securities | 4,200 | 1 | — | 4,201 |
| Total marketable securities | $ 27,754 | $ 2 | $ (8) | $ 27,748 |

As of April 1, 2017 , the amortized cost and fair value of marketable securities by contractual maturity were as follows (in thousands):

| | Amortized Cost | Fair Value |
|---|---|---|
| Due in 1 year or less | $ 25,225 | $ 25,215 |

**4. 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 following table sets forth the Company's financial assets measured at fair value on a recurring basis as of April 1, 2017 and December 31, 2016 , based on the three-tier fair value hierarchy (in thousands):

| As of April 1, 2017 | Level 1 | Level 2 | Total |
|---|---|---|---|
| Money market funds | $ 8,197 | $ — | $ 8,197 |
| Corporate debt securities | — | 11,289 | 11,289 |
| Commercial paper | — | 10,174 | 10,174 |
| U.S. government agency securities | — | 4,198 | 4,198 |
| Total | $ 8,197 | $ 25,661 | $ 33,858 |

| As of December 31, 2016 | Level 1 | Level 2 | Total |
|---|---|---|---|
| Money market funds | $ 15,020 | $ — | $ 15,020 |
| Corporate debt securities | — | 17,272 | 17,272 |
| Commercial paper | — | 7,274 | 7,274 |
| U.S. government agency securities | — | 4,201 | 4,201 |
| Total | $ 15,020 | $ 28,747 | $ 43,767 |

The fair values of money market funds classified as Level 1 were derived from quoted market prices as active markets for these instruments exist. The fair values of corporate debt securities, commercial paper and U.S. government agency securities classified as Level 2 were derived from quoted market prices for similar instruments indexed to prevailing market yield rates. The Company has no level 3 financial assets. The Company did not have any transfers between Level 1 and Level 2 of the fair value hierarchy during the three months ended April 1, 2017 and March 26, 2016 .

**5. Goodwill and Intangible Assets**

*Goodwill*

Goodwill was recorded as a result of the Company's acquisitions of Occam Networks, Inc. ("Occam") in February 2011 and Optical Solutions, Inc. in February 2006. This goodwill is not deductible for tax purposes, and there have been no adjustments to goodwill since the acquisition dates.

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 at the end of the second quarter of each year. Management has determined that the Company operates as a single reporting unit and, therefore, evaluates goodwill impairment at the enterprise level. Management assessed qualitative factors to determine whether it was more likely than not (that is, a likelihood of more than 50 percent) that the fair value of the Company was less than its carrying amount, including goodwill, as of June 25, 2016 . In assessing the qualitative factors, management considered the impact of these key factors: macro-economic conditions, industry and market environment, overall financial performance of the Company, cash flow from operating activities, market capitalization and stock price. Management concluded that the fair value of the Company was more likely than not greater than its carrying amount as of June 25, 2016 . As such, it was not necessary to perform the two-step goodwill impairment test at the time.

There have been no significant events or changes in circumstances subsequent to the 2016 annual impairment test that would more likely than not indicate that the carrying value of goodwill may have been impaired as of April 1, 2017 . Therefore, there was no impairment to the carrying value of the Company's goodwill as of April 1, 2017 .

*Intangible Assets*

Intangible assets are carried at cost, less accumulated amortization. The details of intangible assets as of April 1, 2017 and December 31, 2016 are disclosed in the following table (in thousands):

| | April 1, 2017 | | | December 31, 2016 | | |
|---|---|---|---|---|---|---|
| | Gross Carrying Amount | Accumulated Amortization | Net | Gross Carrying Amount | Accumulated Amortization | Net |
| Core developed technology | $ 68,964 | $ (68,964) | $ — | $ 68,964 | $ (68,151) | $ 813 |
| Customer relationships | 54,740 | (54,740) | — | 54,740 | (54,740) | — |
| Total intangible assets, excluding goodwill | $ 123,704 | $ (123,704) | $ — | $ 123,704 | $ (122,891) | $ 813 |

Amortization expense was $0.8 million and $3.4 million for the three months ended April 1, 2017 and March 26, 2016 , respectively.

**6. Balance Sheet Details**

Accounts receivable, net consisted of the following (in thousands):

| | April 1, 2017 | December 31, 2016 |
|---|---|---|
| Accounts receivable | $ 66,142 | $ 52,792 |
| Allowance for doubtful accounts | (477) | (518) |
| Product return reserve | (1,477) | (938) |
| Accounts receivable, net | $ 64,188 | $ 51,336 |

Inventory consisted of the following (in thousands):

| | April 1, 2017 | December 31, 2016 |
|---|---|---|
| Raw materials | $ 1,502 | $ 1,827 |
| Finished goods | 45,036 | 42,718 |
| Total inventory | $ 46,538 | $ 44,545 |

Property and equipment, net consisted of the following (in thousands):

| | April 1, 2017 | December 31, 2016 |
|---|---|---|
| Test equipment | $ 44,466 | $ 43,580 |
| Computer equipment and software | 31,785 | 30,306 |
| Furniture and fixtures | 2,709 | 2,831 |
| Leasehold improvements | 6,827 | 6,898 |
| Total | 85,787 | 83,615 |
| Accumulated depreciation and amortization | (67,643) | (65,631) |
| Property and equipment, net | $ 18,144 | $ 17,984 |

Accrued liabilities consisted of the following (in thousands):

| | April 1, 2017 | December 31, 2016 |
|---|---|---|
| Advance customer payments | $ 22,946 | $ 20,726 |
| Accrued compensation and related benefits | 22,193 | 19,541 |
| Accrued warranty and retrofit | 10,778 | 12,214 |
| Accrued professional and consulting fees | 9,952 | 8,205 |
| Accrued excess and obsolete inventory at contract manufacturers | 2,415 | 1,327 |
| Accrued customer rebates | 1,425 | 1,931 |
| Accrued insurance | 756 | 804 |
| Accrued restructuring charges | 699 | — |
| Income taxes payable | 20 | 231 |
| Accrued other | 5,831 | 4,736 |
| Total accrued liabilities | $ 77,015 | $ 69,715 |

Advance customer payments as of April 1, 2017 and December 31, 2016 primarily included $21.5 million and $20.3 million , respectively, which the Company received as payments in advance of completion of final customer acceptance of the products and services provided in connection with network improvement projects for a customer.

Deferred revenue consisted of the following (in thousands):

| | April 1, 2017 | December 31, 2016 |
|---|---|---|
| Current: | | |
| Product and services | $ 41,152 | $ 24,472 |
| Extended warranty | 3,264 | 3,382 |
| | 44,416 | 27,854 |
| Non-current: | | |
| Product and services | 38 | 22 |
| Extended warranty | 20,838 | 20,215 |
| | 20,876 | 20,237 |
| Total deferred revenue | $ 65,292 | $ 48,091 |

Deferred cost of revenue consisted of costs incurred for products and services for which revenues have been deferred or not yet earned.

**7. Commitments and Contingencies**

*Commitments*

The Company's principal commitments consist of obligations under operating leases for office space and non-cancelable outstanding purchase obligations. These commitments as of December 31, 2016 are disclosed in the Company's Annual Report on Form 10-K, and have not changed materially during the three months ended April 1, 2017 .

*Contingencies*

The Company evaluates the circumstances regarding outstanding and potential litigation and other contingencies on a quarterly basis to determine whether there is at least a reasonable possibility that a loss exists requiring accrual or disclosure, and if so, whether an estimate of the possible loss or range of loss can be made, or whether such an estimate cannot be made. When a loss is probable and reasonably estimable, the Company accrues for such amount based on its estimate of the probable loss considering information available at the time. When a loss is reasonably possible, the Company discloses the estimated possible loss or range of loss in excess of amounts accrued if material. Except as otherwise disclosed below, the Company does not believe that there was a reasonable possibility that a material loss may have been incurred during the period presented with respect to the matters disclosed.

*Accrued Warranty and Retrofit*

The Company provides a standard warranty for its hardware products. Hardware generally has a one -, three -, or five -year standard warranty from the date of shipment. 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 upon identification of such product failures. The Company accrues for potential warranty and retrofit claims based on the Company's historical

product failure rates and historical costs incurred in correcting product failures along with other relevant information related to any specifically identified product failures. The Company's warranty and retrofit accruals are based on estimates of losses that are probable based on information available. The adequacy of the accrual is reviewed on a periodic basis and adjusted, if necessary, based on additional information as it becomes available.

Changes in the Company's warranty and retrofit reserves in the periods as indicated were as follows (in thousands):

| | Three Months Ended | |
|---|---|---|
| | April 1, 2017 | March 26, 2016 |
| Balance at beginning of period | $ 12,214 | $ 9,564 |
| Provision for warranty and retrofit charged to cost of revenue | 1,862 | 580 |
| Utilization of reserve | (3,298) | (619) |
| Adjustments to pre-existing reserve | — | (373) |
| Balance at end of period | $ 10,778 | $ 9,152 |

*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.

*Guarantees*

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) procurement or license agreements, under which the Company may be required to indemnify licensors or vendors for certain claims that may be brought against them arising from the Company's acts or omissions with respect to the supplied products or technology.

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 Condensed Consolidated Balance Sheets.

**8. Net Loss per Common Share**

The following table sets forth the computation of basic and diluted net loss per common share for the periods indicated (in thousands, except per share data):

| | Three Months Ended | |
|---|---|---|
| | April 1, 2017 | March 26, 2016 |
| Numerator: | | |
| Net loss | $ (33,325) | $ (10,729) |
| Denominator: | | |
| Weighted-average common shares outstanding | 49,525 | 48,591 |
| Basic and diluted net loss per common share | $ (0.67) | $ (0.22) |
| Potentially dilutive shares, weighted average | 6,145 | 5,500 |

Potentially dilutive shares have been excluded from the computation of diluted net loss per common share when their effect is antidilutive. These antidilutive shares were primarily from stock options, restricted stock units and performance restricted stock units. 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.

**9. Stockholders' Equity**

*Equity Incentive Plans*

The Company currently maintains two equity incentive plans, the 2002 Stock Plan and the 2010 Equity Incentive Award Plan (together, the "Plans"). These plans were approved by the stockholders and are described in the Company's Annual Report on Form 10-K filed with the SEC on February 28, 2017 . The Company also maintains a Long Term Incentive Program under the 2010 Equity Incentive Award Plan. Under the Long Term Incentive Program, certain key employees of the Company are eligible for equity awards based on the Company's stock price performance. To date, awards granted under the Plans consist of stock options, restricted stock units ("RSUs"), and performance restricted stock units ("PRSUs").

*Stock Options*

During the three months ended April 1, 2017 , no stock options were granted. During the three months ended April 1, 2017 , 2,000 stock options were exercised at a weighted-average exercise price of $6.54 per share. As of April 1, 2017 , unrecognized stock-based compensation expense of $3.2 million related to stock options, net of estimated forfeitures, is expected to be recognized over a weighted-average period of 2.8 years.

*Restricted Stock Units*

During the three months ended April 1, 2017 , 203,100 RSUs were granted with a weighted-average grant date fair value of $7.00 per share. During the three months ended April 1, 2017 , 52,161 RSUs vested, net of shares withheld at the then-current value equivalent to the employees' minimum statutory obligation for applicable income and other employment taxes, and were converted to an equivalent number of shares of common stock. Taxes withheld from employees of $0.3 million were remitted to the relevant taxing authorities during the three months ended April 1, 2017 . As of April 1, 2017 , unrecognized stock-based compensation expense of $12.6 million related to RSUs, net of estimated forfeitures, was expected to be recognized over a weighted-average period of 2.4 years.

*Performance Restricted Stock Units*

In 2012, 2013 and 2014, the Company granted PRSUs to its executives with two -year and three -year performance periods. The performance criterion is based on the relative total shareholder return ("TSR") of Calix common stock as compared to the TSR of the Company's peer group and accounted for as a market condition. The TSR is calculated by dividing (a) the average closing trading price for the 90 -day period ending on the last day of the applicable performance period by (b) the average closing trading price for the 90 -day period immediately preceding the first day of the applicable performance period. This TSR is then used to derive the achievement ratio, which is then multiplied by the number of units in the grant to derive the common stock to be issued for each performance period, which may equal from zero percent ( 0% ) to two hundred percent ( 200% ) of the target award.

In 2016, the Company granted PRSUs to its executives with a one -year performance period and a subsequent two -year service period. The performance target for these particular performance-based awards is based on the Company's revenue during the performance period and accounted for as a performance condition. After the one -year performance period, if the performance target is met and subject to certification by the Compensation Committee of the Company's board of directors, each PRSU award shall vest with respect to 50% of the PRSUs subject to the award in February 2017, 25% in February 2018 and 25% in February 2019, subject to the executive's continuous service with the Company from the grant date through the respective vesting dates. If the performance target is not met, all PRSUs granted under this award shall be immediately forfeited and canceled without vesting of any shares.

During the three months ended April 1, 2017 , 300,000 PRSUs vested and were converted into 180,052 shares of common stock, net of shares withheld at the then-current value equivalent to the employees' minimum statutory obligation for applicable income and other employment taxes. Taxes withheld from employees of $0.8 million were remitted to the relevant taxing authorities during the three months ended April 1, 2017 . As of April 1, 2017 , unrecognized stock-based compensation expense of $0.7 million related to PRSUs, net of estimated forfeitures, is expected to be recognized over a weighted-average period of 1.4 years.

*Employee Stock Purchase Plan*

The Company's Amended and Restated Employee Stock Purchase Plan ("ESPP") allows employees to purchase shares of the Company's common stock through payroll deductions of up to 15 percent 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.

Prior to 2015, the offering periods under the 2010 ESPP were six-month periods commencing on June 1 and December 1 of each year. In January 2015, the Compensation Committee of the Company's board of directors approved a change in those six-month period commencement dates to November 2 and May 2 of each year, effective November 2, 2015. In July 2016, the Compensation Committee of the Company's board of directors approved a change in those six-month period commencement dates to May 15 and November 15 of each year, effective May 15, 2017. The ending date of the ESPP offering period which commenced on November 2, 2016 will be extended until May 14, 2017 as a result of this change. The price of common stock purchased under the 2010 ESPP is 85 percent 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. As of April 1, 2017 , there were 119,228 shares available for issuance under the ESPP.

There were no shares purchased under the ESPP during the three months ended April 1, 2017 . As of April 1, 2017 , unrecognized stock-based compensation expense of $0.2 million related to the ESPP is expected to be recognized over a remaining service period of 1.5 months.

*Stock-Based Compensation Expense*

Stock-based compensation expense associated with stock options, RSUs, PRSUs, and purchase rights under the ESPP is measured at the grant date based on the fair value of the award, and is recognized, net of forfeitures, as expense over the remaining requisite service period on a straight-line basis.

The Company values RSUs at the closing market price of the Company's common stock on the date of grant.

Stock-based compensation expense associated with PRSUs with graded vesting features and which contain both a performance and a service condition is measured based on the closing market price of the Company's common stock on the date of grant, 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. In February 2017, the Compensation Committee of the Company's board of directors determined that the performance condition related to PRSUs granted to executives in 2016 was met based on the Company's actual revenue recognized during fiscal 2016.

The fair value of PRSUs with a market condition is estimated on the date of award, using a Monte Carlo simulation model to estimate the TSR of the Company's stock in relation to the peer group over each performance period. Compensation cost on PRSUs with a market condition is not adjusted for subsequent changes in the Company's stock performance or the level of ultimate vesting.

*Stock Repurchase*

On April 26, 2015, the Company's board of directors approved a program to repurchase up to $40 million of its common stock from time to time. This stock repurchase program commenced in May 2015 and was completed in March 2016.

Under this program, stock was purchasable in open market or private transactions, through block trades, and/or pursuant to any trading plan adopted in accordance with Rule 10b5-1 of the Securities Exchange Act of 1934, as amended ("Exchange Act") and any open market purchases were to be made in accordance with the limitations set out in Rule 10b-18 of the Exchange Act. The decision to consummate any repurchases (including any decision to adopt a 10b5-1 plan for this purpose) were to be made at management's discretion at prices management considered to be attractive and in the best interests of the Company and its stockholders.

In March 2016, the Company completed the $40 million stock repurchase program and has repurchased a total of 5,329,817 shares of common stock from May 2015 to March 2016 at an average price of $7.50 per share. The Company uses the cost method to account for common stock repurchases held in treasury. The price paid for the stock is charged to the treasury stock account shown separately within stockholders' equity as a contra-equity account.

**10. Accumulated Other Comprehensive Loss**

The table below summarizes the changes in accumulated other comprehensive loss by component for the periods indicated (in thousands):

| | Three Months Ended | | | | | |
|---|---|---|---|---|---|---|
| | April 1, 2017 | | | March 26, 2016 | | |
| | Unrealized Gains and Losses on Available-for-Sale Marketable Securities | Foreign Currency Translation Adjustments | Total | Unrealized Gains and Losses on Available-for-Sale Marketable Securities | Foreign Currency Translation Adjustments | Total |
| Balance at beginning of period | $ (6) | $ (650) | $ (656) | $ (94) | $ (101) | $ (195) |
| Other comprehensive income (loss) | (4) | 61 | 57 | 65 | (18) | 47 |
| Balance at end of period | $ (10) | $ (589) | $ (599) | $ (29) | $ (119) | $ (148) |

Realized gains and losses on sales of available-for-sale marketable securities, if any, are reclassified from accumulated other comprehensive loss to "Other income (expense)" in the accompanying Condensed Consolidated Statements of Comprehensive Loss.

**11. Credit Facility**

The Company entered into a credit agreement with Bank of America, N.A. on July 29, 2013 (as amended on December 23, 2015, the "Credit Agreement"). The Credit Agreement is structured such that other financial institutions can at a later time become party to the Credit Agreement through an amendment via a syndication process (collectively, together with Bank of America, N.A., the "Lenders"). The Credit Agreement provides for a revolving facility in the aggregate principal amount of up to $50.0 million , with any borrowings limited to a maximum consolidated leverage ratio of consolidated funded indebtedness to consolidated EBITDA (as defined in the Credit Agreement). In addition, the Credit Agreement includes a $20.0 million sublimit for the issuance of letters of credit and a $10.0 million sublimit for a swingline facility. Subject to customary conditions, up to $25.0 million of the revolving facility may be converted to a term loan facility at any time prior to the maturity of the revolving facility. The revolving facility matures on September 30, 2018 . The credit facility is secured by substantially all of the assets of the Company, including its intellectual property. Proceeds of the credit facility may be used for general corporate purposes and permitted acquisitions.

Loans under the credit facility bear interest at an annual rate equal to the base rate plus 0.75% to 1.25% or LIBOR plus 2.00% to 2.50% based on a consolidated leverage ratio of consolidated funded indebtedness to consolidated EBITDA (as defined in the Credit Agreement). Interest on the revolving facility is due quarterly, and any outstanding interest and principal is due on the maturity date of the revolving facility. The Company is required to repay principal on a term loan in twenty equal quarterly payments from the date the Company enters into a term loan, and all outstanding principal and accrued interest is due on the revolving facility maturity date. Swingline loans must be repaid on the earlier of (i) ten business days after a loan is made and (ii) the revolving facility maturity date. The Company is also required to pay commitment fees of 0.25% per year on any unused portions of this facility.

The Credit Agreement includes affirmative and negative covenants applicable to the Company that are typical for credit facilities of this type. Furthermore, the Credit Agreement requires the Company to maintain certain financial covenants, including a maximum consolidated leverage ratio, and a minimum consolidated liquidity ratio of cash, cash equivalents and accounts receivable to consolidated funded indebtedness. As of April 1, 2017 , the Company was in compliance with these requirements. The Credit Agreement also includes customary events of default, the occurrence and continuation of which would provide the Lenders with the right to demand immediate repayment of any principal and unpaid interest under the credit facility, and to exercise remedies against us and the collateral securing the loans under the credit facility.

As of April 1, 2017 , no revolving loans were drawn under the Credit Agreement and, based on the consolidated leverage ratio requirements that limit available funds under the Credit Agreement, the Company has no funds available for borrowing under the Credit Agreement as of April 1, 2017 .

**12. Income Taxes**

The following table presents the provision for income taxes from continuing operations and the effective tax rates for the periods indicated (in thousands, except percentages):

| | Three Months Ended | |
|---|---|---|
| | **April 1, 2017** | **March 26, 2016** |
| Provision for income taxes | $ 673 | $ 121 |
| Effective tax rate | (2.1)% | (1.1)% |

The income tax provision for the three months ended April 1, 2017 and March 26, 2016 consisted primarily of foreign income taxes. The effective tax rate for the three months ended April 1, 2017 and March 26, 2016 was determined using an estimated annual effective tax rate adjusted for discrete items, if any, that occurred during the respective periods. The Company's effective tax rate for the three months ended April 1, 2017 and March 26, 2016 is impacted by the change in foreign income tax expense.

Deferred tax assets are recognized if realization of such assets is more likely than not. The Company has established and continues to maintain a full valuation allowance against its net deferred tax assets, with the exception of certain foreign deferred tax assets, as the Company does not believe that realization of those assets is more likely than not .

The Company's effective tax rate may be subject to fluctuation during the year as new information is obtained, which may affect the assumptions used to estimate the annual effective tax rate, including factors such as the mix of forecasted pre-tax earnings in the various jurisdictions in which it operates, valuation allowances against deferred tax assets, the recognition or de-recognition of tax benefits related to uncertain tax positions, and changes in or the interpretation of tax laws in jurisdictions where it conducts business .

**13. Restructuring Charges**

The Company adopted a restructuring plan in March 2017. This restructuring plan realigns the Company's business, increasing its focus towards its investments in innovative software defined access systems and software, while reducing its cost structure in traditional systems business. The Company began to take action under this plan beginning in March 2017 and recognized approximately $0.7 million of restructuring charges for the three months ended April 1, 2017 consisting primarily of severance and other one-time termination benefits, presented separately under operating expenses in the accompanying Condensed Consolidated Statements of Comprehensive Loss.

The following table summarizes the activities related to the restructuring charges pursuant to the above restructuring plan (in thousands):

| | Three Months Ended April 1, 2017 |
|---|---|
| Liability at beginning of period | $ — |
| Restructuring charges for the period | 699 |
| Cash payments | — |
| Liability at end of period | $ 699 |

The Company currently estimates that this plan will result in pre-tax restructuring charges totaling up to $6.8 million with approximately up to $6.1 million of additional charges expected to be recognized during the rest of fiscal 2017. These charges are primarily cash-based.

**ITEM 2. Management's Discussion and Analysis of Financial Condition and Results of Operations**

*This report includes "forward-looking statements" within the meaning of Section 27A of the Securities Act and Section 21E of the Securities and Exchange Act of 1934, as amended. All statements other than statements of historical facts are "forward-looking statements" for purposes of these provisions, including any projections of earnings, revenues or other financial items, any statement of or concerning the following: the plans and objectives of management for future operations, proposed new products or licensing, product development, anticipated customer demand or capital expenditures, future economic and/or market conditions or performance, and assumptions underlying any of the above. In some cases, forward-looking statements can be identified by the use of terminology such as "may," "will," "expects," "believes," "intends," "plans," "anticipates," "estimates," "projects," "potential," or "continue" or the negative thereof or other comparable terminology. Although we believe that the expectations reflected in the forward-looking statements contained herein are reasonable, there can be no assurance that such expectations or any of the forward-looking statements will prove to be correct, and actual results could differ materially from those projected or assumed in the forward-looking statements. Our future financial condition and results of operations, as well as any forward-looking statements, are subject to inherent risks and uncertainties, including those identified in the Risk Factors discussed in Part II, Item 1A, in the discussion below, as well as in other sections of this report and in our Annual Report on Form 10-K for the fiscal year ended December 31, 2016 . All forward-looking statements and reasons why results may differ included in this Quarterly Report on Form 10-Q 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 a leading global provider of broadband communications access platforms, systems and software for fiber- and copper-based network architectures and a pioneer in software defined access that enable CSPs to transform their networks and enhance how they connect to their residential and business subscribers. We enable CSPs to provide a wide range of revenue-generating services, from basic voice and data to advanced broadband services, over legacy and next-generation access networks. We focus solely on CSP access networks, the portion of the network that governs available bandwidth and determines the range and quality of services that can be offered to subscribers. We develop and sell carrier-class hardware and cloud products that are designed to enhance and transform CSP access networks to meet the changing demands of subscribers rapidly and cost-effectively. We believe that continued innovation and investment in advanced platforms and systems are important elements of our growth strategy. Our most advanced systems operate on AXOS, a network operating system and software platform built for the specific needs of the access network that allows for all software functions in the access network to be developed and run without dependence on underlying hardware and associated silicon chipsets.

We market our access systems and related software to CSPs globally through our direct sales force as well as a growing number of resellers. At the end of the first quarter of 2017 , over 23 million ports of the Calix portfolio have been deployed at a growing number of CSPs worldwide. Our customers include many of the world's largest CSPs. In addition, we have enabled over 1,300 customers to deploy gigabit passive optical network, Active Ethernet and point-to-point Ethernet fiber access networks.

Our revenue was $117.5 million for the three months ended April 1, 2017 , compared to $98.4 million for the three months ended March 26, 2016 . Our revenue levels and continued revenue growth will depend on our ability to continue to sell our access systems and software to existing customers and to attract new customers, particularly larger CSPs, globally. Since 2015, we have seen increased market demand for turnkey solutions that include professional services together with the supply of equipment and materials, including a project we commenced in 2015 with one of our existing customers and substantially completed during the first quarter of 2017. We continue to ramp our professional services business to meet this demand because we believe that these services enable us to offer broader solutions to meet customer needs as well as support our long-term growth initiatives. Revenue for such projects is generally recognized only when project requirements are completed, which typically requires longer periods depending on the nature and scope of the project. Similarly, some of the costs incurred by us for such projects, including labor and related costs, are deferred and recognized to cost of revenue when the associated revenue is recognized.

Revenue fluctuations result from many factors, including: increases or decreases in customer orders for our products and services, large customer purchase agreements with delayed revenue recognition, 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 budgets, and in certain regions, customers are also challenged by winter weather conditions that inhibit fiber deployment in outside plants. Our revenue levels are also dependent upon our customers' timing of purchases and capital expenditure plans, including expenditure plans for turnkey solutions projects, which are generally non-recurring in nature. As of April 1, 2017 , we had approximately $29.6 million in deferred revenue related to ongoing work in turnkey network improvement projects that will be recognized only upon acceptance by customers. The timing of recognition of deferred revenue may cause significant fluctuations in our revenue and operating results from period to period.

Cost of revenue is strongly correlated to revenue and tends to fluctuate from all of the above factors that could impact revenue. Factors that impacted our cost of revenue for the first quarter of 2017 , and that may impact cost of revenue in future periods, also include: changes in the mix of products delivered, increases in services as a mix of total revenue as well as timing of completion of professional services project requirements, higher than anticipated costs associated with delivery of services for which project pricing is typically set at the outset of the project, charges related to cost overruns on services projects, customer location and regional mix, changes in product warranty and incurrence of retrofit costs, changes in the cost of our inventory and inventory write-downs. Cost of revenue also includes fixed expenses related to our internal operations, which could impact our cost of revenue as a percentage of revenue if there are large fluctuations in revenue.

Cost of revenue has a direct impact on gross profit and gross margins. During the first quarter of 2017 , our gross profit and gross margin continue to be negatively impacted by an increase in our services revenue, which carries lower gross margin, as a mix of total revenue. We have continued to incur higher costs related to developing and growing our professional services business for turnkey network improvement projects. We also incurred higher costs and cost overruns associated with delivery of services due to project delays and rework needed to complete services projects, as well as an increased pace of services activities to complete project requirements during the first quarter of 2017 . In addition, our gross profit and gross margin fluctuate based on timing of factors such as new product introduction or upgrades to existing products, changes in customer mix, changes in the mix of products demanded and sold (and any related write-downs of existing inventory), increase in mix of revenue towards professional services, increase 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, customer rebates and incentive programs due to competitive pressure. The timing of our recognition of deferred revenue and related deferred costs related to turnkey professional services projects could also result in lower gross profit and gross margin in the periods such revenue is recognized, and the relative size of these arrangements could cause large fluctuations in our gross profit from period to period. Moreover, to the extent that deferred cost of revenue relating to the professional services portion of turnkey projects is determined to be unrecoverable, we incur a charge to cost of revenue in the period such cost is determined to be unrecoverable.

Our operating expenses have fluctuated based on the following factors: changes in headcount and personnel costs which comprise a significant portion of our operating expenses, timing of variable compensation expenses due to fluctuations in order volumes, timing of research and development expenses including prototype builds and outsourced development projects, fluctuations in stock-based compensation expenses due to timing of equity grants or other factors affecting vesting, changes in acquisition-related expenses, and timing of legal fees and other expenses incurred in connection with the Occam litigation. During the first quarter of 2017 , our total operating expense increased due to increases in headcount and outside contractors, primarily for research and development and, to a lesser extent, as a result of increased severance-related expenses incurred in the first quarter of 2017 . In March 2017, we adopted a restructuring plan to realign our business to increase focus towards investments in software defined access systems and software and to reduce costs in our traditional systems business, which we estimate will result in pre-tax restructuring charges totaling up to $6.8 million for fiscal year 2017, $0.7 million of which we incurred during the first quarter of 2017. We anticipate that our operating expenses will increase in absolute dollar amounts but will decline as a percentage of revenue over time.

During the first quarter of 2017, our costs, operating expenses and working capital needs increased primarily due to the continued growth of our professional services operations to meet customer and market demand for turnkey network improvement projects and higher research and development expenditures in strategic investments in our platform, systems and software. We focus our research and development efforts on innovative technologies that we believe will grow our customer base, including the pursuit of larger customer opportunities. We expect to continue to incur higher capital and operating expenditures, and higher levels of cash use, related to our investments in these initiatives as we seek to grow our market share.

Our net loss was $33.3 million for the three months ended April 1, 2017 , compared to a net loss of $10.7 million for the three months ended March 26, 2016 . Since our inception we have incurred significant losses and, as of April 1, 2017 , we had an accumulated deficit of $617.7 million . Further, as a result of the fluctuations described above and a number of 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.

**Critical Accounting Policies and Estimates**

Our financial statements are prepared in accordance with U.S. GAAP. 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. Management bases its 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 will be affected. Our management evaluates its estimates, assumptions and judgments on an ongoing basis.

Our critical accounting policies and estimates are described under "Critical Accounting Policies and Estimates" in "Management's Discussion and Analysis of Financial Condition and Results of Operations" included in our Annual Report on Form 10-K for the year ended December 31, 2016 . During the three months ended April 1, 2017 , there have been no significant changes in our critical accounting policies and estimates.

*Recent Accounting Pronouncements*

See Note 2 to the unaudited condensed consolidated financial statements set forth in Part I, Item 1 of this Quarterly Report on Form 10-Q for a full description of recent accounting pronouncements, including the expected dates of adoption and estimated effects on results of operations and financial condition, which is incorporated herein by reference.

**Results of Operations**

*Comparison of the Three Months Ended April 1, 2017 and March 26, 2016*

***Revenue***

Our revenue is comprised of the following:

- Systems — includes revenue derived from the sale of access systems and cloud-based software products.
- Services — includes revenue from professional services, software support services for access systems, extended warranty and training services.

The following table sets forth our revenue (in thousands, except percentages):

| | Three Months Ended | | | |
|---|---|---|---|---|
| | April 1, 2017 | March 26, 2016 | Variance in Dollars | Variance in Percent |
| Revenue: | | | | |
| Systems | $ 91,605 | $ 91,680 | $ (75) | — % |
| Services | 25,913 | 6,695 | 19,218 | 287 % |
| Total revenue | $ 117,518 | $ 98,375 | $ 19,143 | 19 % |
| | | | | |
| Percent of total revenue: | | | | |
| Systems | 78% | 93% | | |
| Services | 22% | 7% | | |
| Total | 100% | 100% | | |

Our revenue increased by $19.1 million or 19% for the three months ended April 1, 2017 compared with the corresponding period in fiscal 2016 . This was mainly due to an increase in services revenue by $19.2 million or 287% , primarily driven by substantial completion of services associated with turnkey network improvement projects. During the three months ended April 1, 2017 , revenue generated in the United States was $106.5 million or approximately 91% of our total revenue, compared to $87.9 million or approximately 89% of our total revenue for the same period in 2016 . International revenue was $11.0 million or approximately 9% of our total revenue for the three months ended April 1, 2017 , compared to $10.5 million or approximately 11% of our total revenue for the same period in 2016 .

We had two customers that each accounted for more than 10% of our total revenue during the three months ended April 1, 2017 . See Note 2 to the unaudited condensed consolidated financial statements set forth in Part I, Item 1 of this Quarterly Report on Form 10-Q 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 (in thousands, except percentages):

| | Three Months Ended | | | |
|---|---|---|---|---|
| | April 1, 2017 | March 26, 2016 | Variance in Dollars | Variance in Percent |
| Cost of revenue: | | | | |
| Systems | $ 57,373 | $ 47,693 | $ 9,680 | 20% |
| Services | 25,768 | 5,200 | 20,568 | 396% |
| Total cost of revenue | $ 83,141 | $ 52,893 | $ 30,248 | 57% |

Our cost of revenue increase d by $30.2 million during the three months ended April 1, 2017 compared with the corresponding period in fiscal 2016 . This was primarily attributable to an increase in services cost of revenue by $20.6 million as we experienced a higher pace of services activities, including higher costs attributed to rework and overruns, for our turnkey network improvement projects in order to complete projects within planned timelines and to meet project requirements. Our systems cost of revenue also increase d by $9.7 million mainly due to higher shipments. Our warranty and retrofit costs also increased by approximately $1.3 million primarily driven by certain retrofit charges for two specific product families. Additionally, inventory write-downs attributed to slow moving inventories increased by approximately $1.0 million.

The following table sets forth our gross profit and gross margin (in thousands, except percentages):

| | Three Months Ended | | | |
|---|---|---|---|---|
| | April 1, 2017 | March 26, 2016 | Variance in Dollars | Variance in Percent |
| Gross profit: | | | | |
| Systems | $ 34,232 | $ 43,987 | $ (9,755) | (22)% |
| Services | 145 | 1,495 | (1,350) | (90)% |
| Total gross profit | $ 34,377 | $ 45,482 | $ (11,105) | (24)% |
| Gross margin: | | | | |
| Systems | 37% | 48% | | |
| Services | 1% | 22% | | |
| Total gross margin | 29% | 46% | | |

Gross profit decrease d to $34.4 million during the three months ended April 1, 2017 , from $45.5 million during the corresponding period in fiscal 2016 . Gross margin decrease d to 29% during the three months ended April 1, 2017 , from 46% during the corresponding period in fiscal 2016 . The decrease in gross profit and gross margin during the three months ended April 1, 2017 was primarily due to an increase in revenue mix toward services revenue as we continued to grow our professional services business and the pace of activity increased in our turnkey network improvement projects in 2017 . Services revenue, particularly those relating to our turnkey network improvement projects, typically has higher associated costs and lower margins. The decrease was partly attributed to product and regional mix within systems, higher warranty and retrofit charges as well as higher inventory write-downs as described above.

***Operating Expenses***

*Research and Development Expenses*

The following table sets forth our research and development expenses (in thousands, except percentages):

| | Three Months Ended | | | |
|---|---|---|---|---|
| | April 1, 2017 | March 26, 2016 | Variance in Dollars | Variance in Percent |
| Research and development | $ 33,808 | $ 22,773 | $ 11,035 | 48% |
| Percent of total revenue | 29% | 23% | | |

The increase in research and development expenses by $11.0 million during the three months ended April 1, 2017 compared with the corresponding period in fiscal 2016 was primarily due to an increase in personnel for research and development, resulting in higher compensation and employee benefits of $4.8 million, to support our growing product portfolio, strategic investments in innovative solutions, including next generation solutions and new customer segments, and international market expansion. Expenses for outside contractors increased by $4.3 million and expenditures relating to prototype and expendable equipment used for research and development activities increased by approximately $1.4 million, primarily for development services including investments in next generation technologies to pursue broader growth opportunities.

We are continuing our strategic investments in our portfolio. We intend to continue to invest in research and development to support our systems and software platforms in anticipation of expected growth opportunities.

*Sales and Marketing Expenses*

The following table sets forth our sales and marketing expenses (in thousands, except percentages):

| | Three Months Ended | | | |
|---|---|---|---|---|
| | April 1, 2017 | March 26, 2016 | Variance in Dollars | Variance in Percent |
| Sales and marketing | $ 22,429 | $ 19,062 | $ 3,367 | 18% |
| Percent of total revenue | 19% | 19% | | |

The increase in sales and marketing expenses by $3.4 million during the three months ended April 1, 2017 , compared with the corresponding period in fiscal 2016 was primarily due to an increase in compensation and employee benefits by $3.5 million attributed to higher commissions due to increased shipments and higher payroll related expenses arising from changes in personnel.

We expect to continue our investments in sales and marketing in order to extend our market reach and grow our business in support of our key strategic initiatives.

*General and Administrative Expenses*

The following table sets forth our general and administrative expenses (in thousands, except percentages):

| | Three Months Ended | | | |
|---|---|---|---|---|
| | April 1, 2017 | March 26, 2016 | Variance in Dollars | Variance in Percent |
| General and administrative | $ 10,257 | $ 12,684 | $ (2,427) | (19)% |
| Percent of total revenue | 9% | 13% | | |

General and administrative expenses decreased by $2.4 million during the three months ended April 1, 2017 , compared with the corresponding period in fiscal 2016 , primarily due to a decrease in legal fees and expenses incurred related to our defense in the Occam litigation by $3.6 million. The Occam litigation was settled in 2016; hence, no such costs were incurred in 2017. The decrease was partially offset by an increase in severance benefits by $0.5 million related to our separation agreement with our Executive Vice President and Chief Financial Officer, as well as an increase in other payroll related expenses by $0.8 million due to increase in headcount.

*Amortization of Intangible Asset*

The following table sets forth our amortization of intangible asset included in operating expenses (in thousands, except percentages):

| | Three Months Ended | | | |
|---|---|---|---|---|
| | April 1, 2017 | March 26, 2016 | Variance in Dollars | Variance in Percent |
| Amortization of intangible asset | $ — | $ 1,701 | $ (1,701) | (100)% |
| Percent of total revenue | —% | 2% | | |

The intangible asset had reached completion of its amortization period during the first quarter of fiscal 2016.

*Restructuring Charges*

The following table sets forth our restructuring charges (in thousands, except percentages):

| | Three Months Ended | | | |
|---|---|---|---|---|
| | April 1, 2017 | March 26, 2016 | Variance in Dollars | Variance in Percent |
| Restructuring charges | $ 699 | $ — | $ 699 | 100% |
| Percent of total revenue | 1% | —% | | |

In connection with a restructuring plan we adopted in March 2017, we recognized approximately $0.7 million of restructuring charges during the three months ended April 1, 2017 consisting primarily of severance and other one-time termination benefits. See Note 13, “ *Restructuring Charges* ” of the Notes to Condensed Consolidated Financial Statements in this Quarterly Report on Form 10-Q for further details regarding this restructuring plan.

***Provision for Income Taxes***

The following table sets forth our provision for income taxes (in thousands, except percentages):

| | Three Months Ended | | | |
|---|---|---|---|---|
| | April 1, 2017 | March 26, 2016 | Variance in Dollars | Variance in Percent |
| Provision for income taxes | $ 673 | $ 121 | $ 552 | 456% |
| Effective tax rate | (2.1)% | (1.1)% | | |

The income tax provision for the three months ended April 1, 2017 and March 26, 2016 consisted primarily of foreign income taxes. The effective tax rate for the three months ended April 1, 2017 and March 26, 2016 was determined using an estimated annual effective tax rate adjusted for discrete items, if any, that occurred during the respective periods. Our effective tax rate for the three months ended April 1, 2017 and March 26, 2016 is impacted by the change in foreign income tax expense.

Deferred tax assets are recognized if realization of such assets is more likely than not. We have established and continues to maintain a full valuation allowance against our net deferred tax assets, with the exception of certain foreign deferred tax assets, as we do not believe that realization of those assets is more likely than not.

Our effective tax rate may be subject to fluctuation during the year as new information is obtained, which may affect the assumptions used to estimate the annual effective tax rate, including factors such as the mix of forecasted pre-tax earnings in the various jurisdictions in which we operate, valuation allowances against deferred tax assets, the recognition or de-recognition of tax benefits related to uncertain tax positions, and changes in or the interpretation of tax laws in jurisdictions where we conduct business.

**Liquidity and Capital Resources**

We have funded our operations and investing activities primarily through cash generated from operations. At April 1, 2017 , we had cash, cash equivalents and marketable securities of $51.5 million , which consisted of deposits held at banks, money market mutual funds held at major financial institutions and highly liquid marketable securities such as corporate debt instruments, commercial paper and U.S. government agency securities. This includes $5.6 million of cash held by our foreign subsidiaries, primarily in China. Our current intent is to permanently reinvest our earnings from foreign operations outside the United States, and our current plans do not demonstrate a need to repatriate the earnings from foreign operations to fund our U.S. operations.

*Operating Activities*

During the three months ended April 1, 2017 , cash used in operating activities increased as we continued to invest in research and development to pursue broader market and customer opportunities. Furthermore, we have continued to grow our professional services business for turnkey network improvement projects (including CAF 2 projects) which, as described below, generally involve greater working capital needs at the outset as services and systems are supplied, while revenue and cash collections occur after projects are accepted. Net cash used in operations of $23.5 million in the three months ended April 1, 2017 consisted of a net loss of $33.3 million , partially offset by $3.0 million of cash flow increases reflected in the net change in assets and liabilities and $6.9 million of non-cash charges. Cash flow increases resulting from the net change in assets and liabilities primarily consisted of a $11.5 million net increase in deferred revenue and deferred cost of revenue as a result of additional deferral of revenue and associated costs related to turnkey network improvement projects , a $7.0 million increase in accrued expenses and other liabilities primarily due to customer advance payments for turnkey services projects for one of our customers , and due to the timing of our payroll, sales commissions and other expenses accruals and payout, and a $0.3 million increase in accounts payable primarily due to the timing of inventory receipts and payments to our manufacturers. This was partially offset by a $12.9 million increase in accounts receivable mainly due to higher revenue billings for turnkey network improvement projects as we completed work for a number of project sites at the end of the first fiscal quarter , a $2.0 million increase in inventories primarily due to timing of inventory receipts, and a $1.0 million increase in prepaid expenses and other assets. Non-cash charges primarily consisted of $3.5 million of stock-based compensation, $2.5 million of depreciation and amortization, and $0.8 million of amortization of intangible assets.

Net cash provided by operations of $5.3 million in the three months ended March 26, 2016 consisted of a net loss of $10.7 million , more than offset by $8.2 million of non-cash charges and $7.8 million of cash flow increases reflected in the net change in assets and liabilities. Cash flow increases resulting from the net change in assets and liabilities primarily consisted of a $8.4 million increase in accrued expenses and other liabilities primarily due to the timing of our sales commissions and other expenses accruals and payout, a $6.5 million decrease in inventories primarily due to higher inventory turnover, and a $3.4 million decrease in accounts receivable mainly due to strong collections, partially offset by a $8.5 million decrease in accounts payable primarily due to the timing of inventory receipts and payments to our manufacturers, a $1.4 million net decrease in deferred revenue and deferred cost of revenue as a result of revenue and cost recognition for previous shipments related to certain turnkey projects and RUS-funded contracts, and a $0.6 million increase in prepaid expenses and other assets. Non-cash charges primarily consisted of $3.4 million of amortization of intangible assets, $2.7 million of stock-based compensation, $2.0 million of depreciation and amortization and $0.1 million of amortization of premiums related to available-for-sale securities.

*Investing Activities*

Net cash provided by investing activities of $0.4 million in the three months ended April 1, 2017 consisted of $2.5 million in net maturities of marketable securities, partially offset by $2.1 million in capital expenditures for purchases of test equipment, computer equipment and software.

Our cash provided by investing activities of $5.6 million in the three months ended March 26, 2016 consisted of $7.0 million in maturities of marketable securities, partially offset by $1.5 million in capital expenditures for purchases of test equipment, computer equipment and software.

*Financing Activities*

Net cash used in financing activities of $1.1 million in the three months ended April 1, 2017 primarily consisted of $1.1 million in payment of payroll taxes for the vesting of awards under equity incentive plans.

Net cash used in financing activities of $13.0 million in the three months ended March 26, 2016 consisted of $12.8 million repurchases of common stock and $0.3 million in payment of payroll taxes for the vesting of awards under equity incentive plans.

*Stock Repurchase Program*

On April 26, 2015, our board of directors approved a program to repurchase up to $40 million of our common stock from time to time. This stock repurchase program commenced in May 2015 and was completed in March 2016 .

Under this program, stock was purchasable in open market or private transactions, through block trades, and/or pursuant to any trading plan adopted in accordance with Rule 10b5-1 of the Exchange Act and any open market purchases were to be made in accordance with the limitations set out in Rule 10b-18 of the Exchange Act. Further, decisions to consummate repurchases (including any decision to adopt a 10b5-1 plan for this purpose) were to be made at management's discretion at prices management considered to be attractive and in the best interests of the Company and its stockholders.

During the three months ended March 26, 2016 , we repurchased 1,789,287 shares of common stock for $12.8 million at an average price of $7.16 per share. In March 2016, we completed purchases under the $40 million stock repurchase program and repurchased a total of 5,329,817 shares of common stock from May 2015 to March 2016 at an average price of $7.50 per share .

***Working Capital and Capital Expenditure Needs***

We currently have no material cash commitments, except for normal recurring trade payables, expense accruals, operating leases and non-cancelable firm purchase commitments. Our working capital needs related to turnkey network improvement arrangements have been substantial, and are expected to remain substantial, as under such arrangements, we generally purchase substantial equipment, components and materials and pay our subcontractors at the outset of a project, but we generally do not expect payment from our customers until completion and acceptance of the associated services, which may be one or more quarters later. 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 eliminate or curtail expenditures to mitigate the impact on our working capital .

We have a Credit Agreement that provides for an aggregate principal amount of up to $50.0 million , with any borrowings limited to a maximum consolidated leverage ratio of consolidated funded indebtedness to consolidated EBITDA (as defined in the Credit Agreement). The Credit Agreement matures in September 2018. Proceeds of the credit facility may be used for general corporate purposes and permitted acquisitions . As of April 1, 2017 , no revolving loans were drawn under the Credit Agreement and, based on the consolidated leverage ratio requirements that limit available funds under the Credit Agreement, we have no funds available for borrowing under the Credit Agreement as of April 1, 2017. For a detailed discussion of our Credit Agreement, please refer to Note 11, " *Credit Facility* " of the Notes to Condensed Consolidated Financial Statements included in Part I, Item 1 of this Quarterly Report on Form 10-Q .

We believe based on our current operating plan and operating cash flows, our existing cash, cash equivalents and marketable securities will be sufficient to meet our anticipated cash needs for at least the next twelve months. Our future capital requirements will depend on many factors including our rate of revenue growth, the timing and extent of spending to support development efforts, particularly research and development related to growth initiatives such as our software defined access portfolio, the timing, extent and size of turnkey professional services projects and our ability to develop operational efficiencies and successfully scale that business , the expansion of sales and marketing activities, the timing of introductions of new products and enhancements to existing products, the acquisition of new capabilities or technologies and the continued market acceptance of our products. 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 to support our operational needs, we may need to seek other 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.

***Contractual Obligations and Commitments***

Our principal commitments consist of obligations under operating leases for office space and non-cancelable outstanding purchase obligations. These commitments are disclosed in our Annual Report on Form 10-K for the year ended December 31, 2016 , and have not changed materially during the three months ended April 1, 2017 .

***Off-Balance Sheet Arrangements***

As of April 1, 2017 and December 31, 2016 , we did not have any off-balance sheet arrangements.

## ITEM 3. 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. At April 1, 2017 , we had cash, cash equivalents and marketable securities of $51.5 million , which was held primarily in cash, money market funds and highly liquid marketable securities such as corporate debt instruments, commercial paper, and U.S. government agency 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 credit facility. Borrowings under our credit facility will accrue interest at a variable rate based upon the applicable base rate or LIBOR plus a margin depending on our consolidated leverage ratio of consolidated funded indebtedness to consolidated EBITDA (as defined in the Credit Agreement). As of April 1, 2017 , we had no borrowings under the credit facility.

**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 ("USD"). However, we are indirectly exposed to changes in foreign currency exchange rates to the extent of our use of foreign contract manufacturers 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 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 revenues are 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 subsidiary in Brazil, China and the United Kingdom, whose functional currencies are the Brazilian Real ("BRL"), Chinese Renminbi ("RMB") and British Pounds Sterling ("GBP"), respectively.

Our operating expenses are incurred primarily in the United States, with a small portion of expenses incurred in Brazil associated with sales and marketing expenses, in China associated with our research and development operations that are maintained there, and in the United Kingdom for our sales and services operations there. 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 periods were as follows:

| | Three Months Ended | |
|---|---|---|
| | April 1, 2017 | March 26, 2016 |
| USD | 90% | 89% |
| RMB | 6% | 6% |
| GBP | 3% | 4% |
| BRL | 1% | 1% |
| | 100% | 100% |

If USD had appreciated or depreciated by 10%, relative to RMB, GBP and BRL, our operating expenses for the first three months of 2017 would have decreased or increased by approximately $0.7 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 Condensed Consolidated Balance Sheets. The effect of foreign exchange rate fluctuations on our consolidated financial position for the three months ended April 1, 2017 was a net translation gain of approximately $ 0.1 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 Condensed Consolidated Statements of Comprehensive Loss. During the three months ended April 1, 2017 , the net gain we recognized related to these foreign exchange assets and liabilities was approximately $0.1 million .

**ITEM 4. Controls and Procedures**

**Evaluation of Disclosure Controls and Procedures**

Based on their evaluation as of April 1, 2017 , our Chief Executive Officer and Chief Financial Officer, with the participation of our management, have concluded that our disclosure controls and procedures (as defined in Rules 13a–15(e) and 15d–15(e) under the Exchange Act) were effective at the reasonable assurance level.

**Limitations on the Effectiveness of Controls**

Our disclosure controls and procedures provide our Chief Executive Officer and Chief Financial Officer reasonable assurance that our disclosure controls and procedures will achieve their objectives. The term "disclosure controls and procedures," as defined in Rules 13a-15

(e) and 15d-15(e) under the Exchange Act, means controls and other procedures of a company that are designed to ensure that information required to be disclosed by a company in the reports that it files or submits under the Exchange Act is recorded, processed, summarized and reported within the time periods specified in the SEC's rules and forms. Disclosure controls and procedures include, without limitation, controls and procedures designed to ensure that information required to be disclosed by a company in the reports that it files or submits under the Exchange Act is accumulated and communicated to the company's management, including its principal executive and principal financial officers, as appropriate, to allow timely decisions regarding required disclosure. Our management, including our Chief Executive Officer and Chief 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. Our management recognizes that 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 period covered by this report that has materially affected, or is reasonably likely to materially affect, our internal control over financial reporting.

## PART II. OTHER INFORMATION

### ITEM 1. Legal Proceedings

For a description of our material pending legal proceedings, please refer to Note 7 “Commitments and Contingencies – Litigation” of the Notes to Condensed Consolidated Financial Statements included in Part I, Item 1 of this Quarterly Report on Form 10-Q, which is incorporated by reference.

### 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. The risks described below include any material changes to and supersede the description of the risk factors disclosed in Part I, Item 1A of our Annual Report on Form 10-K for the year ended December 31, 2016 , as filed with the Securities and Exchange Commission on February 28, 2017 . Investors should carefully consider the risks described below, together with the other information set forth in this Quarterly Report on Form 10-Q, 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.*

***Risks Related to Our Business and Industry***

***Our markets are rapidly changing, which makes it difficult to predict our future revenue and plan our expenses appropriately.***

We compete in markets characterized by rapid technological change, changing needs of communications service providers, or CSPs, evolving industry standards and frequent introductions of new products and services. In addition, on an ongoing basis we expect to be required to reposition our product and service offerings and introduce new products and services as we encounter rapidly changing CSP requirements and increasing competitive pressures. We may not be successful in doing so in a timely and responsive manner, or at all. As a result, it is difficult to forecast our future revenues and plan our operating expenses appropriately, which makes it difficult to predict our future operating results.

***We have a history of losses, and we may not be able to generate positive operating income and positive cash flows in the future.***

We have experienced net losses in each year of our existence. For the years ended December 31, 2016 , 2015 and 2014 , we incurred net losses of $27.4 million , $26.3 million , and $20.8 million , respectively. For the first three months of 2017 , we incurred a net loss of $33.3 million . As of April 1, 2017 and December 31, 2016 , we had an accumulated deficit of $617.7 million and $584.3 million , respectively.

We expect to continue to incur significant expenses and cash outlays for research and development, growth of our services operations, investments in innovative technologies, expansion of our product portfolio, sales and marketing, customer support and general and administrative functions as we expand our business and operations and target new customer segments, primarily larger CSPs including cable multiple system operators, or MSOs. Given our growth rate and the intense competitive pressures we face, we may be unable to control our operating costs.

We cannot guarantee that we will achieve profitability in the future. We will have to generate and sustain significant and consistent increased revenue, while continuing to control our expenses, in order to achieve and then maintain profitability. We may also incur significant losses in the future for a number of reasons, including the risks discussed in this “Risk Factors” section and other factors that we cannot anticipate. We have incurred higher than expected costs associated with our ramp of our professional services business and, if we are unable to scale that business and attain operational efficiencies, we will continue to incur losses. 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 to support our operational needs, we may need to seek other 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. In particular, under our Credit Agreement with Bank of America, N.A., we currently do not have any borrowings available based on the consolidated leverage ratio requirements under the Credit Agreement. 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 quarterly and annual operating results may fluctuate significantly, which may make it difficult to predict our future performance and could cause the market price of our stock to decline.***

A number of factors, many of which are outside of our control, may cause or contribute to significant fluctuations in our quarterly and annual operating results. These fluctuations may make financial planning and forecasting difficult. 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. Moreover, we may experience delays in recognizing revenue under applicable revenue recognition rules. For example, revenues associated with large turnkey network improvement projects, which include projects that are funded by the CAF 2 program, are generally deferred until customer acceptance is received and may be subject to delays, rework requirements and unexpected costs among other uncertainties. Certain government-funded contracts, such as those funded by U.S. Department of Agriculture's RUS, also include acceptance and administrative requirements that delay revenue recognition. The extent of these delays and their impact on our revenues can fluctuate considerably depending on the number and size of purchase orders under these contracts for a given time period. In addition, unanticipated decreases in our available liquidity due to fluctuating operating results could limit our growth and delay implementation of our expansion plans.

In addition to the other risk factors listed in this "Risk Factors" section, factors that have in the past and may continue to contribute to the variability of our operating results include:

- our ability to predict our revenue and reduce and control product costs;
- our ability to increase our sales to larger CSPs globally;
- 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;
- intense competition;
- our ability to develop new products or enhancements that support technological advances and meet changing CSP requirements;
- our ability to achieve market acceptance of our products and CSPs' willingness to deploy our new products;
- the concentration of our customer base;
- the length and unpredictability of our sales cycles and timing of orders;
- our focus on CSPs with limited revenue potential;
- our lack of long-term, committed-volume purchase contracts with our customers;
- our exposure to the credit risks of our customers;
- fluctuations in our gross margins;
- the interoperability of our products with CSP networks;
- our dependence on sole-, single- and limited-source suppliers;
- our ability to manage our relationships with our contract manufacturers and suppliers;
- our ability to forecast our manufacturing requirements and manage our inventory;
- our products' compliance with industry standards;
- our ability to expand our international operations;
- our ability to protect our intellectual property and the cost of doing so;
- the quality of our products, including any undetected hardware defects or bugs in our software;
- our ability to estimate future warranty obligations due to product failure rates;
- 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;
- our ability to build and sustain the proper information technology infrastructure; and
- our ability to maintain proper and effective internal controls.

***Our gross margins may fluctuate over time, and our current level of gross margins may not be sustainable.***

Our current level of gross margins may not be sustainable and may be adversely affected by numerous factors, including:

- changes in customer, geographic or product mix, including the mix of configurations within each product group;
- increased price competition, including the impact of customer discounts and rebates;
- our ability to reduce and control product costs;
- changes in component pricing;
- changes in contract manufacturer rates;
- charges incurred due to inventory holding periods if parts ordering does not correctly anticipate product demand;
- introduction of new products;
- an increase in revenue mix toward services, which typically have lower margins;
- our ability to scale our services business in order to gain desired efficiencies;
- changes in shipment volume;
- changes in or increased reliance on distribution channels;
- increased expansion efforts into new or emerging markets;
- increased warranty costs;
- excess and obsolete inventory and inventory holding charges;
- expediting costs incurred to meet customer delivery requirements; and
- potential costs associated with contractual liquidated damages obligations.

***An increase in revenue mix towards services will adversely affect our gross margins.***

Customers are demanding greater professional and support services for our products, which usually have a lower gross margin than product purchases. In particular, we have experienced increased demand for professional services associated with network improvement projects, which typically are turnkey projects whereby we supply products and related professional services such as network planning, product installation, testing and network turn up. Revenue recognized from such professional services may be delayed because of the timing of completion and acceptance of a project or milestone, including third party delays that may be outside our control. Additionally, if we are unable to meet project deadlines for professional and support services due to our suppliers' inability to meet our demands for components or for any other reasons, we will incur additional costs, including higher premiums to source necessary components, additional costs and expedite fees to meet project deadlines, all of which would negatively impact our gross margins. We also rely upon third party subcontractors to assist with some of our services projects, which generally result in higher costs and increased risk of cost overruns, including expenditures for costly rework, which would also negatively impact our gross margins. Furthermore, as we grow our professional service business to meet customer demand, we incur ramp up costs and we may not achieve the desired efficiencies and scale in our professional services business, which will have an adverse impact on our gross margins. Increases in professional services as a proportion of our revenue mix have resulted in lower overall gross margins and may continue to result in lower overall gross margins in future periods. This negative impact on gross margins is exacerbated in periods where we experience accelerated levels of activity to meet project requirements and customer deadlines. Moreover, the increase in our professional services projects has resulted in increased deferred costs, including costs directly associated with the delivery of the professional services for the arrangement, that are recognized as cost of revenue only when all revenue recognition criteria are met for the arrangement. In the event some or all of such deferred costs are deemed unrecoverable, including as a result of cost overruns, we will incur additional charges to cost of revenue in the period such deferred costs are determined to be unrecoverable. Any charge to cost of revenue for deferred costs determined to be unrecoverable would negatively impact our gross margins.

***Our business is dependent on the capital spending patterns of CSPs, and any decrease or delay in capital spending by CSPs in response to economic conditions, uncertainties associated with the implementation of regulatory reform, or otherwise would reduce our revenues 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. Any future economic downturn may cause a slowdown in telecommunications industry spending, including in the specific geographies and markets in which we operate. In response to reduced consumer spending, challenging capital markets or declining liquidity trends, capital spending for network infrastructure projects of CSPs could be delayed or canceled. In addition, capital spending is cyclical in our industry, sporadic among individual CSPs and can change on short notice. As a result, we may not have visibility into changes in spending behavior until nearly the end of a given quarter.

CSP spending on network construction, maintenance, expansion and upgrades is also affected by reductions in their budgets, delays in their purchasing cycles, access to external capital (such as government grants and loan programs or the capital markets), and seasonality and delays in capital allocation decisions. For example, our CSP customers tend to spend less in the first fiscal quarter as they are still finalizing their annual budgets and in certain regions customers are also challenged by winter weather conditions that inhibit fiber deployment in outside plants. Also, softness in demand across any of our customer markets, including due to macro-economic conditions beyond our control or uncertainties associated with the implementation of regulatory reforms, has in the past and could in the future lead to unexpected slowdown in capital expenditures by service providers. In some countries where we do business, such as Russia, the weakened economy has resulted in economic instability which has had negative effects, including a decrease in purchasing power due to currency devaluations as well as generally more cautious purchasing decisions.

Many factors affecting our results of operations are beyond our control, particularly in the case of large CSP orders and network infrastructure deployments involving multiple vendors and technologies where the achievement of certain thresholds for acceptance is subject to the readiness and performance of the CSP or other providers and changes in CSP requirements or installation plans. Further, CSPs may not pursue infrastructure upgrades that require our access systems and software. Infrastructure improvements may be delayed or prevented by a variety of factors including cost, regulatory obstacles (including uncertainties associated with the implementation of regulatory reforms), mergers, lack of consumer demand for advanced communications services and alternative approaches to service delivery. Reductions in capital expenditures by CSPs, particularly CSPs that are significant customers, may have a material negative impact on our revenues 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 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 Independent Operating Companies ("IOCs"), which have revenues that are particularly dependent upon interstate and intrastate access charges and federal and state subsidies. The Federal Communications Commission ("FCC") and some states may consider changes to such payments and subsidies, and these changes could reduce IOC revenues. Furthermore, many IOCs use or expect to use government-supported loan programs or grants, such as RUS loans and grants, to finance capital spending. Changes to these programs, including uncertainty from government and administrative change, could reduce the ability of IOCs to access capital and thus reduce our revenue opportunities.

Many of our customers were awarded grants or loans under government stimulus programs such as the Broadband Stimulus ("BBS") programs under the American Recovery and Reinvestment Act of 2009 ("ARRA") and the funds distributed under the FCC's CAF program, and have purchased and will continue to purchase products from us or other suppliers while such programs and funding are available. However, customers may substantially curtail future purchases of products as ARRA funding winds down or because all purchases have been completed. For example, the Broadband Initiatives Program administered by RUS ended on July 31, 2015, the date by which funded projects were to be completed.

Under the terms of a RUS equipment contract that includes installation services, the customer does not take possession and control and title does not pass until formal acceptance is obtained from the customer. Under this type of arrangement, we do not recognize revenue until we have received formal acceptance from the customer. The timing of revenue recognition related to the sales of our products to CSPs who have received RUS funds may create significant fluctuations in our revenue and operating results from period to period, which could harm our financial results for certain periods. In addition, any changes in government regulations and subsidies could cause our customers to change their purchasing decisions, which could have an adverse effect on our operating results and financial condition.

***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 competitors include companies such as ADTRAN, Inc., Alcatel-Lucent S.A. (now part of Nokia), Arris Group, Inc., Ciena Corporation, Huawei Technologies Co. Ltd., ZTE Corporation and DASAN Zhone Solutions, Inc., among others.

Our ability to compete successfully depends on a number of factors, including:

- the successful development of new products;
- our ability to anticipate CSP and market requirements and changes in technology and industry standards;
- our ability to differentiate our products from our competitors' offerings based on performance, cost-effectiveness or other factors;
- our ongoing ability to successfully integrate acquired product lines and customer bases into our business;
- our ability to gain customer acceptance of our products; and
- our ability to market and sell our products.

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. Examples include our acquisitions of Occam in February 2011 and Ericsson's fiber access assets in November 2012; Adtran's acquisition of Nokia Siemens's broadband access line business in May 2012; Arris's acquisitions of BigBand Networks in October 2011, Motorola Mobility's Home Unit from Google in December 2012 and Pace plc in January 2016; Nokia's acquisition of Alcatel-Lucent in January 2016 and the merger of DASAN Zhone Solutions with DASAN Network Solutions in September 2016. We expect this trend to continue as companies attempt to strengthen or maintain their market positions in an evolving industry.

Many of our current or potential competitors have longer operating histories, greater name recognition, 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. Many of our competitors have broader product lines and can offer bundled solutions, which may appeal to certain customers. Our competitors may also invest additional resources in developing more compelling product offerings. 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 install.

Some of our competitors may offer substantial discounts or rebates to win new customers or to retain existing customers. If we are forced to reduce prices in order to secure customers, we may be unable to sustain gross margins at desired levels or achieve profitability. Competitive pressures could result in increased pricing pressure, reduced profit margins, 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.

***Product development is costly and if we fail to develop new products or enhancements that meet changing CSP requirements, we could experience lower sales.***

Our market is characterized by rapid technological advances, frequent new product introductions, evolving industry standards and unanticipated changes in subscriber requirements. Our future success will depend significantly on our ability to anticipate and adapt to such changes, and to offer, on a timely and cost-effective basis, products and features that meet changing CSP demands and industry standards. We intend to continue making significant investments in developing new products and enhancing the functionality of our existing products. Developing our products is expensive, complex and involves uncertainties. We may not have sufficient resources to successfully manage lengthy product development cycles. For the years ended December 31, 2016 , 2015 , and 2014 , our research and development expenses were $106.9 million or 23% of our revenue, $89.7 million or 22% of our revenue, and $80.3 million or 20% of our revenue, respectively. For the first three months of 2017 , our research and development expenses were $33.8 million or 29% of our revenue. We believe that we must continue to dedicate a significant amount of resources to our research and development efforts to maintain our competitive position. These investments may take several years to generate positive returns, if ever. In addition, we may experience design, manufacturing, 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.

In addition, the introduction of new or enhanced products also requires that we manage the transition from older products to these new or enhanced products in order to minimize disruption in customer ordering patterns, fulfill ongoing customer commitments and ensure that adequate supplies of new products are available for delivery to meet anticipated customer demand. 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. Moreover, as customers complete infrastructure deployments, they may require greater levels of service and support than we have provided in the past. We may not be able to provide products, services and support to compete effectively for these market opportunities. If we are unable to anticipate and develop new products or enhancements to our existing products on a timely and cost-effective basis, we could experience lower sales, which would harm our business.

***Our new products are early in their life cycles and subject to uncertain market demand. If our customers are unwilling to install our new products or deploy our new services or we are unable to achieve market acceptance of our new products, our business and financial results will be harmed.***

Our new products are early in their life cycles and subject to uncertain market demand. They also may face obstacles in manufacturing, deployment and competitive response. Potential customers may choose not to invest the additional capital required for initial system deployment of new products. In addition, demand for new products is dependent on the success of our customers in deploying and selling advanced services to their subscribers. Our products support a variety of advanced broadband services, such as high-speed Internet, Internet protocol television, mobile broadband, high-definition video and online gaming. If subscriber demand for such services does not grow as expected or declines or our customers are unable or unwilling to deploy and market these services, demand for our products may decrease or fail to grow at rates we anticipate.

***Our customer base is concentrated, and there are a limited number of potential customers for our products. The loss of any of our key customers, a decrease in purchases by our key customers or our inability to grow our customer base would adversely impact our revenues 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 to a limited number of customers. For example, one customer accounted for 21% , 22% and 23% , of our revenue for the years ended December 31, 2016 , 2015 and 2014 , respectively, and another customer accounted for 15% of our revenue for the year ended December 31, 2016. However, we cannot anticipate the level of purchases in the future by these customers. Any decrease or delay in purchases and/or capital expenditure plans of any of our key customers, or our inability to grow our sales with existing customers, may have a material negative impact on our revenues and results of operations.

We anticipate that a large portion of our revenues 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, our margins could be reduced, and our profitability may be adversely impacted. The loss of, or reduction in, orders from any key customer would significantly reduce our revenues and harm our business. Furthermore, delays in payment from any of our key customers could have a material negative impact on our cash flows and working capital to support our business operations.

Furthermore, in recent years, the CSP market has undergone substantial consolidation. Industry consolidation generally has negative implications for equipment suppliers, including a reduction in the number of potential customers, a decrease in aggregate capital spending, and greater pricing leverage on the part of CSPs over equipment suppliers. Continued consolidation of the CSP industry and among the ILEC 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 margins.

***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 from quarter to quarter, which may cause our operating results to fluctuate significantly.***

The timing of our revenues is difficult to predict. Our sales efforts often involve educating CSPs about the use and benefits of our products. CSPs typically undertake a significant evaluation process, which frequently involves not only our products 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 revenues 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. In addition, larger projects may have longer periods between project commencement and completion and recognition of revenues. Such delays may result in fluctuations in our quarterly revenues. 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 focus on CSPs with relatively small networks limits our revenues from sales to any one customer and makes our future operating results difficult to predict.***

A large portion of our sales efforts continue to be focused on CSPs with relatively small networks, cable multiple system operators ("MSOs") and selected international CSPs. Our current and potential customers generally operate small networks with limited capital expenditure budgets. Accordingly, we believe the potential revenues from the sale of our products to any one of these customers are limited. As a result, we must identify and sell products to new customers each quarter to continue to increase our sales. In addition, the spending patterns of many of our customers are characterized by small and sporadic purchases. As a consequence, we have limited backlog and will likely continue to have limited visibility into future operating results.

***We do not have long-term, committed-volume purchase contracts with our customers, and therefore have no guarantee of future revenues from any customer.***

We typically have not entered into long-term, committed-volume purchase contracts with our customers, including our key customers which account for a material portion of our revenues. As a result, any of our customers may cease to purchase our products at any time. In addition, our customers may attempt to renegotiate terms of sale, including price and quantity. If any of our key customers stop purchasing our access systems and software for any reason, our business and results of operations would be harmed.

***Our efforts to increase our sales to CSPs globally, including MSOs, may be unsuccessful.***

Our sales and marketing efforts have been focused on CSPs in North America. Part of our long-term strategy is to increase sales to CSPs globally, including MSOs. We have devoted and continue to devote substantial technical, marketing and sales resources to the pursuit of these larger CSPs, who have lengthy equipment qualification and sales cycles, without any assurance of generating sales. In particular, sales to these larger CSPs may require us to upgrade our products to meet more stringent performance criteria and interoperability requirements, develop new customer-specific features or adapt our product to meet international standards. For example, we have been recently invited by a large CSP to engage in initial testing and laboratory trials for our NG-PON2 technology along with our partner Ericsson. We have invested and expect to continue to invest considerable time, effort and expenditures, including investment in product research and development, related to this opportunity without any assurance that our efforts will produce orders or revenues. If we are unable to successfully increase our sales to larger CSPs, our operating results, financial condition, cash flows and long-term growth may be negatively impacted.

***We are exposed to the credit risks of our customers; if we have inadequately assessed their creditworthiness, we may have more exposure to accounts receivable risk than we anticipate. Failure to collect our accounts receivable in amounts that we anticipate could adversely affect our operating results and financial condition.***

In the course of our sales to customers, we may encounter difficulty collecting accounts receivable and could be exposed to risks associated with uncollectible accounts receivable. We maintain an allowance for doubtful accounts for estimated losses resulting from the inability or unwillingness of our customers to make required payments. However, these allowances are based on our judgment and a variety of factors and assumptions.

We perform credit evaluations of our customers’ financial condition. However, our evaluation of the creditworthiness of customers may not be accurate if they do not provide us with timely and accurate financial information, or if their situations change after we evaluate their credit. While we attempt to monitor these situations carefully, adjust our allowances for doubtful accounts as appropriate and take measures to collect accounts receivable balances, we have written down accounts receivable and written off doubtful accounts in prior periods and may be unable to avoid additional write-downs or write-offs of doubtful accounts in the future. Such write-downs or write-offs could negatively affect our operating results for the period in which they occur, and could harm our financial condition.

***Our products must interoperate with many software applications and hardware products found in our customers’ networks. If we are unable to ensure that our products interoperate properly, our business would 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 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 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 have entered into interoperability arrangements with a number of equipment and software vendors for the use or integration of their technology with our products. These arrangements give us access to and enable interoperability with various products that we do not otherwise offer. 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 existing and other potential 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 third-party equipment and software vendors may harm our ability to successfully sell and market our products.

***The quality of our support and services offerings is important to our customers, and if we fail to continue to offer high quality support and services, we could lose customers, which would harm our business.***

Once our products are deployed within our customers’ networks, they depend on our support organization to resolve any issues relating to those products. A high level of support is critical for the successful marketing and sale of our products. Furthermore, our services to customers have increasingly broadened to include network design and services to deploy our products within our customers’ networks, such as our professional services associated with turnkey network upgrade projects for our customers. If we do not effectively assist our customers in deploying our products, succeed in helping them quickly resolve post-deployment issues or provide effective ongoing 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.

***Our products are highly technical and may contain undetected hardware defects or software bugs, which could harm our reputation and adversely affect our business.***

Our products 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. 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 revenues 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 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.

***Our estimates regarding future warranty or product obligations may change due to product failure rates, shipment volumes, field service obligations and rework costs incurred in correcting product failures. 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 development, manufacturing and integration testing may not be adequate to detect all defects, errors, failures and quality issues. 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
- declining sales to existing customers.

***We do not have manufacturing capabilities, and therefore we depend upon a small number of outside contract manufacturers. We do not have supply contracts with all of these contract manufacturers; consequently, our operations could be disrupted if we encounter problems with any of these contract manufacturers.***

We do not have internal manufacturing capabilities, and rely upon a small number of contract manufacturers to build our products. In particular, we rely on Flex Ltd., formerly Flextronics ("Flex") for the manufacture of most of our products. Our reliance on a small number of contract manufacturers makes us vulnerable to possible capacity constraints and reduced control over component availability, delivery schedules, manufacturing yields and costs.

We do not have supply contracts with some of our contract manufacturers. Consequently, these contract manufacturers are not obligated to supply products to us for any specific period, in any specific quantity or at any certain price. In addition, we have limited control over our contract manufacturers' quality systems and controls, and therefore may not be able to ensure levels of quality manufacture suitable for our customers.

The revenues that Flex and other contract manufacturers generate from our orders represent a relatively small percentage of those manufacturers' overall revenues. As a result, fulfilling our orders may not be considered a priority if such manufacturers are constrained in their ability to fulfill all of their customer obligations in a timely manner. In addition, a substantial part of our manufacturing is done in our contract manufacturer facilities that are located outside of the United States. We believe that the location of these facilities outside of the United States increases supply risk, including the risk of supply interruptions or reductions in manufacturing quality or controls. Moreover, regulatory changes or government actions relating to export or import regulations, economic sanctions or related legislation, or the possibility of such changes or actions, may create uncertainty or result in changes to or disruption in our operations with our contract manufacturers.

If Flex or any of our other contract manufacturers were 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 contract manufacturers. An alternative contract 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. Any significant interruption in manufacturing would require us to reduce our supply of products to our customers, which in turn would reduce our revenues and harm our relationships with our customers.

***We and our business partners, including our contract manufacturers and suppliers, depend on sole-source, single-source and limited-source suppliers for some key components. If we and our business partners are unable to source these components on a timely basis, we will not be able to deliver our products to our customers.***

We and our business partners, including our contract manufacturers and suppliers, depend on sole-source, single-source and limited-source suppliers for some key components of our products. For example, certain of our application-specific integrated circuit processors and resistor networks are purchased from sole-source suppliers.

Any of the sole-source, single-source and limited-source suppliers upon whom we or our business partners rely could stop producing our components, cease operations, or enter into exclusive arrangements with our competitors. In addition, purchase volumes of such components may be too low for Calix to be considered a priority customer by these suppliers. As a result, these suppliers could stop selling to us and our business partners at commercially reasonable prices, or at all. Any such interruption or delay may force us and our business partners to seek similar components from alternative sources, which may not be available. 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 interruption in the supply of sole-source, single-source or limited-source components for our products would adversely affect our ability to meet scheduled product deliveries to our customers, could result in lost revenue or higher expenses and would harm our business.

***We utilize domestic and international third parties to design and manufacture certain of our products. If these manufacturers fail to provide these products, we could incur additional costs and delays or lose revenue.***

From time to time we enter into original design manufacturer (“ODM”) and original equipment manufacturer (“OEM”) agreements for the design and manufacture of certain products in order to enable us to offer products on an accelerated basis. For example, a third party assisted in the design of and currently manufactures portions of our E-series systems and nodes family. If any of these ODMs or OEMs stop producing these products, for any reason, we would have to obtain similar products from alternative sources, which may not be available on commercially reasonable terms, if at all. We also have limited control over disruptions, such as supply interruptions or manufacturing quality, that may occur at ODM and OEM facilities located outside of the United States. In addition, switching manufacturers could require us to re-qualify our products with our customers, which would also be costly and time-consuming. Any interruption in the supply of products would adversely affect our ability to meet scheduled product deliveries to our customers, could result in lost revenue or higher expenses and would harm our business.

***If we fail to forecast our manufacturing requirements accurately or fail to properly manage our inventory with our contract manufacturers, we could incur additional costs, experience manufacturing delays and lose revenue.***

We bear inventory risk under our contract manufacturing arrangements and our ODM and OEM agreements. Lead times for the materials and components that we order through our manufacturers vary significantly and depend on numerous factors, including the specific supplier, contract terms and market demand for a component at a given time. Lead times for certain key materials and components incorporated into our products are currently lengthy, requiring our manufacturers to order materials and components several months in advance of manufacture.

If we overestimate our production requirements, our manufacturers may purchase excess components and build excess inventory. If our manufacturers, at our request, purchase excess components that are unique to our products or build excess products, we could be required to pay for these excess parts or products and their storage costs. Historically, we have reimbursed our primary contract manufacturers for a portion of inventory purchases when our inventory has been rendered excess or obsolete. Examples of when inventory may be rendered excess or obsolete include manufacturing and engineering change orders resulting from design changes or in cases where inventory levels greatly exceed projected demand. If we incur payments to our manufacturers associated with excess or obsolete inventory, this would have an adverse effect on our gross margins, financial condition and results of operations.

We have experienced unanticipated increases in demand from customers, which resulted in delayed shipments and variable shipping patterns. If we underestimate our product requirements, our manufacturers may have inadequate component inventory, which could interrupt manufacturing of our products and result in delays or cancellation of sales.

***As the market for our products evolves, changing 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. Demand can be affected not only by customer- or market-specific issues, but also by broader economic and/or geopolitical factors. We may, from time to time, adjust inventory valuations downward in response to our assessment of demand from our customers for specific products or product lines.

***If we fail to comply with evolving industry standards, sales of our existing and future products would be adversely affected.***

The markets for our products are characterized by a significant number of standards, both domestic and international, which are evolving as new technologies are developed and deployed. As we expand into adjacent markets and increase our international footprint, 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 compelled to obtain certifications or authorizations before our products can be introduced, marketed or sold in new markets or to customers that we have not historically served. For example, our ability to maintain Operations System Modification for Intelligent Network Elements (“OSMINE”) certification for our products will affect our ongoing ability to continue to sell our products to Tier 1 CSPs.

In addition, our ability to expand our international operations and create international market demand for our products may be limited by regulations or standards adopted by other countries that may require us to redesign our existing products or develop new products suitable for sale in those countries. Although we believe our products are currently in compliance with domestic and international standards and regulations in countries in which we currently sell, we may not be able to design our products to comply with evolving standards and regulations in the future. This ongoing evolution of standards may directly affect our ability to market or sell our products. Further, the cost of complying with the evolving standards and regulations or the failure to obtain timely domestic or foreign regulatory approvals or certification could prevent us from selling our products where these standards or regulations apply, which would result in lower revenues and lost market share.

***We may be unable to successfully expand our international operations. In addition, we may be subject to a variety of international risks that could harm our business.***

We currently generate most of our sales from customers in North America and have limited experience marketing, selling and supporting our products and services outside North America or managing the administrative aspects of a worldwide operation. While we are in the process of expanding our international operations, we may not be able to create or maintain international market demand for our products. In addition, as we expand our operations internationally, our support organization will face additional challenges including those associated with delivering support, training and documentation in languages other than English. 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 will suffer.

In the course of expanding our international operations and operating overseas, we will be subject to a variety of risks, including:

- differing regulatory requirements, including tax laws, trade laws, data privacy laws, labor regulations, tariffs, export quotas, custom duties or other trade restrictions;
- liability or damage to our reputation resulting from corruption or unethical business practices in some countries;
- exposure to effects of fluctuations in currency exchange rates if, over time, international customer contracts are increasingly denominated in local currencies;
- longer collection periods and difficulties in collecting accounts receivable;
- greater difficulty supporting and localizing our products;
- different or unique competitive pressures as a result of, among other things, the presence of local equipment suppliers;
- challenges inherent in efficiently managing an increased number of employees over large geographic distances, including the need to implement appropriate systems, policies, and compensation, benefits and compliance programs;
- limited or unfavorable intellectual property protection;
- risk of change in international political or economic conditions, terrorist attacks or acts of war; and
- restrictions on the repatriation of earnings.

***We engage resellers to promote, sell, install and support our products to some customers in North America and internationally. Their failure to do so or our inability to recruit or retain appropriate resellers may reduce our sales and thus harm our business.***

We engage some value added resellers (“VARs”), who provide sales and support services for our products. In particular, the non-exclusive reseller agreement entered into with Ericsson in 2012 has provided us with an extensive global reseller channel. More recently we have partnered with Ericsson on larger customer opportunities. We compete with other telecommunications systems providers for our VARs’ business and many of our VARs, including Ericsson, are free to market competing products. Our use of VARs and other third-party support partners and the associated risks of doing so are likely to increase as we expand sales outside of North America. If Ericsson or any other VAR promotes a competitor’s products to the detriment of our products or otherwise fails to market our products and services effectively, we could lose market share. In addition, the loss of a key VAR or the failure of VARs to provide adequate customer service could have a negative effect on customer satisfaction and could cause harm to our business. If we do not properly recruit and train VARs to sell, install and service our products, our business, financial condition and results of operations may suffer.

***The results of the United Kingdom’s referendum on withdrawal from the European Union may have a negative effect on global economic conditions, financial markets and our business.***

In June 2016, a majority of voters in the United Kingdom elected to withdraw from the European Union in a national referendum. The referendum was advisory, and the terms of any withdrawal are subject to a negotiation period that could last at least two years after the government of the United Kingdom formally initiated the withdrawal process in March 2017. Nevertheless, the referendum has created significant uncertainty about the future relationship between the United Kingdom and the European Union, including with respect to the laws and regulations that will apply as the United Kingdom determines which European Union laws to replace or replicate in the event of a withdrawal. The referendum has also given rise to calls for the governments of other European Union member states to consider withdrawal. These developments, or the perception that any of them could occur, have had and may continue to have a material adverse effect on global economic conditions and the stability of global financial markets, and may significantly reduce global market liquidity and restrict the ability of key market participants to operate in certain financial markets. Any of these factors could depress economic activity and restrict our access to capital, or the access to capital of our customers or partners, which could have a material adverse effect on our business, financial condition and results of operations and reduce the price of our securities.

***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 believe 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:

- m anage organizational change;
- manage a larger organization;
- 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 would be adversely affected.

***We may not be able to protect our intellectual property, which could impair our ability to compete effectively.***

We depend on certain proprietary technology for our success and ability to compete. We rely on intellectual property laws as well as nondisclosure agreements, licensing arrangements and confidentiality provisions to establish and protect our proprietary rights. 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. Our pending patent applications may not result in issued patents, and our issued patents may not be enforceable. Any infringement of our proprietary rights could result in significant litigation costs. Further, any failure by us to adequately protect our proprietary rights could result in our competitors offering similar products, resulting in the loss of our competitive advantage and decreased sales.

Despite our efforts to protect our proprietary rights, attempts may be made to copy or reverse engineer aspects of our products or to obtain and use information that we regard as proprietary. Accordingly, we may be unable to protect our proprietary rights against unauthorized third-party copying or use. Furthermore, policing the unauthorized use of our intellectual property is difficult and costly. Litigation may be necessary in the future to enforce our intellectual property rights, to protect our trade secrets or to determine the validity and scope of the proprietary rights of others. Litigation could result in substantial costs, diversion of resources and harm to our business.

***We could become subject to litigation regarding intellectual property rights that could harm our business.***

We may be subject to intellectual property infringement claims that are costly to defend and could limit our ability to use some technologies in the future. Third parties may assert patent, copyright, trademark or other intellectual property rights to technologies or rights that are important to our business. Such claims may originate from non-practicing entities, patent holding companies or other adverse patent owners who have no relevant product revenue, and therefore, our own issued and pending patents may provide little or no deterrence to suit from these entities.

We have received in the past and expect that in the future we may receive communications from competitors and other companies alleging that we may be infringing their patents, trade secrets or other intellectual property rights; offering licenses to such intellectual property; threatening litigation or requiring us to act as a third-party witness in litigation. In addition, we have agreed, and may in the future agree, to indemnify our customers for expenses or liabilities resulting from certain claimed infringements of patents, trademarks or copyrights of third parties. 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 product shipment delays or require us to modify our products or enter into royalty or licensing agreements. Such royalty or licensing agreements, if required, may not be available to us on acceptable terms, if at all.

***Our use of open source software could impose limitations on our ability to commercialize our products.***

We incorporate open source software into our products. Although we closely monitor our use of open source software, 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 revenues and operating expenses.

***If we are unable to obtain necessary third-party technology licenses, our ability to develop new products or product enhancements may be impaired.***

While our current licenses of third-party technology generally relate to commercially available off-the-shelf technology, we may from time to time be required to license additional technology from third parties to develop new products or product enhancements. These third-party licenses may be unavailable to us on commercially reasonable terms, if at all. Our inability to obtain necessary third-party licenses may force us to obtain substitute technology of lower quality or performance standards or at greater cost, or may increase the time-to-market of our products or product enhancements, any of which could harm the competitiveness of our products and result in lost revenues.

***Our ability to incur debt and the use of our funds could be limited by the restrictive covenants in our loan agreement for our revolving credit facility.***

Our Credit Agreement with Bank of America, N.A. provides for a revolving credit facility that contains restrictive covenants, as well as requirements to comply with certain leverage and other financial maintenance tests. These restrictive covenants and requirements limit the amount of borrowings that are available to us. We have incurred operating losses in recent quarters and as of April 1, 2017, no funds were available for borrowing under the terms of the Credit Agreement based on the consolidated leverage ratio requirements under the Credit Agreement. The Credit 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, who may have fewer restrictive covenants and may not be required to operate under these restrictions.

***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 of hazardous materials that are subject to environmental, health and safety regulations, or materials subject to laws restricting the use of conflict minerals. Our failure or the failure of our contract manufacturers, ODMs and OEMs to comply with any of these requirements could result in regulatory penalties, legal claims or disruption of production. In addition, our failure or the failure of our manufacturers 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.

***Regulatory and physical impacts of climate change and other natural events may affect our customers and our contract 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 contract 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, contract manufacturers, and our operations. These potential physical effects may adversely affect our revenues, costs, production and delivery schedules, and cause harm to our results of operations and financial condition.

***We have in the past pursued, and may in the future continue to pursue, acquisitions which involve a number of risks and uncertainties. If we are unable to address and resolve these risks and uncertainties successfully, such acquisitions could disrupt our business and result in higher costs than we anticipate.***

We acquired Occam Networks in 2011 and Ericsson’s fiber access assets in 2012. We may in the future acquire other 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. We have limited experience making such acquisitions or integrating these businesses after such acquisitions. Unanticipated costs to us from these historical transactions as well as both anticipated and unanticipated costs to us related to any future transactions could exceed amounts that are covered by insurance and could have a material adverse impact on our financial condition and results of operations. For example, the Occam acquisition resulted in litigation with defense costs that were in excess of available Directors & Officers liability insurance coverage, including costs for which coverage was denied by our insurance carriers. In addition, the anticipated benefit of any acquisitions we do may never materialize or the process of integrating acquired businesses, products or technologies may create unforeseen operating difficulties and expenditures.

Some of the areas where we have experienced and may in the future experience acquisition-related risks include:

- expenses and distractions, including diversion of management time related to litigation;
- expenses and distractions related to potential claims resulting from any possible future acquisitions, whether or not they are completed;
- retaining and integrating employees from acquired businesses;
- issuance of dilutive equity securities or incurrence of debt;
- integrating various accounting, management, information, human resource and other systems to permit effective management;
- incurring possible write-offs, impairment charges, contingent liabilities, amortization expense of intangible assets or impairment of goodwill and intangible assets with finite useful lives;
- difficulties integrating and supporting acquired products or technologies;
- unexpected capital expenditure requirements;
- insufficient revenues to offset increased expenses associated with the acquisition; and
- opportunity costs associated with committing capital to such acquisitions.

If our goodwill or intangible assets with finite useful lives become impaired, we may be required to record a significant charge to earnings. We review our goodwill and intangible assets with finite useful lives for impairment when events or changes in circumstances indicate the carrying value may not be recoverable, such as a sustained or significant decline in stock price and market capitalization. We test goodwill for impairment at least annually. If the carrying values of such assets were deemed to be impaired, an impairment loss equal to the amount by which the carrying amount exceeds the estimated fair value would be recognized. Any such impairment could materially and adversely affect our financial condition and results of operations.

Foreign acquisitions would involve risks in addition to those mentioned above, including those related to integration of operations across different cultures and languages, currency risks and the particular economic, political and regulatory risks associated with specific countries. We may not be able to address these risks and uncertainties successfully, or at all, without incurring significant costs, delays or other operating problems.

Our inability to address or anticipate any of these risks and uncertainties could disrupt our business and could have a material impact on our financial condition and results of operations.

***Our use of and reliance upon development resources in China may expose us to unanticipated costs or liabilities.***

We operate a wholly foreign owned enterprise in Nanjing, China, where a dedicated team of engineers performs product development, quality assurance, cost reduction and other engineering work. We also outsource a portion of our software development to a team of software engineers based in Shenyang, China. Our reliance upon development resources in China may not enable us to achieve meaningful product cost reductions or greater resource efficiency. Further, our development efforts and other operations in China involve significant risks, including:

- difficulty hiring and retaining appropriate engineering resources due to intense competition for such resources and resulting wage inflation;
- the knowledge transfer related to our technology and exposure to misappropriation of intellectual property or confidential information, including information that is proprietary to us, our customers and third parties;
- heightened exposure to changes in the economic, security and political conditions of China;
- fluctuation in currency exchange rates and tax risks associated with international operations;
- development efforts that do not meet our requirements because of language, cultural or other differences associated with international operations, resulting in errors or delays; and
- uncertainty with regards to actions the Trump administration may take with respect to international trade agreements and U.S. tax provisions related to international commerce that could adversely affect our international operations.

Difficulties resulting from the factors above and other risks related to our operations in China could expose us to increased expense, impair our development efforts, harm our competitive position and damage our reputation.

***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 all of our U.S. customers. 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, future FCC regulation affecting 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. Consequently, such changes could adversely affect the sale of our products and services. Furthermore, many of our customers are subject to FCC rate regulation of interstate telecommunications services and are recipients of CAF capital incentive payments, which are intended to subsidize broadband and telecommunications services in areas that are expensive to serve. Changes to these programs, rules and regulations that could affect the ability of IOCs to access capital, and which could in turn reduce our revenue opportunities, remain possible.

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' revenues 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.

Many jurisdictions, including international governments and regulators, are also evaluating, implementing and enforcing regulations relating to cyber security, privacy and data protection, which can affect the market and requirements for networking and communications equipment. To the extent our customers are adversely affected by laws or regulations regarding their business, products or service offerings, our business, financial condition and results of operations would suffer.

***Privacy concerns relating to our products and services could affect our business practices, damage our reputation and deter customers from purchasing our products and services.***

Government and regulatory authorities in the United States and around the world have implemented and are continuing to implement laws and regulations concerning data protection. For example, in July 2016, the European Commission adopted the EU-U.S. Privacy Shield to replace Safe Harbor as a compliance mechanism for the transfer of personal data from the European Union to the United States. The interpretation and application of these data protection laws and regulations are often uncertain and in flux, and it is possible that they may be interpreted and applied in a manner that is inconsistent with our data practices. Complying with these various laws could cause us to incur substantial costs or require us to change our business practices in a manner adverse to our business.

Concerns about or regulatory actions involving our practices with regard to the collection, use, disclosure, or security of customer information or other privacy related matters, even if unfounded, could damage our reputation and adversely affect operating results. While we strive to comply with all data protection laws and regulations, the failure or perceived failure to comply may result in inquiries and other proceedings or actions against us by government entities or others, or could cause us to lose customers, which could potentially have an adverse effect on our business.

***Data breaches and failures in our information systems and cyber-attacks could harm our business, customer relations and financial condition.***

Information technology helps us operate efficiently, interface with and provide software solutions to customers, maintain financial accuracy and efficiency and accurately produce our financial statements. Our customers are increasingly focused on the security features of our technology solutions, and maintaining the security of information sensitive to us and our customers is critical to our business and reputation. If we do not allocate and effectively manage the resources necessary to build and sustain the proper technology infrastructure, we could be subject to transaction errors, processing inefficiencies, the loss of customers, business disruptions or the loss of or damage to intellectual property through security breach. If our data management systems do not effectively and securely collect, store, process and report relevant data for the operation of our business, whether due to equipment malfunction or constraints, software deficiencies or human error, our ability to effectively plan, forecast and execute our business plan and comply with laws and regulations will be impaired, perhaps materially. Any such impairment could materially and adversely affect our financial condition, results of operations, cash flows and the timeliness with which we internally and externally report our operating results.

We have applied multiple layers of security to control access to our information technology systems. We also use encryption and authentication technologies to secure the transmission and storage of data. These security measures may be compromised as a result of third-party security breaches, employee error, malfeasance, faulty password management or other irregularity, and result in persons obtaining unauthorized access to our data or accounts. Third parties may attempt to fraudulently induce employees into disclosing user names, passwords or other sensitive information, which may in turn be used to access our information technology systems.

While we seek to apply best practice policies and devote significant resources to network security, data encryption and other security measures to protect our information technology and communications systems and data, these security measures cannot provide absolute security. We may experience a breach of our systems and be unable to protect sensitive data. The costs to us to eliminate or alleviate network security problems, bugs, viruses, worms, malicious software programs and security vulnerabilities could be significant, and our efforts to address these problems may not be successful and could result in unexpected interruptions, delays and cessation of service which may harm our business operations.

Although our systems have been designed around industry-standard architectures to reduce downtime in the event of outages or catastrophic occurrences, they remain vulnerable to damage or interruption from earthquakes, floods, fires, power loss, telecommunication failures, terrorist attacks, cyber-attacks, viruses, denial-of-service attacks, human error, hardware or software defects or malfunctions, and similar events or disruptions. Some of our systems are not fully redundant, and our disaster recovery planning is not sufficient for all eventualities. Our systems are also subject to break-ins, sabotage, and intentional acts of vandalism. Despite any precautions we may take, the occurrence of a natural disaster, a decision by any of our third-party hosting providers to close a facility we use without adequate notice for financial or other reasons, or other unanticipated problems at our hosting facilities could cause system interruptions and delays which may result in loss of critical data and lengthy interruptions in our services.

***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 requirements for export. 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.

***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 management, engineering, sales and marketing personnel, many of whom are highly skilled and would be difficult to replace. None of our senior management or key technical or sales personnel is 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.

Competition for skilled personnel, particularly those specializing in engineering and sales, 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. In particular, we must continue to expand our direct sales force, including hiring additional sales managers, to grow our customer base and increase sales. If we are unable to effectively recruit, hire and utilize new employees, 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.

Volatility or lack of performance in our stock price may also affect our ability to attract and retain our key personnel. Our executive officers and employees hold a substantial number of shares of our common stock and vested stock options. Employees may be more likely to leave us if the shares they own or the shares underlying their equity awards decline in value, or if the exercise prices of stock options that they hold are significantly above the market price of our common stock. If we are unable to retain our employees, our business, operating results and financial condition will be harmed.

***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, our ability to operate our business and our stock price.***

Ensuring that we have adequate internal financial and accounting controls and procedures in place to produce accurate financial statements on a timely basis is a costly and time-consuming effort that needs to be re-evaluated frequently. 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.

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 for external purposes 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.

We are required to comply with Section 404 of the Sarbanes-Oxley Act ("SOX"), which requires us to expend significant resources in developing the required documentation and testing procedures. We cannot be certain that the actions we have taken and are taking to improve our internal controls over financial reporting will be sufficient to maintain effective internal controls over financial reporting in subsequent reporting periods or that we will be able to implement our planned processes and procedures in a timely manner. In addition, new and revised accounting standards and financial reporting requirements may occur in the future and implementing changes required by new standards, requirements or laws may require a significant expenditure of our management's time, attention and resources which may adversely affect our reported financial results. 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.

***We incur significant costs as a result of operating as a public company, which may adversely affect our operating results and financial condition.***

As a public company, we incur significant accounting, legal and other expenses, including costs associated with our public company reporting requirements. We also anticipate that we will continue to incur costs associated with corporate governance requirements, including requirements and rules under SOX and the Dodd-Frank Wall Street Reform and Consumer Protection Act (the "Dodd-Frank Act") among other rules and regulations implemented by the SEC, as well as listing requirements of the New York Stock Exchange (the "NYSE"). Furthermore, these laws and regulations could make it difficult or costly for us to obtain certain types of insurance, including director and officer liability insurance, and we may be forced to accept reduced policy limits and coverage or incur substantially higher costs to obtain the same or similar coverage. The impact of these requirements could also make it difficult for us to attract and retain qualified persons to serve on our board of directors, our board committees or as executive officers.

New laws and regulations as well as changes to existing laws and regulations affecting public companies, including the provisions of SOX and the Dodd-Frank Act 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.

***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 in the "Risk Factors" section of this Quarterly Report on Form 10-Q, 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 intellectual property 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. In addition, in the past, 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. This 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 will be 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 in turn 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:

- 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;
- no cumulative voting in the election of directors, which limits the ability of minority stockholders to elect director candidates;
- 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;
- 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;
- a prohibition on stockholder action by written consent, which forces stockholder action to be taken at an annual or special meeting of our stockholders;
- 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
- 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.***

We may need to raise additional capital to fund operations in the future. Although we believe that, based on our current level of operations and anticipated growth, our existing cash, cash equivalents and marketable securities will provide adequate funds for ongoing operations, planned capital expenditures and working capital requirements for at least the next 12 months, our working capital needs and cash use have continued to increase to support our growth initiatives, and we may need additional capital if our current plans and assumptions change. 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 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 to support our operational needs, we may need to seek other 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.

***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.

**ITEM 2. Unregistered Sales of Equity Securities and Use of Proceeds**

None.

**ITEM 3. Defaults Upon Senior Securities**

None.

**ITEM 4. Mine Safety Disclosures**

Not applicable.

**ITEM 5. Other Information**

None.

**ITEM 6. Exhibits**

| Exhibit Number | Description |
|---|---|
| 10.1* | Separation Agreement and General Release of All Claims by and between Calix, Inc. and William Atkins dated March 31, 2017. |
| 31.1 | Certification of Chief Executive Officer of Calix, Inc. Pursuant to Section 302 of the Sarbanes-Oxley Act of 2002. |
| 31.2 | Certification of Chief Financial Officer of Calix, Inc. Pursuant to Section 302 of the Sarbanes-Oxley Act of 2002. |
| 32.1 | Certification of Chief Executive Officer and Chief 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.

## 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)

| | | |
|---|---|---|
| Date: May 10, 2017 | By: | /s/ Carl Russo |
| | | **Carl Russo** |
| | | **Chief Executive Officer**<br>**(Principal Executive Officer)** |
| Date: May 10, 2017 | By: | /s/ William J. Atkins |
| | | **William J. Atkins** |
| | | **EVP and Chief Financial Officer**<br>**(Principal Financial Officer)** |
| Date: May 10, 2017 | By: | /s/ Sheila Cheung |
| | | **Sheila Cheung** |
| | | **Vice President, Finance and Accounting**<br>**(Principal Accounting Officer)** |

## EXHIBIT INDEX

| Exhibit Number | Description |
|---|---|
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**Exhibit 10.1**

**SEPARATION AGREEMENT AND GENERAL RELEASE OF ALL CLAIMS**

This Separation Agreement and Release (“Agreement”) is entered into by and between WILLIAM ATKINS (“Employee”) and Calix, Inc., a Delaware corporation (the “Company”). In consideration of the covenants set forth below, effective as of March 31, 2017 (the “Effective Date”) the parties agree as follows:

1. **Separation of Employment** .

(a) *Separation Date.* Employee and the Company acknowledge and agree that Employee’s employment with the Company is terminated effective as of the earlier to occur of: (i) May 19, 2017, or (ii) the date Employee is terminated by the Company for “Cause” as defined in clause 4(c)(iv) only of the Calix Executive Change in Control and Severance Plan (the “Plan”) (the date of the earliest of such events in clauses (i) and (ii) to occur being the “Separation Date”). Employee’s healthcare benefits will end on May 31, 2017. All other benefits will end on the Separation Date, except to the extent expressly provided otherwise herein.

(b) *Continued Employment* . Effective as of the date of this Agreement and until the Separation Date, Employee shall remain employed by the Company as its Executive Vice President and Chief Financial Officer. In that capacity, Employee shall provide transition services in Employee’s areas of expertise and work experience with regard to the completion of the Company’s Q1 financials, and shall perform such other lawful duties as assigned to him by the Chief Executive Officer that are consistent with his title and position, as well as past practice.

(c) *Payment of Final Wages and Receipt of All Benefits* **.** Employee shall be paid his base salary through the Separation Date and bonus accrued through April 1, 2017, and shall receive benefits in the ordinary course through the Separation Date. As soon as practicable following the Separation Date, the Company shall have paid Employee (1) all salary, wages, bonuses, premiums, leave, housing allowances, relocation costs, commissions, interest, fees, variable compensation and any and all other benefits and compensation owed to the Employee through the Separation Date (subject to applicable tax withholding), (2) all accrued but unused vacation and floating days of Employee at Employee’s final rate of pay (subject to applicable tax withholding), and (3) all reimbursable business expenses incurred and submitted by Employee prior to the Separation Date. The Company will reimburse any remaining expenses upon timely submission by Employee according to Company policy. No other amounts or benefits are due to Employee from the Company through the Separation Date, except as expressly provided in this Agreement. Employee further acknowledges and represents that he has received any leave to which he was entitled or which he requested, if any, under the California Family Rights Act and/or the Family Medical Leave Act.

(d) *Stock.* Attached as Exhibit A is a statement of Employee’s Equity Summary as of May 19, 2017, which Employee confirms is accurate.

(e) *Immigration Support.* The Company shall continue to bear up to $10,000 costs of immigration counsel in connection with the provision of assistance for Employee’s eligible dependent(s) to obtain permanent residency status in the United States as incurred through the Separation Date.

(f) *Benefits* . Whether or not this Agreement becomes effective, Employee is eligible to elect to continue Employee’s existing healthcare coverage under the Company-sponsored group health benefit plans for Employee and Employee’s existing dependents, pursuant to the Consolidated Omnibus Budget Reconciliation Act of 1985, as amended (“COBRA”).

2. **Severance Benefits** . Unless Employee is terminated for Cause as defined in Section 4(c)(iv) of the Plan only, the Company agrees to provide the following severance benefits to Employee in consideration for the release of claims set forth in Exhibit D (the "Release") and other obligations under this Agreement, provided the Release is signed by Employee and becomes irrevocable within 30 days following the Separation Date, and subject to Employee's compliance with the obligations under this Agreement:

(a) *Lump Sum Payment.* The Company will pay Employee a lump sum payment in the gross amount of $345,000, less applicable taxes and withholding, representing 12 months of Employee's current base salary, within 20 days following Employee's Separation Date.

(b) *Bonus Payment.* The Company will pay Employee a lump sum payment in the gross amount of $207,000, less applicable taxes and withholding, representing 12 months of Employee's target cash bonus opportunity, within 20 days following Employee's Separation Date.

(c) *Accelerated Vesting.* Equity Awards listed in Exhibit A will vest, and if applicable, will become exercisable on the Separation Date to the extent such equity awards would have vested had Employee's employment with the Company continued for 24 months after the Separation Date. All vested options will remain exercisable for the limited period following the Separation Date set forth in the agreement evidencing the option and will terminate upon the expiration of such limited period unless exercised prior to such expiration.

(d) *Reimbursement for COBRA Premiums* . Provided Employee elects to continue health and/or welfare benefit insurance pursuant to COBRA, the Company will reimburse Employee for premiums to the same extent that it paid Employee's premiums as of the Separation Date, for Employee and Employee's dependents, for 12 months following the Separation Date, or until Employee cancels the underlying coverage. In order to receive reimbursement, Employee must submit proof of payment to the Company within 30 days of payment and the Company will remit payment for reimbursement no more than 30 days after timely submission of proof of payment.

3. **Release of Claims** . Except as described in Section 3.1 below, which identifies claims expressly excluded from this waiver and release, Employee, on behalf of Employee and Employee's heirs, executors, administrators and assigns, hereby fully and forever releases the Company and its past and present officers, directors, shareholders, affiliates, predecessors, successors, assigns, agents, investors, employees, administrators, benefit plans, plan administrators, insurers, divisions, subsidiaries, and representatives (collectively, the "Releasees") from any claim, duty, obligation or cause of action relating to any matters of any kind, whether presently known or unknown, suspected or unsuspected, that Employee may possess against any of the Releasees arising from any omissions, acts or facts that have occurred up until and including the date Employee has signed this Agreement including, without limitation:

(a) any and all claims relating to or arising from Employee's employment relationship with the Company through the Effective Date;

(b) any and all claims relating to, or arising from, Employee's right to purchase, or actual purchase of shares of the capital stock of the Company;

(c) any and all claims for discrimination; harassment; retaliation; failure to provide reasonable accommodation; failure to engage in a good faith interactive process; breach of contract, both express and implied; breach of a covenant of good faith and fair dealing, both express and implied; promissory estoppel; negligent or intentional infliction of emotional distress; fraud; negligent or intentional misrepresentation; negligent or intentional interference with contract or prospective economic advantage; unfair business practices; negligence; defamation; libel; slander; personal injury; assault; battery; invasion of privacy; false imprisonment; conversion; disability benefits, or any claims arising out of any other agreement, incident or relationship between the parties prior to the execution of this Agreement;

(d) any and all claims for violation of any federal, state or local statute, constitution or regulation including, but not limited to, Title VII of the Civil Rights Act of 1964; the Civil Rights Act of 1991; the Americans with Disabilities Act of 1990; the California Fair Employment and Housing Act; the California Labor Code, except as prohibited by law; the California Government Code; the California Industrial Welfare Commission Wage Orders; the California Business & Professions Code; the California Family Rights Act; the Rehabilitation Act of 1973; Executive Order 11126; Title 42 of the United States Code; the Employee Retirement Income Security Act of 1974; the Equal Pay Act; the Fair Labor Standards Act, except as prohibited by law; the Fair Credit Reporting Act; the Worker Adjustment and Retraining Notification Act; the Family and Medical Leave Act, except as prohibited by law; the Sarbanes-Oxley Act of 2002; and the Uniformed Services Employment and Reemployment Rights Act.

(e) any and all claims arising out of any other laws and regulations relating to employment or employment discrimination arising prior to the execution of this Agreement;

(f) any claim for any loss, cost, damage, or expense arising out of any dispute over the non-withholding or other tax treatment of any of the proceeds received by Employee prior to the date of this Agreement;

(g) any and all claims for monetary recovery and personal or individual relief, except as prohibited by law; and

(h) any and all claims for attorneys' fees and costs.

3.1 **Excluded Claims.** The only claims that are not being waived and released by Employee under this Agreement are those Employee may have for:

a. Claims for payments under this Agreement (including claims for payments through the Separation Date) and claims under the Indemnification Agreement referenced in Section 14 below;

b. Unemployment, state disability, workers compensation and/or paid family leave insurance benefits pursuant to the terms of applicable state law;

c. Continuation of existing participation in Company-sponsored group health benefit plans, at Employee's full expense, under the federal law known as "COBRA" and/or under an applicable state counterpart law;

d. Any benefit entitlements vested as of the Separation Date pursuant to the terms of a Company-sponsored benefit plan governed by the federal law known as "ERISA";

e. Violation of any federal, state or local statutory and/or public policy right or entitlement that, by applicable law, is not waivable; and

f. Any wrongful act, event or omission occurring after the date Employee signs this Agreement.

3.2 **Government Agency Exceptions.** Nothing in this Agreement prevents or prohibits Employee from filing claims with any government agency, such as the Equal Employment Opportunity Commission, that is responsible for enforcing a law on behalf of the government. However, Employee understands that Employee is waiving and releasing all claims for monetary damages and any other form of personal relief, and therefore, may only seek and receive non-personal forms of relief through any such claims. Furthermore, nothing in this Agreement affects or interferes with the right of the Employee to participate, cooperate or assist in an investigation or proceeding conducted within the Company or by any government agency, oversight board, commission or other regulatory or investigative body.

3.3 **Civil Code Section 1542** . Employee represents that Employee is not aware of any claim by Employee other than the claims that are released by this Agreement. Employee acknowledges that Employee has been advised to consult with legal counsel and is familiar with the provisions of California Civil Code Section 1542, a statute that otherwise prohibits the release of unknown claims, which provides as follows:

**A GENERAL RELEASE DOES NOT EXTEND TO CLAIMS WHICH THE CREDITOR DOES NOT KNOW OR SUSPECT TO EXIST IN HIS OR HER FAVOR AT THE TIME OF EXECUTING THE RELEASE, WHICH IF KNOWN BY HIM OR HER MUST HAVE MATERIALLY AFFECTED HIS OR HER SETTLEMENT WITH THE DEBTOR.**

Employee, being aware of said Code section, agrees to expressly waive any rights Employee may have under it, as well as under any other statute or common law principles of similar effect.

4. **No Pending or Future Lawsuits.** (a) *By Employee.* Employee represents that he has no lawsuits, claims, or actions pending in his name, or on behalf of any other person or entity, against the Company or any of the other Releasees. Employee also represents that he does not intend to bring any claims on his own behalf or on behalf of any other person or entity against the Company or any of the other Releasees.

(b) *By the Company* . The Company represents, on its behalf and on behalf of its affiliates, that it has no lawsuits, claims, or actions pending in it's name, or on behalf of any other person or entity, against the Employee. The Company also represents on its behalf and on behalf of its affiliates, that it does not presently intend to bring any claims on his own behalf or on behalf of any other person or entity against the Employee.

5. **No Cooperation.** Employee agrees that he will not knowingly encourage, counsel, or assist any attorneys or their clients in the presentation or prosecution of any disputes, differences, grievances, claims, charges, or complaints by any third party against any of the Releasees, unless under a subpoena or other court order to do so or as related directly to the waiver of claims under the Age Discrimination in Employment Act of 1967 (the "ADEA") in the Release. Employee agrees both to immediately notify the Company upon receipt of any such subpoena or court order, and to furnish, within three (3) business days of its receipt, a copy of such subpoena or other court order. If approached by anyone for counsel or assistance in the presentation or prosecution of any disputes, differences, grievances, claims, charges, or complaints against any of the Releasees, Employee shall state no more than that he cannot provide counsel or assistance.

6. **Mutual Nondisparagement.** Employee agrees that he shall not disparage, defame or slander the Company, its affiliates and their respective affiliates, directors, officers, agents, partners, stockholders, employees, products, services, technology or business. The Company agrees that it shall not, and it shall instruct its officers and directors to not, disparage, defame or slander Employee. Nothing in this Section shall have application to any evidence or testimony required by any court, arbitrator or government agency.

7. **References; Communications.** Employee shall direct any inquiries by potential future employers to the Company's human resources department, which shall provide only the Employee's last position and dates of employment. The form of press release to be issued in connection with the Employee's separation from service is attached as Exhibit E hereto; in addition, any internal communication regarding the Employee's separation from service shall be subject to Employee's review and comment, which will be considered in good faith by the Company.

8. **Nondisclosure** . Employee understands and agrees that Employee's obligations to the Company under Employee's existing At-Will Employment Confidential Information and Invention Assignment Agreement between Employee and the Company (the "Confidentiality Agreement"), a copy of which is attached as Exhibit B , shall survive termination of Employee's relationship with the Company under this Agreement. Employee warrants that at all times in the past Employee has been, and agrees that at all subsequent times Employee shall continue to be, in compliance with Employee's obligations to maintain the confidentiality of all confidential and proprietary information of the Company as provided by the Confidentiality Agreement. Employee expressly agrees that

Employee shall not intentionally divulge, furnish or make available to any party any of the trade secrets, patents, patent applications, price decisions or determinations, marketing plans, business plans, product plans, inventions, customers, proprietary information or other intellectual property of the Company, until after such time as such information has become publicly known otherwise than by act of collusion of Employee. Employee agrees to execute the Separation Certification, attached as Exhibit C , and return it to the Company on the Separation Date, which certifies that Employee has returned all the Company's property and confidential and proprietary information in Employee's possession to the Company, except as provided therein.

9. **Federal Law Protections.** Federal law provides certain protections to individuals who disclose a trade secret to their attorney, a court, or a government official in certain, confidential circumstances. Specifically, federal law provides that an individual shall not be held criminally or civilly liable under any federal or state trade secret law for the disclosure of a trade secret under either of the following conditions

- Where the disclosure is made (i) in confidence to a Federal, State, or local government official, either directly or indirectly, or to an attorney; and (ii) solely for the purpose of reporting or investigating a suspected violation of law; or

- Where the disclosure is made in a complaint or other document filed in a lawsuit or other proceeding, if such filing is made under seal. See 18 U.S.C. § 1833(b)(1)).

Federal law also provides that an individual who files a lawsuit for retaliation by an employer for reporting a suspected violation of law may disclose the trade secret to the attorney of the individual and use the trade secret information in the court proceeding, if the individual (A) files any document containing the trade secret under seal; and (B) does not disclose the trade secret, except pursuant to court order. See 18 U.S.C. § 1833(b)(2).

10. **Whistleblower Protection** . For the avoidance of doubt, nothing in this Agreement will be construed to prohibit Employee from filing a charge with, reporting possible violations to, or participating or cooperating with any governmental agency or entity, including but not limited to the EEOC, the Department of Justice, the Securities and Exchange Commission, Congress, or any agency Inspector General, or making other disclosures that are protected under the whistleblower, anti-discrimination, or anti-retaliation provisions of federal, state or local law or regulation; provided, however, that Employee may not disclose information of the Company or any affiliate that is protected by the attorney-client privilege, except as otherwise required by law. Employee does not need the prior authorization of the Company to make any such reports or disclosures, and Employee is not required to notify the Company that he has made such reports or disclosures.

11. **Severability** . In the event that any provision of this Agreement becomes or is declared by a court or other tribunal of competent jurisdiction or arbitrator to be illegal, unenforceable or void, the remainder of this Agreement shall continue in full force and effect without said provision or portion of provision.

**12.** **Arbitration** . THE PARTIES AGREE THAT ANY AND ALL DISPUTES ARISING OUT OF THE TERMS OF THIS AGREEMENT, ITS INTERPRETATION, AND ANY OF THE MATTERS HEREIN RELEASED, SHALL BE SUBJECT TO ARBITRATION BEFORE THE AMERICAN ARBITRATION ASSOCIATION (“AAA”), PURSUANT TO ITS EMPLOYMENT ARBITRATION RULES & MEDIATION PROCEDURES (“AAA RULES”). A COPY OF THE RULES CAN BE FOUND AT www.adr.org/employment. THE DECISION OF THE ARBITRATOR SHALL BE FINAL, CONCLUSIVE, AND BINDING ON THE PARTIES TO THE ARBITRATION. NO CLAIMS MAY BE ARBITRATED ON A CLASS, COLLECTIVE OR REPRESENTATIVE ACTION BASIS, AND THE PARTIES EXPRESSLY WAIVE ANY RIGHT TO SUBMIT, INITIATE, OR PARTICIPATE IN A REPRESENTATIVE CAPACITY OR AS A PLAINTIFF, CLAIMANT OR MEMBER IN ANY CLASS ACTION, COLLECTIVE ACTION, OR OTHER REPRESENTATIVE OR JOINT ACTION. CLAIMS MUST BE ARBITRATED ON AN INDIVIDUAL BASIS. **THE PARTIES HEREBY AGREE TO WAIVE THEIR RIGHT TO HAVE ANY DISPUTE BETWEEN THEM RESOLVED IN A COURT OF LAW BY A JUDGE OR JURY.**

13. **Attorneys' Fees.** Except with regard to a legal action challenging or seeking a determination in good faith of the validity of the waiver in the Release under the ADEA, in the event that either Party brings an action to enforce or effect its rights under this Agreement, the prevailing Party shall be entitled to recover its costs and expenses, including the costs of mediation, arbitration, litigation, court fees, and reasonable attorneys' fees incurred in connection with such an action.

14. **Entire Agreement**. This Agreement and its exhibits represent the entire agreement between the Company and Employee concerning Employee's separation from the Company, and supersede any and all prior agreements concerning Employee's relationship with the Company and Employee's compensation by the Company. Employee acknowledges that neither the Employer nor any representative of Employer has made any representation or promise to Employee other than as set forth in this Agreement. No other promises or agreements or modifications to this Agreement shall be binding unless in writing and signed by both parties. Any oral representations regarding this Release shall have no force or effect. Notwithstanding any of the foregoing to the contrary, the Indemnification Agreement, dated February 10, 2014, between the Employee and the Company shall continue in full force and effect in accordance with its terms.

15. **Tax Consequences.** The Company makes no representations or warranties with respect to the tax consequences of the payments and any other consideration provided to Employee or made on his/her behalf under the terms of this Agreement. Employee agrees and understands that he is responsible for payment, if any, of local, state, and/or federal taxes on the payments and any other consideration provided hereunder by the Company and any penalties or assessments thereon.

16. **Governing Law**. This Agreement shall be governed by the laws of the State of California, without regard to its conflicts of law provisions.

17. **Expiration of Offer**. This Agreement is executable until the [twenty second (22nd)] day after it is received by Employee (the "Expiration Date"). This Agreement is null and void if the Company has not received a copy of the Agreement executed by the Employee on or before the Expiration Date.

18. **Counterparts**. This Agreement may be executed in counterparts, and each counterpart shall have the same force and effect as an original and shall constitute an effective, binding agreement on the part of each party. All executed copies shall constitute duplicate originals and shall be equally admissible in evidence.

19. **Assignment**. This Agreement may not be assigned by Employee or the Company without the prior written consent of the other party. However, this Agreement may be assigned by the Company to a corporation controlling, controlled by or under common control with the Company without the consent of Employee.

20. **Section 409A of the Code**. This Agreement is intended, to the greatest extent permitted under law, to comply with the short-term deferral exemption and the separation pay exemption provided in Section 409A of the Internal Revenue Code of 1986, as amended, and the regulations and other interpretative guidance issued thereunder ("Section 409A") such that no benefits or payments under this Agreement are subject to Section 409A. Notwithstanding anything herein to the contrary, the timing of any payments under this Agreement shall be made consistent with such exemption. To the extent applicable, this Agreement shall be interpreted in accordance with Section 409A, including without limitation any such regulations or other guidance that may be issued after the Separation Date. Notwithstanding any provision of this Agreement to the contrary, in the event that the Company determines that any amounts payable hereunder may be subject to Section 409A, the Company may, to the extent permitted under Section 409A cooperate in good faith to adopt such amendments to this Agreement or adopt other appropriate policies and procedures, including amendments and policies with retroactive effect, that the Company determines are necessary or appropriate to avoid the imposition of taxes under Section 409A; provided, however, that this paragraph shall not create an obligation on the part of the Company to adopt any such amendment, policy or procedure or take any such other action, nor shall the Company have any liability for failing to do so. To the extent that any reimbursements payable pursuant to this Agreement are subject to the provisions of Section 409A, such reimbursements shall be paid to Employee no later than December 31 of the year following the year in which the

expense was incurred, the amount of expenses reimbursed in one year shall not affect the amount eligible for reimbursement in any subsequent year, and Employee’s right to reimbursement under this Agreement will not be subject to liquidation or exchange for another benefit.

21. **Voluntary Execution of Agreement** . Employee understands and agrees that he executed this Agreement voluntarily and without any duress or undue influence on the part or behalf of the Company or any third party, with the full intent of releasing all claims against the Company and any of the other Releasees. Employee acknowledges that: (1) he has read this Agreement; (2) he has been represented in the preparation, negotiation, and execution of this Agreement by legal counsel of his own choice or has voluntarily declined to retain legal counsel; (3) he understands the terms and consequences of this Agreement and of the releases it contains; and (4) he is fully aware of the legal and binding effect of this Agreement.

*(Signature Page Follows)*

**I HAVE READ THIS AGREEMENT, I UNDERSTAND IT AND KNOW THAT I AM GIVING UP IMPORTANT RIGHTS. I HAVE BEEN ADVISED TO CONSULT WITH AN ATTORNEY OF MY OWN CHOOSING PRIOR TO SIGNING THIS AGREEMENT. I VOLUNTARILY ACCEPT AND AGREE TO THE ABOVE TERMS, KNOWING THAT I WILL BE BARRED FROM PURSUING ANY OF THE RIGHTS I HAVE WAIVED AND RELEASED IN THIS AGREEMENT.**

Dated as of March 31, 2017 _ /s/ William Atkins ____________________
WILLIAM ATKINS

CALIX, INC.

Dated as of March 31, 2017 By: _ /s/ Suzanne Tom _________________
Suzanne Tom
Title: VP, General Counsel

*Signature Page to William Atkins Separation Agreement*

**EXHIBIT A**

**EQUITY SUMMARY**

| Grant Date | Type | Exercise Price Per Share | Pre-Acceleration Vested Shares | Accelerated Shares | Total Vested Shares |
|---|---|---|---|---|---|
| 3/25/2014 | Option | $8.61 | 243,750 | 56,250 | 300,000 |
| 2/2/2016 | PSU | $0.00 | 0 | 25,000 | 25,000 |

The above summary assumes a Separation Date of May 19, 2017 and that no portion of the option is exercised prior to the Separation Date.

**EXHIBIT B**

**CALIX NETWORKS, INC.**

**CONFIDENTIAL INFORMATION AND**
**INVENTION ASSIGNMENT AGREEMENT**
**(Employees)**

As a condition of my becoming employed (or my employment being continued) by or retained as a consultant (or my consulting relationship being continued) by Calix Networks, Inc., a Delaware corporation ("Calix") or any of its current or future subsidiaries, affiliates, successors or assigns (collectively, the "Company"), and in consideration of my employment or consulting relationship with the Company and my receipt of the compensation now and hereafter paid to me by the Company, I agree to the following:

1. **Employment or Consulting Relationshi p.** I understand and acknowledge that this Agreement does not alter, amend or expand upon any rights I may have to continue in the employ of, or in a consulting relationship with, or the duration of my employment or consulting relationship with, the Company under any existing agreements between the Company and me or under applicable law. Any employment or consulting relationship between the Company and me, whether commenced prior to or upon the date of this Agreement, shall be referred to herein as the "Relationship."

2. **At-Will Relationship .** I understand and acknowledge that my Relationship with the Company is and shall continue to be at-will, as defined under applicable law, meaning that either I or the Company may terminate the Relationship at any time for any reason or no reason, without further obligation or liability.

3. **Confidential Information .**

a. **Company Information .** I agree at all times during the term of my Relationship with the Company and thereafter, to hold in strictest confidence, and not to use, except for the benefit of the Company to the extent necessary to perform my obligations to the Company under the Relationship, or to disclose to any person, firm, corporation or other entity without written authorization of the Board of Directors of Calix, any Confidential Information of the Company which I obtain or create. I further agree not to make copies of such Confidential Information except as authorized by the Company. I understand that " Confidential Information " means any Company proprietary information, technical data, trade secrets or know-how, including, but not limited to, research, product plans, products, services, suppliers, customer lists and customers (including, but not limited to, customers of the Company on whom I called or with whom I became acquainted during the Relationship), prices and costs, markets, software, developments, inventions, laboratory notebooks, processes, formulas, technology, designs, drawings, engineering, hardware configuration information, marketing, licenses, finances, budgets or other business information disclosed to me by the Company either directly or indirectly in writing, orally or by drawings or observation of parts or equipment or created by me during the period of the Relationship, whether or not during working hours. I understand that " Confidential I nformation" includes, but is not limited to, information pertaining to any aspects of the Company's business which is either information not known by actual or potential competitors of the Company or other third parties not under confidentiality obligations to the Company, or is otherwise proprietary information of the Company or its customers or suppliers, whether of a technical nature or otherwise. I further understand that Confidential Information does not include any of the foregoing items which has become publicly and widely known and made generally available through no wrongful act of mine or of others who were under confidentiality obligations as to the item or items involved.

b. **Prior Obligations .** I represent that my performance of all terms of this Agreement as an employee or consultant of the Company has not breached and will not breach any agreement to keep in confidence proprietary information, knowledge or data acquired by me prior or subsequent to the commencement of my Relationship with the Company, and I will not disclose to the Company or use any inventions, confidential or non-public proprietary information or material belonging to any previous, client, employer or any other party. I will not
induce the Company to use any inventions, confidential or non-public proprietary information, or material belonging to any previous client, employer or any other party. **[I acknowledge and agree that I have attached to this Agreement a list of all agreements (e.g., non-competition agreements, non-solicitation of customers agreements, non-solicitation of employees agreements, confidentiality agreements, inventions agreements, etc.) with a current or former employer, or any other person or entity, that may restrict my ability to accept**

**employment with the Company or my ability as an employee or consultant to recruit or engage customers or service providers on behalf of the Company, or otherwise relate to or restrict my ability to perform my duties as an employee of the Company or any obligation I may have to the Company.]**

c. **Third Party Information .** I recognize that the Company has received and in the future will receive confidential or proprietary information from third parties subject to a duty on the Company's part to maintain the confidentiality of such information and to use it only for certain limited purposes. I agree to hold all such confidential or proprietary information in the strictest confidence and not to disclose it to any person, firm or corporation or to use it except as necessary in carrying out my work for the Company consistent with the Company's agreement with such third party.

4. **Inventions .**

(a) **Inventions Retained and Licensed .** I have attached hereto, as Exhibit A , a list describing with particularity all inventions, original works of authorship, developments, improvements, and trade secrets which were made by me prior to the commencement of the Relationship (collectively referred to as " Prior Inventions "), which belong solely to me or belong to me jointly with another, which relate in any way to any of the Company' s proposed businesses, products or research and development, and which are not assigned to the Company hereunder; or, if no such list is attached, I represent that there are no such Prior Inventions. If, in the course of my Relationship with the Company, I incorporate into a Company product, process or machine a Prior Invention owned by me or in which I have an interest, the Company is hereby granted and shall have a non-exclusive, royalty-free, irrevocable, perpetual, worldwide license (with the right to sublicense) to make, have made, copy, modify, make derivative works of, use, sell and otherwise distribute such Prior Invention as part of or in connection with such product, process or machine.

(b) **Assignment of Inventions .** I agree that I will promptly make full written disclosure to Calix, will hold in trust for the sole right and benefit of Calix, and hereby assign to Calix, or its designee, all my right, title and interest throughout the world in and to any and all inventions, original works of authorship, developments, concepts, know-how, improvements or trade secrets, whether or not patentable or registrable under copyright or similar laws, which I may solely or jointly conceive or develop or reduce to practice, or cause to be conceived or developed or reduced to practice, during the period of time in which I am employed by or a consultant of the Company (collectively referred to as "Inventions"), except as provided in Section 4(e) below. I further acknowledge that all inventions, original works of authorship, developments, concepts, know-how, improvements or trade secrets which are made by me (solely or jointly with others) within the scope of and during the period of my Relationship with the Company are "works made for hire" (to the greatest extent permitted by applicable law) and are compensated by my salary (if I am an employee) or by such amounts paid to me under any applicable consulting agreement or consulting arrangements (if I am a consultant), unless regulated otherwise by the mandatory law of the state of California.

(c) **Maintenance of Records .** I agree to keep and maintain adequate and current written records of all Inventions made by me (solely or jointly with others) during the term of my Relationship with the Company. The records may be in the form of notes, sketches, drawings, flow charts, electronic data or recordings, laboratory notebooks, and any other format. The records will be available to and remain the sole property of the Company at all times. I agree not to remove such records from the Company's place of business except as expressly permitted by Company policy which may, from time to time, be revised at the sole election of the Company for the purpose of furthering the Company's business. I agree to return all such records (including any copies thereof) to Calix at the time of termination of my Relationship with the Company as provided for in Section 5.

(d) **Patent and Copyright Rights .** I agree to assist Calix, or its designee, at its expense, in every proper way to secure Calix, or its designee's, rights in the Inventions and any copyrights, patents, trademarks, mask work rights, moral rights, or other intellectual property rights relating thereto in any and all countries, including the disclosure to Calix or its designee of all pertinent information and data with respect thereto, the execution of all applications, specifications, oaths, assignments, recordations, and all other instruments which Calix or its designee shall deem necessary in order to apply for, obtain, maintain and transfer such rights and in order to assign and convey to Calix or its designee, and any successors, assigns and nominees the sole and exclusive rights, title and interest in and to such Inventions, and any copyrights, patents, mask work rights or other intellectual property rights relating thereto. I further agree that my obligation to execute or cause to be executed, when it is in my power to do so, any such instrument or papers shall continue after the termination of this Agreement until the expiration of the last such intellectual property right to expire in any country of the world. If Calix or its designee is unable because of my mental or physical incapacity or unavailability or for any other reason to secure my signature to apply for or to pursue any application for any United States or foreign patents, copyright, mask works or other registrations covering Inventions or original works of authorship assigned to Calix or its designee as above, then I hereby irrevocably designate and appoint Calix and its duly authorized officers and agents as my agent and attorney in fact, to act for and in my behalf and stead to execute and file any such applications and to do all other lawfully permitted acts to further the application for, prosecution, issuance, maintenance or transfer of letters patent, copyright or other registrations thereon with the same legal force and effect as if originally executed by me. I hereby waive and irrevocably quitclaim to Calix or its designee any and all claims, of any nature whatsoever, which I now or hereafter have for infringement of any and all proprietary rights assigned to Calix or such designee.

(e) **Exception to Assignments**. I understand that the provisions of this Agreement requiring assignment of Inventions to Calix do not apply to any invention which qualifies fully under the provisions of California Labor Code Section 2870 (attached hereto as Exhibit B). I will advise the Company promptly in writing of any inventions that I believe meet such provisions and are not otherwise disclosed on Exhibit A.

5. **Returning Company Documents**. I agree that, at the time of termination of my Relationship with the Company, I will deliver to the Company (and will not keep in my possession, recreate or deliver to anyone else) any and all devices, records, data, notes, reports, proposals, lists, correspondence, specifications, drawings, blueprints, sketches, laboratory notebooks, materials, flow charts, equipment, other documents or property, or reproductions of any of the aforementioned items developed by me pursuant to the Relationship or otherwise belonging to the Company, its successors or assigns. I further agree that any property situated on the Company's premises and owned by the Company, including disks and other storage media, filing cabinets or other work areas, is subject to inspection by Company personnel at any time with or without notice. In the event of the termination of the Relationship, I agree to sign and deliver the "Termination Certification" attached hereto as Exhibit C; however, my failure to sign and deliver the Termination Certificate shall in no way diminish my continuing obligations under this Agreement.

6. **Notification to Other Parties**.

(a) **Employees**. In the event that I leave the employ of the Company, I hereby consent to notification by the Company to my new employer about my rights and obligations under this Agreement.

(b) **Consultants**. I hereby grant consent to notification by the Company to any other parties besides the Company with whom I maintain a consulting relationship, including parties with whom such relationship commences after the effective date of this Agreement, about my rights and obligations under this Agreement.

7. **Solicitation of Employees, Consultants and Other Parties**. I agree that during the term of my Relationship with the Company, and for a period of twenty-four (24) months immediately following the termination of my Relationship with the Company for any reason, whether with or without cause, I shall not either directly or indirectly solicit, induce, recruit or encourage any of the Company's employees or consultants to terminate their relationship with the Company, or attempt to solicit, induce, recruit, encourage or take away employees or consultants of the Company, either for myself or for any other person or entity. Further, for a period of twenty-four (24) months following termination of my Relationship with the Company for any reason, with or without cause, I shall not solicit any licensor to or customer of the Company or licensee of the Company's products, in each case, that are known to me, with respect to any business, products or services that are competitive to the products or services offered by the Company or under development as of the date of termination of my Relationship with the Company.

8. **Representations and Covenants**.

(a) **Facilitation of Agreement**. I agree to execute promptly any proper oath or verify any proper document required to carry out the terms of this Agreement upon the Company's written request to do so.

(b) **Conflicts**. I represent that my performance of all the terms of this Agreement does not and will not breach any agreement I have entered into, or will enter into with any third party, including without limitation any agreement to keep in confidence proprietary information acquired by me in confidence or in trust prior to commencement of my Relationship with the Company. I agree not to enter into any written or oral agreement that conflicts with the provisions of this Agreement.

(c) **Voluntary Execution**. I certify and acknowledge that I have carefully read all of the provisions of this Agreement and that I understand and will fully and faithfully comply with such provisions.

9. **General Provisions** .

(a) **Governing Law** . The validity, interpretation, construction and performance of this Agreement shall be governed by the laws of the State of California, without giving effect to the principles of conflict of laws.

(b) **Entire Agreement** . This Agreement sets forth the entire agreement and understanding between the Company and me relating to the subject matter herein and merges all prior discussions between us. No modification or amendment to this Agreement, nor any waiver of any rights under this Agreement, will be effective unless in writing signed by both parties. Any subsequent change or changes in my duties, obligations, rights or compensation will not affect the validity or scope of this Agreement.

(c) **Severability** . If one or more of the provisions in this Agreement are deemed void by law, then the remaining provisions will continue in full force and effect.

(d) **Successors and Assigns** . This Agreement will be binding upon my heirs, executors, administrators and other legal representatives, and my successors and assigns, and will be for the benefit of the Company, its successors, and its assigns.

(e) **Survival .** The provisions of this Agreement shall survive the termination of the Relationship and the assignment of this Agreement by the Company to any successor in interest or other assignee.

(f) **ADVICE OF COUNSEL .** I ACKNOWLEDGE THAT, IN EXECUTING THIS AGREEMENT, I HAVE HAD THE OPPORTUNITY TO SEEK THE ADVICE OF INDEPENDENT LEGAL COUNSEL, AND I HAVE READ AND UNDERSTOOD ALL OF THE TERMS AND PROVISIONS OF THIS AGREEMENT. THIS AGREEMENT SHALL NOT BE CONSTRUED AGAINST ANY PARTY BY REASON OF THE DRAFTING OR PREPARATION HEREOF.

The parties have executed this Agreement on the respective dates set forth below:

| | |
|---|---|
| COMPANY: | EMPLOYEE: |
| **CALIX NETWORKS, INC.** | |
| By: /s/ Natalie Hodge | Name: William J. Atkins |
| Name: Natalie Hodge | Signature: /s/ William J. Atkins |
| Title: HRIS Analyst I | Date: January 1, 2014 |
| Date: December 16, 2013 | Address: ############ |
| Address: 1035 North McDowell Blvd.<br>Petaluma, CA 94954 | |

EXHIBIT A

**LIST OF PRIOR INVENTIONS**
**AND ORIGINAL WORKS OF AUTHORSHIP EXCLUDED UNDER SECTION 4**

| Title | Date | Identifying Number or Brief Description |
| --- | --- | --- |

X No inventions or improvements

0 Additional Sheets Attached

Signature of Employee/Consultant: /s/ William J. Atkins

Print Name of Employee/Consultant: William J. Atkins

Date: January 1, 2014

EXHIBIT B

Section 2870 of the California Labor Code is as follows:

(a) Any provision in an employment agreement which provides that an employee shall assign, or offer to assign, any of his or her rights in an invention to his or her employer shall not apply to an invention that the employee developed entirely on his or her own time without using the employer's equipment, supplies, facilities, or trade secret information except for those inventions that either:

(1) Relate at the time of conception or reduction to practice of the invention to the employer's business, or actual or demonstrably anticipated research or development of the employer; or

(2) Result from any work performed by the employee for the employer.

(b) To the extent a provision in an employment agreement purports to require an employee to assign an invention otherwise excluded from being required to be assigned under subdivision (a), the provision is against the public policy of this state and is unenforceable.

EXHIBIT C

**TERMINATION CERTIFICATION**

This is to certify that I do not have in my possession, nor have I failed to return, any devices, records, data, notes, reports, proposals, lists, correspondence, specifications, drawings, blueprints, sketches, laboratory notebooks, flow charts, materials, equipment, other documents or property, or copies or reproductions of any aforementioned items belonging to Calix Networks, Inc., its subsidiaries, affiliates, successors or assigns (together the "Company").

I further certify that I have complied with all the terms of the Company's Confidential Information and Invention Assignment Agreement signed by me, including the reporting of any inventions and original works of authorship (as defined therein), conceived or made by me (solely or jointly with others) covered by that agreement.

I further agree that, in compliance with the Confidential Information and Invention Assignment Agreement, I will preserve as confidential all trade secrets, confidential knowledge, data or other proprietary information relating to products, processes, know-how, designs, formulas, developmental or experimental work, computer programs, data bases, other original works of authorship, customer lists, business plans, financial information or other subject matter pertaining to any business of the Company or any of its employees, clients, consultants or licensees.

I further agree that for 24 months from the date of this Certificate, I shall not, either directly or indirectly: (a) solicit, induce, recruit or encourage any of the Company's employees, contractors or consultants to terminate their relationship with the Company; or (b) either for myself or for any other person or entity attempt to solicit, induce, recruit, encourage or take away, hire, or otherwise engage the services of (i) any Company employee or (ii) any contractor or consultant who is then working exclusively for the Company. Further, I shall not at any time use any Confidential Information of the Company to negatively influence any of the Company's clients or customers from purchasing Company products or services or to solicit or influence or attempt to influence any client, customer or other person either directly or indirectly, to direct his or its purchase of products and/or services to any person, firm, corporation, institution or other entity in competition with the business of the Company.

Date: ______________________________

______________________________
(Employee's Signature)

______________________________
(Type/Print Employee's Name)

## EXHIBIT C

### SEPARATION CERTIFICATION

This is to certify that I do not have in my possession, nor have I failed to return, any devices, keys, technical resources, manuals, records, data, notes, reports, proposals, lists, correspondence, specifications, drawings, blueprints, sketches, laboratory notebooks, flow charts, materials, equipment, sales information, financial statements, other documents or property, or copies or reproductions of any aforementioned items belonging to Calix, Inc., its subsidiaries, affiliates, successors or assigns (together the " Company "). The Company has agreed that I may keep my Company-issued iPhone (as well as the associated phone number), subject to the Company's right to delete from the phone any and all Company confidential information.

I further certify that I have complied with all the terms of the At Will Employment Confidential Information and Invention Assignment Agreement (see Exhibit B , the " Confidentiality Agreement ") signed by me, including the reporting of any inventions and original works of authorship (as defined), conceived or made by me (solely or jointly with others) covered by that agreement.

I further agree that, in compliance with the Confidentiality Agreement, I will preserve as confidential all trade secrets, confidential knowledge, data or other proprietary information relating to products, processes, know-how, designs, formulas, developmental or experimental work, computer programs, data bases, other original works of authorship, customer lists, business plans, financial information or other subject matter pertaining to any business of the Company or any of its employees, clients, consultants or licensees.

Date: ______________________

______________________
(Emplo y ee's Signature )

WILLIAM ATKINS
(Type/Print Emplo y ee ' s N a me)

**EXHIBIT D**

**GENERAL RELEASE OF CLAIMS**

This General Release of Claims (this "Release") is entered into between William Atkins ("Employee") and Calix, Inc., a Delaware corporation (the "Company").

1. **Release of Claims** . Except as described in Section 1.1 below, which identifies claims expressly excluded from this Release, Employee, on behalf of Employee and Employee's heirs, executors, administrators and assigns, hereby fully and forever releases the Company and its past and present officers, directors, shareholders, affiliates, predecessors, successors, assigns, agents, investors, employees, administrators, benefit plans, plan administrators, insurers, divisions, subsidiaries, and representatives (collectively, the "Releasees") from any claim, duty, obligation or cause of action relating to any matters of any kind, whether presently known or unknown, suspected or unsuspected, that Employee may possess against any of the Releasees arising from any omissions, acts or facts that have occurred up until and including the date Employee has signed this Release including, without limitation:

(a) any and all claims relating to or arising from Employee's employment relationship with the Company and the termination of that relationship, including but not limited to any claims for wages, salary, bonus, compensation, deferred compensation, or other cash payments;

(b) any and all claims relating to, or arising from, Employee's right to purchase, or actual purchase of shares of the capital stock of the Company;

(c) any and all claims for wrongful discharge of employment; discrimination; harassment; retaliation; failure to provide reasonable accommodation; failure to engage in a good faith interactive process; breach of contract, both express and implied; breach of a covenant of good faith and fair dealing, both express and implied; promissory estoppel; negligent or intentional infliction of emotional distress; fraud; negligent or intentional misrepresentation; negligent or intentional interference with contract or prospective economic advantage; unfair business practices; negligence; defamation; libel; slander; personal injury; assault; battery; invasion of privacy; false imprisonment; conversion; disability benefits, or any claims arising out of any other agreement, incident or relationship between the parties prior to the execution of this Release;

(d) any and all claims for violation of any federal, state or local statute, constitution or regulation including, but not limited to, Title VII of the Civil Rights Act of 1964; the Civil Rights Act of 1991; the Americans with Disabilities Act of 1990; the California Fair Employment and Housing Act; the California Labor Code, except as prohibited by law; the California Government Code; the California Industrial Welfare Commission Wage Orders; the California Business & Professions Code; the California Family Rights Act; the Rehabilitation Act of 1973; Executive Order 11126; Title 42 of the United States Code; the Employee Retirement Income Security Act of 1974; the Equal Pay Act; the Fair Labor Standards Act, except as prohibited by law; the Fair Credit Reporting Act; the Older Workers Benefit Protection Act; the Worker Adjustment and Retraining Notification Act; the Family and Medical Leave Act, except as prohibited by law; the Sarbanes-Oxley Act of 2002; and the Uniformed Services Employment and Reemployment Rights Act;

(e) claims of age discrimination under the Age Discrimination in Employment Act of 1967 ("ADEA")

(f) any and all claims arising out of any other laws and regulations relating to employment or employment discrimination;

(g) any claim for any loss, cost, damage, or expense arising out of any dispute over the non-withholding or other tax treatment of any of the proceeds received by Employee pursuant to that certain Separation Agreement and General Release of All Claims entered between Employee and the Company dated as of March 31, 2017 (the "Separation Agreement");

(h) any and all claims for monetary recovery and personal or individual relief, except as prohibited by law; and

(i) any and all claims for attorneys' fees and costs.

1.1 **Excluded Claims.** The only claims that are not being waived and released by Employee under this Release are those Employee may have for:

(a) Claims for payments under the Separation Agreement and claims under the Indemnification Agreement, dated February 10, 2014, between the Employee and the Company;

(b) Unemployment, state disability, workers compensation and/or paid family leave insurance benefits pursuant to the terms of applicable state law;

(c) Continuation of existing participation in Company-sponsored group health benefit plans, at Employee's full expense, under the federal law known as "COBRA" and/or under an applicable state counterpart law;

(d) Any benefit entitlements vested as of the Separation Date (as defined in the Separation Agreement) pursuant to the terms of a Company-sponsored benefit plan governed by the federal law known as "ERISA";

(e) Violation of any federal, state or local statutory and/or public policy right or entitlement that, by applicable law, is not waivable; and

(f) Any wrongful act, event or omission occurring after the date Employee signs this Release.

1.2 **Government Agency Exceptions.** Nothing in this Release prevents or prohibits Employee from filing claims with any government agency, such as the Equal Employment Opportunity Commission, that is responsible for enforcing a law on behalf of the government. However, Employee understands that Employee is waiving and releasing all claims for monetary damages and any other form of personal relief, and therefore, may only seek and receive non-personal forms of relief through any such claims. Furthermore, nothing in this Release affects or interferes with the right of the Employee to participate, cooperate or assist in an investigation or proceeding conducted within the Company or by any government agency, oversight board, commission or other regulatory or investigative body.

1.3 **Civil Code Section 1542**. Employee represents that Employee is not aware of any claim by Employee other than the claims that are released by this Release. Employee acknowledges that Employee has been advised to consult with legal counsel and is familiar with the provisions of California Civil Code Section 1542, a statute that otherwise prohibits the release of unknown claims, which provides as follows:

**A GENERAL RELEASE DOES NOT EXTEND TO CLAIMS WHICH THE CREDITOR DOES NOT KNOW OR SUSPECT TO EXIST IN HIS OR HER FAVOR AT THE TIME OF EXECUTING THE RELEASE, WHICH IF KNOWN BY HIM OR HER MUST HAVE MATERIALLY AFFECTED HIS OR HER SETTLEMENT WITH THE DEBTOR.**

Employee, being aware of said Code section, agrees to expressly waive any rights Employee may have under it, as well as under any other statute or common law principles of similar effect.

2. **Acknowledgment of Waiver of Claims under ADEA**. Employee acknowledges that Employee is waiving and releasing any rights Employee may have under the ADEA and that this waiver and release is knowing and voluntary. Employee fully understands, acknowledges and agrees that Employee has 21 days from receipt of the Release within which to consider this Release. Any changes to this Release, whether material or immaterial, do not restart the running of the 21-day consideration period. Employee further understands and agrees that Employee:

(a) May sign this Release without waiting the full 21 days and that, if Employee has done so, Employee's decision to do so has been knowing and voluntary, and not induced through fraud, misrepresentation, a threat to withdraw or alter the offer prior to the expiration of the 21-day period, or the provision of different terms to employees who sign any release prior to expiration of the 21-day period.

(b) Has a period of seven (7) full days following execution of this Release to revoke this Release by providing written notice of such revocation to the Company's General Counsel **.**

(c) Has carefully read and fully understands all of the provisions of this Release and knowingly and voluntarily agrees to all of the terms of this Release;

(d) Is, through this Release, releasing the Company from any and all claims that Employee has or may have against the Company under the ADEA. Employee understands that rights or claims under the ADEA that may arise after the date this Release is executed by all parties are not waived;

(e) Knowingly and voluntarily agrees to all of the terms set forth in this Release, and knowingly and voluntarily intends to be legally bound by all of the terms of this Release;

(f) Is advised to consult an attorney of Employee's choice; and

(g) Acknowledges that Employee's employment with the Company terminated as of the Separation Agreement, regardless of whether Employee elects to revoke this Release.

3. **Effective Date.** Employee has seven (7) days after Employee signs this Release to revoke it. This Release will become effective on the eighth (8th) day after Employee signs this Release, so long as it has been signed by the parties and has not been revoked by Employee before that date.

4. **No Pending or Future Lawsuits.** Employee represents that he has no lawsuits, claims, or actions pending in his name, or on behalf of any other person or entity, against the Company or any of the other Releasees. Employee also represents that he does not intend to bring any claims on his own behalf or on behalf of any other person or entity against the Company or any of the other Releasees. The Company represents, on its behalf and on behalf of its affiliates, that it has no lawsuits, claims, or actions pending in his name, or on behalf of any other person or entity, against the Employee. The Company also represents on its behalf and on behalf of its affiliates, that it does not intend to bring any claims on his own behalf or on behalf of any other person or entity against the Employee.

5. **Severability** . In the event that any provision of this Release becomes or is declared by a court or other tribunal of competent jurisdiction or arbitrator to be illegal, unenforceable or void, the remainder of this Release shall continue in full force and effect without said provision or portion of provision.

6. **Governing Law** . This Release shall be governed by the laws of the State of California, without regard to its conflicts of law principles.

7. **Entire Agreement** . This Release and the Separation Agreement contain the parties' entire agreement with regard to the transition and separation of Employee's employment, and supersede and replace any prior agreements as to those matters, whether oral or written. This Release may not be changed or modified, in whole or in part, except by an instrument in writing signed by Employee and the Chief Executive Officer of the Company.

8. **Intent to be Bound.** The parties have carefully read this Release in its entirety; fully understand and agree to its terms and provisions; and intend and agree that it is final and binding on all parties.

Dated as of ________, 2017 ________________________________

WILLIAM ATKINS

CALIX, INC.

Dated as of ________, 2017 By: ________________________________

Title:

## EXHIBIT E

## PRESS RELEASE

Calix, Inc. (NYSE: CALX) today announced that William Atkins, Executive Vice President and Chief Financial Officer, has given notice that he will be leaving the Company on May 19, 2017 to pursue another opportunity in the industry.

“After much consideration I have made the decision to leave Calix to pursue another opportunity,” said Mr. Atkins. “I have enjoyed my time at Calix and I am pleased by the progress that my colleagues and I have made in repositioning the business for further growth. I wish the company well in the years ahead.”

President and Chief Executive Officer Carl Russo said, “Transforming Calix from a wireline access systems company into a communications software, systems and services company has required a significant effort over these last few years. I want to thank William for all he has done to help Calix achieve this transformation. We wish him all the best in his new endeavor.”

The Company will announce plans to fill the Chief Financial Officer position on an interim basis in the near term, and is conducting a nationwide search to find a replacement for Mr. Atkins.

**Exhibit 31.1**

**CERTIFICATION OF CHIEF EXECUTIVE OFFICER**
**PURSUANT TO SECTION 302 OF**
**THE SARBANES-OXLEY ACT OF 2002**

I, Carl Russo , certify that:

1. I have reviewed this quarterly report on Form 10-Q of Calix, Inc. for the quarter ended April 1, 2017 ;

2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;

3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;

4. The registrant's other certifying officer and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:

   (a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;

   (b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;

   (c) Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and

   (d) Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and

5. The registrant's other certifying officer and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):

   (a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and

   (b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Date: May 10, 2017

/s/ Carl Russo

Carl Russo
Chief Executive Officer

**Exhibit 31.2**

**CERTIFICATION OF CHIEF FINANCIAL OFFICER
PURSUANT TO SECTION 302 OF
THE SARBANES-OXLEY ACT OF 2002**

I, William J. Atkins , certify that:

1. I have reviewed this quarterly report on Form 10-Q of Calix, Inc. for the quarter ended April 1, 2017 ;

2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;

3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;

4. The registrant's other certifying officer and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:

   (a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;

   (b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;

   (c) Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and

   (d) Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and

5. The registrant's other certifying officer and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):

   (a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and

   (b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Date: May 10, 2017

/s/ William J. Atkins

William J. Atkins
EVP and Chief Financial Officer

**Exhibit 32.1**

**CERTIFICATION OF CHIEF EXECUTIVE OFFICER AND CHIEF 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 Quarterly Report of Calix, Inc. (the "Company") on Form 10-Q for the fiscal quarter ended April 1, 2017 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 Quarterly Report on Form 10-Q fairly presents in all material respects the financial condition and results of operations of the Company.

Date: May 10, 2017

/s/ Carl Russo

Carl Russo
Chief Executive Officer

I, William J. Atkins , certify, pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, that the Quarterly Report of Calix, Inc. (the "Company") on Form 10-Q for the fiscal quarter ended April 1, 2017 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 Quarterly Report on Form 10-Q fairly presents in all material respects the financial condition and results of operations of the Company.

Date: May 10, 2017

/s/ William J. Atkins

William J. Atkins
EVP and Chief Financial Officer

This certification accompanies the Form 10-Q 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-Q), irrespective of any general incorporation language contained in such filing.