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 June 25, 2016

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 or a smaller reporting company. See definition of "large accelerated filer," "accelerated filer" and "smaller reporting 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	☐

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 July 25, 2016 , there were 48,782,211 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)

	June 25, 2016	December 31, 2015
	(Unaudited)	(See Note 1)
ASSETS		
Current assets:		
Cash and cash equivalents	$ 26,045	$ 23,626
Marketable securities	38,167	49,964
Accounts receivable, net	49,118	47,155
Inventory	40,761	47,667
Deferred cost of revenue	6,812	4,918
Prepaid expenses and other current assets	8,139	9,470
Total current assets	169,042	182,800
Property and equipment, net	15,648	17,149
Goodwill	116,175	116,175
Intangible assets, net	2,440	6,618
Other assets	1,075	1,144
Total assets	$ 304,380	$ 323,886
LIABILITIES AND STOCKHOLDERS' EQUITY		
Current liabilities:		
Accounts payable	$ 13,802	$ 19,603
Accrued liabilities	43,930	35,512
Deferred revenue	12,367	12,124
Total current liabilities	70,099	67,239
Long-term portion of deferred revenue	19,649	19,569
Other long-term liabilities	1,085	1,293
Total liabilities	90,833	88,101
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 June 25, 2016 and December 31, 2015	—	—
Common stock, $0.025 par value; 100,000,000 shares authorized; 54,059,966 shares issued and 48,730,149 shares outstanding as of June 25, 2016, and 53,049,781 shares issued and 49,509,251 shares outstanding as of December 31, 2015	1,351	1,326
Additional paid-in capital	825,790	818,754
Accumulated other comprehensive loss	(130)	(195)
Accumulated deficit	(573,478)	(556,923)
Treasury stock, 5,329,817 shares and 3,540,530 shares as of June 25, 2016 and December 31, 2015, respectively	(39,986)	(27,177)
Total stockholders' equity	213,547	235,785
Total liabilities and stockholders' equity	$ 304,380	$ 323,886

See accompanying notes to condensed consolidated financial statements.

CALIX, INC.

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

	Three Months Ended		Six Months Ended	
	June 25, 2016	June 27, 2015	June 25, 2016	June 27, 2015
Revenue	$ 107,425	$ 99,129	$ 205,800	$ 190,167
Cost of revenue:				
Products and services [1]	56,605	48,752	107,835	95,212
Amortization of intangible assets	814	2,088	2,477	4,176
Total cost of revenue	57,419	50,840	110,312	99,388
Gross profit	50,006	48,289	95,488	90,779
Operating expenses:				
Research and development [1]	25,033	22,851	47,806	44,765
Sales and marketing [1]	19,213	19,215	38,275	38,974
General and administrative [1]	11,641	9,436	24,325	19,588
Amortization of intangible assets	—	2,552	1,701	5,104
Total operating expenses	55,887	54,054	112,107	108,431
Loss from operations	(5,881)	(5,765)	(16,619)	(17,652)
Interest and other income (expense), net:				
Interest income	216	338	427	717
Interest expense	(170)	(279)	(334)	(658)
Other income (expense), net	133	29	216	77
Loss before provision for income taxes	(5,702)	(5,677)	(16,310)	(17,516)
Provision for income taxes	124	102	245	193
Net loss	$ (5,826)	$ (5,779)	$ (16,555)	$ (17,709)
Net loss per common share:				
Basic and diluted	$ (0.12)	$ (0.11)	$ (0.34)	$ (0.34)
Weighted-average number of shares used to compute net loss per common share:				
Basic and diluted	48,371	51,950	48,478	51,843
Net loss	$ (5,826)	$ (5,779)	$ (16,555)	$ (17,709)
Other comprehensive income (loss), net of tax:				
Unrealized gains (losses) on available-for-sale marketable securities, net	41	(3)	106	36
Foreign currency translation adjustments, net	(23)	49	(41)	19
Total other comprehensive income (loss), net of tax	18	46	65	55
Comprehensive loss	$ (5,808)	$ (5,733)	$ (16,490)	$ (17,654)

[1] Includes stock-based compensation as follows:				
Cost of revenue	$ 183	$ 211	$ 310	$ 386
Research and development	1,099	1,483	2,146	2,695
Sales and marketing	840	1,656	1,662	3,081
General and administrative	846	991	1,571	1,841

See accompanying notes to condensed consolidated financial statements.

CALIX, INC.

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

	Six Months Ended	
	June 25, 2016	June 27, 2015
Operating activities:		
Net loss	$ (16,555)	$ (17,709)
Adjustments to reconcile net loss to net cash provided by (used in) operating activities:		
Depreciation and amortization	4,131	4,978
Loss on retirement of property and equipment	—	5
Amortization of intangible assets	4,178	9,280
Amortization of premiums related to available-for-sale securities	233	541
Stock-based compensation	5,689	8,003
Changes in operating assets and liabilities:		
Restricted cash	—	295
Accounts receivable, net	(1,963)	(11,240)
Inventory	6,906	6,042
Deferred cost of revenue	(1,894)	3,796
Prepaid expenses and other assets	1,394	1,065
Accounts payable	(5,859)	(5,091)
Accrued liabilities	9,012	(2,889)
Deferred revenue	323	(3,612)
Other long-term liabilities	(207)	(135)
Net cash provided by (used in) operating activities	5,388	(6,671)
Investing activities:		
Purchases of property and equipment	(3,078)	(3,618)
Purchases of marketable securities	—	(25,271)
Maturities of marketable securities	11,670	27,832
Net cash provided by (used in) investing activities	8,592	(1,057)
Financing activities:		
Proceeds from exercise of stock options	14	590
Proceeds from employee stock purchase plan	2,905	2,865
Payments for repurchases of common stock	(12,809)	(3,377)
Taxes paid for awards vested under equity incentive plans	(1,547)	(1,510)
Net cash used in financing activities	(11,437)	(1,432)
Effect of exchange rate changes on cash and cash equivalents	(124)	3
Net increase (decrease) in cash and cash equivalents	2,419	(9,157)
Cash and cash equivalents at beginning of period	23,626	48,829
Cash and cash equivalents at end of period	$ 26,045	$ 39,672

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 systems and software for fiber- and copper-based network architectures that enable communications service providers ("CSPs") to transform their networks and connect to their residential and business subscribers. 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. The Company develops and sells carrier-class hardware and software products, referred to as the Unified Access portfolio, which are designed to enhance and transform CSP access networks to meet the changing demands of subscribers rapidly and cost-effectively.

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, 2015 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 Form 10-K for the year ended December 31, 2015 .

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 one fewer day in the six months ended June 25, 2016 than in the six months ended June 27, 2015 . 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.

2. Significant Accounting Policies

The Company’s significant accounting policies are disclosed in our Annual Report on Form 10-K for the year ended December 31, 2015 . Our significant accounting policies did not change during the six months ended June 25, 2016 .

Concentration of Customer Risk

The Company had two customers that each accounted for more than 10% of its total revenue for the three and six months ended June 25, 2016 and one of these customers accounted for more than 10% of the Company’s total revenue for the three and six months ended June 27, 2015 . These two customers together represented 35% and 32% of the Company’s total revenue for the three and six months ended June 25, 2016 , respectively, and 24% and 25% of the Company’s total revenue for the three and six months ended June 27, 2015 , respectively. Each of these two customers represented more than 10% of the Company’s accounts receivable as of June 25, 2016 .

Recent Accounting Pronouncements

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 includes provisions intended to simplify the following aspects related to how share-based payments are accounted for and presented in the financial statements:

a. Accounting for Income Taxes: ASU 2016-09 requires recognition of all of the tax effects related to share-based payments at settlement (or expiration) through the statement of operations. Under the current GAAP, tax benefits in excess of compensation cost (“windfalls”) are recorded in equity, and tax deficiencies (“shortfalls”) are recorded in equity to the extent of previous windfalls, and then to the statement of operations. ASU 2016-09 is required to be applied prospectively to all excess tax benefits and tax deficiencies resulting from settlements after the date of adoption. ASU 2016-09 also removes the requirement to delay recognition of a windfall tax benefit until it reduces current taxes payable. Under the new guidance, the benefit will be recorded when it arises, subject to normal valuation allowance considerations. This change is required to be applied on a modified retrospective basis, with a cumulative-effect adjustment to opening retained earnings.

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. Either prospective or retrospective transition of this change in cash flow presentation is permitted.

c. Forfeitures: ASU 2016-09 allows companies to make an accounting policy election to either estimate the number of awards that are expected to vest (current GAAP) or account for forfeitures when they occur. Estimates of forfeitures will still be required in certain circumstances, such as at the time of modification of an award or issuance of a replacement award in a business combination. If elected, the change to recognize forfeitures when they occur needs to be adopted using a modified retrospective approach, with a cumulative effect adjustment recorded to opening retained earnings.

d. Minimum Statutory Tax Withholding Requirements: ASU 2016-09 allows companies to withhold an amount up to the employees' maximum individual tax rate in the relevant jurisdiction without resulting in liability classification of the award. This provision is required to be adopted using a modified retrospective approach, with a cumulative-effect adjustment to opening retained earnings for any outstanding liability awards that qualify for equity classification under the ASU.

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. This change should be applied retrospectively.

ASU 2016-09 will be effective for the Company beginning in the first quarter of fiscal 2017. Early application is permitted in any interim or annual period, with any adjustments reflected as of the beginning of the fiscal year of adoption. The Company is currently assessing the potential impact of adopting this new guidance on its consolidated financial statements.

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 is currently assessing the potential impact of adopting this new guidance on its consolidated financial statements.

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. ASU 2015-11 will be effective for the Company beginning in the first quarter of fiscal 2017. Early application is permitted, and the guidance should be applied prospectively. The Company is currently assessing the potential impact of adopting this new guidance on its consolidated financial statements.

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. As a result, the standard will be effective for the Company in the first quarter of fiscal 2018. ASU 2015-14 permits early adoption of the new revenue standard, but not before its original effective date. The Company is currently assessing the method of adoption and the potential impact of adopting this new guidance on its consolidated financial statements.

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, U.S. government agency securities and commercial paper. 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, U.S. government agency securities and commercial paper 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 June 25, 2016 and has determined that no investments with unrealized losses are other-than-temporarily impaired. No investments have been in a continuous loss position greater than one year.

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

	June 25, 2016	December 31, 2015
Cash and cash equivalents:		
Cash	$ 20,661	$ 13,378
Money market funds	5,384	10,248
Total cash and cash equivalents	26,045	23,626
Marketable securities:		
Corporate debt securities	27,652	35,799
U.S. government agency securities	10,515	10,520
Commercial paper	—	3,645
Total marketable securities	38,167	49,964
Total cash, cash equivalents and marketable securities	$ 64,212	$ 73,590

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

As of June 25, 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	$ 27,642	$ 12	$ (2)	$ 27,652
U.S. government agency securities	10,513	2	—	10,515
Total marketable securities	$ 38,155	$ 14	$ (2)	$ 38,167

As of December 31, 2015 , 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	$ 35,869	$ 2	$ (72)	$ 35,799
U.S. government agency securities	10,544	—	(24)	10,520
Commercial paper	3,645	—	—	3,645
Total marketable securities	$ 50,058	$ 2	$ (96)	$ 49,964

As of June 25, 2016 , 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	$ 38,155	$ 38,167

4. Fair Value Measurements

In accordance with Accounting Standard Codification ("ASC") Topic 820, *Fair Value Measurements and Disclosures* , ("ASC Topic 820"), the Company measures its cash equivalents and marketable securities at fair value on a recurring basis. ASC Topic 820 clarifies that 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. As a basis for considering such assumptions, ASC Topic 820 establishes a three-tier value hierarchy, which prioritizes the inputs used in measuring fair value as follows:

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 June 25, 2016 and December 31, 2015 , based on the three-tier fair value hierarchy (in thousands):

As of June 25, 2016	**Level 1**	**Level 2**	**Total**
Money market funds	$ 5,384	$ —	$ 5,384
Corporate debt securities	—	27,652	27,652
U.S. government agency securities	—	10,515	10,515
Total	$ 5,384	$ 38,167	$ 43,551

As of December 31, 2015	**Level 1**	**Level 2**	**Total**
Money market funds	$ 10,248	$ —	$ 10,248
Corporate debt securities	—	35,799	35,799
U.S. government agency securities	—	10,520	10,520
Commercial paper	—	3,645	3,645
Total	$ 10,248	$ 49,964	$ 60,212

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, U.S. government agency securities and commercial paper 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 six months ended June 25, 2016 and June 27, 2015 .

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. ("OSI") 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. We evaluate goodwill on an annual basis at the end of the second quarter of each year. Management has determined that we operate 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.

Intangible Assets

Intangible assets are carried at cost, less accumulated amortization. The details of intangible assets as of June 25, 2016 and December 31, 2015 are disclosed in the following table (in thousands):

	June 25, 2016			December 31, 2015		
	Gross Carrying Amount	Accumulated Amortization	Net	Gross Carrying Amount	Accumulated Amortization	Net
Core developed technology	$ 68,964	$ (66,524)	$ 2,440	$ 68,964	$ (64,047)	$ 4,917
Customer relationships	54,740	(54,740)	—	54,740	(53,039)	1,701
Total intangible assets, excluding goodwill	$ 123,704	$ (121,264)	$ 2,440	$ 123,704	$ (117,086)	$ 6,618

Amortization expense was $0.8 million and $4.6 million for the three months ended June 25, 2016 and June 27, 2015 , respectively. Amortization expense was $4.2 million and $9.3 million for the six months ended June 25, 2016 and June 27, 2015 , respectively.

As of June 25, 2016 , expected future amortization expense for the fiscal years indicated is as follows (in thousands):

Period	Expected Amortization Expense
Remainder of 2016	$ 1,627
2017	813
Total	$ 2,440

6. Balance Sheet Details

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

	June 25, 2016	December 31, 2015
Accounts receivable	$ 50,357	$ 48,319
Allowance for doubtful accounts	(635)	(501)
Product return reserve	(604)	(663)
Accounts receivable, net	$ 49,118	$ 47,155

Inventory consisted of the following (in thousands):

	June 25, 2016	December 31, 2015
Raw materials	$ 1,791	$ 2,209
Finished goods	38,970	45,458
Total inventory	$ 40,761	$ 47,667

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

	June 25, 2016	December 31, 2015
Test equipment	$ 40,785	$ 39,035
Computer equipment and software	28,217	27,736
Furniture and fixtures	2,219	1,833
Leasehold improvements	6,573	6,554
Total	77,794	75,158
Accumulated depreciation and amortization	(62,146)	(58,009)
Property and equipment, net	$ 15,648	$ 17,149

Accrued liabilities consisted of the following (in thousands):

	June 25, 2016	December 31, 2015
Accrued compensation and related benefits	$ 19,205	$ 13,809
Accrued warranty	10,174	9,564
Accrued professional and consulting fees	3,799	2,813
Accrued customer rebates	1,720	784
Accrued excess and obsolete inventory at contract manufacturers	1,190	1,011
Accrued business travel expenses	904	580
Advance customer payments	882	1,094
Accrued insurance	852	—
Accrued non income related taxes	741	905
Accrued freight	487	486
Accrued rent	410	381
Income taxes payable	331	322
Accrued hosting services	240	466
Accrued other	2,995	3,297
Total accrued liabilities	$ 43,930	$ 35,512

Deferred revenue consisted of the following (in thousands):

	June 25, 2016	December 31, 2015
Current:		
Product and services	$ 9,092	$ 8,937
Extended warranty	3,275	3,187
	12,367	12,124
Non-current:		
Product and services	36	58
Extended warranty	19,613	19,511
	19,649	19,569
Total deferred revenue	$ 32,016	$ 31,693

Deferred cost of revenue consisted of costs incurred for products and services for which revenues have been deferred.

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, 2015 are disclosed in our Annual Report on Form 10-K, and have not changed materially during the six months ended June 25, 2016 .

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

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. The Company accrues for potential warranty claims based on the Company's historical product failure rates and historical costs incurred in correcting product failures along with other relevant information . The Company's warranty 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 reserve were as follows (in thousands):

	Three Months Ended		Six Months Ended	
	June 25, 2016	June 27, 2015	June 25, 2016	June 27, 2015
Balance at beginning of period	$ 9,152	$ 9,623	$ 9,564	$ 9,553
Warranty charged to cost of revenue	2,532	1,080	3,112	2,148
Utilization of warranty	(1,485)	(1,378)	(2,104)	(2,376)
Adjustments to pre-existing warranty	(25)	—	(398)	—
Balance at end of period	$ 10,174	$ 9,325	$ 10,174	$ 9,325

Litigation

From time to time, the Company is involved in various legal proceedings arising from the normal course of business activities.

On September 16, 2010, the Company, two direct, wholly-owned subsidiaries of the Company, and Occam entered into an Agreement and Plan of Merger and Reorganization (the "Merger Agreement"). In response to the announcement of the Merger Agreement on October 6, 2010, a purported class action complaint was filed by stockholders of Occam in the Delaware Court of Chancery styled as *Steinhardt v. Howard-Anderson, et al.* (Case No. 5878-VCL). On November 24, 2010, these stockholders filed an amended complaint (the "amended Steinhardt complaint"). The amended Steinhardt complaint named Occam (which has since been merged into Calix) and the members of the Occam board of directors as defendants. The amended Steinhardt complaint did not name Calix as a defendant.

The amended Steinhardt complaint sought injunctive relief rescinding the merger transaction and an award of damages in an unspecified amount, as well as plaintiffs' costs, attorney's fees, and other relief.

The merger transaction was completed on February 22, 2011 (the "Effective Date"). On January 6, 2012, the Delaware court ruled on a motion for sanctions brought by the defendants against certain of the lead plaintiffs. The Delaware court found that lead plaintiffs Michael Steinhardt, Steinhardt Overseas Management, L.P., and Ilex Partners, L.L.C., collectively the "Steinhardt Plaintiffs," had engaged in improper trading of Calix shares, and dismissed the Steinhardt Plaintiffs from the case with prejudice. The court further held that the Steinhardt Plaintiffs are: (i) barred from receiving any recovery from the litigation, (ii) required to self-report to the SEC, (iii) directed to disclose their improper trading in any future application to serve as lead plaintiff, and (iv) ordered to disgorge trading profits of $0.5 million , to be distributed to the remaining members of the class of former Occam stockholders. The Delaware court also granted the motion of the remaining lead plaintiffs, Herbert Chen and Derek Sheeler, for class certification, and certified Messrs. Chen and Sheeler as class representatives. The certified class is a non-opt-out class consisting of all owners of Occam common stock whose shares were converted to shares of Calix on the date of the merger transaction, with the exception of the defendants in the Delaware action and their affiliates. Chen and Sheeler, on behalf of the class of similarly situated former Occam stockholders, continued to seek an award of damages in an unspecified amount.

Fact discovery in the case initially closed on April 30, 2013. On June 11, 2013, the plaintiffs filed their Second Amended Class Action Complaint for Breach of Fiduciary Duty ("Second Amended Complaint"). The Second Amended Complaint adds Occam's former CFO as a defendant, and alleges that each of the defendants breached their fiduciary duties by failing to attempt to obtain the best purchase price for Occam and failing to disclose certain allegedly material facts about the merger transaction in the preliminary proxy statement and prospectus included in the Registration Statement on Form S-4 filed with the SEC on November 2, 2010.

On April 8, 2014, the Delaware Court of Chancery issued an Opinion granting in part and denying in part the Defendants' Motion for Summary Judgment. The ruling granted summary judgment on all claims as to Occam, the corporate entity, and accordingly, Occam was dismissed as a defendant in the action. The court also granted summary judgment in favor of those defendants who served solely as directors of Occam with respect to all claims alleging improper actions in connection with the Occam sale process. The court left in place the process-based claims against Occam's former CEO and CFO, and declined to grant summary judgment on separate claims that the director and officer defendants breached their fiduciary duties by issuing a proxy statement for Occam's stockholder vote that allegedly contained misleading disclosures and had material omissions.

On June 12, 2014, the plaintiffs filed a Motion to Compel Production of Documents by Defendants and Jefferies & Company, Inc. ("Jefferies") and For Sanctions Against Defendants. This motion sought additional documents from defendants and from Jefferies, Occam's former financial advisor, and requested that the court impose severe sanctions, up to and including a finding of liability against defendants. Defendants have rejected the suggestion that any additional documents should be produced and vigorously opposed the imposition of any sanctions. On September 3, 2014, the court denied the motion without prejudice as to defendants, directed counsel for the defendants to provide an affidavit clarifying the prior conduct of discovery, and ordered discovery into defendants' document collection and review methodologies. The court also ordered Jefferies to produce additional documents. Plaintiffs then filed a motion requesting leave to amend their complaint to add Jefferies and Wilson Sonsini Goodrich & Rosati, P.C. ("Wilson Sonsini"), Occam's counsel and former defense counsel in this lawsuit, as defendants.

On July 16, 2015, the Court denied plaintiffs' motion for leave to amend their complaint to add Jefferies as a defendant, but granted plaintiffs' motion for leave to amend their complaint to add Wilson Sonsini as a defendant. On July 22, 2015, plaintiffs filed their Third

Amended Complaint adding Wilson Sonsini as a defendant in the lawsuit. Defendants filed their answers to the Third Amended Complaint on September 8, 2015.

Trial on the matter commenced on April 11, 2016 before the Delaware Court of Chancery. On April 14, 2016, the parties entered into a memorandum of understanding of a settlement in principle (“Settlement”) to resolve all of the claims pending before the Delaware Court of Chancery and related claims. The Settlement terms provide that neither the Company nor any of its officers or directors would be required to make any contribution to the settlement consideration of $35 million to be paid for the benefit of the plaintiff class. The Company did not previously accrue any estimated loss in connection with this action and, as a result of the Settlement, will not recognize any loss related to this action. Further, the Company has incurred certain defense costs (as discussed in more detail below) for which its insurance carriers denied coverage or that are otherwise in excess of coverage. These costs were recorded as operating expense in the Company’s Consolidated Statement of Comprehensive Income (Loss) in the periods incurred. In connection with the Settlement (and separate from the settlement consideration), the Company would also receive a cash payment of approximately $4.5 million in partial recovery of such costs.

On May 31, 2016, the parties signed the global settlement agreement reflecting the terms of the Settlement and filed the agreement with the court for approval. The court has issued a scheduling order setting a hearing for August 26, 2016 to rule on the Settlement and ordering, among other things, that lead plaintiffs notify the plaintiff class of the Settlement. The Settlement remains subject to the approval of the Delaware Court of Chancery. As of June 25, 2016 , the Company had not recorded any amounts related to this Settlement. Upon approval of the settlement, the Company expects to recognize the $4.5 million in partial recovery of out-of-pocket costs.

The Company and the defendants have denied and continue to deny each and all of the claims alleged in the litigation, and the Settlement does not assign or reflect any admission of fault, wrongdoing or liability as to any defendant.

Since the closing of the merger, the Company has advanced defense costs related to this lawsuit. The Company has obligations, under certain circumstances, to hold harmless and indemnify each of the former Occam directors and officers named as defendants in this action against judgments, fines, settlements and expenses related to claims against such directors and officers to the fullest extent permitted under Delaware law and Occam's bylaws and certificate of incorporation. In addition, under the engagement letter between Occam and Jefferies, the Company has obligations, under certain circumstances, to hold harmless and indemnify Jefferies against judgments, fines, settlements and expenses related to Jefferies’ engagement by Occam. The Company has paid fees and expenses incurred by Jefferies in connection with this matter pursuant to Jefferies indemnity demand under this agreement.

The Company has incurred significant legal fees and costs defending this lawsuit and during the fiscal quarter ended March 26, 2016, the Company’s defense costs exhausted its available Directors & Officers liability insurance coverage. As described above, the legal proceedings have been protracted as plaintiffs continue to seek additional discovery following the court’s order re-opening discovery and with the addition of Wilson Sonsini as a defendant in the action in July 2015. Until the Settlement was reached, t he Company also continued to incur significant litigation expenses that were not covered by insurance, including the Company’s costs associated with the Jefferies indemnification obligations. For the three and six months ended June 25, 2016 , the Company recorded litigation defense costs and expenses in excess of its insurance coverage of $2.9 million and $6.5 million , respectively, as operating expense in the accompanying Condensed Consolidated Statements of Comprehensive Loss.

The Company is not currently a party to any other legal proceedings that, if determined adversely to the Company, would individually or in the aggregate have a material adverse effect on the Company's business, operating results or financial condition.

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		Six Months Ended	
	June 25, 2016	June 27, 2015	June 25, 2016	June 27, 2015
Numerator:				
Net loss	$ (5,826)	$ (5,779)	$ (16,555)	$ (17,709)
Denominator:				
Weighted-average common shares outstanding	48,371	51,950	48,478	51,843
Basic and diluted net loss per common share	$ (0.12)	$ (0.11)	$ (0.34)	$ (0.34)
Potentially dilutive shares, weighted average	5,733	6,273	5,620	5,972

For the three and six months ended June 27, 2015, unvested restricted stock awards are included in the calculation of weighted-average common shares outstanding because such shares are participating securities; however, the impact was immaterial. All restricted stock awards completed their vesting on July 20, 2015.

Potentially dilutive shares have been excluded from the computation of diluted net loss per common share because their effect would be antidilutive. These antidilutive shares were primarily from stock options, restricted stock units and performance restricted stock awards. We have incurred a net loss for all periods presented, and therefore 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 Form 10-K filed with the SEC on February 26, 2016 . 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"), restricted stock awards ("RSAs"), and performance restricted stock units ("PRSUs").

Stock Options

During the three and six months ended June 25, 2016 , the Company did not grant stock options. During the three months ended June 25, 2016 , no stock options were exercised. During the six months ended June 25, 2016 , 2,312 stock options were exercised at a weighted-average exercise price of $5.85 per share. As of June 25, 2016 , unrecognized stock-based compensation expense of $2.5 million related to stock options, net of estimated forfeitures, is expected to be recognized over a weighted-average period of 1.9 years.

Restricted Stock Units

During the three months ended June 25, 2016 , 880,438 RSUs were granted with a weighted-average grant date fair value of $6.86 per share. During the six months ended June 25, 2016 , 992,313 RSUs were granted with a weighted-average grant date fair value of $6.92 per share. During the three months ended June 25, 2016 , 456,147 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 $1.3 million were remitted to the relevant taxing authorities during the three months ended June 25, 2016 . During the six months ended June 25, 2016 , 488,090 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 $1.4 million were remitted to the relevant taxing authorities during the six months ended June 25, 2016 . As of June 25, 2016 , unrecognized stock-based compensation expense of $16.0 million related to RSUs, net of estimated forfeitures, was expected to be recognized over a weighted-average period of 2.8 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.

During the three months ended June 25, 2016 , no PRSUs were granted to executives. During the six months ended June 25, 2016 , the Company granted 550,000 PRSUs to its executives with a weighted-average grant date fair value of $7.42 per share. These particular performance-based awards contain a one-year performance period and a subsequent two-year service period. The performance target 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, each PRSU award shall vest in 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 June 25, 2016 , no PRSUs vested and were converted into shares of common stock. During the six months ended June 25, 2016 , 44,992 PRSUs vested and were converted into 26,557 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 $0.1 million were remitted to the relevant taxing authorities during the six months ended June 25, 2016 . As of June 25, 2016 , unrecognized stock-based compensation expense of $2.8 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 are 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. The price of common stock purchased under the plan 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 June 25, 2016 , there were 635,913 shares available for issuance under the ESPP.

During the three and six months ended June 25, 2016 , 493,226 shares were purchased under the ESPP. As of June 25, 2016 , unrecognized stock-based compensation expense of $0.7 million related to the ESPP is expected to be recognized over a remaining service period of 4 months .

Stock-Based Compensation Expense

Stock-based compensation expense associated with stock options, RSUs, PRSUs, RSAs, 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 and RSAs 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.

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.

Stock may be purchased under this program 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"). Any open market purchases will 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) will be made at management's discretion at prices management considers to be attractive and in the best interests of the Company and its stockholders.

The stock repurchase commenced in May 2015 and the program was completed in March 2016.

During the six months ended June 25, 2016 , the Company repurchased 1,789,287 shares of common stock for $12.8 million at an average price of $7.16 per share. The Company has 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.

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10. Accumulated Other Comprehensive Income (Loss)

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

	Three Months Ended					
	June 25, 2016			June 27, 2015		
	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	$ (29)	$ (119)	$ (148)	$ (19)	$ 108	$ 89
Other comprehensive income (loss)	41	(23)	18	(3)	49	46
Balance at end of period	$ 12	$ (142)	$ (130)	$ (22)	$ 157	$ 135

	Six Months Ended					
	June 25, 2016			June 27, 2015		
	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	$ (94)	$ (101)	$ (195)	$ (58)	$ 138	$ 80
Other comprehensive income (loss)	106	(41)	65	36	19	55
Balance at end of period	$ 12	$ (142)	$ (130)	$ (22)	$ 157	$ 135

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

11. Credit Facility

The Company had a revolving credit facility ("Prior Credit Facility") of $30.0 million with Silicon Valley Bank based upon a percentage of eligible accounts receivable, which matured on June 30, 2013 . After the Prior Credit Facility matured on June 30, 2013, the Company cash collateralized any outstanding letters of credit with Silicon Valley Bank. During the first quarter of 2015, Silicon Valley Bank subsequently released the $0.3 million cash restricted for collateralizing the outstanding letters of credit reported as "restricted cash" in the Company's Consolidated Balance Sheet as of December 31, 2014.

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 , which 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 leverage ratio of consolidated funded indebtedness to consolidated Adjusted EBITDA, as customarily defined and amended. 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 facility includes affirmative and negative covenants applicable to the Company that are typical for credit facilities of this type. Furthermore, the credit agreement requires us 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 June 25, 2016 , the Company was in compliance with these requirements. The credit facility 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 June 25, 2016 , no revolving loans were drawn under the Credit Agreement, as amended.

The Company incurred debt issuance costs that were directly attributable to the original issuance and amendment of this credit facility of $0.3 million in 2013 and $0.1 million in 2015, respectively. These costs are amortized over the extended term of the credit facility. As of June 25, 2016 , the unamortized balance of debt issuance costs of $0.2 million were included within "Other assets" in the Company's Condensed Consolidated Balance Sheets.

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		Six Months Ended	
	June 25, 2016	June 27, 2015	June 25, 2016	June 27, 2015
Provision for income taxes	$ 124	$ 102	$ 245	$ 193
Effective tax rate	(2.2)%	(1.8)%	(1.5)%	(1.1)%

The income tax provision for the three and six months ended June 25, 2016 and June 27, 2015 consisted primarily of foreign income taxes. The effective tax rate for the three and six months ended June 25, 2016 and June 27, 2015 was determined using an estimated annual effective tax rate adjusted for discrete items, if any, that occurred during the respective period. The Company's effective tax rate for the three and six months ended June 25, 2016 and June 27, 2015 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 .

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 .

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," "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, 2015 . All forward-looking statements and reasons why results may differ included in this report are made as of the date hereof, and we assume no obligation to update these forward-looking statements or reasons why actual results might differ.

Overview

We are a leading global provider of broadband communications access systems and software for fiber- and copper-based network architectures that enable communications service providers to 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 software products, which we refer to as the Unified Access portfolio, that are designed to enhance and transform CSP access networks to meet the changing demands of subscribers rapidly and cost-effectively.

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 second quarter of 2016 , over 21 million ports of our Unified Access portfolio have been deployed at a growing number of CSPs worldwide, whose networks serve over 100 million subscriber lines in total. Our customers include many of the world's largest communications providers. In addition, we have over 1,200 customers who have deployed gigabit passive optical network, Active Ethernet and point-to-point Ethernet fiber access networks.

Our revenue was $107.4 million and $205.8 million for the three and six months ended June 25, 2016 , respectively, compared to $99.1 million and $190.2 million for the three and six months ended June 27, 2015 . 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, including in particular, large CSPs and customers in international markets. Since 2015, we have seen increased market demand for turnkey solutions that include professional services together with equipment and materials, including a project we commenced in 2015 with one of our existing customers that has continued to ramp up during the second quarter of 2016 and other smaller professional services projects. Revenue for such projects are generally recognized only when project requirements are completed, typically over longer periods depending on the nature and scope of the project. Similarly, some of the costs incurred by us in the delivery of professional services, including labor and related costs, are deferred and recognized to cost of revenue when the associated revenue is recognized. Our revenue levels are also dependent upon our customers' timing of purchases and capital expenditure plans.

Revenue fluctuations result from many factors, including but not limited to: increases or decreases in customer orders for our products and services, customer purchase agreements with provisions that delay 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 the outside plant. As of June 25, 2016 , our deferred revenue of $32.0 million primarily included extended warranty services contracts that are recognized ratably over the period during which the services are to be performed, as well as those relating to turnkey projects that are 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. For the three and six months ended June 25, 2016 , we had a net loss of $5.8 million and $16.6 million , respectively, compared to a net loss of $5.8 million and $17.7 million for the three and six months ended June 27, 2015 , respectively. Since our inception we have incurred significant losses and, as of June 25, 2016 , we had an accumulated deficit of $573.5 million .

Cost of revenue is strongly correlated to revenue and tends to fluctuate from all of the above factors that could impact revenue. Other factors that impact cost of revenue 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, customer location, changes in product warranty cost, changes in the cost of our inventory and inventory write-downs. Cost of revenue 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.

Our gross profit and gross margin have been, and will likely continue to be, impacted by several factors, including 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), increases in mix of revenue from channel sales rather than direct sales, shipment volumes and any related volume discounts, changes in our product costs, changes in product warranty costs, changes in pricing and the extent of customer rebates and incentive programs. Our gross margin could increase due to favorable changes in these factors, for example, increases in sales of our advanced E-Series access systems, new introductions of our P-Series optical network terminals and reductions in the impact of rebate or similar programs. Our gross margin could decrease due to unfavorable changes in factors such as increased product costs, pricing decreases due to competitive pressure and unfavorable customer or product mix. Changes in these factors could have a material impact on our future average selling prices and unit costs. Services revenues typically have higher associated costs and lower margins and we expect that an increase in services as a mix of total revenue would result in lower gross margins. In addition, we expect costs associated with our professional services projects to be relatively higher as we ramp up our professional services business to meet demand for turnkey professional services solutions. Moreover, to the extent that deferred cost of revenue particularly relating to professional services is determined to be unrecoverable, we adjust deferred cost of revenue with a charge to cost of revenue in the current period. The timing of our recognition of deferred revenue and related deferred costs could also have a material impact on our gross profit and gross margin results. The timing of recognition and the relative size of these arrangements could cause large fluctuations in our gross profit from period to period. Additionally, our gross margin could be impacted by inventory write-downs.

Our operating expenses have fluctuated based on the following factors: changes in headcount, timing of variable compensation expenses due to fluctuations in order volumes, timing of salary increases which have historically occurred in the second quarter, timing of bonus expenses due to changes in the Company's performance, timing of research and development expenses including prototype builds and intermittent outsourced development projects, fluctuations in stock-based compensation expenses due to fluctuations in 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. We have incurred increased compensation costs due to the additional headcount. We anticipate that our operating expenses will increase in absolute dollar amounts but will decline as a percentage of revenue over time.

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, 2015 . During the six months ended June 25, 2016 , 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 report 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 and Six Months Ended June 25, 2016 and June 27, 2015

Revenue

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

	Three Months Ended				Six Months Ended			
	June 25, 2016	June 27, 2015	Variance in Dollars	Variance in Percent	June 25, 2016	June 27, 2015	Variance in Dollars	Variance in Percent
Revenue	$ 107,425	$ 99,129	$ 8,296	8%	$ 205,800	$ 190,167	$ 15,633	8%

Our revenue increased to $107.4 million for the three months ended June 25, 2016 , from $99.1 million for the three months ended June 27, 2015 . Our revenue increased to $205.8 million for the six months ended June 25, 2016 , from $190.2 million for the six months ended June 27, 2015 . We experienced stronger bookings and shipments in certain territories during those 2016 fiscal periods, compared to the same periods in fiscal 2015 mainly due to increased customer demand and partly attributed to the mix of product and service offerings led by the ramp of revenue associated with our turnkey projects. This was partially offset by lower revenue derived from contracts funded by the Broadband Stimulus Programs under the American Recovery and Reinvestment Act of 2009 as we completed and closed our existing contracts. The extended date for completion of projects funded under the Broadband Initiatives Program, which is administered by the RUS, ended on July 31, 2015.

Our revenue is principally derived in the United States. During the three and six months ended June 25, 2016 , revenue generated in the United States was $99.2 million and $187.0 million, respectively, and represented approximately 92% and 91% of our total revenue, compared to $91.7 million and $172.6 million, respectively, or approximately 92% and 91% of our total revenue for the same periods in 2015 . International revenue was $8.3 million and $18.8 million or approximately 8% and 9% of our total revenue for the three and six months ended June 25, 2016 , respectively, compared to $7.5 million and $17.6 million, or approximately 8% and 9% of our total revenue for the same periods in 2015 .

We had two customers representing more than 10% of revenue during the three months ended June 25, 2016 . See Note 2 to the unaudited condensed consolidated financial statements set forth in Part I, Item 1 of this report for more details on concentration of revenue for the periods presented.

Cost of Revenue and Gross Profit

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

	Three Months Ended				Six Months Ended			
	June 25, 2016	June 27, 2015	Variance in Dollars	Variance in Percent	June 25, 2016	June 27, 2015	Variance in Dollars	Variance in Percent
Cost of revenue:								
Products and services	$ 56,605	$ 48,752	$ 7,853	16 %	$ 107,835	$ 95,212	$ 12,623	13 %
Amortization of intangible assets	814	2,088	(1,274)	(61)%	2,477	4,176	(1,699)	(41)%
Total cost of revenue	$ 57,419	$ 50,840	$ 6,579	13 %	$ 110,312	$ 99,388	$ 10,924	11 %
Gross profit	$ 50,006	$ 48,289	$ 1,717	4 %	$ 95,488	$ 90,779	$ 4,709	5 %
Gross margin	47%	49%			46%	48%		

The increase in cost of product and services revenue of $7.9 million and $12.6 million during the three and six months ended June 25, 2016 compared with the corresponding period in fiscal 2015 was primarily attributed to an increase in product cost of revenue of $4.1 million and $8.6 million for those respective periods mainly due to higher shipments. Our professional services cost of revenue also increased by $2.7 million and $4.6 million for those respective periods as we continue to ramp up our professional services business to meet demand for turnkey professional services solutions. Additionally, our warranty costs also increased by approximately $1.5 million and $1.0 million for those respective periods primarily driven by certain warranty charges for two specific product families. This was partially offset by a decrease in inventory write-downs attributed to slow moving inventories by approximately $0.8 million and $1.2 million for those respective periods.

Amortization of intangible assets decrease d by $1.3 million and $1.7 million during the three and six months ended June 25, 2016 compared with the corresponding periods in fiscal 2015 as one intangible asset reached completion of its amortization period before the end of the first quarter of fiscal 2016. Hence, we have a shorter amortization period for that particular intangible asset during those fiscal 2016 periods as compared with full amortization during the same periods in fiscal 2015 .

Including amortization of intangible assets, gross margin decrease d to 47% and 46% during the three and six months ended June 25, 2016 , from 49% and 48% during the corresponding periods in fiscal 2015 . The decrease in gross margin during the three and six months ended June 25, 2016 was primarily attributed to lower margins in services revenue. Services revenue typically have higher associated costs and lower margins. The decrease in gross margin was partially offset by the impact of lower amortization of intangible assets during the three and six months ended June 25, 2016 compared with the corresponding periods in fiscal 2015 .

Operating Expenses

Research and Development Expenses

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

	Three Months Ended				Six Months Ended			
	June 25, 2016	June 27, 2015	Variance in Dollars	Variance in Percent	June 25, 2016	June 27, 2015	Variance in Dollars	Variance in Percent
Research and development	$ 25,033	$ 22,851	$ 2,182	10%	$ 47,806	$ 44,765	$ 3,041	7%
Percent of total revenue	23%	23%			23%	24%		

The increase in research and development expenses of $2.2 million and $3.0 million during the three and six months ended June 25, 2016 , respectively, compared with the corresponding periods in fiscal 2015 was primarily due to an increase in compensation and employee benefits of $1.1 million and $1.6 million, respectively. We increased our research and development efforts to support our growing product portfolio, strategic investment in new solutions, including next generation solutions and new customer segments, and international market expansion, hence, we increased our research and development workforce by hiring new full time employees which led to higher compensation cost. Expenditures relating to prototype and expendable equipment used for research and development activities also increased by approximately $1.0 million and $1.2 million for those respective periods. Additionally, during the three and six months ended June 25, 2016 compared with the corresponding periods in fiscal 2015 , professional services mainly relating to outside development services increased by $0.4 million and $1.0 million, respectively, due to relatively larger scale consulting projects. This was partially offset by a $0.4 million and $0.5 million decrease in stock-based compensation primarily due to executive equity awards that completed vesting in 2015.

We are continuing our strategic investments in our Unified Access 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				Six Months Ended			
	June 25, 2016	June 27, 2015	Variance in Dollars	Variance in Percent	June 25, 2016	June 27, 2015	Variance in Dollars	Variance in Percent
Sales and marketing	$ 19,213	$ 19,215	$ (2)	— %	$ 38,275	$ 38,974	$ (699)	(2)%
Percent of total revenue	18%	19%			19%	20%		

Sales and marketing expenses during the three months ended June 25, 2016 remained relatively flat compared with the corresponding period in fiscal 2015 . The decrease in sales and marketing expenses during the six months ended June 25, 2016 compared with the corresponding period in fiscal 2015 was primarily due to a $1.4 million decrease in stock-based compensation mainly due to equity awards that completed vesting in 2015, partially offset by a $0.8 million increase in commissions attributed to higher shipments.

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				Six Months Ended			
	June 25, 2016	June 27, 2015	Variance in Dollars	Variance in Percent	June 25, 2016	June 27, 2015	Variance in Dollars	Variance in Percent
General and administrative	$ 11,641	$ 9,436	$ 2,205	23%	$ 24,325	$ 19,588	$ 4,737	24%
Percent of total revenue	11%	10%			12%	10%		

The increase in general and administrative expenses of $2.2 million and $4.7 million during the three and six months ended June 25, 2016 compared with the corresponding periods in fiscal 2015 was primarily due to an increase in professional services of $2.0 million and $3.6 million, respectively. This was mainly attributed to a $2.7 million and $4.4 million increase in legal fees and expenses during those respective periods related to defense costs in the Occam litigation that were not reimbursable under our Directors & Officers liability

insurance or were otherwise in excess of the insurance coverage, partially offset by lower consulting and contracted labor services which decreased by $0.6 million and $0.8 million during the three and six months ended June 25, 2016 , respectively. Additionally, our compensation and employee benefits also increased by $0.2 million and $1.1 million during the three and six months ended June 25, 2016 compared with the same periods in fiscal 2015 mainly relating to increases in headcount.

Amortization of Intangible Assets

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

	Three Months Ended				Six Months Ended			
	June 25, 2016	June 27, 2015	Variance in Dollars	Variance in Percent	June 25, 2016	June 27, 2015	Variance in Dollars	Variance in Percent
Amortization of intangible assets	$ —	$ 2,552	$ (2,552)	(100)%	$ 1,701	$ 5,104	$ (3,403)	(67)%
Percent of total revenue	—%	3%			1%	3%		

The decrease in amortization of intangible assets of $2.6 million and $3.4 million during the three and six months ended June 25, 2016 compared with the corresponding periods in fiscal 2015 was due to one of our intangible assets which was directly allocable to operating expenses that had reached completion of its amortization period before the end of the first quarter of fiscal 2016. Hence, we have a shorter amortization period for that particular intangible asset in fiscal 2016 periods as compared with full amortization during the same periods in fiscal 2015 .

Provision for Income Taxes

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

	Three Months Ended				Six Months Ended			
	June 25, 2016	June 27, 2015	Variance in Dollars	Variance in Percent	June 25, 2016	June 27, 2015	Variance in Dollars	Variance in Percent
Provision for income taxes	$ 124	$ 102	$ 22	22%	$ 245	$ 193	$ 52	27%
Effective tax rate	(2.2)%	(1.8)%			(1.5)%	(1.1)%		

The income tax provision for the three and six months ended June 25, 2016 and June 27, 2015 consisted primarily of foreign income taxes. The effective tax rate for the three and six months ended June 25, 2016 and June 27, 2015 was determined using an estimated annual effective tax rate adjusted for discrete items, if any, that occurred during the respective period. The Company's effective tax rate for the three and six months ended June 25, 2016 and June 27, 2015 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 .

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 June 25, 2016 , we had cash, cash equivalents and marketable securities of $64.2 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 and U.S. government agency securities. This includes $5.7 million of cash held by our foreign subsidiaries. Our intent is to permanently reinvest our earnings from foreign operations outside the U.S. and our current plans do not demonstrate a need to repatriate the earnings from foreign operations to fund our U.S. operations.

Operating Activities

Net cash provided by operations of $5.4 million in the six months ended June 25, 2016 consisted of a net loss of $16.6 million , more than offset by $14.2 million of non-cash charges and $7.7 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 $8.8 million increase in accrued expenses and other liabilities primarily due to the timing of our payroll, sales commissions and other expenses accruals and payout, a $6.9 million decrease in inventories primarily due to higher inventory turnover, and a $1.4 million decrease in prepaid expenses and other assets, partially offset by a $5.9 million decrease in accounts payable primarily due to the timing of inventory receipts and payments to our manufacturers, a $2.0 million increase in accounts receivable mainly due to higher revenue in 2016, and a $1.6 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 RUS-funded contracts. Non-cash charges primarily consisted of $5.7 million of stock-based compensation, $4.2 million of amortization of intangible assets, $4.1 million of depreciation and amortization and $0.2 million of amortization of premiums related to available-for-sale securities.

Net cash used in operations of $6.7 million in the six months ended June 27, 2015 consisted of a net loss of $17.7 million and $11.8 million of cash flow decreases reflected in the net change in assets and liabilities, partially offset by $22.8 million of non-cash charges. Cash flow decreases resulting from the net change in assets and liabilities primarily consisted of a $11.2 million increase in accounts receivable, a $5.1 million decrease in accounts payable due to payments to our manufacturers, and a $3.1 million decrease in accrued expenses and other liabilities primarily due to the timing of our sales commissions payout, partially offset by a $6.0 million decrease in inventories primarily due to higher inventory turnover, a $1.1 million decrease in prepaid expenses and other assets, and a release of $0.3 million restricted cash previously used to collateralize outstanding letters of credit with Silicon Valley Bank, and a $0.2 million net increase in deferred revenue and deferred cost of revenue as a result of certain RUS-funded and BBS contracts recognized during the period. Non-cash charges primarily consisted of $9.3 million of amortization of intangible assets, $8.0 million of stock-based compensation, $5.0 million of depreciation and amortization and $0.5 million of amortization of premiums related to available-for-sale securities.

Investing Activities

Net cash provided by investing activities of $8.6 million in the six months ended June 25, 2016 consisted of $11.7 million in net maturities of marketable securities, partially offset by $3.1 million in capital expenditures for purchases of test equipment, computer equipment and software.

Our cash used in investing activities of $1.1 million in the six months ended June 27, 2015 consisted of $3.6 million in capital expenditures for purchases of test equipment, computer equipment and software, partially offset by $2.6 million in net maturities of marketable securities, which provide higher yields than money market funds.

Financing Activities

Net cash used in financing activities of $11.4 million in the six months ended June 25, 2016 primarily consisted of $12.8 million in repurchases of common stock and $1.5 million in payment of payroll taxes for the vesting of awards under equity incentive plans, offset by $2.9 million of proceeds from the issuance of common stock under the employee stock purchase plan (“ESPP”) and $14.0 thousand in proceeds from the exercises of stock options.

Net cash used in financing activities of $1.4 million in the six months ended June 27, 2015 consisted of $3.4 million repurchases of common stock and $1.5 million in payment of payroll taxes for the vesting of awards under equity incentive plans, offset by $2.9 million of proceeds from the issuance of common stock under the ESPP and $0.6 million in proceeds from the exercises of stock options.

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.

Stock may be purchased under this program 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. Any open market purchases will 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) will be made at management’s discretion at prices management considers to be attractive and in the best interests of the company and its stockholders.

Our stock repurchase commenced in May 2015 and the program was completed in March 2016.

During the six months ended June 25, 2016 , we repurchased 1,789,287 shares of common stock for $12.8 million at an average price of $7.16 per share. We have completed the $40 million stock repurchase program and have 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. We expect our working capital needs to increase related to turnkey arrangements where we may purchase some equipment and materials at the outset of the project, but generally do not expect payment until completion of associated services, which may be one or more quarters later. In addition, 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 facility with an aggregate principal amount of up to $50.0 million . The credit facility matures in September 2018, as amended. Proceeds of the credit facility may be used for general corporate purposes and permitted acquisitions. As of June 25, 2016 , there was $50.0 million available for borrowing under this credit facility.

We believe based on our current operating plan, our existing cash, cash equivalents, marketable securities and amounts available under our credit facility 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, 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. In the event that additional financing is required from outside sources, we may not be able to raise it on terms acceptable to us or at all. If we are unable to raise additional capital when desired, our business, operating results and financial condition would be harmed.

Contractual Obligations and Commitments

The Company's 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, 2015 , and have not changed materially during the six months ended June 25, 2016 .

Off-Balance Sheet Arrangements

As of June 25, 2016 and December 31, 2015 , 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 June 25, 2016 , we had cash, cash equivalents and marketable securities of $64.2 million , which was held primarily in cash, money market funds and highly liquid marketable securities such as corporate debt instruments 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, if any, under our credit facility, which allows us to borrow up to a maximum amount of $50.0 million. Borrowings under this credit facility will accrue interest at a variable rate based upon the applicable base rate or LIBOR plus a margin depending on the Company's leverage ratio of consolidated funded indebtedness to consolidated Adjusted EBITDA (customarily defined). As of June 25, 2016 , 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 have not been material because they are primarily denominated in U.S. dollars. 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 U.S. dollars. Changes in the local currency rates of these vendors in relation to the U.S. dollar could cause an increase in the price of products that we purchase. Additionally, if the U.S. dollar 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 U.S. dollar 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 U.S. dollars 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, China associated with our research and development operations maintained there, and in the United Kingdom where our international sales and services office is located. Our international operating expenses are generally denominated in the functional currencies of our subsidiaries in which the operations are located. For the six months ended June 25, 2016 , approximately 88% of our operating expenses were U.S.-dollar denominated, 7% were denominated in RMB, 4% were denominated in GBP and 1% were in BRL. If the U.S. dollar had appreciated or depreciated by 10%, relative to RMB, GBP and BRL, our operating expenses for the first six months of 2016 would have decreased or increased by approximately $1.3 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 U.S. dollars in preparing our Condensed Consolidated Balance Sheets. The effect of foreign exchange rate fluctuations on our consolidated financial position for the six months ended June 25, 2016 was a net translation loss of approximately $ 41.0 thousand . This loss 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 six months ended June 25, 2016 , 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 June 25, 2016 , 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, 2015 , as filed with the Securities and Exchange Commission on February 26, 2016 . 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 make 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 maintain positive cash flows in the future.

We have experienced net losses in each year of our existence. For the years ended December 31, 2015 , 2014 and 2013 , we incurred net losses of $26.3 million , $20.8 million , and $17.3 million , respectively. For the first six months of 2016 , we incurred a net loss of $16.6 million . As of June 25, 2016 and December 31, 2015 , we had an accumulated deficit of $573.5 million and $556.9 million , respectively.

We expect to continue to incur significant expenses for research and development, sales and marketing, customer support and general and administrative functions as we expand our operations and target new customer segments, including larger CSPs and 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. If we are unable to generate positive operating income and maintain positive cash flows from operations, our liquidity, results of operations and financial condition will be adversely affected.

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, particularly from government-funded contracts, such as those funded by U.S. Department of Agriculture's RUS. 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 plan our expenses appropriately;
- our ability to increase our sales to larger North American as well as international CSPs;
- the capital spending patterns of CSPs and any decrease or delay in capital spending by CSPs due to macro-economic conditions, regulatory implementation or 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 margin;
- 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 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 reforms, 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. 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.

Many of our U.S. customers are 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 are considering 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 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 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 Zhone Technologies, 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 consolidation in recent years, 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; and Nokia's acquisition of Alcatel-Lucent in January 2016. In addition, Zhone Technologies announced in April 2016 that it had signed a definitive agreement to merge with DASAN Network Solutions. 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, 2015 , 2014 and 2013 , our research and development expenses were $89.7 million , or 22% of our revenue, $80.3 million , or 20% of our revenue, and $79.3 million , or 21% of our revenue, respectively. For the first six months of 2016 , our research and development expenses were $47.8 million , or 23% 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.

Historically, a large portion of our sales has been to a limited number of customers. For example, for the years ended December 31, 2015 , 2014 and 2013 , CenturyLink accounted for 22% , 23% and 26% , respectively, of our revenue. However, we cannot anticipate the level of CenturyLink's purchases in the future. Any decrease or delay in purchases and/or capital expenditure plans of CenturyLink or other 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, 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 larger North American as well as international CSPs, including MSOs, may be unsuccessful.

Our sales and marketing efforts have been focused on CSPs, including cable MSOs, in North America. Part of our long-term strategy is to increase sales to larger North American as well as international CSPs, 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 considerable time, effort and money, 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 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 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 inability 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;
- 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 liquidated damages obligations under customer contractual terms.

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 potential other 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.

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 Flextronics 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 Flextronics 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.

If Flextronics 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.

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

Our contract manufacturers 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 our contract manufacturers 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 our contract manufacturers at commercially reasonable prices, or at all. Any such interruption or delay may force our contract manufacturers 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 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. 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.

An increase in revenue mix towards services may 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. Additionally, revenue recognized from professional and support services may be delayed because fees are often not due until a project or milestone is completed. Consequently, as more of our revenue mix includes a greater proportion of professional services, our gross margins may not be sustainable or may be negatively impacted. Moreover, our recent increases in revenue mix towards services have 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, 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.

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 CenturyLink and other 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, 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;
- fluctuation in currency exchange rates;
- 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, compensation and 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 initiates a withdrawal process. 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 managing our growth, which could limit our ability to increase sales.

We have experienced significant growth in sales and operations in recent years. We expect to continue to expand our research and development, sales, marketing and support activities. Our historical growth has placed and planned future growth is expected to continue to place significant demands on our management as well as our financial and operational resources, to:

- manage a larger organization;
- expand our manufacturing and distribution capacity;
- increase our sales and marketing efforts;
- broaden our customer-support capabilities;
- implement appropriate operational and financial systems; and
- maintain effective financial disclosure controls and procedures.

If we cannot grow, or fail to manage our growth effectively, we may not be able to execute our business strategies and our business, financial condition 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.

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. 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 cost, 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 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 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 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.

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 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. Although we reached a settlement in principle on the matter in April 2016, our indemnity obligations, including our defense costs, in excess of such insurance coverage have been material, as described further in Note 7, "Commitments and Contingencies - Litigation" of the Notes to Consolidated Financial Statements included in Part I, Item 1 of this Quarterly Report on Form 10-Q. 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; and
- development efforts that do not meet our requirements because of language, cultural or other differences associated with international operations, resulting in errors or delays.

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. Furthermore, many of our customers are subject to FCC rate regulation of interstate telecommunications services and are recipients of Connect America Fund capital incentive payments, which are intended to subsidize broadband and telecommunications services in areas that are expensive to serve. In early October 2011, the then-chairman of the FCC outlined a plan to transform the Universal Service Fund, an $8 billion fund that is paid for by telephone customers in the U.S. and was used to subsidize basic telephone service in rural areas, into one that will help expand broadband Internet service to 18 million Americans who lack high-speed access. In late 2013, the new FCC chairman shared plans to review the implementation of this program, and some slight modifications were made in 2014. Changes to these programs 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. In addition, 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 U.S. and around the world have implemented and are continuing to implement laws and regulations concerning data protection. 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.

We may be 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. In addition, if we offer employment to personnel employed by competitors, we may become subject to claims of unfair hiring practices and incur substantial costs in defending ourselves against these claims, regardless of their merit. 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.

Interruptions, failures or material breaches in our information technology and communications systems could harm our business, customer relations and financial condition.

Information technology helps us operate efficiently, interface with customers, maintain financial accuracy and efficiency and accurately produce our financial statements. 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 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 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 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 report, 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, 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. We may not be able to raise sufficient additional funds on terms that are favorable to us, if at all. If we fail to raise sufficient funds and continue to incur losses, our ability to fund our operations, take advantage of strategic opportunities, develop products or technologies or otherwise respond to competitive pressures could be significantly limited. Any failure to obtain financing when and as required could force us to curtail our operations, which would harm our business.

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

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.

Stock may be purchased under this program 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. Any open market purchases will 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) will be made at management’s discretion at prices management considers to be attractive and in the best interests of the company and its stockholders.

Our stock repurchase commenced in May 2015 and the program was completed in March 2016. We have completed the $40 million stock repurchase program and have 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 .

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
3.1	Amended and Restated Certificate of Incorporation of Calix, Inc. (filed as Exhibit 3.3 to Amendment No. 7 to Calix's Registration Statement on Form S-1 filed with the SEC on March 23, 2010 (File No. 333-163252) and incorporated by reference herein).
3.2	Amended and Restated Bylaws of Calix, Inc. (filed as Exhibit 3.5 to Amendment No. 7 to Calix's Registration Statement on Form S-1 filed with the SEC on March 23, 2010 (File No. 333-163252) and incorporated by reference herein).
10.1*	Offer Letter by and between Calix, Inc. and Michael Weening dated May 20, 2016.
10.2*	Letter Agreement dated June 22, 2016 amending Employment Agreement by and between Calix, Inc. and Andrew Lockhart.
10.3*	Consulting Agreement by and between Calix, Inc. and Kevin Peters dated July 29, 2016.
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: August 3, 2016	By:	/s/ Carl Russo
		Carl Russo
		Chief Executive Officer **(Principal Executive Officer)**
Date: August 3, 2016	By:	/s/ William J. Atkins
		William J. Atkins
		EVP & Chief Financial Officer **(Principal Financial Officer)**

Exhibit 10.1

20 May 2016

Michael Weening
[Redacted]
[Redacted]

Dear Michael,

On behalf of Calix, Inc. (the "Company"), I am pleased to present you with this formal offer of employment for the full time position of Executive Vice President (EVP) Global Sales of the Company.

The terms of your position with the Company are as set forth below:

1. **<u>Employment Period</u>** . The period during which you are in fact employed by the Company pursuant to this letter agreement shall constitute the "Employment Period" hereunder. Subject to fulfillment of any conditions imposed by this letter agreement, your commencement of employment hereunder shall be 27 June 2016 (the "Employment Commencement Date").

2. **<u>Position and Responsibilities</u>** .

(a) You shall serve as the Executive Vice President (EVP) Global Sales of the Company, initially working from Toronto, Canada. It is expected that you shall initiate the process to transfer to the Company's headquarters in Petaluma, California, after the Employment Commencement Date. You shall report to the President and Chief Executive Officer of the Company (the "CEO"). You agree to perform in good faith and to the best of your ability all services that may be required of you hereunder and to be available to render such services at all reasonable times and places in accordance with such directions and requests as may be made from time to time by the CEO.

(b) You are expected and agree to devote your full working time and attention to the business of the Company, and will not render services to any other business without the prior approval of the CEO or, directly or indirectly, engage or participate in any business that is competitive in any manner with the business of the Company. You agree that, prior to the Employment Commencement Date, you will resign, step down, or cease to provide service to any other business, job, charitable and civic activity, or consulting activity, other than incidental activities undertaken on behalf of these entities and activities undertaken on behalf of the Company related to these entities that are disclosed to the Company. Notwithstanding the foregoing, however, you shall be permitted to continue to serve on the boards of directors of the companies set forth on Attachment A hereto; provided, however, that you will devote only such time to those companies as is required to properly discharge your fiduciary duties thereto and you shall, as situations allow, make a good faith effort to resign from such boards as soon as practicable. Nothing in this letter agreement will prevent you from accepting speaking or presentation engagements in exchange for honoraria or from serving on boards of charitable organizations, from owning no more than 1% of the outstanding equity securities of a corporation whose stock is listed on a national stock exchange, or from investing in investments listed on Attachment A1.

(c) You also understand and agree that you must fully comply with the Company's standard operating policies, procedures, and practices that are from time to time in effect during the Employment Period.

3. Compensation .

(a) **Base Salary** . During the Employment Period, you shall receive an annual gross base salary, to be paid in accordance with the Company's normal payroll procedures ("Base Salary"), less all applicable withholdings and deductions. Your starting annual gross Base Salary shall be U.S. $320,000.00, less applicable deductions and withholdings.

(b) **Performance Bonus/Variable Compensation** . You shall be eligible to receive variable compensation for 2016 targeted at 80% of your Base Salary (the "Variable Compensation"). Fifty percent of the Variable Compensation shall be based on the commissions that you earn under the Commission Plan. The remaining 50% of the variable compensation shall be based on the achievement of the performance objectives and funding requirements as established under the Company's 2016 Executive Cash Bonus Plan, attached as Attachment B .

(c) **Signing Bonus** . You will be paid a one-time lump sum sign-on bonus of U.S. $50,000.00, less applicable deductions and withholdings, on the first pay period following the Employment Commencement Date. This sign-on bonus is expressly conditioned upon your active continued employment for a period of at least 12 months, and shall be deemed an unearned advance until this condition is met. In the event you elect to terminate your employment with the Company within 12 months after the Employment Commencement Date, you agree to repay the sign-on bonus to the Company and if you do not repay such amount then, to the fullest extent permitted under applicable law, you agree that the Company may deduct the amount of the sign-on bonus from any monies that the Company may owe to you.

(d) **Withholding** . The Company shall deduct and withhold from any compensation payable to you any and all applicable federal, state, local, and foreign income and employment withholding taxes and any other amounts required to be deducted or withheld by the Company under applicable statutes, regulations, ordinances, or orders governing or requiring the withholding or deduction of amounts otherwise payable as compensation or wages.

4. **Change in Control and Severance Plan** . You will be eligible to participate in the Calix, Inc. Executive Change in Control and Severance Plan ("CIC Plan") as a "Senior Executive" (as defined in the CIC Plan). A copy of the CIC Plan is attached as Attachment C .

5. **Stock Option Grant** . The Company will recommend that the Compensation Committee of the Company's Board of Directors (the "Committee") grant you an option under the Company's 2010 Equity Incentive Award Plan (the "Plan") to purchase up to 380,000 shares (the "Shares") of the Company's Common Stock (the "Option"). The Option is subject to approval by the Compensation Committee and, if approved, the Option will vest over four years, with 25% of the Shares vesting on the one-year anniversary of the Employment Commencement Date, and the remainder of the Shares vesting quarterly thereafter in equal installments over the next 36 months. Vesting shall cease upon your cessation of your last active day of employment with the Company. The remaining terms of the Option will be in accordance with the terms and conditions of the Plan and the written stock option award agreement evidencing the Option.

6. **Benefits; Reimbursement** .

(a) **Benefit Plans** . During the Employment Period, you shall be eligible to participate in all employee benefits and benefit plans generally made available to the Company's employees from time-to-time, including, but not limited to, medical, dental, vision and long-term disability insurance benefits and arrangements, subject to the terms, conditions, and relevant qualification criteria for such benefits and benefit plans. The Company, in its discretion, may change from time-to-time the employee benefits and benefit plans it generally makes available to its employees.

(b) **Vacation, Sick, and Holiday Pay** . You shall be entitled to vacation, sick, and holiday pay pursuant to the terms of the Company's generally applicable employee policies, as may exist from time to time.

You shall be entitled to such number of paid vacation days per year equivalent to that provided to other executive-level employees of the Company. Vacation accrues ratably per pay period and may not be taken before it is accrued.

7. **Work Permits; Proof of Right to Work** .

(a) **Work Permits** . The Company will provide assistance in procuring the necessary work permits for you and any dependents accompanying you, and will bear the cost of any immigration counsel necessary in connection therewith, provided selection of such counsel shall be made by or with the Company's prior approval. The Company will assist in the procurement of your visa or permanent residence in the United States.

(b) **Proof of Right to Work** . For purposes of federal immigration law, you will be required to provide to the Company documentary evidence of your identity and eligibility for employment in the United States, once obtained. Such documentation must be provided to the Company within three business days of your receipt of such documentation, or the Company may terminate your employment. Until such time as your work permit is approved and you relocate to the United States, you will be paid through our Canadian subsidiary.

(c) **Relocation Benefits** . You shall be eligible to receive relocation benefits in accordance with the Company's relocation policy, a copy of which will be provided to you separately at a later time. You agree that your relocation shall be initiated within the first twelve months of your employment and completed within 24 months of your employment. The relocation benefits shall be deemed an advance payment that is expressly conditioned upon your continued active employment with the Company. In the event you elect to terminate your employment with the Company within 24 months after your relocation, you agree to repay all relocation benefits (including all relocation expenses incurred on your behalf) and if you do not repay such amounts then, to the fullest extent permitted under applicable law, you agree that the Company may deduct such amounts from any monies that may the Company may owe to you.

8. **Confidential Information and Invention Assignment Agreement** . As a condition of employment and the benefits provided by this letter agreement, you are required to timely execute and return the Company's Confidential Information and Invention Assignment Agreement in the form attached hereto as Attachment D (the "Confidentiality Agreement"). You shall at all times remain subject to the terms and conditions of such Confidentiality Agreement, and nothing in this letter agreement shall supersede, modify, or affect your obligations, duties, and responsibilities thereunder.

9. **Termination of Employment** . Upon the date of your employment transfer to the United States, your employment with the Company will be on an "at-will" basis, and may be terminated by either party, with or without cause. Your termination of employment shall be in accordance with the following provisions:

(a) Upon cessation of your employment for any reason, you, or your estate if applicable, shall be paid any unpaid Base Salary earned under Paragraph 3 for services rendered through the date of such termination.

(b) You may voluntarily separate from your employment under this letter agreement at any time, but you are requested to give the Company at least 30 days prior written notice of such resignation.

(c) The Company may terminate your employment with or without Cause (as defined in the CIC Plan) under this letter agreement at any time by providing notice of such termination to you. Such termination shall be effective immediately upon your receipt of such notice, unless otherwise indicated by the notice. If the termination is for Cause, you will receive no notice, pay in lieu of notice, and/or severance whether pursuant to the CIC Plan, by statute, or at common law. If the termination is without Cause, you shall be eligible to receive only the amounts set forth in the CIC Plan. These amounts are inclusive of any statutory entitlements that may apply.

10. **No Conflicts**. You understand and agree that by accepting this offer of employment, you represent to the Company that your performance will not breach any other agreement to which you are a party and that you have not, and will not during the term of your employment with the Company, enter into any oral or written agreement in conflict with any of the provisions of this letter agreement or the Company's policies. You will not use or disclose to any person associated with the Company, any confidential or proprietary information belonging to any former employer or other third party with respect to which you owe an obligation of confidentiality under any agreement or otherwise. The Company does not need and will not use such information and we will assist you in any way possible to preserve and protect the confidentiality of proprietary information belonging to third parties. We also expect you to abide by any obligations to refrain from soliciting any person employed by or otherwise associated with any former employer and suggest that you refrain from having any contact with such persons until such time as any non-solicitation obligation expires.

11. **At-Will Employment**. Upon the date of your employment transfer to the United States, your employment with the Company will be on an "at-will" basis, meaning that, effective immediately upon your transition to employment in the U.S.: (i) either you or the Company may terminate your employment at any time, with or without cause or advance notice, without further obligation or liability other than as expressly set forth in this letter agreement, (ii) the Company reserves the right to modify or amend the terms of your employment at any time at its sole discretion with reasonable advance notice, subject to the provisions of this letter agreement, and (iii) this policy of at-will employment shall reflect the entire agreement as to your employment in the U.S. and may only be modified in an express written agreement signed by an appropriate officer of the Company. While you are employed in Canada, Canada rules regarding your employment will govern, to the extent applicable.

12. **Equal Opportunity/Affirmative Action**. As an employee, you will be expected to confront, collaborate, and communicate in accordance with the Company's principles. For compliance with United States law, the Company is an equal opportunity employer that does not permit, and will not tolerate, the unlawful discrimination or harassment of any employees, consultants, or third parties on the basis of sex, race, color, religion, age, national origin or ancestry, marital status, veteran status, mental or physical disability or medical condition, sexual orientation, gender identity, gender expression, pregnancy, childbirth or related medical condition, or any other status protected by law. Any questions regarding these policies should be directed to the Company's Talent and Culture personnel.

13. **Disability Accommodation**. The Company does not discriminate against disabled applicants who are otherwise qualified and able to perform the essential functions of a particular position. If you are an individual with a disability and require reasonable accommodation in order to perform the essential functions of your position, please contact Diane Prins Sheldahl, Senior Vice President, Talent and Culture. If the accommodation can be accomplished without creating an undue hardship, the Company will be happy to cooperate in making this accommodation.

14. **Section 409A**. This letter agreement is intended to comply with the requirements of Section 409A of the Internal Revenue Code of 1986, as amended (the "Code") and the regulations thereunder ("Section 409A"), and shall in all respects be administered in accordance with Section 409A. Notwithstanding anything in this letter agreement to the contrary, distributions may only be made under this letter agreement upon an event and in a manner permitted by Section 409A or an applicable exemption. Any payments that qualify for the "short-term deferral" exception or another exception under Section 409A shall be paid under the applicable exception. All separation payments to be made upon a termination of employment under this letter agreement may only be made upon a "separation from service" under Section 409A. For purposes of Section 409A, each payment hereunder shall be treated as a separate payment and the right to a series of payments under this letter agreement shall be treated as a right to a series of separate payments. Notwithstanding anything to the contrary in this letter agreement, if you are a "specified employee" (as that term is defined for purposes of Section 409A), any payment that is determined to constitute a payment of "nonqualified deferred compensation" (as defined for purposes of Section 409A) that is payable by reason of your separation from service and would be

payable during the first six months following your separation from service shall be deferred until the expiration of such six month period or until your death, if earlier. With respect to payments that are subject to Section 409A, in no event may you, directly or indirectly, designate the calendar year of a payment. If and to the extent that reimbursements or other in-kind benefits under this letter agreement constitute “nonqualified deferred compensation” for purposes of Section 409A, such reimbursements or other in-kind benefits shall be made or provided in accordance with the requirements of Section 409A including, where applicable, the requirement that (i) any reimbursement shall be for expenses incurred during your lifetime (or during a shorter period of time specified in this letter agreement), (ii) the amount of expenses eligible for reimbursement, or in kind benefits provided, during a calendar year may not affect the expenses eligible for reimbursement, or in kind benefits to be provided, in any other calendar year, (iii) the reimbursement of an eligible expense shall be made on or before the last day of the calendar year following the year in which the expense is incurred and (iv) the right to reimbursement or in kind benefits is not subject to liquidation or exchange for another benefit. Notwithstanding the foregoing, although the Company has made every effort to ensure that the payments and benefits provided under this letter agreement comply with Section 409A, in no event shall the Company be liable for all or any portion of any taxes, penalties, interest, or other expenses that may be incurred by you on account of non-compliance with Section 409A.

15. **Cessation of Benefits** . In the event of a breach by you of any of your obligations of this letter agreement or under the Confidentiality Agreement, you shall cease to be entitled to any further benefits under this letter agreement.

16. **Successors and Assigns** . This letter agreement and all rights hereunder are personal to you and may not be transferred or assigned by you at any time. The Company may assign its rights, together with its obligations hereunder, to any parent, subsidiary, affiliate, or successor, or in connection with any sale, transfer, or other disposition of all or substantially all of its business and assets, provided, however, that any such assignee assumes the Company’s obligations hereunder.

17. **Notices** .

(a) Any and all notices, demands, or other communications required or desired to be given hereunder by any party shall be in writing and shall be validly given or made to another party if delivered either personally or if deposited in the United States mail, certified or registered, postage prepaid, return receipt requested. If such notice, demand, or other communication shall be delivered personally, then such notice shall be conclusively deemed given at the time of such personal delivery.

(b) If such notice, demand or other communication is given by mail, such notice shall be conclusively deemed given 48 hours after deposit in the United States (or Canadian) mail addressed to the party to whom such notice, demand, or other communication is to be given as hereinafter set forth:

To the Company:

Calix, Inc.
1035 N. McDowell Blvd.
Petaluma, CA 94954
Attn: President and Chief Executive Officer

To You:

Michael Weening
[Redacted]
[Redacted]
(or such personal address as the Company may have on file for you at the time of notice.)

(c) Any party hereto may change its address for the purpose of receiving notices, demands, and other communications as herein provided by a written notice given in the manner aforesaid to the other party hereto.

18. **Governing Documents**. This letter agreement, together with (i) any equity award agreements, and (ii) all agreements attached hereto or referenced herein, shall constitute the entire agreement and understanding of the Company and you with respect to the terms and conditions of your employment with the Company and the eligibility for any potential severance payments following separation from employment with the Company, and this letter agreement shall supersede all prior and contemporaneous written or verbal agreements and understandings between you and the Company relating to such subject matter. This letter agreement may only be amended by written instrument signed by you and myself, the CEO.

19. **Governing Law**. The provisions of this letter agreement shall be construed and interpreted under the laws of the State of California applicable to agreements executed and wholly performed within the State of California. If any provision of this letter agreement as applied to any party or to any circumstance should be adjudged by an arbitrator or, if applicable, a court of competent jurisdiction to be void or unenforceable for any reason, the invalidity of that provision shall in no way affect (to the maximum extent permissible by law) the application of such provision under circumstances different from those adjudicated by the arbitrator or court, the application of any other provision of this letter agreement, or the enforceability or invalidity of this letter agreement as a whole. Should any provision of this letter agreement become or be deemed invalid, illegal, or unenforceable in any jurisdiction by reason of the scope, extent, or duration of its coverage, then such provision shall be deemed amended to the extent necessary to conform to applicable law so as to be valid and enforceable or, if such provision cannot be so amended without materially altering the intention of the parties, then such provision will be stricken, and the remainder of this letter agreement shall continue in full force and effect.

20. **Arbitration**. Upon the date of your employment transfer to the United States, you will be subject to the arbitration requirements in this Paragraph 20.

(a) Except as provided herein, each party hereto agrees that any and all disputes which arise out of or relate to your employment, the termination of your employment, or the terms of this letter agreement shall be resolved through final and binding arbitration. Such arbitration shall be in lieu of any trial before a judge and/or jury, and you and the Company expressly waive all rights to have such disputes resolved via trial before a judge and/or jury. Such disputes shall include, without limitation, claims for breach of contract or of the covenant of good faith and fair dealing, claims of discrimination, claims under any federal, state or local law or regulation now in existence or hereinafter enacted and as amended from time to time concerning in any way your employment with the Company or its termination. The only claims not covered by this letter agreement to arbitrate disputes, which shall instead be resolved pursuant to applicable law, are: (i) claims for benefits under the unemployment insurance benefits; (ii) claims for workers' compensation benefits under any of the Company's workers' compensation insurance policy or fund; (iii) claims under the National Labor Relations Act; and (iv) claims that may not be arbitrated as a matter of law.

(b) Arbitration will be conducted in San Francisco, California. Arbitration shall be conducted in accordance with the Federal Arbitration Act ("FAA") and the National Rules for the Resolution of Employment Disputes of the American Arbitration Association ("AAA Rules" available at www.adr.org), provided, however, that the arbitrator shall allow the discovery authorized by California Code of Civil Procedure section 1282, et seq., or any other discovery required by applicable law in arbitration proceedings, including, but not limited to, discovery available under the applicable state and/or federal arbitration statutes. Also, to the extent that any of the AAA Rules or anything in this arbitration section conflicts with any arbitration procedures required by applicable law, the arbitration procedures required by applicable law shall govern.

(c) During the course of arbitration, the Company will bear the cost of (i) the arbitrator's fee, and (ii) any other expense or cost you would not be required to bear if you were free to bring the dispute or claim in court. Each party shall bear their own attorneys' fees incurred in connection with the arbitration. The arbitrator will not have authority to award attorneys' fees unless a statute or contract at issue in the dispute authorizes the award of attorneys' fees to the prevailing party. In such case, the arbitrator shall have the authority to make an award of attorneys' fees as required or permitted by the applicable statute or contract.

(d) The arbitrator shall issue a written award that sets forth the essential findings of fact and conclusions of law on which the award is based. The arbitrator shall have the authority to award any relief authorized by law in connection with the asserted claims or disputes. The arbitrator's award shall be subject to correction, confirmation, or vacation, as provided by applicable law setting forth the standard of judicial review of arbitration awards. Judgment upon the arbitrator's award may be entered in any court having jurisdiction thereof.

(e) This arbitration provision does not prohibit you from pursuing an administrative claim with a local, state or federal administrative agency such as the Department of Fair Employment and Housing, the Equal Employment Opportunity Commission, or the California Workers' Compensation Board, but this provision does prohibit you from seeking or pursuing court action regarding any such claim.

21. **Counterparts**. This letter agreement may be executed in more than one counterpart, each of which shall be deemed an original, but all of which together shall constitute but one and the same instrument.

22. **Construction**. The language of this letter agreement shall be construed as to its fair meaning, and not strictly for or against either party. Any rule of construction that any ambiguities in a contract shall be construed against the drafter of a contract shall not apply.

23. **Indemnification**. You will be provided indemnification subject to the terms of any separate written Company indemnification policy.

We are all delighted to be able to extend you this offer and look forward to working with you. To indicate your acceptance of the Company's offer, please sign and date this letter agreement in the space provided below and return it to me. This letter agreement may not be modified or amended except by a written agreement, signed by the Company and by you.

Very truly yours,	ACCEPTED AND AGREED:
Calix, Inc.	
/s/ Carl Russo Carl Russo President and Chief Executive Officer	/s/ Michael Weening May 20, 2016

Attachment A

List of Board Commitments

Attachment A1

List of Private Investments

Attachment B

2016 Executive Cash Bonus Plan (see attachment)

Attachment C

Calix, Inc. Executive Change in Control and Severance Plan (see attachment)

Attachment D

Confidential Information and Invention Assignment Agreement (see attachment)

Exhibit 10.2

June 22, 2016

Andy Lockhart
[Redacted]
[Redacted]

Re: SVP, International Sales Cash Compensation and Commissions for Fiscal Year 2016

Dear Andy,

Further to our discussions and correspondence, Calix Inc. (the " **Company** ") is writing to you with regard to the proposed amendments which it would like to make to your contract of employment as at February 2, 2011 (the " **Employment Contract** ").

If you wish to accept the proposed amendments to the Employment Contract, please sign and return a copy of this letter, executed as a Deed. By agreeing to this letter, both parties restate and reaffirm the existing terms of the Employment Contract in full and on the same terms (including the restrictive covenants and the appointment of the Company to be your attorney) except where those terms are amended as set out in this letter. You and the Company agree that the amendments to your contract of employment will take effect from 1 January 2016.

The existing Clause 3.1 of the Employment Contract shall be replaced with the following new Clause 3.1:

"3.1 Your gross basic salary is £187,272.00 per annum (or such other sum as agreed between you and the Company from time to time). The salary will be paid after deduction of all taxes and national insurance contributions and is payable in equal monthly installments on or around the last day of each month in your nominated bank account".

The existing Section called "Bonus" will be renamed "Bonus and Commission" and the existing Clauses 4.1 to 4.5 shall be deleted and replaced with the following new Clause 4.1:

"4.1 During your employment you will be eligible to receive: (a) an annual performance bonus with a target of 34.7% of your base salary pursuant to the terms and conditions of the Company's 2016 Executive Cash Bonus Plan; and (b) certain sales incentive compensation (the " **Commissions** ") pursuant to the terms and conditions specified in the 2016 Calix Executive Sales Commissions and the 2016 Calix Sales Compensation Plan. For the 2016 Fiscal Year your target bonus under the Executive Cash Bonus Plan will be £65,000 (or 34.7%) and your variable compensation (bookings attainment at target and without Accelerators) will be £90,000 (or 48.0%) giving you a total target cash compensation of £342,272.00."

Clause 10 of the Employment Contract shall be deleted.

Insert the following new Clause 13.3 into the Employment Contract:

"13.3 The Company will comply with its obligations under the Pensions Act 2008 from the date when these apply to you. If these obligations apply, the Company may be required to automatically enroll you into a qualifying pension scheme and to deduct minimum pension contributions from your salary."

This document has been executed as a deed and is delivered and takes effect on the date specified below.

This Deed is dated June 22, 2016

SIGNED as a **DEED** and **)**

DELIVERED on behalf of)

Andy Lockhart

Senior Vice President, International Sales

…………………………………………………………………………...

in the presence of:

Witness signature: ……………………………………….

Witness name: ……………………………………….

Witness address: ……………………………………….

……………………………………….

……………………………………….

Witness occupation: ……………………………………….

SIGNED as a **DEED** and)

DELIVERED on behalf of)

Calix Inc , acting by, Carl Russo

President and Chief Executive Officer

SIGNED as a **DEED** and)

DELIVERED on behalf of)

Calix Inc , acting by, William Atkins

Executive Vice President and Chief Financial Officer

Exhibit 10.3

CONSULTING AGREEMENT

This **Consulting Agreement** (the " Agreement ") is made effective as of **July 29, 2016** by and between **Calix, inc.** , a Delaware corporation (" Company ") and **Kevin peters** , an individual (" Consultant "), for the purpose of setting forth the terms and conditions by which Company will engage Consultant to perform services (" Services ") on a temporary basis.

1. **Work And Payment** .

1.1. **Project Assignment** . Attached to this Agreement as Exhibit A is a project assignment describing the Services that Consultant will perform (" Project Assignment "). This Project Assignment will be subject to the terms and conditions of this Agreement.

1.2. **Services** . Subject to the terms of this Agreement, Consultant will render the Services set forth in the Project Assignment. The manner and means by which Consultant chooses to complete projects are in Consultant's sole discretion and control. In performing the Services and completing the projects, Consultant will use Consultant's own equipment, tools and other materials at Consultant's own expense.

2. **Confidential Information** .

2.1. **Definition** . During the term of this Agreement and in the course of Consultant's performance hereunder, Consultant may receive and otherwise be exposed to Confidential Information. " Confidential Information" shall include confidential and proprietary information relating to Company's business practices, customer lists, strategies, designs, products, processes, trade secrets, know-how, technologies and inventions. Any of such information, in whatever form and whether or not marked as confidential or proprietary, and all derivatives, improvements and enhancements to any of the above, whether provided to Consultant, or created or developed by Consultant under this Agreement, as well as information of third parties as to which Company has an obligation of confidentiality, shall all be treated as the confidential and proprietary information of Company.

2.2. **Restrictions on Use and Disclosure** . Consultant acknowledges the confidential and secret character of the Confidential Information, and agrees that the Confidential Information is the sole, exclusive and extremely valuable property of Company. Accordingly, Consultant agrees not to use or reproduce the Confidential Information except as necessary in the performance of this Agreement, and not to disclose all or any part of the Confidential Information in any form to any third party, either during or after the term of this Agreement, without the prior written consent of Company. In addition, Consultant represents that during Consultant's provision of Services, even if before the execution of this Agreement, Consultant has not used the Confidential Information except in the performance of this Agreement without the prior written consent of Company, and has not disclosed all or any part of the Confidential Information in any form to any third party.

2.3. **Exceptions** . The obligations of confidentiality set forth in Section 2.2 will not apply to the extent that such Confidential Information: (a) was generally available to the public or otherwise part of the public domain at the time of disclosure; (b) became generally available to the public or otherwise part of the public domain after its disclosure and other than through any act or omission of Consultant; (c) was already known to Consultant, without confidentiality restrictions, at the time of disclosure; (d) was disclosed to Consultant, without confidentiality restrictions, by a third party who had no obligation not to disclose such information to others; or (e) was developed independently by Consultant without any use of or reference to the Confidential Information, as shown by Consultant's contemporaneous written records.

2.4. **Third Party Information** . Consultant shall not disclose or otherwise make available to Company in any manner any confidential information received by Consultant under obligations of confidentiality from a third party.

3. **Ownership; Licenses** .

3.1. **Work Product; Assignment** . Consultant agrees that Company shall be the sole and exclusive owner of all right, title and interest in and to all ideas, inventions, works of authorship, work product, materials, and other deliverables (i) conceived, made, developed, reduced to practice, or worked on by Consultant in the course of providing services for Company prior to the date of this Agreement, (ii) that Consultant conceives, makes, develops or works on in the course of providing the Services for Company following execution of this Agreement, and (iii) all patent, copyright, trademark, trade secret and other intellectual property rights in any of the foregoing, whether now known or hereafter recognized in any jurisdiction (collectively, " Work Product "). Consultant hereby assigns to Company all of Consultant's right, title and interest in and to any and all Work Product. Consultant hereby waives any applicable moral rights in the Work Product.

3.2. **Assistance** . Consultant agrees to execute all papers, including patent applications, invention assignments and copyright assignments, and otherwise agrees to assist Company as reasonably required at

Company's reasonable expense to perfect in Company the right, title and other interest in Work Product expressly granted to Company under this Agreement.

3.3. **License to Perform Services.** Company hereby grants to Consultant a non-exclusive, limited license during the term of this Agreement, under all intellectual property rights owned or controlled by Company, solely to the extent required for Consultant to perform Services in accordance with the terms of this Agreement. With the exception of the foregoing limited license, no right, title or interest in or to any intellectual property rights of the Company are granted to Consultant under this Agreement.

4. **Term and Termination** . The initial term of this Agreement shall be August 1, 2016 through September 2, 2016 (five weeks). This Agreement shall expire at the end of the initial term; provided, however, that at the end of the initial term, the Agreement may be extended for an additional period or periods upon mutual agreement by the Company and Consultant in writing. Sections 2 through 6 shall survive expiration or any termination of this Agreement.

5. **Independent Contractor** . Consultant's relationship with Company will be that of an independent contractor and nothing in this Agreement should be construed to create a partnership, joint venture, or employer-employee relationship. Consultant is not the agent of Company in performing its duties under this Agreement, and is not authorized to make any representation, warranty, contract, or commitment on behalf of Company in its capacity as a Consultant hereunder. Consultant will be solely responsible for all tax returns and payments required to be filed with or made to any federal, state or local tax authority with respect to Consultant's performance of services and receipt of fees under this Agreement. Because Consultant is an independent contractor, Company will not withhold or make payments for social security, make unemployment insurance or disability insurance contributions, or obtain worker's compensation insurance on Consultant's behalf. Consultant agrees to accept exclusive liability for complying with all applicable state and federal laws governing self-employed individuals, including obligations such as payment of taxes, social security, disability and other contributions based on fees paid to Consultant under this Agreement.

6. **General** .

6.1. **Assignment** . The parties' rights and obligations under this Agreement will bind and inure to the benefit of their respective successors, heirs, executors, administrators and permitted assigns. Company may freely assign this Agreement, and Consultant expressly agrees that any intellectual property rights licensed to Company are transferable to Company's assignee without Consultant's consent. Consultant shall not assign this Agreement or Consultant's rights or obligations hereunder without the prior written consent of Company. Any such purported assignment not in accordance with this Section 6.2 shall be null and void.

6.2. **Governing Law; Jurisdiction** . The rights and obligations of the parties under this Agreement shall be governed in all respects by the laws of the State of California without regard to conflict of law principles. Consultant agrees that, upon Company's request, all disputes arising hereunder shall be adjudicated in the state and federal courts having jurisdiction over disputes arising in San Francisco, California, and Consultant hereby agrees to consent to the personal jurisdiction of such courts.

6.3. **Notices** . All notices or reports permitted or required under this Agreement shall be in writing and shall be delivered by personal delivery, electronic mail, facsimile transmission or by certified or registered mail, return receipt requested, and shall be deemed given upon personal delivery, five days after deposit in the mail, or upon acknowledgment of receipt of electronic transmission. Notices shall be sent to such address as either party may specify in writing.

6.4. **Entire Agreement; Waiver and Modification; Severability; Construction** . This Agreement may not be waived, modified or amended unless mutually agreed upon in writing by both parties. As used in this Agreement, the words "include" and "including," and variations thereof, will be deemed to be followed by the words "without limitation." In the event any provision of this Agreement is found to be legally unenforceable, such unenforceability shall not prevent enforcement of any other provision of this Agreement. The parties hereto agree that any rule of construction to the effect that ambiguities are to be resolved against the drafting party will not be applied in the construction or interpretation of this Agreement. This agreement may be executed in two or more counterparts, each of which will be considered an original, but all of which together will constitute one and the same instrument. This Agreement and any Project Assignments agreed upon by the parties constitute the parties' final, exclusive and complete understanding and agreement with respect to the subject matter hereof, and supersede all prior and contemporaneous understandings and agreements relating to its subject matter. In the event of any conflict between this Agreement and any Project Assignment, this Agreement shall govern.

(*Signature Page Follows*)

IN WITNESS WHEREOF, the parties hereto have executed this Agreement as of the date first set forth above.

CALIX, INC.	**KEVIN PETERS**
By: /s/ William J. Atkins	By: /s/ Kevin Peters
Name: William J. Atkins	
Title: EVP & Chief Financial Officer	
Date: July 29, 2016	Date: July 29, 2016

Exhibit A

Project Assignment

Initial term:	August 1, 2016 - September 2, 2016 (five weeks)
Work to be performed:	Consulting and advisory services with respect to Company customer projects and opportunities and such other matters based on Consultant’s experience and expertise as may be agreed between Company and Consultant from time to time.
Payment:	$10,000 per week
Expenses to be reimbursed:	Reasonable and necessary expenses related to travel and other direct expenses incurred in connection with rendering the Work to be Performed, not to exceed $15,000 for the initial term unless approved in advance by the Company in writing.
Maximum amount Company is required to pay (if applicable):	Not in any event to exceed $100,000

Approved by:

CALIX, INC.	**KEVIN PETERS**
By: /s/ William J. Atkins	By: /s/ Kevin Peters
Name: William J. Atkins	
Title: EVP & Chief Financial Officer	
Date: July 29, 2016	Date: July 29, 2016

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 June 25, 2016 ;

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: August 3, 2016

/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 June 25, 2016 ;

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: August 3, 2016

/s/ William J. Atkins

William J. Atkins
EVP & 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 June 25, 2016 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: August 3, 2016	/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 June 25, 2016 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: August 3, 2016	/s/ William J. Atkins
	William J. Atkins
	EVP & 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.