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Confidentially submitted to the Securities and Exchange Commission on February 13, 2017
as Amendment No. 2 to the Confidential Submission, File No. 377-01443
This draft registration statement has not been filed publicly with the Securities and Exchange Commission and all information herein remains strictly confidential.
Registration No. 333-

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

FORM S-1
REGISTRATION STATEMENT
UNDER
THE SECURITIES ACT OF 1933

Casa Systems, Inc.

(Exact name of registrant as specified in its charter)

Delaware	**3663**	**75-3108867**
(State or other jurisdiction of incorporation or organization)	(Primary Standard Industrial Classification Code Number)	(I.R.S. Employer Identification No.)

100 Old River Road
Andover, Massachusetts 01810
(978) 688-6706
(Address, including zip code, and telephone number, including area code, of registrant's principal executive offices)

Jerry Guo
President, Chief Executive Officer and Chairman
Casa Systems, Inc.
100 Old River Road
Andover, Massachusetts 01810
(978) 688-6706
(Name, address, including zip code, and telephone number, including area code, of agent for service)

Copies to:

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Approximate date of commencement of proposed sale to the public: As soon as practicable after this Registration Statement is declared effective.

If any of the securities being registered on this form are to be offered on a delayed or continuous basis pursuant to Rule 415 under the Securities Act of 1933, check the following box. ☐

If this form is filed to register additional securities for an offering pursuant to Rule 462(b) under the Securities Act, check the following box and list the Securities Act registration statement number of the earlier effective registration statement for the same offering. ☐

If this form is a post-effective amendment filed pursuant to Rule 462(c) under the Securities Act, check the following box and list the Securities Act registration statement number of the earlier effective registration statement for the same offering. ☐

If this form is a post-effective amendment filed pursuant to Rule 462(d) under the Securities Act, check the following box and list the Securities Act registration statement number of the earlier effective registration statement for the same offering. ☐

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 the definitions 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	☐

CALCULATION OF REGISTRATION FEE

Title of Each Class of Securities To Be Registered	**Proposed Maximum Aggregate Offering Price(1)**	**Amount of Registration Fee(2)**
Common Stock, $0.001 par value per share	$	$

(1) Estimated solely for the purpose of calculating the registration fee pursuant to Rule 457(o) under the Securities Act of 1933, as amended.
(2) Calculated pursuant to Rule 457(o) based on an estimate of the proposed maximum aggregate offering price.

The Registrant hereby amends this Registration Statement on such date or dates as may be necessary to delay its effective date until the Registrant shall file a further amendment which specifically states that this Registration Statement shall thereafter become effective in accordance with Section 8(a) of the Securities Act of 1933 or until the Registration Statement shall become effective on such date as the Commission, acting pursuant to said Section 8(a), may determine.

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The information in this preliminary prospectus is not complete and may be changed. These securities may not be sold until the registration statement filed with the Securities and Exchange Commission is effective. This preliminary prospectus is not an offer to sell nor does it seek an offer to buy these securities in any jurisdiction where the offer or sale is not permitted.

PROSPECTUS (Subject to Completion)
Issued , 2017

Shares

casa systems

Common Stock

Casa Systems, Inc. is offering shares of our common stock. This is our initial public offering, and no public market currently exists for our shares of common stock. We anticipate that the initial public offering price of our common stock will be between $ and $ per share.

We have applied to list our common stock on the Nasdaq Global Market under the symbol "CASA."

We are an "emerging growth company" under applicable federal securities laws and will be subject to reduced public company reporting requirements. Investing in our common stock involves risks. See "Risk Factors" beginning on page 12.

PRICE $ A SHARE

	Price to Public	Underwriting Discounts and Commissions(1)	Proceeds to Casa Systems
Per Share	$	$	$
Total	$	$	$

(1) See "Underwriters (Conflict of Interest)" beginning on page 130 for additional information regarding underwriting compensation.

We have granted the underwriters the right to purchase up to an additional shares of common stock.

The Securities and Exchange Commission and state securities regulators have not approved or disapproved of these securities or determined if this prospectus is truthful or complete. Any representation to the contrary is a criminal offense.

The underwriters expect to deliver the shares on , 2017.

MORGAN STANLEY *J.P. MORGAN* *BARCLAYS*

RAYMOND JAMES *STIFEL*

, 2017

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You should rely only on the information contained in this prospectus or in any free writing prospectus we file with the Securities and Exchange Commission, or SEC. We and the underwriters have not authorized anyone to provide you with additional information or information different from that contained in this prospectus or any free writing prospectus. We and the underwriters are offering to sell, and seeking offers to buy, shares of our common stock only in jurisdictions where offers and sales are permitted. The information contained in this prospectus is accurate only as of the date on the front cover of this prospectus, or other earlier date stated in this prospectus, regardless of the time of delivery of this prospectus or of any sale of our common stock.

Through and including , 2017 (the 25th day after the date of this prospectus), all dealers effecting transactions in these securities, whether or not participating in this offering, may be required to deliver a prospectus. This delivery requirement is in addition to a dealer's obligation to deliver a prospectus when acting as an underwriter and with respect to an unsold allotment or subscription.

For investors outside the United States: Neither we nor the underwriters have done anything that would permit our initial public offering or possession or distribution of this prospectus in any jurisdiction where action for that purpose is required, other than in the United States. Persons outside the United States who come into possession of this prospectus must inform themselves about, and observe any restrictions relating to, the offering of the shares of our common stock and the distribution of this prospectus outside of the United States.

Terms Used in this Prospectus

Concept	Abbreviation	Definition
Cable Modem Termination System	CMTS	A CMTS is a critical element of a cable service provider's network. A CMTS is typically located either on the cable service provider's premises or at a remote hub in the field and is used to provide high-speed data services such as Internet Protocol, or IP, or Voice over Internet Protocol, or VoIP, to cable subscribers. A CMTS enables IP data and IP voice communication between a cable service provider's networks and subscribers' modems through coaxial cable. A CMTS performs several network services, including subscriber and access management, data security and service provisioning for cable subscribers. A CMTS communicates with subscribers' cable modems using DOCSIS protocol. DOCSIS is a cable industry standard defined by CableLabs, a consortium of cable service providers.
Converged Cable Access Platform	CCAP	A CCAP is a part of a cable service provider's network that enables the delivery of IP voice, digital video and data over a single port. A CCAP combines CMTS functions that enable data and IP voice communication with edge-quadrature amplitude modulation, or Edge-QAM, functionality to enable video delivery over cable networks in one integrated chassis.
Field Programmable Gate Array	FPGA	An FPGA is an integrated circuit designed to be configured by a customer after manufacturing. FPGAs can be reprogrammed in the field to desired application or functionality requirements through the use of custom software. This feature distinguishes FPGAs from Application Specific Integrated Circuits (ASICs), which are custom manufactured for specific tasks and are not able to be modified after manufacturing.
Remote-PHY	R-PHY	R-PHY refers to remotely deployable hardware that is typically located at the edge of a cable service provider's network, near where the customers are located. R-PHY is capable of radio frequency signal generation that provides connectivity from where the customers are located to the data center via an optical network. R-PHY is typically connected to a CMTS or a CCAP system at a data center. By placing R-PHY equipment closer to subscribers, cable service providers are able to move fiber closer to the network edge. This allows for cable service providers to serve more subscribers at higher speed, resulting in overall increased network throughput.

PROSPECTUS SUMMARY

This summary highlights information contained elsewhere in this prospectus. You should read the following summary together with the more detailed information appearing in this prospectus, including our consolidated financial statements and related notes, and the risk factors beginning on page 12, before deciding whether to purchase shares of our common stock. Unless the context otherwise requires, we use the terms "Casa Systems," "Casa," "our company," "we," "us" and "our" in this prospectus to refer to Casa Systems, Inc. and its subsidiaries.

CASA SYSTEMS, INC.

Our Vision

Our products help our customers provide and manage broadband connectivity. We believe consumers and enterprises should be able to enjoy ultra-fast speeds and enhanced digital content experiences through their phones, tablets, computers, TVs and other connected devices at home or on the go. We believe that connectivity should be ubiquitous and seamless; it should not matter whether the user is accessing the Internet through wireless or fixed connections, and it should not matter whether that service is being provided by a cable operator, fixed telecom carrier or wireless services provider. Our innovative, software-centric products are designed to help achieve this vision.

Overview

We provide a suite of software-centric infrastructure solutions that allow cable service providers to deliver voice, video and data services over a single platform at multi-gigabit speeds. In addition, we offer solutions for next-generation distributed and virtualized architectures in cable operator, fixed telecom and wireless networks. Our innovative solutions enable customers to cost-effectively and dynamically increase network speed, add bandwidth capacity and new services for consumers and enterprises, reduce network complexity and reduce operating and capital expenditures.

We focus our development efforts on innovation and being the first to market with new products at each generational shift in cable network technology. We pioneered the use of a software-centric approach to leverage the programmability of FPGAs and general purpose processors for use in the cable industry. In addition, we believe we were the first to provide each of the following to our customers: a solution enabling cable service providers to deliver IP voice, digital video and data over a single port; a solution enabling cable service providers to deliver multi-gigabit speeds to their subscribers; and a remote node solution to enable distributed broadband cable access at gigabit speeds.

We have created a software-centric, multi-service portfolio that enables a broad range of core and access network functions for fixed and wireless networks. These networks share a common set of core and access network functions that enable network services, such as subscriber management, session management, transport security and radio frequency, or RF, management. Our Axyom software architecture allows each of these network functions to be provided and controlled by a distinct segment of software, which can be integrated or combined together in a building block-style fashion with the segments of software responsible for each other network function. This allows us to offer network architectures that can be efficiently tailored to meet each customer's specific requirements, both as they exist at the time of initial implementation and as they evolve over time. While we initially focused on providing solutions for cable service providers due to our founders' experience in the cable industry, the commonalities between fixed and wireless network architectures have allowed us to expand our solutions into the wireless market as cable service providers have increasingly sought to add wireless capabilities to their service offerings.

We offer a scalable solution that can meet the evolving bandwidth needs of our customers and their subscribers. Our first installation in a cable service provider's network frequently involves deploying our broadband products in only a portion of the provider's network and with only a fraction of the capacity of our products enabled at the time of initial installation. Over time, our customers have generally expanded the use of our solutions to other areas of their networks to increase network capacity. Capacity expansions are accomplished either by deploying additional systems or line cards, or by our remote enablement of additional channels through the use of software. Sales of additional line cards and software-based capacity expansions generate higher gross margins than our initial hardware-based deployments.

Our solutions are commercially deployed in over 60 countries by more than 350 customers, including regional service providers as well as some of the largest Tier 1 broadband service providers, serving millions of subscribers. Our principal customers include Charter/Time Warner Cable, Rogers and Mediacom in North America; Liberty Global, Vodafone and DNA Oyj in Europe; and Jupiter Communications and Beijing Gehua CATV Networks in Asia-Pacific.

One of our largest customers, Time Warner Cable, launched its flagship "TWC Maxx" initiative in the New York City metropolitan area in 2014 using our solution. By deploying our C100G CCAP solution, Time Warner Cable was able to triple the maximum speed offered to its customers and reduce power consumption by nearly 30%, or approximately 11GWh per year, which we estimate is enough power for over 1,800 residential homes. Our solution also enabled Time Warner Cable to reduce facility space and remove over 140 miles of coaxial copper cable.

We have achieved significant growth and profitability. For the year ended December 31, 2015, we generated revenue of $272.5 million, net income of $67.9 million and adjusted EBITDA[1] of $115.5 million, representing increases of 29.0%, 13.8% and 22.1%, respectively, from the amounts for the year ended December 31, 2014. For the nine months ended September 30, 2016, we generated revenue of $216.9 million, net income of $48.8 million and adjusted EBITDA of $74.5 million, representing increases of 18.8% and 17.4% and a decrease of 1.5%, respectively, from the amounts for the nine months ended September 30, 2015.

Industry Background

We believe broadband service providers are facing several key challenges, including:

- ***Rapidly increasing bandwidth demand.*** Bandwidth demand has grown substantially and is expected to continue to increase, caused by more users with more connected devices and applications, increased use of bandwidth-intensive streaming media services, and the increasing prevalence of Internet of Things, or IoT, solutions, among other factors.
- ***Competition fueled by increasing breadth of service offerings.*** With increased consumer and enterprise choice for access to broadband, broadband service providers are increasingly coming into competition with each other, and must develop differentiated service offerings with higher levels of performance at lower cost.
- ***Increasing network complexity.*** As the diversity of service offerings has grown, network complexity has increased.
- ***Need to control operating and capital expenditures.*** The operation of network infrastructure is space, power and personnel intensive. In addition, broadband service providers are frequently required to incur significant capital expenditures to upgrade existing equipment.

[1] Adjusted EBITDA is a non-GAAP financial measure. Please see "Selected Consolidated Financial Data—Non-GAAP Financial Measures" for information regarding the limitations of using adjusted EBITDA and for a reconciliation of adjusted EBITDA to net income, the most directly comparable financial measure calculated and presented in accordance with GAAP.

Opportunity to Transform Broadband Networks

Given the challenges they face, broadband service providers are undertaking three key technology initiatives to help build next-generation networks:

- ***Densification.*** Broadband service providers are shifting from centralized to more distributed architectures, a process referred to as densification. Densification requires extending network connectivity and distributing access aggregation solutions closer to end users.
- ***Network convergence.*** As fixed and wireless providers continue to consolidate and integrate their service offerings, which is referred to as convergence, these service providers are seeking to integrate their separate delivery modes with all-IP architectures, shared transport and a common suite of software-centric core and access network functions.
- ***Virtualization.*** Software-enabled architectures that are decoupled from underlying hardware allow for increased efficiencies, upgradability, configuration flexibility, service agility and scalability not feasible with hardware-centric approaches.

Our Solutions

We offer solutions for fixed and wireless networks. Our software-centric, multi-service broadband platform, Axyom, enables ultra-broadband delivery and convergence. We engineered our platform from the ground-up to be high performance, flexible and adaptable, and to allow our customers to seamlessly address the growing demand for bandwidth and connectivity and competitive need for service agility.

Our platform provides the following key benefits to broadband service providers:

- ***Addition of critical bandwidth capacity.*** Our solutions enable broadband service providers to offer multi-gigabit speeds and to expand capacity seamlessly to meet the growing demand for bandwidth.
- ***Flexibility to add new and expand existing services.*** Our platform provides us with the flexibility to adapt to changing industry standards and customer needs.
- ***Ability to upgrade networks remotely.*** Our programmable architecture allows us to deploy technology updates to our customers remotely without the expense, disruption or network downtime caused by hardware replacements or field visits by personnel.
- ***Reduced network complexity, operating costs and capital expenditures.*** Our converged software platform allows broadband service providers to significantly reduce the complexity and costs of their networks by reducing parallel and otherwise redundant network architectures.
- ***Ability to densify networks.*** Our products help broadband service providers deploy more capacity at the network edge, closer to where end users and devices are accessing the network, increasing available bandwidth and reducing latency to improve quality of service.
- ***Common platform capabilities to address the needs of both fixed and wireless networks***. Our software-centric, multi-service platform enables a broad range of network services for fixed and wireless networks allowing for the delivery of diverse consumer and enterprise applications.

Our primary product line is our portfolio of converged cable access platform, or CCAP, solutions, which enable the provision of voice, video and data over a single port.

Our Competitive Strengths

The following competitive strengths have helped us become a market leader:

- ***Highly flexible, software-centric architecture.*** We have designed our product portfolio from the ground up to be software-centric and modular in nature. Our proprietary software is at the heart of our

products. Our software allows us to leverage the programmability of FPGAs and general purpose processors in our solutions. Our software-centric architecture enables us to virtualize core network and access functions allowing these functions to be decoupled from underlying hardware, which is not feasible with hardware-centric approaches and allows for increased efficiencies, upgradability, configuration flexibility, service agility and scalability.

- ***Proven engineering and product development track record***. We have a proven history of anticipating network evolutions and developing solutions that enable next-generation networks. Our forward-looking design and investment approach, coupled with our proven product development track record, has enabled us to deliver fully featured next-generation solutions in advance of competitors. For example, we believe we were first to market with (1) a software-centric cable solution leveraging the programmability of FPGAs and general purpose processors, (2) a commercially deployed, fully qualified DOCSIS 3.0 CMTS, (3) a commercially deployed CCAP delivering IP voice, digital video and data over a single port, (4) commercially deployed DOCSIS 3.1-compliant solutions supporting speeds of up to 10 gigabits per second and (5) a commercially deployable remote-PHY solution.
- ***Strong management and engineering team with a culture of innovation***. We pride ourselves on our culture of innovation, which is driven by our management team of experienced executives and engineers with deep industry expertise. As of September 30, 2016, approximately 85% of our employees were engineers or had other technical backgrounds.
- ***Customer focus***. We have a passion to serve our customers and the agility and flexibility to offer solutions to meet their evolving requirements.
- ***Diversified and established customer base***. Our solutions are commercially deployed in over 60 countries by more than 350 customers, including some of the world's largest Tier 1 broadband service providers.

Market Opportunity

We believe that the shift to software-centric ultra-broadband networks and fixed and wireless network convergence presents us with a compelling market opportunity. We believe the global CCAP market, which currently accounts for all of our revenue, was $1.9 billion in 2016. In addition, we believe the global CCAP market, together with new wireless communications segments that we intend to enter more substantially in coming periods, will grow from $10.6 billion in 2016 to $18.4 billion in 2020.

Our Growth Strategy

The key elements of our growth strategy are:

- Continue to innovate and extend technology leadership through R&D investment.
- Further penetrate existing customers.
- Expand our customer base.
- Expand the breadth of solutions sold to customers, with particular focus on the development of new software-based and virtualized products.
- Leverage our core technology for the cable industry into adjacent wireless markets.
- Invest in our platform through selective acquisitions.

Risks Associated with Our Business

You should consider carefully the risks described under the “Risk Factors” section beginning on page 12 and elsewhere in this prospectus. These risks, which include the following, could materially and adversely affect our business, financial condition, operating results, cash flow and prospects, which could cause the trading price of our common stock to decline and could result in a partial or total loss of your investment:

- If we do not successfully anticipate technological shifts, market needs and opportunities, and develop new products and product enhancements that meet those technological shifts, needs and opportunities, we may not be able to compete effectively.
- Our success depends in large part on broadband service providers’ continued deployment of, and investment in, ultra-broadband network capabilities that make use of our solutions.
- We expect certain of our customers will continue to account for a substantial portion of our revenue.
- Timing of large orders and seasonality in our revenue may cause our quarterly revenue and results of operations to fluctuate and possibly decline materially from quarter to quarter.
- Our sales to the broadband service provider market are volatile and our sales cycles can be long and unpredictable. As a result, our sales and revenue are difficult to predict and may vary substantially from period to period, which may cause our revenue and results of operations to fluctuate and possibly decline significantly.
- We may not generate positive returns on our research and development investments.
- Our CCAP solutions currently represent all of our sales; this concentration may limit our ability to increase our revenue.
- We have invested heavily in developing wireless solutions, and we face risks in seeking to expand our platform into the wireless market.
- We believe the broadband service provider industry is in the early stages of a major architectural shift toward the virtualization of networks and the use of networks with distributed architectures. If the architectural shift does not occur, if it does not occur at the pace we predict, or if the products and services we have developed are not attractive to our customers after such shift takes place, our revenues could decline.
- We face intense competition, including from larger, well-established companies, and we may lack sufficient financial or other resources to maintain or improve our competitive position.
- If we are unable to sell additional products to our existing customers, our revenue growth will be adversely affected and our revenue could decline.
- We may have difficulty attracting new large customers or acquiring new customers due to the high costs of switching broadband equipment.
- Our results of operations are likely to vary significantly from period to period and be unpredictable. If we fail to meet the expectations of analysts or investors, the market price of our common stock could decline substantially.

Our Corporate Information

We were incorporated in the State of Delaware on February 28, 2003. Our principal executive offices are located at 100 Old River Road, Andover, Massachusetts 01810, and our telephone number at that address is (978) 688-6706. Our website address is www.casa-systems.com. Information contained on our website is not incorporated by reference into this prospectus, and you should not consider information contained on our website to be part of this prospectus or in deciding whether to purchase shares of our common stock.

"Casa Systems," "Casa," our logo and other trademarks or tradenames of Casa Systems, Inc. appearing in this prospectus are our property. This prospectus also contains trademarks and trade names of other companies, which are the property of their respective owners. Solely for convenience, trademarks and trade names referred to in this prospectus may appear without the ® or ™ symbols, but such references are not intended to indicate, in any way, that we will not assert, to the fullest extent under applicable law, our rights or the right of the applicable licensor to these trademarks and trade names.

Conflict of Interest

We intend to use a portion of the net proceeds of this offering to repay $ million of indebtedness outstanding under our term loan facility. Each of J.P. Morgan Securities LLC and Barclays Capital Inc., two of the lead underwriters in this offering, is affiliated with a lender under our term loan facility and is therefore deemed to have a "conflict of interest" within the meaning of FINRA Rule 5121. As a result, this offering will be made in compliance with the applicable provisions of Rule 5121. Rule 5121 requires that no sale be made to discretionary accounts by underwriters having a conflict of interest without the prior written approval of the account holder and that a "qualified independent underwriter," as defined in the rule, has participated in the preparation of the registration statement and prospectus and exercised the usual standards of due diligence with respect thereto. Morgan Stanley & Co. LLC, or Morgan Stanley, is assuming the responsibilities of acting as the "qualified independent underwriter" in this offering. Morgan Stanley will not receive any additional compensation for acting as a qualified independent underwriter. We have agreed to indemnify Morgan Stanley against liabilities incurred in connection with acting as a "qualified independent underwriter," including liabilities under the Securities Act, or contribute to payments that the underwriters may be required to make in that respect. See "Underwriters (Conflict of Interest)."

THE OFFERING

Common stock offered	shares
Common stock to be outstanding after this offering	shares
Option to purchase additional shares	We have granted the underwriters an option, exercisable for 30 days after the date of this prospectus, to purchase up to an additional shares from us.
Use of proceeds	The principal purposes of this offering are to create a public market for our common stock, facilitate access to the public equity markets, increase our visibility in the marketplace and obtain additional capital. We estimate that we will receive net proceeds from this offering of $ million, based upon an assumed initial public offering price of $ per share, which is the midpoint of the price range set forth on the cover page of this prospectus, after deducting estimated underwriting discounts and commissions and offering expenses payable by us. We intend to use the net proceeds from this offering for the repayment of indebtedness of $ million and for working capital and general corporate purposes. In addition, we believe that opportunities may exist from time to time to expand our current business through acquisitions of or investments in complementary products, technologies or businesses. While we have no current agreements, commitments or understandings for any specific acquisitions at this time, we may use a portion of our net proceeds for these purposes. See “Use of Proceeds” for more information. Each of J.P. Morgan Securities LLC and Barclays Capital Inc., two of the lead underwriters in this offering, is affiliated with a lender under our term loan facility and is therefore deemed to have a “conflict of interest” within the meaning of FINRA Rule 5121. As a result, this offering will be made in compliance with the applicable provisions of Rule 5121. Rule 5121 requires that no sale be made to discretionary accounts by underwriters having a conflict of interest without the prior written approval of the account holder and that a “qualified independent underwriter,” as defined in the rule, has participated in the preparation of the registration statement and prospectus and exercised the usual standards of due diligence with respect thereto. Morgan Stanley & Co. LLC, or Morgan Stanley, is assuming the responsibilities of acting as the “qualified independent underwriter” in this offering.

	Morgan Stanley will not receive any additional compensation for acting as a qualified independent underwriter. We have agreed to indemnify Morgan Stanley against liabilities incurred in connection with acting as a "qualified independent underwriter," including liabilities under the Securities Act, or contribute to payments that the underwriters may be required to make in that respect. See "Underwriters (Conflict of Interest)."
Dividend policy	Although we have declared a special dividend on three separate occasions since our inception and may declare an additional special dividend of $ million prior to the closing of this offering, we do not anticipate declaring cash dividends following this offering. See "Dividend Policy" for more information.
Risk factors	See "Risk Factors" for a discussion of factors you should carefully consider before deciding to invest in our common stock.
Proposed Nasdaq Global Market symbol	"CASA"

The number of shares of our common stock to be outstanding after this offering is based on 6,590,326 shares of common stock outstanding as of December 1, 2016 and 8,076,394 additional shares of our common stock issuable upon the automatic conversion of all outstanding shares of our convertible preferred stock upon the closing of this offering and excludes:

- 40,000 shares of common stock issuable upon the exercise of stock options outstanding under our 2003 Stock Incentive Plan as of December 1, 2016, with a weighted-average exercise price of $1.05 per share;
- 2,918,113 shares of common stock issuable upon the exercise of stock options outstanding under our 2011 Stock Incentive Plan as of December 1, 2016, with a weighted-average exercise price of $18.37 per share;
- 279,740 shares of common stock issuable upon the vesting of restricted stock units outstanding under our 2011 Stock Incentive Plan as of December 1, 2016;
- 664,131 shares of common stock reserved for future issuance under our 2011 Stock Incentive Plan as of December 1, 2016, which plan will terminate as to new awards upon the closing of this offering; and
- additional shares of common stock that will become available for issuance in connection with this offering under our 2017 Stock Incentive Plan.

Except as otherwise noted, all information in this prospectus assumes:

- the automatic conversion of all outstanding shares of our convertible preferred stock into an aggregate of 8,076,394 shares of our common stock upon the closing of this offering; and
- no exercise by the underwriters of their option to purchase up to an additional shares.

SUMMARY CONSOLIDATED FINANCIAL DATA

The following tables present summary consolidated financial and other financial data for our business. The summary consolidated statement of operations data presented below for the years ended December 31, 2014 and 2015 have been derived from our audited consolidated financial statements included elsewhere in this prospectus. The summary consolidated statement of operations data for the nine months ended September 30, 2015 and 2016 and the summary consolidated balance sheet data as of September 30, 2016 have been derived from our unaudited condensed consolidated financial statements included elsewhere in this prospectus and have been prepared on a basis consistent with our audited consolidated financial statements. In the opinion of management, the unaudited data reflects all adjustments, consisting only of normal recurring adjustments, necessary for a fair presentation of the financial information in those statements. Our historical results are not necessarily indicative of the results to be expected in the future, and the results for any interim period are not necessarily indicative of the results to be expected for the full year. You should read this summary consolidated financial data in conjunction with the section of this prospectus titled "Management's Discussion and Analysis of Financial Condition and Results of Operations" and our consolidated financial statements and related notes included elsewhere in this prospectus.

	Year Ended December 31,		Nine Months Ended September 30,	
	2014	2015	2015	2016
	(in thousands, except per share amounts)			
Consolidated Statement of Operations Data:				
Revenue:				
Product	$194,358	$247,588	$166,167	$191,763
Service	16,920	24,862	16,376	25,139
Total revenue	211,278	272,450	182,543	216,902
Cost of revenue(1):				
Product	59,088	74,349	48,484	68,793
Service	5,917	5,265	3,652	5,983
Total cost of revenue	65,005	79,614	52,136	74,776
Gross profit	146,273	192,836	130,407	142,126
Operating expenses:				
Research and development(1)	25,481	37,155	27,408	37,213
Sales and marketing(1)	21,409	36,157	23,876	27,289
General and administrative(1)	10,346	16,453	12,558	13,532
Total operating expenses	57,236	89,765	63,842	78,034
Income from operations	89,037	103,071	66,565	64,092
Other income (expense), net	(2,942)	(1,408)	(1,561)	953
Income before provision for income taxes	86,095	101,663	65,004	65,045
Provision for income taxes	26,387	33,742	23,405	16,228
Net income	$ 59,708	$ 67,921	$ 41,599	$ 48,817
Cash dividends declared per common share or common share equivalent	$ 1.9173	$ —	$ —	$ 2.9455
Net income attributable to common stockholders(2):				
Basic	$ 23,287	$ 27,302	$ 16,365	$ 19,928
Diluted	$ 23,843	$ 30,402	$ 18,144	$ 20,006

	Year Ended December 31,		Nine Months Ended September 30,	
	2014	2015	2015	2016
	(in thousands, except per share amounts)			
Net income per share attributable to common stockholders(2):				
Basic	$ 3.88	$ 4.30	$ 2.58	$ 3.04
Diluted	$ 3.65	$ 3.92	$ 2.36	$ 2.37
Weighted-average shares used to compute net income per share attributable to common stockholders(2):				
Basic	5,997	6,348	6,344	6,564
Diluted	6,537	7,761	7,690	8,427
Pro forma net income per share attributable to common stockholders (unaudited)(2):				
Basic		$		$
Diluted		$		$
Weighted-average shares used to compute pro forma net income per share attributable to common stockholders (unaudited)(2):				
Basic				
Diluted				
Other Financial Data:				
Non-GAAP net income(3)	$62,145	$ 72,812	$45,059	$53,301
Adjusted EBITDA(3)	$94,632	$115,541	$75,685	$74,517

(1) Includes stock-based compensation expense related to stock options, stock appreciation rights and restricted stock units granted to employees and non-employee consultants as follows:

	Year Ended December 31,		Nine Months Ended September 30,	
	2014	2015	2015	2016
	(in thousands)			
Cost of revenue	$ 161	$ 143	$ 103	$ 178
Research and development expense	852	1,843	1,422	1,637
Sales and marketing expense	598	775	542	846
General and administrative expense	380	4,560	3,340	3,313
Total stock-based compensation expense	$1,991	$7,321	$ 5,407	$ 5,974

(2) See Note 13 to our consolidated financial statements and Note 12 to our unaudited condensed consolidated financial statements, both included elsewhere in this prospectus, for an explanation of the calculations of basic and diluted net income per share attributable to common stockholders and pro forma basic and diluted net income per share attributable to common stockholders.

(3) These financial measures are not calculated in accordance with GAAP. See “Selected Consolidated Financial Data—Non-GAAP Financial Measures” for information regarding our use of these non-GAAP financial measures and a reconciliation of such measures to their nearest comparable financial measures calculated and presented in accordance with GAAP.

	As of September 30, 2016		
	Actual	Pro Forma(2)	Pro Forma As Adjusted(3)
		(in thousands)	
Consolidated Balance Sheet Data:			
Cash and cash equivalents	$161,706	$	$
Working capital(1)	158,675		
Total assets	331,668		
Long-term debt, including current portion	7,593		
Total liabilities	147,816		
Convertible preferred stock	97,479	—	
Total stockholders' equity	86,373		

(1) We define working capital as current assets less current liabilities.

(2) The pro forma balance sheet data gives effect to the automatic conversion of all outstanding shares of our convertible preferred stock into 8,076,394 shares of common stock upon the closing of this offering, our borrowing in December 2016 of $300.0 million under our term loan facility and the accrual of special dividends of $171.4 million and $ million, which were declared by our board of directors on December 21, 2016 and , respectively, and cash payments of $28.6 million and $ million, respectively, to be made to holders of our stock options, stock appreciation rights and restricted stock units as equitable adjustments approved by our board of directors in connection with such dividends.

(3) The pro forma as adjusted balance sheet data gives further effect to (i) our sale of shares of common stock in this offering at an assumed initial public offering price of $ per share, which is the midpoint of the price range set forth on the cover page of this prospectus, after deducting estimated underwriting discounts and commissions and offering expenses payable by us and (ii) the repayment of $ million of indebtedness under our term loan facility.

RISK FACTORS

Risks Related to Our Business and Our Industry

If we do not successfully anticipate technological shifts, market needs and opportunities, and develop new products and product enhancements that meet those technological shifts, needs and opportunities, we may not be able to compete effectively.

The broadband service provider market, including fixed and wireless, is characterized by rapid technological shifts and increasingly complex customer requirements to achieve scalable networks that accommodate rapidly increasing consumer demand for bandwidth. To compete effectively, we must continue to develop new technologies and products that address emerging technological trends and changing customer needs. The process of developing new technology is complex and uncertain, and the development of new offerings requires significant upfront investment that may not result in material improvements to existing products or result in marketable new products or costs savings or revenue for an extended period of time, if at all.

We believe that our culture of innovation is a significant factor in our ability to develop new products. If we are not able to attract and retain employees that are able to contribute to our culture of innovation, our ability to identify emerging technological trends and changing customer needs and successfully develop new products to address them could be adversely impacted.

The success of new products and enhancements also depends on many other factors, including timely completion and introduction, differentiation from products offered by competitors and previous versions of our own products and, ultimately, market acceptance of these new products and enhancements. In addition, new technologies or standards could render our existing products obsolete or less attractive to customers. If we are unable to successfully introduce new products and enhancements, we would not be able to compete effectively and our business, financial condition, results of operations and prospects could be materially adversely affected.

Our success depends in large part on broadband service providers' continued deployment of, and investment in, ultra-broadband network capabilities that make use of our solutions.

A significant portion of our product and solution suite is dedicated to enabling cable service providers to deliver voice, video and data services over newer and faster ultra-broadband networks. As a result, our success depends significantly on these cable service providers' continued deployment of, and investment in, their networks, which depends on a number of factors outside of our control. These factors include capital constraints, the presence of available capacity on legacy networks, perceived subscriber demand for ultra-broadband networks, competitive conditions within the broadband service provider industry and regulatory issues. If broadband service providers do not continue deploying and investing in their ultra-broadband networks in ways that involve our solutions, for these or other reasons, our business, financial condition, results of operations and prospects could be materially adversely affected.

We expect certain of our customers will continue to represent a substantial portion of our revenue.

Historically, certain of our customers have accounted for a significant portion of our revenue. For example, sales to Time Warner Cable accounted for 26% of our revenue for the nine months ended September 30, 2016, 14% of our revenue for the year ended December 31, 2015 and 41% of our revenue for the year ended December 31, 2014. In addition, sales to Rogers accounted for 17% of our revenue for the nine months ended September 30, 2016, sales to Liberty Global accounted for 17% of our revenue for the year ended December 31, 2015 and sales to SCSK Corporation accounted for 13% of our revenue for the year ended December 31, 2014. Based on their historical purchasing patterns, we expect that our large customers will continue to account for a substantial portion of our revenue in future periods. However, our customers generally make purchases from us on a purchase-order basis rather than pursuant to long-term contracts, and those that do enter long-term contracts typically have the right to terminate their contracts for convenience, and as a result, we generally have no

assurances that these large customers will continue to purchase our solutions. We may also see consolidation of our customer base, which could result in loss of customers. In addition, some of our large customers have used, and may in the future use, the sizes and relative importance of their orders to our business to require that we enter into agreements with more favorable terms than we would otherwise agree to and obtain price concessions. The loss of a significant customer, a significant delay or reduction in purchases by large customers or significant price concessions to one or more large customers, could have a material adverse effect on our business, financial condition, results of operations and prospects.

Timing of large orders and seasonality in our revenue may cause our quarterly revenue and results of operations to fluctuate and possibly decline materially from quarter to quarter.

Our customers tend to make large purchases from us when initiating or upgrading services based on our solutions, followed by smaller purchases for maintenance and ongoing support. In addition, purchases by existing customers of capacity expansions can also involve large individual orders that may represent a significant portion of our revenue for a fiscal quarter, which may also have a significant impact on our quarterly gross margin due to these capacity expansions generating higher gross margins than our initial hardware-based deployments. As a result of all of these factors, our quarterly revenue and results of operations, including our gross margin, may be significantly impacted by one or a small number of large individual orders. For example, any cancellation of orders or any acceleration or delay in anticipated product purchases or the acceptance of shipped products by a large customer could materially affect our revenue and results of operations in any quarterly period. We may be unable to sustain or increase our revenue from other new or existing customers to offset the discontinuation of purchases by one of our larger customers. As a result, our quarterly revenue and results of operations are difficult to estimate and may fluctuate or decline materially from quarter to quarter.

In addition, we believe that there are significant seasonal factors which may cause revenue to be greater for the first and fourth quarters of our fiscal year as compared to the second and third quarters. We believe that this seasonality results from a number of factors, including the procurement, budgeting and deployment cycles of many of our customers. These seasonal variations may cause our quarterly revenue and results of operations to fluctuate or decline materially from quarter to quarter.

Our sales to the broadband service provider market are volatile and our sales cycles can be long and unpredictable. As a result, our sales and revenue are difficult to predict and may vary substantially from period to period, which may cause our revenue and results of operations to fluctuate and possibly decline significantly.

Our sales to the broadband service provider market have been characterized by large and sporadic purchases and long sales cycles. Sales activity often depends upon the stage of completion of expanding network infrastructures, the availability of funding and the extent to which broadband service providers are affected by regulatory, economic and business conditions in the countries in which they operate.

In addition, the timing of our sales and revenue recognition is difficult to forecast because of the unpredictability of our products’ sales cycles. A sales cycle is the period between initial contact with a prospective customer and the sale of our products to that customer. Customer orders often involve the purchase of multiple products. These orders are complex and difficult to obtain because prospective customers generally consider a number of factors over an extended period of time before committing to purchase the products and solutions we sell. Customers, especially in the case of our large customers, often view the purchase of our products as a significant and strategic decision and require considerable time to evaluate, test and qualify our products prior to making a purchase decision and placing an order. The length of time that customers devote to their evaluation, contract negotiation and budgeting processes varies significantly, but can often exceed 24 months. During the sales cycle, we expend significant time and money on sales and marketing activities and make investments in evaluation equipment, all of which are included in our sales and marketing expenses and lower our operating margins, particularly if no sale occurs.

Even if a customer decides to purchase our products, there are many factors affecting the timing of our recognition of revenue, which makes our revenue difficult to forecast. For example, the sale of our products may be subject to acceptance testing or there may be unexpected delays in a customer's internal procurement processes, particularly for some of our larger customers, for whom our products represent a very small percentage of their total procurement activity. These factors may result in our inability to recognize revenue for months or years following a sale. In addition, other factors that are specific to particular customers can affect the timing of their purchases and the variability of our revenue recognition, including the strategic importance of a particular project to a customer, budgetary constraints and changes in their personnel. For all of these reasons, it is difficult to predict whether a sale will be completed, the particular period in which a sale will be completed and the period in which revenue from a sale will be recognized. If our sales cycles lengthen, our revenue could be lower than expected, which could have a material adverse effect on our business, financial condition, results of operations and prospects.

We may not generate positive returns on our research and development investments.

Developing our products is expensive, and the investment in product development may involve a long payback cycle or may result in investments in technologies or standards that do not get adopted in the timeframe we anticipate, or at all. In the nine months ended September 30, 2016 and the years ended December 31, 2015 and 2014, respectively, our research and development expenses were $37.2 million, or approximately 17.2% of our revenue, $37.2 million, or approximately 13.6% of our revenue, and $25.5 million, or approximately 12.1% of our revenue. We expect to continue to invest heavily in software development in order to expand the capabilities of our broadband and wireless infrastructure solutions, introduce new products and features and build upon our technology leadership, and we expect that our research and development expenses will continue to increase in absolute dollars and will increase modestly as a percentage of revenue from 2016 to 2017. Our investments in research and development may not generate positive returns in a timely fashion or at all.

Our converged cable access platform, or CCAP, solutions currently represent all of our sales; this concentration may limit our ability to increase our revenue, and our business would be adversely affected in the event we are unable to sell one or more of our products.

We are heavily dependent upon the sales of our CCAP solutions. In the event we are unable to market and sell these products or any future product that represents a substantial amount of our revenue, our business, financial condition, results of operations and prospects could be materially adversely affected.

We have invested heavily in developing wireless solutions, and we face risks in seeking to expand our platform into the wireless market.

We have invested heavily in developing wireless solutions that have yet to generate revenue. We cannot guarantee that these investments, or any of our other investments in research and development will ever generate revenue or become profitable for us, and the failure of these investments to generate positive returns may adversely impact our business, financial condition, results of operations and prospects. The wireless market makes up a substantial portion of our total potential addressable market. In addition, expanding our offerings into the wireless market presents other significant risks and uncertainties, including potential distraction of management from other business operations that generate more substantial revenue, the dedication of significant research and development, sales and marketing, and other resources to this new business line at the expense of our other business operations and other risks that we may not have adequately anticipated.

We believe the broadband service provider industry is in the early stages of a major architectural shift toward the virtualization of networks and the use of networks with distributed architectures. If the architectural shift does not occur, if it does not occur at the pace we predict, or if the products and services we have developed are not attractive to our customers after such shift takes place, our revenues could decline.

We believe the broadband service provider industry is in the early stages of transitioning to the virtualization of networks and the use of networks with distributed architectures. We are developing products and

services that we believe will be attractive to our customers and potential customers who make that shift. Our strategy depends in part on our belief that the industry shift to a software-centric cloud-based architecture and increasing densification will continue. In our experience, fundamental changes like this often take time to accelerate and the adoption rates of our customers may vary. As our customers determine their future network architectures and how to implement them, we may encounter delayed timing of orders, deferred purchasing decisions and reduced expenditures. These longer decision cycles and reduced expenditures may negatively impact our revenues, or make it difficult for us to accurately predict our revenues, either of which could materially adversely affect our business, financial condition, results of operations and prospects. Moreover, it is possible that our customers may reverse or fail to expand upon current trends toward virtualization and distributed architectures, which could result in significantly reduced demand for the products that we have developed and currently plan to develop.

We face intense competition, including from larger, well-established companies, and we may lack sufficient financial or other resources to maintain or improve our competitive position.

The market for broadband infrastructure solutions is intensely competitive, and we expect competition to increase in the future from established competitors and new market entrants. This competition could result in increased pricing pressure, reduced profit margins, increased sales and marketing expenses and our failure to increase, or the loss of, market share, any of which could materially adversely affect our business, financial condition, results of operations and prospects.

In the broadband service provider market, we primarily compete with larger and more established companies, such as Arris and Cisco. As we seek to enter the wireless market, we expect to encounter additional competition from large, established providers of wireless communication networks, including Ericsson and Nokia.

Many of our existing and potential competitors enjoy substantial competitive advantages, such as:

- greater name recognition and longer operating histories;
- larger sales and marketing budgets and resources;
- broader distribution and established relationships with customers;
- greater access to larger customer bases;
- greater customer support resources;
- greater manufacturing resources;
- the ability to leverage their sales efforts across a broader portfolio of products;
- the ability to leverage purchasing power with vendor subcomponents;
- the ability to incorporate additional functionality into their existing products;
- the ability to bundle offerings with other products and services;
- the ability to set more aggressive pricing policies;
- the ability to offer greater amounts of equity and more valuable equity as incentives for purchases of their products and services;
- lower labor and development costs;
- greater resources to fund research and development or otherwise acquire new product offerings;
- larger intellectual property portfolios; and
- substantially greater financial, technical, research and development or other resources.

Our ability to compete will depend upon our ability to provide a better solution than our competitors at a price that offers superior value. We may be required to make substantial additional investments in research, development, sales and marketing in order to respond to competition.

We also expect increased competition if our market continues to expand. Conditions in our market could change rapidly and significantly as a result of technological advancements or other factors. Current or potential competitors may be acquired by third parties that have greater resources available than we do. Our current or potential competitors might take advantage of the greater resources of the larger organization resulting from these acquisitions to compete more vigorously or broadly with us. In addition, continued industry consolidation might adversely affect customers' perceptions of the viability of smaller and even medium-sized companies, such as us, consequently, customers' willingness to purchase from us. Further, certain large customers may develop broadband infrastructure solutions for internal use and/or to broaden their portfolios of internally developed resources, which could allow these customers to become new competitors in the market.

If we are unable to sell additional products to our existing customers, our revenue growth will be adversely affected and our revenue could decline.

To increase our revenue, we must sell additional products to our existing customers and add new customers and we expect that a substantial portion of our future sales will be follow-on sales to existing customers. For example, one of our sales strategies is to target sales of capacity expansions and implementation of wireless solutions at our current cable customers because they are familiar with the operational and economic benefits of our solutions. However, our existing customers may choose to use other providers for their infrastructure needs. If we fail to sell additional products to our existing customers, our business, financial condition, results of operations and prospects could be materially adversely affected.

We may have difficulty attracting new large customers or acquiring new customers due to the high costs of switching broadband equipment.

Broadband service providers typically need to make substantial investments when deploying network infrastructure, which can delay a purchasing decision. Once a broadband service provider has deployed infrastructure for a particular portion of its network, it is often difficult and costly to switch to another vendor's infrastructure. Unless we are able to demonstrate that our products offer significant performance, functionality or cost advantages that outweigh a customer's expense of switching from a competitor's product, it will be difficult for us to generate sales once that competitor's equipment has been deployed. Accordingly, if a customer has already deployed a competitor's product for its broadband infrastructure, it may be difficult for us to sell our products to that customer. If we fail to attract new large customers or acquire new customers, our business, financial condition, results of operations and prospects could be materially adversely affected.

We are exposed to the credit risk of some of our customers and to credit exposures in the event of turmoil in the credit markets, which could result in material losses.

Due to our reliance on significant customers, we are dependent on the continued financial strength of these customers. If one or more of our significant customers experience financial difficulties, it could result in uncollectable accounts receivable and our loss of such customers and anticipated revenue.

The majority of our sales are on an open credit basis, with typical payment terms of one year or less. We monitor individual customer payment capability in granting such open credit arrangements, seeking to limit such open credit to amounts we believe our customers can pay and maintain reserves we believe are adequate to cover exposure for doubtful accounts. However, there can be no assurance that our open credit customers will pay the amounts they owe to us or that the reserves we maintain will be adequate to cover such credit exposure. Our customers' failure to pay and/or our failure to maintain sufficient reserves could have a material adverse effect on our consolidated financial statements. In addition, in the event that turmoil in the credit markets makes it more

difficult for some customers to obtain financing, those customers' ability to pay could be adversely impacted, which in turn could have a material adverse impact on our business and operations.

A portion of our sales is also derived through our resellers, which tend to have more limited financial resources than other customers and to present increased credit risk. Our resellers also typically have the ability to terminate their agreements with us for any reason upon advance written notice.

We are exposed to fluctuations in currency exchange rates, which could adversely affect our business, financial condition, results of operations and prospects.

Our sales agreements are primarily denominated in U.S. dollars. Therefore, a strengthening U.S. dollar could increase the real cost of our products to our customers outside of the U.S., and alternatively a decrease in the value of the U.S. dollar relative to foreign currencies could increase our product and operating costs in foreign locations. If we are not able to successfully hedge against the risks associated with the currency fluctuations, our business, financial condition, results of operations and prospects could be materially adversely affected.

We generate a significant amount of revenue from sales to customers outside of the United States, and we are therefore subject to a number of risks associated with international sales and operations.

We have extensive international operations and generate a significant amount of revenue from sales to customers in Asia-Pacific, Europe and the Latin America. Our ability to grow our business and our future success will depend to a significant extent on our ability to continue to expand our operations and customer base worldwide.

As a result of our international reach, we must hire and train experienced personnel to staff and manage our foreign operations. To the extent that we experience difficulties in recruiting, training, managing and retaining an international staff, and specifically staff related to sales management and sales personnel, we may experience difficulties in sales productivity in foreign markets. We also enter into strategic relationships with resellers and sales agents in certain international markets where we do not have a local presence. If we are not able to maintain these relationships internationally or to recruit additional companies to enter into reseller and sales agent relationships, our future success in these international markets could be limited. Business practices in the international markets that we serve may differ from those in the U.S. and may require us in the future to include terms other than our standard terms in customer contracts. To the extent that we may enter into customer contracts in the future that include non-standard terms related to payment, warranties or performance obligations, our business, financial condition, results of operations and prospects could be materially adversely affected.

Our international sales and operations are subject to a number of risks, including the following:

- greater difficulty in enforcing contracts and accounts receivable collection and longer collection periods;
- increased expenses incurred in establishing and maintaining our international operations;
- fluctuations in exchange rates between the U.S. dollar and foreign currencies where we do business;
- greater difficulty and costs in recruiting local experienced personnel;
- wage inflation in certain growing economies;
- general economic and political conditions in these foreign markets;
- economic uncertainty around the world as a result of sovereign debt issues;
- communication and integration problems resulting from cultural and geographic dispersion;
- limitations on our ability to access cash resources in our international operations;

- ability to establish necessary business relationships and to comply with local business requirements;
- risks associated with trade restrictions and foreign legal requirements, including the importation, certification and localization of our products required in foreign countries;
- greater risk of unexpected changes in regulatory practices, tariffs and tax laws and treaties;
- the uncertainty of protection for intellectual property rights in some countries;
- delays resulting from our need to comply with foreign cybersecurity laws;
- greater risk of a failure of our operations and employees to comply with both U.S. and foreign laws and regulations, including antitrust regulations, the FCPA, privacy and data protection laws and regulations and any trade regulations ensuring fair trade practices; and
- heightened risk of unfair or corrupt business practices in certain geographies and of improper or fraudulent sales arrangements that may impact financial results and result in restatements of, or irregularities in, financial statements.

These and other factors could harm our ability to gain future international revenue and, consequently, materially adversely affect our business, financial condition, results of operations and prospects. Expanding our existing international operations and entering into additional international markets will require significant management attention and financial commitments. Our failure to successfully manage our international operations and the associated risks effectively could limit our future growth or materially adversely affect our business, financial condition, results of operations and prospects.

We are subject to anti-corruption laws such as the U.S. Foreign Corrupt Practices Act of 1977, as amended.

We are subject to anti-corruption laws such as the U.S. Foreign Corrupt Practices Act of 1977, as amended, or the FCPA, which generally prohibits U.S. companies and their employees and intermediaries from making corrupt payments to foreign officials for the purpose of obtaining or keeping business, securing an advantage or directing business to another, and requires companies to maintain accurate books and records. Under the FCPA, U.S. companies may be held liable for the corrupt actions taken by directors, officers, employees, agents, or other strategic or local partners or representatives. We rely on non-employee third-party representatives and other intermediaries to develop international sales opportunities, and generally have less direct control over such third parties' actions taken on our behalf. If we or our intermediaries fail to comply with the requirements of the FCPA or similar legislation, governmental authorities in the United States and elsewhere could seek to impose civil and/or criminal fines and penalties, which could have a material adverse effect on our business, reputation, results of operations and financial condition. We intend to increase our international sales and business and, as such, the cost of complying with such laws, and the potential harm from our noncompliance, are likely to increase.

Failure to comply with anti-corruption laws, such as the FCPA and the United Kingdom Bribery Act 2010, or the Bribery Act, and similar laws associated with our activities outside the U.S., could subject us to penalties and other adverse consequences. Any violation of the FCPA, Bribery Act or similar laws could result in whistleblower complaints, adverse media coverage, investigations, loss of export privileges, severe criminal or civil sanctions suspension or debarment from U.S. government contracts, all of which could have a material adverse effect on our reputation, business, results of operations and prospects. In addition, responding to any enforcement action or related investigation may result in a materially significant diversion of management's attention and resources and significant defense costs and other professional fees.

We are subject to governmental export and import controls that could impair our ability to compete in international markets or subject us to liability if we violate these controls.

Our products may be subject to various export controls and because we incorporate encryption technology into certain of our products, certain of our products may be exported from various countries only with the required export license or through an export license exception. Furthermore, certain export control and economic

sanctions laws prohibit the shipment of certain products, technology, software and services to embargoed countries and sanctioned governments, entities, and persons. If we fail to comply with the applicable export control laws, customs regulations, economic sanctions or other applicable laws, we could be subject to monetary damages or the imposition of restrictions which could materially adversely affect our business, financial condition, results of operations and prospects and could also harm our reputation. Further, there could be criminal penalties for knowing or willful violations, including incarceration for culpable employees and managers. Obtaining the necessary export license or other authorization for a particular sale may be time-consuming and may result in the delay or loss of sales opportunities.

In addition, various countries regulate the import of certain encryption technology and products, including through import permit and license requirements, and have enacted laws that could limit our ability to distribute our products or could limit our customers' ability to implement our products in those countries. Any change in export or import regulations, economic sanctions or related legislation, shift in the enforcement or scope of existing regulations or change in the countries, governments, persons or technologies targeted by such regulations could result in decreased use of our products by, or in our decreased ability to export or sell our products to, existing or potential customers with international operations or create delays in the introduction of our products into international markets. Any decreased use of our products or limitation on our ability to export or sell our products could materially adversely affect our business, financial condition, results of operations and prospects.

Our revenue growth rate in recent periods may not be indicative of our future performance.

Our revenue growth rate in recent periods may not be indicative of our future performance. Our revenue grew 29.0% from the year ended December 31, 2014 to the year ended December 31, 2015 and 18.8% from the nine months ended September 30, 2015 to the nine months ended September 30, 2016. We may not achieve similar revenue growth rates in future periods. You should not rely on our revenue for any prior quarterly or annual period as any indication of our future revenue or revenue growth. If we are unable to maintain consistent revenue or revenue growth, our business, financial condition, results of operations and prospects could be materially adversely affected.

The majority of our revenue growth has occurred since 2013, making it difficult to evaluate our future prospects.

We were founded in 2003 and booked our first revenue in 2006. The majority of our revenue growth has occurred since 2013, making it difficult to evaluate our future prospects, including our ability to plan for and manage future growth. We have encountered and will continue to encounter risks and difficulties frequently experienced by rapidly growing companies in constantly evolving industries, including the risks described in this prospectus. If we do not address these risks successfully, our business, financial condition, results of operations and prospects could be materially adversely affected, and the market price of our common stock could decline.

Our products are necessary for the operation of our customers' broadband service operations. Product quality problems, warranty claims, services disruptions, or other defects, errors or vulnerabilities in our products or services could harm our reputation and materially adversely affect our business, financial condition, results of operations and prospects.

We assist our customers in the operation of their broadband service operations. Failures of our products could result in significant interruptions in our customers' capabilities to maintain their networks and operations. Further, unsatisfactory performance could cause us to lose revenue or market share, increase our service costs, cause us to incur substantial costs in analyzing, correcting or redesigning our products, cause us to lose significant customers, subject us to liability for damages and divert our resources from other tasks, any one of which could materially adversely affect our business, financial condition, results of operations and prospects.

Additionally, errors, failures or bugs in our products could result in warranty claims or claims by customers for losses that they sustain or, in some cases, could allow customers to claim damages. In addition, in the past, we have had to replace certain components of products that we had shipped or provide remediation in response to the discovery of defects or bugs from failures in software protocols.

Limitation of liability provisions in our standard terms and conditions of sale, and those of our resellers and sales agents, may not be enforceable under some circumstances or may not fully or effectively protect us from end-customer claims and related liabilities and costs. In some cases, including with respect to indemnification obligations under many of our agreements with customers and resellers, our contractual liability may be uncapped. The sale and support of our products also entail the risk of product liability claims. We maintain insurance to protect against certain types of claims associated with the use of our products, but our insurance coverage may not adequately cover any such claims. In addition, even claims that ultimately are unsuccessful could result in expenditures of funds in connection with litigation and divert management's time and other resources.

Our products must interoperate with operating systems, software applications and hardware, and comply with industry standards, that are developed by others, and if we are unable to devote the necessary resources for our products to interoperate with such software and hardware and comply with such standards, we may lose or fail to increase market share and experience a weakening demand for our products.

Generally, our products comprise only a part of and must interoperate with our customers' existing infrastructure, specifically their networks, servers, software and operating systems, which may be manufactured by a wide variety of vendors and original equipment manufacturers. Our products must also comply with industry standards, such as Data Over Cable Service Interface Specification, or DOCSIS, 3.0 and 3.1, which are established by third parties, in order to interoperate with such servers, storage, software and other networking equipment such that all systems function efficiently together. We may depend on other vendors to support prevailing industry standards. Also, some industry standards may not be widely adopted or implemented uniformly, and competing standards and other approaches may emerge that may be preferred by our customers.

In addition, when new or updated versions of these industry standards, software systems or applications are introduced, we must sometimes develop updated versions of our software so that our products will interoperate properly. We may not accomplish these development efforts quickly, cost-effectively or at all. These development efforts require capital investment and the devotion of engineering resources. If we fail to maintain compatibility with these systems and applications, our customers may not be able to adequately utilize our products, and we may lose or fail to increase market share and experience a weakening in demand for our products, among other consequences, which could materially adversely affect our business, financial condition, results of operations and prospects.

Our ability to sell our products is highly dependent on the quality of our support and services offerings, and our failure to offer high-quality support and services could have a material adverse effect on our business, financial condition, results of operations and prospects.

Once our products are deployed within our customers' networks, our customers depend on our support organization to resolve any issues relating to our products. Our provision of high-quality support is critical for the successful marketing and sale of our products. If we do not assist our customers in deploying our products effectively, do not succeed in helping our customers resolve post-deployment issues quickly or do not provide adequate ongoing support, it could adversely affect our ability to sell our products to existing customers and could harm our reputation with potential customers. In addition, our standard sales contracts require us to provide minimum service requirements to our customers on an ongoing basis and our failure to satisfy these requirements could expose us to claims under these contracts. Our failure to maintain high-quality support and services, including compliance with our contractual minimum service obligations, could have a material adverse effect on our business, financial condition, results of operations and prospects.

We base our inventory requirements on our forecasts of future sales. If these forecasts are materially inaccurate, we may procure inventory that we may be unable to use in a timely manner or at all.

We and our contract manufacturers procure components and build our products based on our forecasts. These forecasts are based on estimates of future demand for our products, which are in turn based on historical trends and analyses from our sales and marketing organizations, adjusted for overall market conditions. To the extent our forecasts are materially inaccurate or if we otherwise do not need such inventory, we may under- or over-procure inventory, and such inaccuracies in our forecasts could subject us to contractual damages and otherwise materially adversely affect our business, financial condition, results of operations and prospects.

Because we depend on third-party manufacturers to build our hardware, we are susceptible to manufacturing delays and pricing fluctuations that could prevent us from delivering customer orders on time, if at all, or on a cost-effective basis, which may result in the loss of sales and customers.

We depend on third-party contract manufacturers to manufacture our product hardware. A significant portion of our cost of revenue consists of payments to these third-party contract manufacturers. Our reliance on these third-party contract manufacturers reduces our control over the manufacturing process, quality assurance, product costs and product supply and timing, which exposes us to risk. To the extent that our products are manufactured at facilities in foreign countries, we may be subject to additional risks associated with complying with local rules and regulations in those jurisdictions. If we are unable to manage our relationships with our third-party contract manufacturers effectively, or if these third-party manufacturers suffer delays or disruptions for any reason, experience increased manufacturing lead times, capacity constraints or quality control problems in their manufacturing operations or fail to meet our future requirements for timely delivery, our ability to ship products to our customers would be severely impaired, and our business, financial condition, results of operations and prospects could be materially adversely affected.

Our contract manufacturers typically fulfill our supply requirements on the basis of individual orders. We do not have long-term contracts with our third-party manufacturers that guarantee capacity, the continuation of particular pricing terms or the extension of credit limits. Accordingly, they are not obligated to continue to fulfill our supply requirements, which could result in supply shortages, the prices we are charged for manufacturing services could be increased on short notice and we may not be able to develop alternate or second contract manufacturers in a timely manner. If we add or change contract manufacturers, or change any manufacturing plant locations within a contract manufacturer network, we would add additional complexity and risk to our supply chain management.

In addition, we may be subject to significant challenges in ensuring that quality, processes and costs, among other issues, are consistent with our expectations and those of our customers. A new contract manufacturer or manufacturing location may not be able to scale its production of our products at the volumes or quality we require. This could also adversely affect our ability to meet our scheduled product deliveries to our customers, which could damage our customer relationships and cause the loss of sales to existing or potential customers, late delivery penalties, delayed revenue or an increase in our costs which could adversely affect our gross margins. This could also result in increased levels of inventory subjecting us to increased excess and obsolete charges that could have a negative impact on our results of operations.

Because some of the key components in our products come from limited sources of supply, we are susceptible to supply shortages or supply changes, which could disrupt or delay our scheduled product deliveries to our customers and may result in the loss of sales and customers.

Our products rely on key components that our contract manufacturers purchase on our behalf from a limited number of suppliers, including Altera, Bell Power, Broadcom, Maxim, Mini-Circuits, Qorvo and Xilinx. We do not have guaranteed supply contracts with any of our component suppliers, and our suppliers could delay shipments or cease manufacturing such products or selling them to us at any time. The development of alternate sources for those components is time-consuming, difficult and costly. If we are unable to obtain a sufficient

quantity of these components on commercially reasonable terms or in a timely manner, sales of our products could be delayed or halted entirely or we may be required to redesign our products. Any of these events could result in lost sales and damage to our customer relationships, which would adversely impact our business, financial condition, results of operations and prospects. In the event of a shortage or supply interruption from our component suppliers, we may not be able to develop alternate or second sources in a timely manner, on commercially reasonable terms or at all. In addition, certain of our customer contracts require us to notify our customers of any discontinuation of the products that we supply to them and to provide support for discontinued products, and lack of supply from our suppliers could leave us unable to fulfill our customer support obligations. Adverse changes to our relationships with our sole suppliers could result in lost sales and damage to our customer relationships, which would adversely impact our business, financial condition, results of operations and prospects.

We rely on resellers and sales agents to sell our products into certain international markets, and the loss of such resellers and sales agents could delay or harm our ability to deliver our products to our customers.

We rely upon resellers and sales agents to coordinate sales and distribution of our products in certain international markets. We provide our resellers and sales agents with specific training and programs to assist them in selling our products, but these steps may not be effective. In addition, our resellers and sales agents may be unsuccessful in marketing, selling and supporting our products and services. If we are unable to develop and maintain effective sales incentive programs for our resellers and sales agents, we may not be able to incentivize these resellers and sales agents to sell our products to customers. Any of our resellers and sales agents could elect to consolidate or enter into a strategic partnership with one of our competitors, which could reduce or eliminate our future opportunities with that reseller or sales agent. Our agreements with our resellers and sales agents may generally be terminated for any reason by either party with advance notice. We may be unable to retain these resellers and sales agents or secure additional or replacement resellers and sales agents. The replacement of one or more of our significant resellers or sales agents requires extensive training, and any new or expanded relationship with a reseller or sales agent may take several months or more to achieve productivity. Any of these events could materially adversely affect our business, financial condition, results of operations and prospects.

Our business and operations have experienced rapid growth in recent years, and if we do not appropriately manage any future growth or are unable to improve our systems and processes, our business, financial condition, results of operations and prospects will be adversely affected.

We have experienced rapid growth and increased demand for our products in recent years, which have placed a strain on our management, administrative, operational and financial infrastructure. For example, our revenue increased from $211.3 million for the year ended December 31, 2014 to $272.5 million for the year ended December 31, 2015 and from $182.5 million for the nine months ended September 30, 2015 to $216.9 million for the nine months ended September 30, 2016. To handle the increase in demand, we have significantly expanded our headcount, from 352 as of December 31, 2014 to 604 as of December 31, 2016, and expect to continue to increase our headcount. As we have grown, we have had to manage an increasingly larger and more complex array of internal systems and processes to scale with all aspects of our business, including our software development, contract manufacturing and purchasing, logistics and fulfillment and sales, maintenance and support. Our success will depend in part upon our ability to manage our growth effectively. To do so, we must continue to increase the productivity of our existing employees and continue to hire, train and manage new employees as needed. To manage domestic and international growth of our operations and personnel, we will need to continue to improve our operational, financial and management controls and our reporting processes and procedures and implement more extensive and integrated financial and business information systems. We may not be able to successfully implement these or other improvements to our systems and processes in an efficient or timely manner, and we may discover deficiencies in their capabilities or effectiveness. Our failure to improve our systems and processes, or their failure to operate effectively and in the intended manner, may result in disruption of our current operations and customer relationships, our inability to manage the growth of our business and our inability to accurately forecast our revenue, expenses and earnings.

If we are unable to hire, retain, train and motivate qualified personnel and senior management, including in particular our founders, our business, financial condition, results of operations and prospects could be adversely affected.

Our future success depends, in part, on our ability to continue to attract and retain highly skilled personnel, particularly software engineering and sales personnel. Competition for highly skilled personnel is often intense, particularly in the greater Boston region where we are headquartered, and we may not be able to attract and retain the highly skilled employees that we need to support our business. Many of the companies with which we compete for experienced personnel have greater resources than we have to provide more attractive compensation packages and other amenities. Research and development personnel are aggressively recruited by startup and growth companies, which are especially active in many of the technical areas and geographic regions in which we conduct product development. In addition, in making employment decisions, particularly in the high-technology industry, job candidates often consider the value of the stock-based compensation they are to receive in connection with their employment. Declines in the market price of our stock could adversely affect our ability to attract, motivate or retain key employees. If we are unable to attract or retain qualified personnel, or if there are delays in hiring required personnel, our business, financial condition, results of operations and prospects could be materially adversely affected.

Also, to the extent we hire personnel from competitors, or from certain customers or other third parties whose employees we have agreed not to solicit, we may be subject to allegations that such personnel have been improperly solicited, that such personnel have divulged proprietary or other confidential information or that former employers own certain inventions or other work product. Such claims could result in litigation.

Our future performance also depends on the continued services and continuing contributions of our founders and senior management to execute our business plan and to identify and pursue new opportunities and product innovations. Our employment arrangements with our employees do not require that they continue to work for us for any specified period, and therefore, they could terminate their employment with us at any time. In particular, the loss of Jerry Guo, our President and Chief Executive Officer, and Weidong Chen, our Chief Technology Officer, could have a material adverse impact on our business. Further, the loss of other members of our senior management team, sales and marketing team or engineering team, or any difficulty attracting or retaining other highly qualified personnel in the future, could significantly delay or prevent the achievement of our development and strategic objectives, which could materially adversely affect our business, financial condition, results of operations and prospects. Except with respect to Mr. Guo, we do not maintain “key person” life insurance on our officers, directors or key employees.

If we do not effectively expand and train our direct sales force, we may be unable to increase sales to our existing customers or add new customers, and our business will be adversely affected.

We depend on our direct sales force to increase sales with existing customers and to obtain new customers. As such, we have invested and will continue to invest substantially in our sales organization. In recent periods, we have been adding personnel to our sales function as we focus on growing our business, entering new markets and increasing our market share, and we expect to incur significant additional expenses in expanding our sales personnel in order to achieve revenue growth. There is significant competition for sales personnel with the skills and technical knowledge that we require. Our ability to achieve significant revenue growth will depend, in large part, on our success in recruiting, training, retaining and integrating sufficient numbers of sales personnel to support our growth, particularly in international markets. In addition, we have significantly increased the number of personnel in our sales and marketing departments in recent periods, with headcount growing from 67 as of December 31, 2014 to 114 as of December 31, 2016. New hires require significant training and may take significant time before they achieve full productivity. Our recent hires and planned hires may not become productive as quickly as we expect, and we may be unable to hire, retain or integrate into our corporate culture sufficient numbers of qualified individuals in the markets where we do business or plan to do business. If we are unable to hire, integrate and train a sufficient number of effective sales personnel, or the sales personnel we hire

are not successful in obtaining new customers or increasing sales to our existing customer base, our business, financial condition, results of operations and prospects could be materially adversely affected.

Adverse economic conditions or reduced broadband infrastructure spending may adversely affect our business, financial condition, results of operations and prospects.

Our business depends on the overall demand for broadband connectivity. Weak domestic or global economic conditions, fear or anticipation of such conditions or a reduction in broadband infrastructure spending even if economic conditions improve, could materially adversely affect our business, financial condition, results of operations and prospects in a number of ways, including longer sales cycles, lower prices for our products and services, reduced sales and lower or no growth. Continued turmoil in the geopolitical environment in many parts of the world may also affect the overall demand for our products and services. Deterioration in global economic or political conditions could materially adversely affect our business, financial condition, results of operations and prospects in the future. A prolonged period of economic uncertainty or a downturn may also significantly affect the availability of capital and the terms and conditions of financing arrangements, including the overall cost of financing as well as the financial health or creditworthiness of our customers. Circumstances may arise in which we need, or desire, to raise additional capital, and such capital may not be available on commercially reasonable terms, or at all.

Breaches of our cybersecurity systems and measures could degrade our ability to conduct our business operations and deliver products and services to our customers, delay our ability to recognize revenue, compromise the integrity of our products, result in significant data losses and the theft of our intellectual property, damage our reputation, expose us to liability to third parties and require us to incur significant additional costs to maintain the security of our networks and data.

We increasingly depend upon our IT systems to conduct virtually all of our business operations, ranging from our internal operations and product development activities to our marketing and sales efforts and communications with our customers and business partners. Certain persons and entities may attempt to penetrate our network, or of the systems hosting our website, or our other networks and systems, and may otherwise seek to misappropriate our proprietary or confidential information or cause interruptions of our service. Because the techniques used by such persons and entities to access or sabotage networks and systems change frequently and may not be recognized until launched against a target, we may be unable to anticipate these techniques. In addition, sophisticated hardware and operating system software and applications that we produce or procure from third parties may contain defects in design or manufacture, including “bugs” and other problems that could unexpectedly interfere with the operation of our networks, system, or products. We have also outsourced a number of our business functions to third-parties, including our manufacturers and logistics providers, and our business operations also depend, in part, on the success of these third parties’ own cybersecurity measures. Additionally, we depend upon our employees and independent contractors to appropriately handle confidential data and deploy our IT resources in a safe and secure fashion that does not expose our network systems to security breaches and the loss of data. Accordingly, if any of our cybersecurity systems, processes or policies, or those of any of our manufacturers, logistics providers, customers or independent contractors fail to protect against unauthorized access, sophisticated hacking or terrorism and the mishandling, misuse, or misappropriation of data by employees, contractors or other persons or entities, our ability to conduct our business effectively could be damaged in a number of ways, including:

- sensitive data regarding our business, including intellectual property, personal information and other confidential and proprietary data, could be stolen;
- our electronic communications systems, including email and other methods, could be disrupted, and our ability to conduct our business operations could be seriously damaged until such systems can be restored;

- our ability to process customer orders and electronically deliver products and services could be degraded, and our distribution channels could be disrupted, resulting in delays in revenue recognition, damage to our relationships with customers and prospective customers and damage to our reputation;
- defects and security vulnerabilities could be introduced into our software, products, network and systems, thereby damaging our reputation and perceived reliability and security of our products and potentially making the systems of our customers vulnerable to data loss and cyber incidents; and
- personally identifiable data relating to various parties, including end users, employees and business partners could be compromised.

Should any of the above events occur, we could be subject to significant claims for liability from our customers, employees or others and regulatory investigations or actions from governmental agencies. In addition, our ability to protect our intellectual property rights could be compromised and our reputation and competitive position could be significantly harmed. Any regulatory, contractual or other actions, litigations, investigations, fines, penalties and liabilities relating to any actual or alleged misuse or misappropriation of personal data or other confidential or proprietary information could be significant in terms of monetary exposure and reputational impact and necessitate changes to our business operations that may be disruptive to us. Additionally, we could incur significant costs in order to upgrade our cybersecurity systems, processes, policies and procedures and remediate damages. Consequently, our financial performance and results of operations could be materially adversely affected.

If we are unable to obtain, maintain or protect our intellectual property rights, our competitive position could be harmed or we could be required to incur significant expenses to enforce our rights.

Our success depends, in part, on our ability to protect our proprietary technology. We rely on trade secret, patent, copyright and trademark laws and confidentiality agreements with employees and third parties to protect and enforce our rights to our proprietary technology, all of which offer only limited protection.

In order to protect our trade secrets and proprietary information, we rely in significant part on confidentiality arrangements with our employees, licensees, independent contractors, advisers and customers. These arrangements may not be effective to prevent disclosure of confidential information, including trade secrets, and may not provide an adequate remedy in the event of unauthorized disclosure of confidential information. In addition, if others independently discover trade secrets and proprietary information, we would not be able to assert trade secret rights against such parties. Effective trade secret protection may not be available in every country in which our services are available or where we have employees or independent contractors. The loss or unavailability of trade secret protection could make it easier for third parties to compete with our products by copying functionality. In addition, any changes in, or unexpected interpretations of, the trade secret and employment laws in any country in which we operate may compromise our ability to enforce our trade secret and intellectual property rights. Costly and time-consuming litigation could be necessary to enforce and determine the scope of our proprietary rights, and failure to obtain or maintain trade secret protection could adversely affect our competitive business position.

We also rely on patents to protect certain aspects of our proprietary technology in the United States. The process of obtaining patent protection is expensive and time-consuming, and we may not be able to prosecute all necessary or desirable patent applications at a reasonable cost or in a timely manner. We may choose not to seek patent protection for certain innovations and may choose not to pursue patent protection in certain jurisdictions. Further, we cannot guarantee that any of our pending patent applications will result in the issuance of patents or that any patents that do issue from such applications will have adequate scope to provide us with a competitive advantage. There is no assurance that all potentially relevant prior art relating to our patents and patent applications has been found. To the extent that additional patents are issued from our patent applications, which is not certain, third parties may challenge their validity, enforceability or scope, which may result in such patents being narrowed or invalidated. If third parties have prepared and filed patent applications in the United States

that also claim technology to which we have rights, we may have to participate in interference proceedings in the United States Patent and Trademark Office to determine priority of invention for patent applications filed before March 16, 2013, or in derivation proceedings to determine inventorship for patent applications filed after such date. In addition, patents have a limited lifespan. In the United States, the natural expiration of a patent is generally 20 years after its effective filing date. Even if patents covering our products are obtained by us or by our licensors, once such patents expire, we may be vulnerable to competition from similar products. Moreover, the rights granted under any issued patents may not provide us with adequate protection or competitive advantages, and, as with any technology, competitors may be able to develop similar or superior technologies to our own now or in the future.

Despite our efforts, the steps we have taken to protect our proprietary rights may not be adequate to preclude misappropriation of our proprietary information or infringement of our intellectual property rights, and our ability to police such misappropriation or infringement is uncertain, particularly in countries outside of the United States. Competitors may use our technologies in jurisdictions where we have not obtained or are unable to adequately enforce intellectual property protection to develop their own products. We are also restricted from asserting our intellectual property rights against certain customers under our contracts with them.

Detecting and protecting against the unauthorized use of our products, technology and proprietary rights is expensive, difficult and, in some cases, impossible. Litigation may be necessary in the future to enforce or defend our intellectual property rights, to protect our trade secrets or to determine the validity and scope of the proprietary rights of others. Such litigation could result in substantial costs and diversion of management resources, either of which could materially adversely affect our business, financial condition, results of operations and prospects, and there is no guarantee that we would be successful. Furthermore, many of our current and potential competitors have the ability to dedicate substantially greater resources to protecting their technology or intellectual property rights than we do. Accordingly, despite our efforts, we may not be able to prevent third parties from infringing upon or misappropriating our intellectual property, which could result in a substantial loss of our market share. Even if we did succeed in enforcing our intellectual property through litigation, this may be costly and divert management resources.

Finally, certain of our license agreements with our third-party licensors provide for joint ownership of developments or inventions that we create that are related to the subject matter of the license. Other agreements to which we are subject, including member agreements with standards bodies and research and development consortia, may require us to disclose and/or grant licenses to technology that is related to the subject matter of the standards body or the consortium and included in our contributions to specifications established by these bodies. These agreements could result in third parties having ownership or license rights to important intellectual property that we otherwise may have elected to maintain exclusive ownership of.

If our trademarks and trade names are not adequately protected, then we may not be able to build name recognition in our markets of interest and our business may be adversely affected.

We have not applied for trademark registration for our name and logo in all geographic markets. In those markets where we have applied for trademark registration, failure to secure those registrations could adversely affect our ability to enforce and defend our trademark rights and result in indemnification claims. Our registered or unregistered trademarks or trade names, as well as the registered or unregistered trademarks or trade names used by our resellers or distributors associated with our products, may be challenged, infringed, circumvented or declared generic or determined to be infringing on other marks. Any claim of infringement by a third party, even those claims without merit, could cause us to incur substantial costs defending against such claim, could divert management attention from our business and could require us to cease use of such intellectual property in certain geographic markets. Over the long term, if we, or our resellers or distributors, are unable to establish name recognition based on our trademarks and trade names, then our business may be adversely affected.

Assertions by third parties of infringement or other violations by us of their intellectual property rights, or other lawsuits asserted against us, could result in significant costs and materially adversely affect our business, financial condition, results of operations and prospects.

Patent and other intellectual property disputes are common in the broadband infrastructure industry and have resulted in protracted and expensive litigation for many companies. Many companies in the broadband infrastructure industry, including our competitors and other third parties, as well as non-practicing entities, own large numbers of patents, copyrights, trademarks and trade secrets, which they may use to assert claims of patent infringement, misappropriation or other violations of intellectual property rights against us. From time to time, they have or may in the future also assert such claims against us, our customers whom we typically indemnify against claims that our products infringe, misappropriate or otherwise violate the intellectual property rights of third parties.

As the number of products and competitors in our market increases and overlaps occur, claims of infringement, misappropriation and other violations of intellectual property rights may increase. Any claim of infringement, misappropriation or other violations of intellectual property rights by a third party, even those without merit, could cause us to incur substantial costs defending against the claim, distract our management from our business and require us to cease use of such intellectual property, which may impact important elements of our business. In addition, some claims for patent infringement may relate to subcomponents that we purchase from third parties. If these third parties are unable or unwilling to indemnify us for these claims, we could be substantially harmed.

The patent portfolios of most of our competitors are larger than ours. This disparity may increase the risk that our competitors may sue us for patent infringement and may limit our ability to counterclaim for patent infringement or settle through patent cross-licenses. In addition, future assertions of patent rights by third parties, and any resulting litigation, may involve patent holding companies or other adverse patent owners who have no relevant product revenue and against whom our own patents may therefore provide little or no deterrence or protection. We cannot guarantee that we are not infringing or otherwise violating any third-party intellectual property rights.

The third-party asserters of intellectual property claims may be unreasonable in their demands, or may simply refuse to settle, which could lead to expensive settlement payments, prolonged periods of litigation and related expenses, additional burdens on employees or other resources, distraction from our business, supply stoppages and lost sales. Moreover, in recent years, individuals and groups that are non-practicing entities, commonly referred to as “patent trolls”, have purchased patents and other intellectual property assets for the purpose of making claims of infringement in order to extract settlements. In the past, we have received threatening letters or notices and have been the subject of claims that our solutions and underlying technology infringe or violate the intellectual property rights of others. Responding to such claims, regardless of their merit, can be time consuming, costly to defend in litigation, divert management’s attention and resources, damage our reputation and brand, and cause us to incur significant expenses.

An adverse outcome of a dispute may require us to pay substantial damages including treble damages if we are found to have willfully infringed a third party’s patents; cease making, licensing or using solutions that are alleged to infringe or misappropriate the intellectual property of others; expend additional development resources to attempt to redesign our products or services or otherwise to develop non-infringing technology, which may not be successful; enter into potentially unfavorable royalty or license agreements in order to obtain the right to use necessary technologies or intellectual property rights; and indemnify our partners and other third parties. Any damages or royalty obligations we may become subject to as a result of an adverse outcome, and any third-party indemnity we may need to provide, could materially adversely affect our business, financial condition, results of operations and prospects. Royalty or licensing agreements, if required or desirable, may be unavailable on terms acceptable to us, or at all, and may require significant royalty payments and other expenditures. Further, there is little or no information publicly available concerning market or fair values for license fees, which can lead to

overpayment of license or settlement fees. In addition, some licenses may be non-exclusive, and therefore our competitors may have access to the same technology licensed to us. Suppliers subject to third-party intellectual property claims also may choose or be forced to discontinue or alter their arrangements with us, with little or no advance notice to us. Any of these events could materially adversely affect our business, financial condition, results of operations and prospects.

Unavailability, termination or breach of licenses to third-party software and other intellectual property could materially harm our business.

Many of our products and services include software or other intellectual property licensed from third parties, and we otherwise use software and other intellectual property licensed from third parties in our business. We exercise no control over our third-party licensors, and the failure or unsuitability of their software or other intellectual property exposes us to risks that we will have little ability to control. For example, a licensor may have difficulties keeping up with technological changes or may stop supporting the software or other intellectual property that it licenses to us; our licensors may also have the ability to terminate our licenses if the licensed technology becomes the subject of a claim of intellectual property infringement. Also, it will be necessary in the future to renew licenses, expand the scope of existing licenses or seek new licenses, relating to various aspects of these products and services or otherwise relating to our business, which may result in increased license fees. Any new licenses may not be available on acceptable terms, if at all. In addition, a third party may assert that we or our customers are in breach of the terms of a license, which could, among other things, give such third party the right to terminate a license or seek damages from us, or both. The inability to obtain or maintain certain licenses or other rights or to obtain or maintain such licenses or rights on favorable terms, or the need to engage in litigation regarding these matters, could result in delays in releases of products and services and could otherwise disrupt our business, until equivalent technology can be identified, licensed or developed, if at all, and integrated into our products and services or otherwise in the conduct of our business. Moreover, the inclusion in our products and services of software or other intellectual property licensed from third parties on a nonexclusive basis may limit our ability to differentiate our products from those of our competitors. Any of these events could have a material adverse effect on our business, financial condition, results of operations and prospects.

Our products contain third-party open source software components, and failure to comply with the terms of the underlying open source software licenses could restrict our ability to sell our products.

Our products contain software modules licensed to us by third-party authors under “open source” licenses. Use and distribution of open source software may entail greater risks than use of third-party commercial software, as open source licensors generally do not provide warranties or other contractual protections regarding infringement claims or the quality of the code. Some open source licenses contain requirements that we make available source code for modifications or derivative works we create based upon the type of open source software that we use. If we combine our software with open source software in a certain manner, we could, under certain open source licenses, be required to release portions of the source code of our software to the public. This would allow our competitors to create similar products with lower development effort and time and ultimately could result in a loss of product sales for us.

Although we monitor our use of open source software to avoid subjecting our products to undesirable conditions, we do not have a formal open source policy in place that gives our developers written guidance on what open source licenses we deem “safe.” Further, even where we believe an open source license may have acceptable conditions, the terms of many open source licenses have not been interpreted by U.S. courts, and these licenses could be construed in a way that could impose unanticipated conditions or restrictions on our ability to commercialize our products. Moreover, we cannot assure you that our informal processes for controlling our use of open source software in our products will be effective or that our compliance with open source licenses, including notice and attribution requirements, are adequate. If we are held to have breached the terms of an open source software license, we could be required to seek licenses from third parties to continue offering our products on terms that are not economically feasible, to re-engineer our products, to discontinue the sale of our products if

re-engineering could not be accomplished on a timely basis or to make generally available, in source code form, our proprietary code. We also could face infringement claims. Any of the foregoing could materially adversely affect our business, financial condition, results of operations and prospects.

Our failure to adequately protect personal data and to comply with related laws and regulations could result in material liability.

A wide variety of provincial, state, national, foreign, and international laws and regulations apply to the collection, use, retention, protection, disclosure, transfer (including across national boundaries), and other processing of personal data. These data protection and privacy-related laws and regulations are evolving and being tested in courts and may result in ever-increasing regulatory and public scrutiny and escalating levels of enforcement and sanctions.

Any failure by us to comply with applicable laws and regulations, or to protect such data, could result in enforcement action against us, including fines, imprisonment of company officials and public censure, claims for damages by end-customers and other affected persons and entities, damage to our reputation and loss of goodwill, and other forms of injunctive or operations-limiting relief, any of which could have a material adverse effect on our operations, financial performance, and business.

Definitions of personal data and personal information, and requirements relating to the same under applicable laws and regulations within the European Union, the United States, and elsewhere, change frequently and are subject to new and different interpretations by courts and regulators. Because the interpretation and application of laws and other obligations relating to privacy and data protection are uncertain, it is possible that existing or future laws, regulations, and other obligations may be interpreted and applied in a manner that is inconsistent with our data management practices. We may be required to expend significant resources to modify our products and otherwise adapt to these changes, which we may be unable to do on commercially reasonable terms or at all, and our ability to develop new products and features could be limited. These developments could harm our business, financial condition and results of operations. Even if not subject to legal challenge, the perception of privacy concerns, whether or not valid, may harm our reputation and inhibit adoption of our products by current and prospective customers.

Failure to comply with governmental laws and regulations could materially adversely affect our business, financial condition, results of operations and prospects.

Our business is subject to regulation by various federal, state, local and foreign governmental agencies, including agencies responsible for monitoring and enforcing employment and labor laws, workplace safety, product safety, environmental laws, consumer protection laws, anti-bribery laws, import/export controls, federal securities laws and tax laws and regulations. In certain jurisdictions, these regulatory requirements may be more stringent than those in the United States. From time to time, we may receive inquiries from such governmental agencies or we may make voluntary disclosures regarding our compliance with applicable governmental regulations or requirements. Noncompliance with applicable government regulations or requirements could subject us to sanctions, mandatory product recalls, enforcement actions, disgorgement of profits, fines, damages, civil and criminal penalties or injunctions. If any governmental sanctions are imposed, or if we do not prevail in any possible civil or criminal litigation, our business, financial condition, results of operations and prospects could be materially adversely affected. In addition, responding to any action will likely result in a significant diversion of management’s attention and resources and an increase in professional fees. Enforcement actions and sanctions could materially adversely affect our business, financial condition, results of operations and prospects.

We may invest in or acquire other businesses, which could require significant management attention, disrupt our business, dilute stockholder value and adversely affect our business, financial condition, results of operations and prospects.

As part of our growth strategy, we may make investments in or acquire complementary companies, products or technologies. We do not have experience in making investments in other companies nor have we made any

acquisitions to date, and as a result, our ability as an organization to evaluate and/or complete investments or acquire and integrate other companies, products or technologies in a successful manner is unproven. We may not be able to find suitable investment or acquisition candidates, and we may not be able to complete such investments or acquisitions on favorable terms, if at all. If we do complete investments or acquisitions, we may not ultimately strengthen our competitive position or achieve our goals, and any investments or acquisitions we complete could be viewed negatively by our customers, investors and securities analysts.

In addition, investments and acquisitions may result in unforeseen operating difficulties and expenditures. For example, if we are unsuccessful at integrating any acquisitions or retaining key talent from those acquisitions, or the technologies associated with such acquisitions, into our company, the business, financial condition, results of operations and prospects of the combined company could be materially adversely affected. Any integration process may require significant time and resources, and we may not be able to manage the process successfully. We may not successfully evaluate or utilize the acquired technology or personnel or accurately forecast the financial effects of an acquisition transaction, including accounting charges. We may have to pay cash, incur debt or issue equity securities to pay for any such investment or acquisition, each of which could adversely affect our financial condition or the market price of our common stock. The sale of equity or issuance of debt to finance any such acquisitions could result in dilution to our stockholders. The incurrence of indebtedness would result in increased fixed obligations and could also include covenants or other restrictions that would impede our ability to manage our operations. Moreover, if the investment or acquisition becomes impaired, we may be required to take an impairment charge, which could adversely affect our financial condition or the market price of our common stock.

Our international operations may give rise to potentially adverse tax consequences.

We are expanding our international operations and staff to better support our growth into the international markets. We generally conduct our international operations through wholly owned subsidiaries and report our taxable income in various jurisdictions worldwide based upon our business operations in those jurisdictions. Our corporate structure and associated transfer pricing policies contemplate the business flows and future growth into the international markets, and consider the functions, risks and assets of the various entities involved in the intercompany transactions. The amount of taxes we pay in different jurisdictions may depend on the application of the tax laws of the various jurisdictions, including the United States, to our international business activities, changes in tax rates, new or revised tax laws or interpretations of existing tax laws and policies and our ability to operate our business in a manner consistent with our corporate structure and intercompany arrangements. The taxing authorities of the jurisdictions in which we operate may challenge our methodologies for pricing intercompany transactions, which are required to be computed on an arm’s-length basis pursuant to the intercompany arrangements or disagree with our determinations as to the income and expenses attributable to specific jurisdictions. If such a challenge or disagreement were to occur, and our position was not sustained, we could be required to pay additional taxes, interest and penalties, which could result in one-time tax charges, higher effective tax rates, reduced cash flows and lower overall profitability of our operations. Our financial statements could fail to reflect adequate reserves to cover such a contingency.

Current U.S. tax laws could impact the tax treatment of our foreign earnings by creating limits on the ability of taxpayers to claim and utilize foreign tax credits and deferring certain tax deductions until earnings outside of the United States are repatriated to the United States. Due to our existing, and anticipated expansion of, our international business activities, any changes in the U.S. taxation of such activities may increase our worldwide effective tax rate and adversely affect our financial condition and operating results.

Taxing authorities may successfully assert that we should have collected or in the future should collect sales and use, value added or similar taxes, and we could be subject to liability with respect to past or future sales, which could adversely affect our operating results.

We do not collect sales and use, value added or similar taxes in all jurisdictions in which we have sales, and we have been advised that such taxes are not applicable to our products and services in certain jurisdictions.

Sales and use, value added and similar tax laws and rates vary greatly by jurisdiction. Certain jurisdictions in which we do not collect such taxes may assert that such taxes are applicable, which could result in tax assessments, penalties and interest, to us or our end-customers for the past amounts, and we may be required to collect such taxes in the future. If we are unsuccessful in collecting such taxes from our end-customers, we could be held liable for such costs. Such tax assessments, penalties and interest, or future requirements may adversely affect our operating results.

If we needed to raise additional capital to expand our operations and invest in new products, our failure to do so on favorable terms could reduce our ability to compete and could materially adversely affect our business, financial condition, results of operations and prospects.

We expect that our existing cash and cash equivalents, together with our net proceeds from this offering, will be sufficient to meet our anticipated cash needs for at least the next 12 months. However, if we need to raise additional funds to expand our operations and invest in new products, we may not be able to obtain additional debt or equity financing on favorable terms, if at all. If we raise additional equity financing, our stockholders may experience significant dilution of their ownership interests, and the market price of our common stock could decline. Furthermore, we intend to engage in a debt financing and the holders of such debt will have priority over the holders of common stock, and we expect to be required to accept terms that will restrict our ability to incur additional indebtedness and impose other restrictions on our business. We also expect to be required to take other actions that would otherwise be in the interests of the debt holders, including maintaining specified liquidity or other ratios, any of which could materially adversely affect our business, financial condition, results of operations and prospects.

Our business is subject to the risks of fire, power outages, floods and other catastrophic events and to interruption by manmade problems such as terrorism.

Our corporate headquarters and the operations of our key manufacturing vendors, as well as many of our customers, are located in areas exposed to risks of natural disasters such as fires and floods. A significant natural disaster, such as a fire, flood or other catastrophic events such as a disease outbreak, could have a material adverse effect on our or their business, which could in turn materially adversely affect our business, financial condition, results of operations and prospects. For example, in the event our manufacturing or logistics abilities are hindered by any of the events discussed above, shipments could be delayed, which could result in missed financial targets, such as revenue and shipment targets, for a particular quarter. Further, if a natural disaster occurs in a region from which we derive a significant portion of our revenue, customers in that region may delay or forego purchases of our products, which could materially adversely affect our business, financial condition, results of operations and prospects. In addition, acts of terrorism could cause disruptions in our business or the business of our manufacturers, logistics providers, partners or customers or the economy as a whole. All of the aforementioned risks may be compounded if our disaster recovery plans and those of our manufacturers, logistics providers or partners prove to be inadequate. To the extent that any of the above results in delays or cancellations of customer orders, or delays in the manufacture, deployment or shipment of our products, our business, financial condition, results of operations and prospects would be adversely affected.

Regulations affecting broadband infrastructure could reduce demand for our products.

Laws and regulations governing the Internet and electronic commerce are emerging but remain largely unsettled, even in the areas where there has been some legislative action. Regulations may focus on, among other things, assessing access or settlement charges, or imposing tariffs or regulations based on the characteristics and quality of products, either of which could restrict our business or increase our cost of doing business. Government regulatory policies are likely to continue to have a major impact on the pricing of existing and new network services and, therefore, are expected to affect demand for those services and the communications products, including our products, supporting those services.

Any changes to existing laws or the adoption of new regulations by federal or state regulatory authorities or any legal challenges to existing laws or regulations affecting IP networks could materially adversely affect the market for our products. Moreover, customers may require us, or we may otherwise deem it necessary or advisable, to alter our products to address actual or anticipated changes in the regulatory environment. Our inability to alter our products or address any regulatory changes could have a material adverse effect on our consolidated financial position, results of operations or cash flows.

We have outstanding debt that could limit our ability to make expenditures and investments in the conduct of our business and adversely impact our ability to obtain future financing.

We have outstanding debt. Our indebtedness increases the possibility that we may be unable to generate cash sufficient to pay when due the principal of, interest on or other amounts due in respect of our indebtedness. We may be required to dedicate significant cash flows from operations to make such payments, which could limit our ability to make other expenditures and investments in the conduct of our business. Our indebtedness may also reduce our flexibility in planning for or reacting to changes in our business and market conditions. Our indebtedness also exposes us to interest rate risk, since our debt obligations generally bear interest at variable rates. In addition, we may incur additional indebtedness in the future to meet future financing needs. If we add new debt, the risks described above could increase.

Our credit facility contains restrictive and financial covenants that may limit our operating flexibility.

Our credit facility contains certain restrictive covenants that either limit our ability to, or require a mandatory prepayment in the event we, incur additional indebtedness and liens, merge with other companies or consummate certain changes of control, acquire other companies, engage in new lines of business, change business locations, make certain investments, make any payments on any subordinated debt, transfer or dispose of assets, amend certain material agreements, and enter into various specified transactions. We, therefore, may not be able to engage in any of the foregoing transactions unless we obtain the consent of our lender or prepay the outstanding amount under the credit facility. The credit facility also contains certain financial covenants and financial reporting requirements. Our obligations under the credit facility are secured by substantially all of our assets, excluding intellectual property and investments in foreign subsidiaries. We may not be able to generate or sustain sufficient cash flow or sales to meet the financial covenants or pay the principal and interest under the credit facility. Furthermore, our future working capital, borrowings or equity financing could be unavailable to repay or refinance the amounts outstanding under the credit facility. In the event of a liquidation, our lender would be repaid all outstanding principal and interest prior to distribution of assets to unsecured creditors, and the holders of our common stock would receive a portion of any liquidation proceeds only if all of our creditors, including our lender, were first repaid in full.

Risks Related to Our Common Stock and this Offering

Our results of operations are likely to vary significantly from period to period and be unpredictable. If we fail to meet the expectations of analysts or investors, the market price of our common stock could decline substantially.

Our results of operations have historically varied from period to period, and we expect that this trend will continue. As a result, you should not rely upon our past financial results for any period as indicators of future performance. Our results of operations in any given period can be influenced by a number of factors, many of which are outside of our control and may be difficult to predict, including the factors described above as well as:

- changes in our pricing policies, whether initiated by us or as a result of competition;
- the amount and timing of operating costs and capital expenditures related to the operation and expansion of our business;
- changes in the growth rate of the broadband services market;

- the actual or rumored timing and success of new product and service introductions by us or our competitors or any other change in the competitive landscape of our industry, including consolidation among our competitors or customers;
- our ability to successfully expand our business geographically;
- insolvency or credit difficulties confronting our customers, which could adversely affect their ability to purchase or pay for our products and services, or confronting our key suppliers, including our sole source suppliers, which could disrupt our supply chain;
- our inability to fulfill our customers' orders due to supply chain delays, access to key commodities or technologies or events that impact our manufacturers or their suppliers;
- the cost and possible outcomes of any potential litigation matters;
- our overall effective tax rate, including impacts caused by any changes in the valuation of our deferred tax assets and any new legislation or regulatory developments;
- increases or decreases in our expenses caused by fluctuations in foreign currency exchange rates; and
- general economic conditions, both domestically and in foreign markets.

Any one of the factors above or the cumulative effect of several of the factors described above may result in significant fluctuations in our financial and other results of operations. This variability and unpredictability could result in our failure to meet expectations of securities analysts or investors for a particular period. If we fail to meet or exceed such expectations for these or any other reasons, the market price of our common stock could decline substantially, and we could face costly lawsuits, including securities class action suits.

An active trading market for our common stock may not develop, and you may not be able to resell your shares of our common stock at or above the initial offering price.

Before this offering, there was no public trading market for our common stock. If a market for our common stock does not develop or is not sustained, it may be difficult for you to sell your shares of common stock at an attractive price, at the time that you would like to sell them, or at all. The initial public offering price of our common stock was determined through negotiations between us and the underwriters. This initial public offering price may not be indicative of the market price of our common stock after the offering. We cannot predict the prices at which our common stock will trade. It is possible that in one or more future periods our results of operations may be below the expectations of public market analysts and investors and, as a result of these and other factors, the price of our common stock may fall.

The market price of our common stock may be volatile, which could result in substantial losses for investors purchasing shares in this offering.

The market price of our common stock could be subject to significant fluctuations after this offering, and it may decline below the initial public offering price. Some of the factors that may cause the market price of our common stock to fluctuate include:

- price and volume fluctuations in the overall stock market from time to time;
- volatility in the market price and trading volume of comparable companies;
- actual or anticipated changes in our earnings or fluctuations in our results of operations or in the expectations of securities analysts;
- announcements of technological innovations, new products, strategic alliances, or significant agreements by us or by competitive vendors;
- announcements by our customers regarding significant increases or decreases in capital expenditures;

- departure of key personnel;
- litigation involving us or that may be perceived as having an impact on our business;
- changes in general economic, industry and market conditions and trends;
- investors' general perception of us;
- sales of large blocks of our stock; and
- announcements regarding further industry consolidation.

In the past, following periods of volatility in the market price of a company's securities, securities class action litigation has often been brought against that company. Because of the potential volatility of our stock price, we may become the target of securities litigation in the future. Securities litigation could result in substantial costs and divert management's attention and resources from our business.

We will have broad discretion in the use of the net proceeds from this offering and may not use them effectively.

Our management will have broad discretion to use the net proceeds from this offering, and you will be relying on the judgment of our management regarding the application of these proceeds. We intend to use the net proceeds from this offering for the repayment of outstanding indebtedness of $ million and for working capital and general corporate purposes. Because we will have broad discretion in the application of the net proceeds from this offering, our management may fail to apply these funds effectively, which could adversely affect our ability to operate and grow our business. You will not have the opportunity to influence our decisions on how to use our net proceeds from this offering.

If securities or industry analysts do not publish, or cease publishing, research or reports about us, our business or our market, or if they publish negative evaluations of our stock or the stock of other companies in our industry, the price of our stock 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 may publish about us, our business, our market or our competitors. We do not currently have and may never obtain research coverage by industry or financial analysts. If no analysts or few analysts commence coverage of us, the trading price of our stock would likely decrease. Even if we do obtain analyst coverage, if one or more of the analysts covering our business downgrade their evaluations of our stock or the stock of other companies in our industry, the price of our stock could decline. If one or more of these analysts cease to cover our stock, we could lose visibility in the market for our stock, which in turn could cause our stock price to decline.

Purchasers in this offering will incur immediate and substantial dilution in the book value of their investment as a result of this offering.

If you purchase common stock in this offering, you will incur immediate and substantial dilution of $ per share, representing the difference between the assumed initial public offering price of $ per share, which is the midpoint of the price range set forth on the cover page of this prospectus, and our pro forma as adjusted net tangible book value per share after giving effect to this offering, the automatic conversion of all outstanding shares of our convertible preferred stock into shares of common stock in connection with the closing of this offering, our borrowing in December 2016 of $300.0 million under our term loan facility and the accrual of special dividends of $171.4 million and $ million, which were declared by our board of directors on December 21, 2016 and , respectively, and cash payments of $28.6 million and $ million, respectively, to be made to holders of our stock options, stock appreciation rights and restricted stock units as equitable adjustments approved by our board of directors in connection with such dividends. Moreover, to the extent outstanding options are exercised, you will incur further dilution. See "Dilution".

Because we do not expect to declare any dividends on our common stock for the foreseeable future following this offering, investors in this offering may never receive a return on their investment.

Although we have paid special dividends in the past, you should not rely on an investment in our common stock to provide dividend income. Following this offering, we do not anticipate that we will declare any cash dividends to holders of our common stock in the foreseeable future. Instead, we plan to retain any earnings to maintain and expand our existing operations. Accordingly, investors must rely on sales of their common stock after price appreciation, which may never occur, as the only way to realize any return on their investment. As a result, investors seeking cash dividends should not purchase our common stock.

Insiders will continue to have substantial control over us after this offering, which could limit your ability to influence the outcome of key transactions, including a change of control.

After this offering, our directors and executive officers and their affiliates will beneficially own, in the aggregate, approximately % of our outstanding common stock, assuming no exercise of the underwriters' option to purchase additional shares of our common stock in this offering. As a result, these stockholders could have significant influence over the outcome of matters submitted to our stockholders for approval, including the election of directors and any merger, consolidation or sale of all or substantially all of our assets, and over the management and affairs of our company. This concentration of ownership may have the effect of delaying or preventing a change in control of our company and might affect the market price of our common stock.

Some of these persons or entities may have interests different than yours. For example, because many of these stockholders purchased their shares at prices substantially below the price at which shares are being sold in this offering and have held their shares for a longer period, they may be more interested in selling our company to an acquirer than other investors or may want us to pursue strategies that deviate from the interests of other stockholders.

A significant portion of our total outstanding shares may be sold into the public market in the near future, which could cause the market price of our common stock to drop significantly, even if our business is doing well.

Sales of a substantial number of shares of our common stock in the public market could occur at any time after the expiration of the lock-up agreements described in the "Underwriters" section of this prospectus. These sales, or the market perception that the holders of a large number of shares intend to sell shares, could reduce the market price of our common stock. After this offering and after giving effect to the conversion of all outstanding shares of our convertible preferred stock into 8,076,394 shares of our common stock upon the closing of this offering, we will have shares of common stock outstanding based on the number of shares outstanding as of December 1, 2016. This includes the shares that we are selling in this offering, which may be resold in the public market immediately. The remaining 14,666,720 shares, or % of our outstanding shares after this offering, are currently, and will be following the closing of this offering, restricted as a result of securities laws or lock-up agreements but will be able to be sold, subject to any applicable volume limitations under federal securities laws with respect to affiliate sales, in the near future as described in the "Shares Eligible for Future Sale" and "Underwriters" sections of this prospectus.

In addition, as of December 1, 2016, there were 2,958,113 shares subject to outstanding options, 279,740 shares subject to outstanding restricted stock unit awards, or RSUs, and an additional 664,131 shares reserved for future issuance under our equity incentive plans that will become eligible for sale in the public market to the extent permitted by any applicable vesting requirements, lock-up agreements and Rules 144 and 701 under the Securities Act of 1933, as amended. Moreover, after this offering, holders of an aggregate of approximately 6,590,326 shares of our common stock as of December 1, 2016, will have rights, subject to some conditions, to require us to file registration statements covering their shares or to include their shares in registration statements that we may file for ourselves or other stockholders. We also intend to register all shares of common stock that

we may issue under our equity incentive plans. Once we register these shares, they can be freely sold in the public market upon issuance, subject to the lock-up agreements and the restrictions imposed on our affiliates under Rule 144.

Anti-takeover provisions in our restated certificate of incorporation and our amended and restated bylaws, as well as provisions of Delaware law, might discourage, delay or prevent a change in control of our company or changes in our management and, therefore, depress the trading price of our common stock.

Our restated certificate of incorporation and amended and restated bylaws and Delaware law contain provisions that may discourage, delay or prevent a merger, acquisition or other change in control that stockholders may consider favorable, including transactions in which you might otherwise receive a premium for your shares of our common stock. These provisions may also prevent or delay attempts by our stockholders to replace or remove our management. Our corporate governance documents include provisions:

- establishing a classified board of directors with staggered three-year terms so that not all members of our board are elected at one time;
- providing that directors may be removed by stockholders only for cause and only with a vote of the holders of at least of the issued and outstanding shares of common stock;
- limiting the ability of our stockholders to call and bring business before special meetings and to take action by written consent in lieu of a meeting;
- requiring advance notice of stockholder proposals for business to be conducted at meetings of our stockholders and for nominations of candidates for election to our board of directors;
- authorizing blank check preferred stock, which could be issued with voting, liquidation, dividend and other rights superior to our common stock; and
- limiting the liability of, and providing indemnification to, our directors and officers.

As a Delaware corporation, we are also subject to provisions of Delaware law, including Section 203 of the Delaware General Corporation Law, which limits the ability of stockholders holding more than 15% of our outstanding common stock from engaging in certain business combinations with us. Any provision of our restated certificate of incorporation or amended and restated bylaws or Delaware law that has the effect of delaying or deterring a change in control could limit the opportunity for our stockholders to receive a premium for their shares of our common stock, and could also affect the price that some investors are willing to pay for our common stock.

The existence of the foregoing provisions and anti-takeover measures could limit the price that investors might be willing to pay in the future for shares of our common stock. They could also deter potential acquirers of our company, thereby reducing the likelihood that you could receive a premium for your common stock in an acquisition.

Our restated certificate of incorporation provides that the Court of Chancery of the State of Delaware will be the exclusive forum for substantially all disputes between us and our stockholders, which could limit our stockholders' ability to obtain a favorable judicial forum for disputes with us or our directors, officers or employees.

Our restated certificate of incorporation provides that the Court of Chancery of the State of Delaware is the exclusive forum for any derivative action or proceeding brought on our behalf; any action asserting a breach of fiduciary duty; any action asserting a claim against us arising pursuant to the Delaware General Corporation Law, our certificate of incorporation or our bylaws; or any action asserting a claim against us that is governed by the internal affairs doctrine. The choice of forum provision may limit a stockholder's ability to bring a claim in a judicial forum that it finds favorable for disputes with us or our directors, officers or other employees, which may

discourage such lawsuits against us and our directors, officers and other employees. Alternatively, if a court were to find the choice of forum provision contained in our certificate of incorporation to be inapplicable or unenforceable in an action, we may incur additional costs associated with resolving such action in other jurisdictions, which could materially adversely affect our business, financial condition, results of operations and prospects.

We are an "emerging growth company," and the reduced disclosure requirements applicable to emerging growth companies may make our common stock less attractive to investors.

We are an "emerging growth company," as defined in the Jumpstart Our Business Startups Act of 2012, or the JOBS Act, and may remain an emerging growth company until the last day of our fiscal year following the fifth anniversary of this offering, subject to specified conditions. For so long as we remain an emerging growth company, we are permitted, and intend, to rely on exemptions from certain disclosure requirements that are applicable to other public companies that are not emerging growth companies. These exemptions include being permitted to provide reduced disclosure regarding executive compensation and exemptions from the requirements to hold non-binding advisory votes on executive compensation and golden parachute payments, not being required to comply with the auditor attestation requirements of Section 404 of the Sarbanes-Oxley Act of 2002 related to our internal control over financial reporting, and not being required to comply with any requirement that may be adopted by the Public Company Accounting Oversight Board regarding mandatory audit firm rotation or a supplement to the auditor's report providing additional information about the audit and the financial statements. In this prospectus, we have not included all of the executive compensation related information that would be required if we were not an emerging growth company. We cannot predict whether investors will find our common stock less attractive if we rely on these exemptions. If some investors find our common stock less attractive as a result, there may be a less active trading market for our common stock and our stock price may be more volatile.

We will remain an emerging growth company until the last day of the fiscal year following the fifth anniversary of this offering or such earlier time that we are no longer an emerging growth company. We would cease to be an emerging growth company if we have more than $1 billion in annual revenue, we have more than $700 million in market value of our stock held by non-affiliates (and we have been a public company for at least 12 months and have filed one annual report on Form 10-K) or we issue more than $1 billion of non-convertible debt securities over a three-year period.

In addition, the JOBS Act provides that an emerging growth company can take advantage of an extended transition period for complying with new or revised accounting standards. This allows an emerging growth company to delay the adoption of certain accounting standards until those standards would otherwise apply to private companies. We have irrevocably elected not to avail ourselves of this exemption from new or revised accounting standards and, therefore, we will be subject to new or revised accounting standards at the same time that they become applicable to other public companies that are not emerging growth companies.

Our management team has limited experience managing a public company.

Most members of our management team have limited experience managing a publicly traded company, interacting with public company investors and complying with the increasingly complex laws pertaining to public companies. Our management team may not successfully or efficiently manage our transition to being a public company subject to significant regulatory oversight and reporting obligations under the federal securities laws and the scrutiny of securities analysts and investors. These new obligations and constituents will require significant attention from our management team and could divert their attention away from the day-to-day management of our business, which could materially adversely affect our business, financial condition, results of operations and prospects.

The requirements of being a public company may strain our resources, divert management's attention and affect our ability to attract and retain qualified board members.

As a public company, we will be subject to the reporting requirements of the Securities Exchange Act of 1934, as amended, or the Exchange Act, the listing requirements of the Nasdaq Stock Market and other applicable securities rules and regulations. Compliance with these rules and regulations will increase our legal and financial compliance costs, make some activities more difficult, time-consuming or costly, and increase demand on our systems and resources, particularly after we are no longer an emerging growth company. Among other things, the Exchange Act requires that we file annual, quarterly and current reports with respect to our business and results of operations and maintain effective disclosure controls and procedures and internal control over financial reporting. In order to maintain and, if required, improve our disclosure controls and procedures and internal control over financial reporting to meet this standard, significant resources and management oversight may be required. As a result, management's attention may be diverted from other business concerns, which could harm our business and results of operations. Although we have already hired additional employees to comply with these requirements, we may need to hire even more employees in the future, which will increase our costs and expenses.

We are currently evaluating our internal controls, identifying and remediating any deficiencies in those internal controls and documenting the results of our evaluation, testing and remediation. We may not be able to complete our evaluation, testing and any required remediation in a timely fashion. During the evaluation and testing process, if we identify one or more material weaknesses in our internal control over financial reporting that we are unable to remediate before the end of the same fiscal year in which the material weakness is identified, we will be unable to assert that our internal controls are effective. If we are unable to assert that our internal control over financial reporting is effective, or if our auditors are unable to attest to management's report on the effectiveness of our internal controls, which will be required after we are no longer an emerging growth company, we could lose investor confidence in the accuracy and completeness of our financial reports, which would cause the price of our common stock to decline.

In addition, changing laws, regulations and standards relating to corporate governance and public disclosure are increasing legal and financial compliance costs and making some activities more time-consuming. We intend to invest resources to comply with evolving laws, regulations and standards, and this investment may result in increased general and administrative expense and a diversion of management's time and attention from revenue-generating activities to compliance activities. If our efforts to comply with new laws, regulations and standards differ from the activities intended by regulatory or governing bodies, regulatory authorities may initiate legal proceedings against us and our business may be harmed.

We also expect that being a public company will make it more expensive for us to obtain director and officer liability insurance, and we may be required to accept reduced coverage or incur substantially higher costs to obtain coverage. These factors could also make it more difficult for us to attract and retain qualified members of our board of directors and qualified executive officers.

Within the initial twelve months of becoming a publicly traded company, we estimate that we will incur approximately $2.0 to $3.0 million of incremental costs associated with being a publicly traded company, which we expect will be included in general and administrative expenses. However, it is possible that our actual incremental costs of being a publicly traded company will be higher than we currently estimate. In estimating these costs, we took into account expenses related to insurance, legal, accounting and compliance activities.

We intend to use a portion of the net proceeds of this offering to repay $ million of indebtedness outstanding under our term loan facility. Each of J.P. Morgan Securities LLC and Barclays Capital Inc., two of the lead underwriters in this offering, is affiliated with a lender under our term loan facility and is therefore deemed to have a "conflict of interest" within the meaning of FINRA Rule 5121, which could expose us to risks associated with this conflict of interest.

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CAUTIONARY NOTE REGARDING FORWARD-LOOKING STATEMENTS

This prospectus contains forward-looking statements. All statements other than statements of historical fact contained in this prospectus, including statements regarding our future results of operations and financial position, business strategy and plans and objectives of management for future operations, are forward-looking statements. These statements involve known and unknown risks, uncertainties and other important factors that may cause our actual results, performance or achievements to be materially different from any future results, performance or achievements expressed or implied by the forward-looking statements.

In some cases, you can identify forward-looking statements by terms such as “may,” “should,” “expects,” “plans,” “anticipates,” “could,” “intends,” “target,” “projects,” “contemplates,” “believes,” “estimates,” “predicts,” “potential” or “continue” or the negative of these terms or other similar expressions. The forward-looking statements in this prospectus are only predictions. We have based these forward-looking statements largely on our current expectations and projections about future events and financial trends that we believe may affect our business, financial condition and results of operations. These forward-looking statements speak only as of the date of this prospectus and are subject to a number of risks, uncertainties and assumptions described in the “Risk Factors” section and elsewhere in this prospectus. Because forward-looking statements are inherently subject to risks and uncertainties, some of which cannot be predicted or quantified, you should not rely on these forward-looking statements as predictions of future events. The events and circumstances reflected in our forward-looking statements may not be achieved or occur and actual results could differ materially from those projected in the forward-looking statements. Some of the key factors that could cause actual results to differ from our expectations include:

- our ability to anticipate technological shifts;
- our ability to generate positive returns on our research and development;
- changes in the rate of broadband service providers’ deployment of, and investment in, ultra-broadband network capabilities;
- the lack of predictability of revenue due to lengthy sales cycles and the volatility in capital expenditure budgets of broadband service providers;
- our ability to maintain and expand gross profit and net income;
- the sufficiency of our cash resources and needs for additional financing;
- our ability to further penetrate our existing customer base and obtain new customers;
- changes in our pricing policies, whether initiated by us or as a result of competition;
- the amount and timing of operating costs and capital expenditures related to the operation and expansion of our business;
- the actual or rumored timing and success of new product and service introductions by us or our competitors or any other change in the competitive landscape of our industry, including consolidation among our competitors or customers;
- our ability to successfully expand our business domestically and internationally;
- insolvency or credit difficulties confronting our customers, which could adversely affect their ability to purchase or pay for our products and services, or confronting our key suppliers, which could disrupt our supply chain;
- our inability to fulfill our customers’ orders due to supply chain delays, access to key commodities or technologies or events that impact our manufacturers or their suppliers;
- future accounting pronouncements or changes in our accounting policies;
- stock-based compensation expense;

- the cost and possible outcomes of any potential litigation matters;
- our overall effective tax rate, including impacts caused by any changes in the valuation of our deferred tax assets and any new legislation or regulatory developments;
- increases or decreases in our expenses caused by fluctuations in foreign currency exchange rates;
- general economic conditions, both domestically and in foreign markets;
- our ability to obtain and maintain intellectual property protection for our products; and
- our use of proceeds from this offering.

Except as required by applicable law, we do not plan to publicly update or revise any forward-looking statements contained herein until after we distribute this prospectus, whether as a result of any new information, future events or otherwise.

INDUSTRY AND OTHER DATA

Unless otherwise indicated, information contained in this prospectus concerning our industry and the markets in which we operate, including our general expectations and market position, is based on information from independent industry analysts and third-party sources and management estimates. Management estimates are derived from publicly available information released by independent industry analysts and third-party sources, as well as data from our internal research, and are based on assumptions, which we believe to be reasonable, made by us based on such data, as well as our knowledge of our industry and solutions. This information involves a number of assumptions and limitations, and we caution you not to give undue weight to such estimates. Projections, assumptions and estimates of our future performance and the future performance of the industry in which we operate are necessarily subject to a high degree of uncertainty and risk due to a variety of factors, including those described in “Risk Factors” and elsewhere in this prospectus. These and other factors could cause results to differ materially from those expressed in the estimates made by the independent parties or us and contained in this prospectus.

USE OF PROCEEDS

We estimate that the net proceeds from the sale of our common stock in this offering will be approximately $ million, based upon an assumed initial public offering price of $ per share, which is the midpoint of the price range set forth on the cover page of this prospectus, after deducting estimated underwriting discounts and commissions and offering expenses payable by us. If the underwriters fully exercise their option to purchase additional shares in this offering, we estimate that our net proceeds will be approximately $ million.

Each $1.00 increase (decrease) in the assumed initial public offering price of $ per share, which is the midpoint of the price range set forth on the cover page of this prospectus, would increase (decrease) the net proceeds from this offering by $ million, assuming that the number of shares offered by us, as set forth on the cover page of this prospectus, remains the same and after deducting the estimated underwriting discounts and commissions and estimated offering expenses payable by us. Similarly, each 1,000,000 share increase (decrease) in the number of shares offered by us would increase (decrease) the net proceeds from this offering by $ million, assuming no change in the assumed initial public offering price per share and after deducting the estimated underwriting discounts and commissions and estimated offering expenses payable by us.

The principal purposes of this offering are to create a public market for our common stock, facilitate access to the public equity markets, increase our visibility in the marketplace and obtain additional capital.

We intend to use the net proceeds from this offering to repay $ million of outstanding indebtedness under our term loan facility and for working capital and general corporate purposes. In addition, we believe that opportunities may exist from time to time to expand our current business through acquisitions of or investments in complementary products, technologies or businesses. While we have no current agreements, commitments or understandings for any specific acquisitions at this time, we may use a portion of the net proceeds from this offering for these purposes.

On December 20, 2016, we entered into a credit agreement with JPMorgan Chase Bank, N.A., as administrative agent, various lenders and JPMorgan Chase Bank, N.A. and Barclays Bank PLC, as joint lead arrangers and joint bookrunners, under which we borrowed $300.0 million in aggregate principal amount under a term loan facility. The credit agreement also provides for a revolving credit facility allowing for further aggregate borrowings of up to $25.0 million. We used the proceeds from the term loan facility to fund the payment of special dividends of $171.4 million and $ million, which were declared by our board of directors on December 21, 2016 and , respectively, and cash payments of $28.6 million and $ million, respectively, to be made to holders of our stock options, stock appreciation rights and restricted stock units as equitable adjustments approved by our board of directors in connection with such dividends. For additional information related to our outstanding indebtedness, including the interest rate and maturity of our indebtedness under the term loan facility, see “Management’s Discussion and Analysis of Financial Condition and Results of Operations—Liquidity and Capital Resources—Term Loan and Revolving Credit Facilities.”

Our management will have broad discretion in the application of the net proceeds from this offering, and investors will be relying on the judgment of our management regarding the application of the net proceeds. The timing and amount of our actual expenditures will be based on many factors, including cash flows from operations, the anticipated growth of our business, and the availability and terms of alternative financing sources to fund our growth. Pending use of the net proceeds as described above, we intend to invest the proceeds in short-term, interest-bearing obligations, investment-grade securities, certificates of deposit or direct or guaranteed obligations of the U.S. government. The goal with respect to the investment of these net proceeds will be capital preservation and liquidity so that these funds are readily available to fund our operations.

Each of J.P. Morgan Securities LLC and Barclays Capital Inc., two of the lead underwriters in this offering, is affiliated with a lender under our term loan facility and is therefore deemed to have a “conflict of interest” within the meaning of FINRA Rule 5121. As a result, this offering will be made in compliance with the

applicable provisions of Rule 5121. Rule 5121 requires that no sale be made to discretionary accounts by underwriters having a conflict of interest without the prior written approval of the account holder and that a “qualified independent underwriter,” as defined in the rule, has participated in the preparation of the registration statement and prospectus and exercised the usual standards of due diligence with respect thereto. Morgan Stanley & Co. LLC, or Morgan Stanley, is assuming the responsibilities of acting as the “qualified independent underwriter” in this offering. Morgan Stanley will not receive any additional compensation for acting as a qualified independent underwriter. We have agreed to indemnify Morgan Stanley against liabilities incurred in connection with acting as a “qualified independent underwriter,” including liabilities under the Securities Act, or contribute to payments that the underwriters may be required to make in that respect. See “Underwriters (Conflict of Interest).”

DIVIDEND POLICY

We declared special dividends in November 2014, June 2016 and December 2016. The November 2014 special dividend totaled $27.6 million in cash payments to our stockholders. In connection with the November 2014 special dividend, our board of directors also approved cash payments totaling $2.4 million to be made to holders of our stock options and stock appreciation rights as an equitable adjustment to the holders of such instruments in accordance with the provisions of our 2011 Stock Incentive Plan. The June 2016 special dividend totaled $43.1 million in cash payments to our stockholders. In connection with the June 2016 special dividend, our board of directors also approved cash payments totaling $6.9 million to be made to holders of our stock options, stock appreciation rights and restricted stock units as an equitable adjustment to the holders of such instruments in accordance with the provisions of our 2011 Stock Incentive Plan. The December 2016 special dividend totaled $171.4 million in cash payments to our stockholders. In connection with the December 2016 special dividend, our board of directors also approved cash payments totaling $28.6 million to be made to holders of our stock options, stock appreciation rights and restricted stock units as an equitable adjustment to the holders of such instruments in accordance with the provisions of our 2011 Stock Incentive Plan.

Although we declared the special dividends described above and may declare an additional special dividend of $ million prior to the closing of this offering, we do not anticipate declaring cash dividends following this offering. Any future determination to declare dividends will be made at the discretion of our board of directors and will depend on a number of factors, including future earnings, capital requirements, financial conditions, future prospects, contractual restrictions and covenants and other factors that our board of directors may deem relevant. Our credit facility contains covenants that limit our ability to pay dividends on our capital stock.

CAPITALIZATION

The following table sets forth our cash and cash equivalents and our capitalization as of September 30, 2016:

- on an actual basis;
- on a pro forma basis, giving effect to:
  - the automatic conversion of all outstanding shares of our convertible preferred stock into 8,076,394 shares of common stock upon the closing of this offering;
  - our borrowing in December 2016 of $300.0 million under our term loan facility;
  - the accrual of special dividends of $171.4 million and $ million, which were declared by our board of directors on December 21, 2016 and , respectively, and cash payments of $28.6 million and $ million, respectively, to be made to holders of our stock options, stock appreciation rights and restricted stock units as equitable adjustments approved by our board of directors in connection with such dividends; and
  - the filing and effectiveness of our restated certificate of incorporation; and
- on a pro forma as adjusted basis, giving further effect to the sale of shares of our common stock in this offering at an assumed initial public offering price of $ per share, which is the midpoint of the price range set forth on the cover page of this prospectus, after deducting estimated underwriting discounts and commissions and estimated offering expenses payable by us.

The pro forma as adjusted information set forth in the table below is illustrative only and will be adjusted based on the actual initial public offering price and other terms of this offering determined at pricing.

This information should be read in conjunction with our consolidated financial statements and the related notes appearing at the end of this prospectus and the "Management's Discussion and Analysis of Financial Condition and Results of Operations" section of and other financial information contained in this prospectus.

	As of September 30, 2016		
	Actual	Pro Forma	Pro Forma As Adjusted
	(in thousands, except per share amounts)		
Cash and cash equivalents	$161,706	$	$
Long-term debt, including current portion	$ 7,593	$	$
Convertible preferred stock (Series A, B and C), $0.001 par value; 5,502 shares authorized, 4,038 shares issued and outstanding, actual; no shares authorized, issued or outstanding, pro forma and pro forma as adjusted	97,479	—	
Stockholders' equity:			
Preferred stock, $0.001 par value; no shares authorized, issued or outstanding, actual; shares authorized, no shares issued or outstanding, pro forma and pro forma as adjusted	—	—	
Common stock, $0.001 par value; 20,000 shares authorized, 6,587 shares issued and outstanding, actual; shares authorized, 14,663 shares issued and outstanding, pro forma; shares authorized, shares issued and outstanding, pro forma as adjusted	6		
Additional paid-in capital	20,298		
Accumulated other comprehensive loss	(788)		
Retained earnings	66,857		
Total stockholders' equity	86,373		
Total capitalization	$191,445	$	$

Each $1.00 increase (decrease) in the assumed initial public offering price of $ per share, which is the midpoint of the price range set forth on the cover page of this prospectus, would increase (decrease) the pro forma as adjusted amount of cash and cash equivalents, additional paid-in capital, total stockholders' equity and total capitalization by $ million, assuming that the number of shares offered by us, as set forth on the cover page of this prospectus, remains the same and after deducting the estimated underwriting discounts and commissions and estimated offering expenses payable by us. Similarly, each 1,000,000 share increase (decrease) in the number of shares offered by us would increase (decrease) the pro forma as adjusted amount of cash and cash equivalents, additional paid-in capital, total stockholders' equity and total capitalization by $ million, assuming no change in the assumed initial public offering price per share and after deducting the estimated underwriting discounts and commissions and estimated offering expenses payable by us.

The table above does not include:

- 40,000 shares of common stock issuable upon the exercise of stock options outstanding under our 2003 Stock Incentive Plan as of September 30, 2016, with a weighted-average exercise price of $1.05 per share;
- 2,925,378 shares of common stock issuable upon the exercise of stock options outstanding under our 2011 Stock Incentive Plan as of September 30, 2016, with a weighted-average exercise price of $18.40 per share;
- 279,740 shares of common stock issuable upon the vesting of restricted stock units outstanding under our 2011 Stock Incentive Plan as of September 30, 2016;
- 660,220 shares of common stock reserved for future issuance under our 2011 Stock Incentive Plan as of September 30, 2016, which plan will terminate as to new awards upon the closing of this offering; and
- additional shares of common stock that will become available for issuance in connection with this offering under our 2017 Stock Incentive Plan.

DILUTION

If you invest in our common stock in this offering, your ownership interest will be immediately diluted to the extent of the difference between the initial public offering price per share of our common stock and the pro forma as adjusted net tangible book value per share of our common stock immediately after this offering.

Our historical net tangible book value as of September 30, 2016 was $86.4 million, or $13.11 per share of our common stock. Our historical net tangible book value is the amount of our total tangible assets less our total liabilities and convertible preferred stock, which is not included within our stockholders' equity. Historical net tangible book value per share represents historical net tangible book value divided by the 6,586,972 shares of our common stock outstanding as of September 30, 2016.

Our pro forma net tangible book value as of September 30, 2016 was $ million, or $ per share of our common stock. Pro forma net tangible book value represents the amount of our total tangible assets less our total liabilities, after giving effect to the automatic conversion of all outstanding shares of our convertible preferred stock into 8,076,394 shares of our common stock upon the closing of this offering, our borrowing in December 2016 of $300.0 million under our term loan facility and the accrual of special dividends of $171.4 million and $ million, which were declared by our board of directors on December 21, 2016 and , respectively, and cash payments of $28.6 million and $ million, respectively, to be made to holders of our stock options, stock appreciation rights and restricted stock units as equitable adjustments approved by our board of directors in connection with such dividends. Pro forma net tangible book value per share represents our pro forma net tangible book value divided by the total number of shares outstanding as of September 30, 2016, after giving effect to the automatic conversion of all outstanding shares of convertible preferred stock upon the closing of this offering.

After giving further effect to our issuance and sale of shares of common stock in this offering at an assumed initial public offering price of $ per share, which is the midpoint of the price range set forth on the cover page of this prospectus, after deducting estimated underwriting discounts and commissions and estimated offering expenses payable by us and the repayment of $ million of indebtedness under our term loan facility, our pro forma as adjusted net tangible book value as of September 30, 2016 would have been $ million, or $ per share. This represents an immediate increase in pro forma as adjusted net tangible book value per share of $ to existing stockholders and immediate dilution per share of $ to new investors purchasing common stock in this offering. Dilution per share to new investors is determined by subtracting pro forma as adjusted net tangible book value per share after this offering from the initial public offering price per share paid by new investors. The following table illustrates this dilution on a per share basis:

Assumed initial public offering price per share		$
Historical net tangible book value per share as of September 30, 2016	$13.11	
Decrease per share attributable to the pro forma adjustments described above		
Pro forma net tangible book value per share as of September 30, 2016		
Increase in pro forma as adjusted net tangible book value per share attributable to new investors purchasing common stock in this offering and the repayment of $ million of indebtedness under our term loan facility		
Pro forma as adjusted net tangible book value per share after this offering		
Dilution per share to new investors purchasing common stock in this offering		$

Each $1.00 increase (decrease) in the assumed initial public offering price of $ per share, which is the midpoint of the price range set forth on the cover page of this prospectus, would increase (decrease) the pro forma as adjusted amount of cash and cash equivalents, working capital, total assets and total stockholders' equity by $ million, assuming that the number of shares offered by us, as set forth on the cover page of this prospectus, remains the same and after deducting the estimated underwriting discounts and commissions and estimated offering expenses payable by us. Similarly, each 1,000,000 share increase (decrease) in the number of shares offered by us would increase (decrease) the pro forma as adjusted amount of cash and cash equivalents,

working capital, total assets and total stockholders' equity by $ million, assuming no change in the assumed initial public offering price per share and after deducting the estimated underwriting discounts and commissions and estimated offering expenses payable by us.

If the underwriters fully exercise their option to purchase additional shares of common stock in this offering, our pro forma as adjusted net tangible book value per share after this offering would be $ per share, and the dilution per share to new investors purchasing common stock in this offering would be $ per share, in each case assuming an assumed initial public offering price of $ per share, which is the midpoint of the price range set forth on the cover page of this prospectus, and after deducting estimated underwriting discounts and commissions and estimated offering expenses payable by us.

The following table summarizes, on the pro forma as adjusted basis described above, the total number of shares of common stock purchased from us after giving effect to the conversion of our convertible preferred stock into common stock, the total consideration paid or to be paid, and the average price per share paid or to be paid by existing stockholders and by new investors in this offering at an assumed initial public offering price of $ per share, which is the midpoint of the price range set forth on the cover page of this prospectus, before deducting estimated underwriting discounts and commissions and estimated offering expenses payable by us.

	Shares Purchased		Total Consideration		Average Price
	Number	Percent	Amount	Percent	Per Share
Existing stockholders	14,663,366	%	$105,223,727	%	$ 7.18
New investors					$
Total		100.0%	$	100.0%	

The table above assumes no exercise of the underwriters' option to purchase additional shares in this offering. If the underwriters fully exercise their option to purchase additional shares in this offering, the number of shares of our common stock held by new investors purchasing common stock in this offering would be increased to % of the total number of shares of common stock outstanding after this offering, and the number of shares held by existing stockholders would be reduced to % of the total number of shares of common stock outstanding after this offering.

The table above does not include:

- 40,000 shares of common stock issuable upon the exercise of stock options outstanding under our 2003 Stock Incentive Plan as of September 30, 2016, with a weighted-average exercise price of $1.05 per share;
- 2,925,378 shares of common stock issuable upon the exercise of stock options outstanding under our 2011 Stock Incentive Plan as of September 30, 2016, with a weighted-average exercise price of $18.40 per share;
- 279,740 shares of common stock issuable upon the vesting of restricted stock units outstanding under our 2011 Stock Incentive Plan as of September 30, 2016;
- 660,220 shares of common stock reserved for future issuance under our 2011 Stock Incentive Plan as of September 30, 2016, which plan will terminate as to new awards upon the closing of this offering; and
- additional shares of common stock that will become available for issuance in connection with this offering under our 2017 Stock Incentive Plan.

To the extent any of these outstanding options are exercised, you will experience further dilution, which may be significant. To the extent all of such outstanding options had been exercised as of September 30, 2016, the pro forma as adjusted net tangible book value per share after this offering would be $, and the total dilution per share to new investors purchasing common stock in this offering would be $.

In addition, we may choose to raise additional capital due to market conditions or strategic considerations, even if we believe we have sufficient funds for our current or future operating plans. To the extent that additional capital is raised through the sale of equity or securities convertible into equity, the issuance of these securities may result in further dilution to our stockholders.

SELECTED CONSOLIDATED FINANCIAL DATA

The following tables present selected consolidated financial and other financial data for our business. The selected consolidated statement of operations data presented below for the years ended December 31, 2014 and 2015 and the selected consolidated balance sheet data as of December 31, 2014 and 2015 have been derived from our audited consolidated financial statements included elsewhere in this prospectus. The selected consolidated statement of operations data for the nine months ended September 30, 2015 and 2016 and the selected consolidated balance sheet data as of September 30, 2016 have been derived from our unaudited condensed consolidated financial statements included elsewhere in this prospectus and have been prepared on a basis consistent with our audited consolidated financial statements. In the opinion of management, the unaudited data reflects all adjustments, consisting only of normal recurring adjustments, necessary for a fair presentation of the financial information in those statements. Our historical results are not necessarily indicative of the results to be expected in any future period, and the results for any interim period are not necessarily indicative of the results to be expected for the full year. You should read the following selected consolidated financial data in conjunction with the section of this prospectus titled "Management's Discussion and Analysis of Financial Condition and Results of Operations" and our consolidated financial statements and the related notes appearing elsewhere in this prospectus.

	Year Ended December 31,		Nine Months Ended September 30,	
	2014	2015	2015	2016
	(in thousands, except per share amounts)			
Consolidated Statement of Operations Data:				
Revenue:				
Product	$194,358	$247,588	$166,167	$191,763
Service	16,920	24,862	16,376	25,139
Total revenue	211,278	272,450	182,543	216,902
Cost of revenue(1):				
Product	59,088	74,349	48,484	68,793
Service	5,917	5,265	3,652	5,983
Total cost of revenue	65,005	79,614	52,136	74,776
Gross profit	146,273	192,836	130,407	142,126
Operating expenses:				
Research and development(1)	25,481	37,155	27,408	37,213
Sales and marketing(1)	21,409	36,157	23,876	27,289
General and administrative(1)	10,346	16,453	12,558	13,532
Total operating expenses	57,236	89,765	63,842	78,034
Income from operations	89,037	103,071	66,565	64,092
Other income (expense), net	(2,942)	(1,408)	(1,561)	953
Income before provision for income taxes	86,095	101,663	65,004	65,045
Provision for income taxes	26,387	33,742	23,405	16,228
Net income	$ 59,708	$ 67,921	$ 41,599	$ 48,817
Cash dividends declared per common share or common share equivalent	$ 1.9173	$ —	$ —	$ 2.9455
Net income attributable to common stockholders(2):				
Basic	$ 23,287	$ 27,302	$ 16,365	$ 19,928
Diluted	$ 23,843	$ 30,402	$ 18,144	$ 20,006

	Year Ended December 31,		Nine Months Ended September 30,	
	2014	2015	2015	2016
	(in thousands, except per share amounts)			
Net income per share attributable to common stockholders(2):				
Basic	$ 3.88	$ 4.30	$ 2.58	$ 3.04
Diluted	$ 3.65	$ 3.92	$ 2.36	$ 2.37
Weighted-average shares used to compute net income per share attributable to common stockholders(2):				
Basic	5,997	6,348	6,344	6,564
Diluted	6,537	7,761	7,690	8,427
Pro forma net income per share attributable to common stockholders (unaudited)(2):				
Basic		$		$
Diluted		$		$
Weighted-average shares used to compute pro forma net income per share attributable to common stockholders (unaudited)(2):				
Basic				
Diluted				
Other Financial Data:				
Non-GAAP net income(3)	$62,145	$ 72,812	$45,059	$53,301
Adjusted EBITDA(3)	$94,632	$115,541	$75,685	$74,517

(1) Includes stock-based compensation expense related to stock options, stock appreciation rights and restricted stock units granted to employees and non-employee consultants as follows:

	Year Ended December 31,		Nine Months Ended September 30,	
	2014	2015	2015	2016
	(in thousands)			
Cost of revenue	$ 161	$ 143	$ 103	$ 178
Research and development expense	852	1,843	1,422	1,637
Sales and marketing expense	598	775	542	846
General and administrative expense	380	4,560	3,340	3,313
Total stock-based compensation expense	$1,991	$7,321	$5,407	$5,974

(2) See Note 13 to our consolidated financial statements and Note 12 to our unaudited condensed consolidated financial statements, both included elsewhere in this prospectus, for an explanation of the calculations of basic and diluted net income per share attributable to common stockholders and pro forma basic and diluted net income per share attributable to common stockholders.

(3) See "—Non-GAAP Financial Measures" for information regarding our use of these non-GAAP financial measures and a reconciliation of such measures to comparable financial measures calculated and presented in accordance with GAAP.

	As of December 31,		As of September 30,
	2014	2015	2016
	(in thousands)		
Consolidated Balance Sheet Data:			
Cash and cash equivalents	$ 77,155	$ 92,496	$ 161,706
Working capital(1)	99,237	162,981	158,675
Total assets	230,815	283,097	331,668
Long-term debt, including current portion	—	7,795	7,593
Total liabilities	124,636	103,160	147,816
Convertible preferred stock	97,479	97,479	97,479
Total stockholders' equity	8,700	82,458	86,373

(1)We define working capital as current assets less current liabilities.

Non-GAAP Financial Measures

To supplement our consolidated financial statements presented in accordance with generally accepted accounting principles, or GAAP, we monitor and consider non-GAAP net income and adjusted EBITDA. These non-GAAP financial measures are not based on any standardized methodology prescribed by GAAP and are not necessarily comparable to similarly titled measures presented by other companies.

Non-GAAP net income. We define non-GAAP net income as net income as reported in our consolidated statements of operations, excluding the impact of stock-based compensation expense and changes in the fair value of the warrant liability, both of which are non-cash charges, and the tax effect on those excluded items applied using our effective income tax rate for the period. We have presented non-GAAP net income because it is a key measure used by our management and board of directors to understand and evaluate our operating performance, to establish budgets and to develop operational goals for managing our business. The presentation of non-GAAP net income also allows our management and board of directors to make additional comparisons of our results of operations to other companies in our industry.

Adjusted EBITDA. We define adjusted EBITDA as our net income, excluding the impact of stock-based compensation expense; other income (expense), net, which includes changes in the fair value of the warrant liability; depreciation and amortization expense; and our provision for income taxes. We have presented adjusted EBITDA because it is a key measure used by our management and board of directors to understand and evaluate our operating performance, to establish budgets and to develop operational goals for managing our business. In particular, we believe that excluding the impact of these expenses in calculating adjusted EBITDA can provide a useful measure for period-to-period comparisons of our core operating performance.

We use these non-GAAP financial measures to evaluate our operating performance and trends and make planning decisions. We believe that each of these non-GAAP financial measures helps identify underlying trends in our business that could otherwise be masked by the effect of the expenses that we exclude in the calculations of each non-GAAP financial measure. Accordingly, we believe that these financial measures provide useful information to investors and others in understanding and evaluating our operating results, enhancing the overall understanding of our past performance and future prospects.

Our non-GAAP financial measures are not prepared in accordance with GAAP, and should not be considered in isolation of, or as an alternative to, measures prepared in accordance with GAAP. There are a number of limitations related to the use of these non-GAAP financial measures rather than net income, which is the most directly comparable financial measure calculated and presented in accordance with GAAP. Some of these limitations are:

- we exclude stock-based compensation expense from each of our non-GAAP financial measures as it has recently been, and will continue to be for the foreseeable future, a significant recurring non-cash expense for our business and an important part of our compensation strategy;

- we exclude the changes in the fair value of a warrant liability from our non-GAAP net income and adjusted EBITDA measures as it had been a recurring non-cash charge in our statement of operations until the warrant was exercised in March 2014;
- adjusted EBITDA excludes depreciation and amortization expense and, although this is a non-cash expense, the assets being depreciated and amortized may have to be replaced in the future;
- adjusted EBITDA does not reflect the cash requirements necessary to service interest or the cash received from our interest bearing financial assets, both of which impact the cash available to us, and does not reflect foreign currency transaction gains and losses, all of which are reflected in other income (expense), net;
- adjusted EBITDA does not reflect income tax payments that reduce cash available to us; and
- the expenses and other items that we exclude in our calculations of non-GAAP net income and adjusted EBITDA may differ from the expenses and other items, if any, that other companies may exclude from non-GAAP net income and adjusted EBITDA when they report their operating results.

In addition, other companies may use other measures to evaluate their performance, all of which could reduce the usefulness of our non-GAAP financial measures as tools for comparison.

The following tables reconcile non-GAAP net income and adjusted EBITDA to net income, the most directly comparable financial measure calculated and presented in accordance with GAAP.

	Year Ended December 31,		Nine Months Ended September 30,	
	2014	2015	2015	2016
	(in thousands)			
Reconciliation of Net Income to Non-GAAP Net Income:				
Net income	$59,708	$67,921	$41,599	$48,817
Stock-based compensation	1,991	7,321	5,407	5,974
Change in fair value of warrant liability	1,523	—	—	—
Tax effect of excluded items	(1,077)	(2,430)	(1,947)	(1,490)
Non-GAAP net income	$62,145	$72,812	$45,059	$53,301

	Year Ended December 31,		Nine Months Ended September 30,	
	2014	2015	2015	2016
	(in thousands)			
Reconciliation of Net Income to Adjusted EBITDA:				
Net income	$59,708	$ 67,921	$41,599	$48,817
Stock-based compensation	1,991	7,321	5,407	5,974
Depreciation and amortization	3,604	5,149	3,713	4,451
Other income (expense), net	2,942	1,408	1,561	(953)
Provision for income taxes	26,387	33,742	23,405	16,228
Adjusted EBITDA	$94,632	$115,541	$75,685	$74,517

MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS

The following discussion of our financial condition and results of operations should be read together with our consolidated financial statements and related notes and other financial information included elsewhere in this prospectus. The following discussion contains forward-looking statements that reflect our plans, estimates and beliefs. Our actual results could differ materially from those discussed in the forward-looking statements. Factors that could cause or contribute to these differences include those discussed below and elsewhere in this prospectus, particularly in the section titled "Risk Factors." In this discussion, we use financial measures that are considered non-GAAP financial measures under Securities and Exchange Commission rules. These rules require supplemental explanation and reconciliation, which is included elsewhere in this prospectus. Investors should not consider non-GAAP financial measures in isolation from, or in substitution for, financial information presented in compliance with GAAP.

Overview

We provide a suite of software-centric infrastructure solutions that allow cable service providers to deliver voice, video and data services over a single platform at multi-gigabit speeds. In addition, we offer solutions for next-generation distributed and virtualized architectures in cable operator, fixed telecom and wireless networks. Our innovative solutions enable customers to cost-effectively and dynamically increase network speed, add bandwidth capacity and new services for consumers and enterprises, reduce network complexity and reduce operating and capital expenditures.

We were founded in 2003 with the vision of enabling consumers and enterprises to enjoy ultra-fast speeds and enhanced digital content experiences through their phones, tablets, TVs and other connected devices at home or on the go with ubiquitous and seamless access, regardless of how the user is accessing the Internet. Our forward-looking design and investment approach, coupled with our proven product development track record, has enabled us to deliver fully featured next-generation solutions in advance of competitors. For example, we believe we were:

- the first to market (2005) with a software-centric cable solution leveraging the programmability of field programmable gate arrays, or FPGAs, and general purpose processors;
- the first to market (2008) with a commercially deployed, fully qualified Data Over Cable Service Interface Specification, or DOCSIS, cable modem termination system;
- the first to market (2012) with a commercially deployed converged cable access platform, or CCAP, delivering IP voice, digital video and data over a single port;
- the first to market (2015) with commercially deployed DOCSIS 3.1-compliant solutions supporting speeds of up to 10 gigabits per second; and
- the first to market (2016) with a commercially deployable remote-PHY, or R-PHY, solution.

Our solutions are commercially deployed in more than 60 countries by more than 350 customers, including regional service providers as well as some of the world's largest Tier 1 broadband service providers, serving millions of subscribers.

We believe that the shift to software-centric ultra-broadband networks and fixed and wireless network convergence presents us with a compelling market opportunity. We intend to maintain our technological leadership through the enhancement of existing products and the development of new products in both our current and adjacent markets. By investing in research and development, we believe we will be well positioned to continue our rapid growth and take advantage of the large market opportunity across fixed and wireless networks. We also intend to continue to expand our sales and marketing initiatives in key geographies.

We have achieved significant growth and profitability. For the year ended December 31, 2015, we generated revenue of $272.5 million, net income of $67.9 million and adjusted EBITDA of $115.5 million, representing increases of 29.0%, 13.8% and 22.1%, respectively, from the amounts for the year ended December 31, 2014. For the nine months ended September 30, 2016, we generated revenue of $216.9 million, net income of $48.8 million and adjusted EBITDA of $74.5 million, representing increases of 18.8% and 17.4% and a decrease of 1.5%, respectively, from the amounts for the nine months ended September 30, 2015.

Our Business Model

We derive revenue from sales of our products and services. We generate product revenue primarily from sales of our broadband products. The majority of our product revenue is derived from sales of our CCAP solutions, particularly our C100G CCAP. We generate service revenue primarily from sales of maintenance and support services, which end customers typically purchase in conjunction with our products, and, to a lesser extent, from sales of professional services and extended warranty services.

Since shipping our first products in 2005, our cumulative end-customer base has grown significantly. Our revenue and installed base of equipment has increased significantly with the introduction of our CCAP solution in 2012 and our DOCSIS 3.1 capabilities in 2015, both of which run on our Axyom software platform.

We offer a scalable broadband solution that can meet the evolving bandwidth needs of our customers and their subscribers.

Our sales model focuses on the following key areas:

- ***Adding New Customers.*** With several thousand broadband service providers existing globally, we believe that we have opportunities for growth by acquiring new customers in all of the geographic regions in which we compete. Potential new customers include broadband service providers that provide fixed or wireless services or both. We intend to add new customers over time by continuing to invest in our technology and our sales team to capitalize on these new opportunities. Our sales team works closely with prospective customers to educate them on and demonstrate to them the technical and business merits of our products, including the ability to capture new revenue opportunities and realize cost savings through the use of our broadband solutions. For example, our CCAP solutions converge delivery of voice, video and data services over a single port, resulting in increased capacity and scalability, reduced space and energy consumption and simplified operations and engineering, and the DOCSIS 3.1 capabilities of our CCAP solutions further improve network capacity and throughput by utilizing RF modulation techniques that leverage existing broadband spectrum more efficiently, freeing up spectrum on our customers' networks for other potential revenue-generating services. We build relationships with prospective customers at multiple levels and within numerous departments in a customer's organization and, through the sales process, we strive to be a strategic business partner for our customers. We believe that the technological strengths and capabilities of our broadband solutions and the introduction and implementation of next-generation standards, such as DOCSIS 3.1, have been, and will continue to be, an important factor in our ability to add new customers.
- ***Expanding Sales to Our Existing Customer Base.*** Our first installation in a cable service provider's network frequently involves deploying our broadband products in only a portion of the provider's network and with only a fraction of the capacity of our products enabled at the time of initial installation. Over time, our customers have generally expanded the use of our solutions to other areas of their networks to increase network capacity. Capacity expansions are accomplished either by deploying additional systems or line cards, or by our remote enablement of additional channels through the use of software. Sales of additional line cards and software-based capacity expansions generate higher gross margins than our initial hardware-based deployments.

  We work with our existing customers to identify expansion and cross selling opportunities. Existing customers are familiar with and have benefited from the operational and economic benefits of our

broadband products, and therefore, sales cycles for existing customers are generally shorter. We believe expansion and cross selling opportunities with existing customers are significant given their existing and expected infrastructure spend as service providers leverage their investment in our platform to deliver new services to their customers. Our top 20 customers over the period from 2013 to 2016 made subsequent purchases of our products in a majority of the fiscal quarters following their initial purchases. As of September 30, 2016, our customers that have been with us for at least one year have, in subsequent years in the aggregate, generally purchased more than the initial amount of purchases made in the first year. The first year of purchases is typically the beginning of the deployment of our broadband products. This analysis is based on billings, which represent amounts invoiced to customers for products shipped, or for services performed or to be performed, which will be recorded as either revenue or deferred revenue depending on the nature of the arrangement.

Our solutions are commercially deployed in over 60 countries by more than 350 customers. We expect that a substantial portion of our future sales will be follow-on sales to existing customers. During the years ended December 31, 2014 and 2015 and the nine months ended September 30, 2016, sales to existing customers represented 78%, 63% and 74% of our revenue, respectively. Our business and results of operations will depend on our ability to sell additional products to our existing customer base.

- ***Selling New Products.*** Our results of operations have been, and we believe will continue to be, affected by our ability to quickly and effectively design and sell products with improved performance and increased functionality. As networks and standards for broadband solutions evolve, we aim to deliver new products prior to our competition. For example, the introduction of our DOCSIS 3.0 broadband solution, our CCAP solution and our DOCSIS 3.1 capabilities allowed us to obtain new customers, increase our sales to existing customers, increase our revenue and capture market share. We aim to increase our revenue by enabling customers to transition from previously deployed data and video solutions to our integrated CCAP solutions, which can incorporate DOCSIS 3.1 standards as well as our remote-PHY distributed access solution. Over the last several years, we have made substantial investments to extend our Axyom software platform to serve the wireless market. We are currently engaged in several trials with potential customers for our wireless solutions and expect to generate revenue in the future from sales of wireless solutions to new and existing customers. We have also developed solutions for telecommunications service providers. Our ability to sustain our revenue growth will depend, in part, upon our sales of new products.

We market and sell our products and services through our direct global sales force, supported by sales agents, and through resellers. A majority of our revenue is derived from direct sales, which generate higher gross margins than sales made through resellers. Our sales organization includes systems engineers with deep technical expertise that provide pre-sales technical support. These systems engineers also assist with post-sales support. Our resellers receive an order from an end customer prior to placing an order with us, and we confirm the identification of or are aware of the end customer prior to accepting such orders. We use sales agents to assist our direct global sales force in the sales process with certain customers primarily located in the Latin America and Asia-Pacific regions. If a sales agent is engaged in the sales process, we receive the order directly from and sell the products and services directly to the end customer, and we pay a commission to the sales agent, calculated as a percentage of the related customer payment.

Each of our sales teams is responsible for a geographic territory and/or has responsibility for a number of major direct end-customer accounts. We have a diverse, global customer base and our revenue by geographic region fluctuates from period to period based on the timing of customer projects. The percentages of our revenue derived from customers in each geographic region were as follows:

	Year Ended December 31,		Nine Months Ended September 30,	
	2014	2015	2015	2016
Revenue by geographic region:				
North America	50.8%	20.0%	24.6%	59.2%
Latin America	14.2%	32.1%	26.6%	15.2%
Europe, Middle East and Africa	15.3%	27.8%	27.6%	12.6%
Asia-Pacific	19.7%	20.1%	21.2%	13.0%
Total	100.0%	100.0%	100.0%	100.0%

Non-GAAP Financial Measures

In addition to the measures presented in our consolidated financial statements, we use the following non-GAAP financial measures to evaluate our operating performance, to identify trends affecting our business, and to establish budgets and develop operational goals for managing our business.

	Year Ended December 31,		Nine Months Ended September 30,	
	2014	2015	2015	2016
	(in thousands)			
Non-GAAP net income	$62,145	$ 72,812	$45,059	$53,301
Adjusted EBITDA	$94,632	$115,541	$75,685	$74,517

These financial measures are non-GAAP financial measures. Please see “Selected Consolidated Financial Data—Non-GAAP Financial Measures” for information regarding the limitations of using these financial measures and for reconciliations of non-GAAP net income and adjusted EBITDA to net income, the most directly comparable financial measure calculated and presented in accordance with GAAP.

Key Components of Our Results of Operations

Revenue

We generate product revenue from sales of our software-centric broadband products, including our CCAP solution and our DOCSIS 3.1 capabilities. The majority of our revenue is derived from sales of our CCAP solutions, particularly our C100G CCAP. We also generate product revenue from sales of additional line cards and software-based capacity expansions.

We generate service revenue from sales of initial maintenance and support services contracts, which are typically purchased by end customers in conjunction with our products, and from our customers’ subsequent annual renewals of those contracts. We offer maintenance and support services under renewable, fee-based contracts, which include telephone support and unspecified software upgrades and updates provided on a when-and-if-available basis. To a lesser extent, we generate service revenue from sales of professional services, such as installation and configuration, and extended warranty services.

The sale of our software-centric broadband products generally includes a 90-day warranty on the software and a one-year warranty on the hardware component of the products, which includes repair or replacement of the applicable hardware. We record a warranty accrual for the initial software and hardware warranty included with

our product sales and do not defer revenue. In addition, in conjunction with customers' renewals of maintenance and support services contracts, we offer an extended warranty for periods typically of one to three years for agreed-upon fees, which we record as service revenue.

Cost of Revenue

Our cost of product revenue consists primarily of the costs of procuring goods, such as chassis and line cards embedded with FPGAs, from our contract manufacturers and other suppliers. In addition, cost of product revenue includes salary and benefit expenses, including stock-based compensation, for manufacturing and supply-chain management personnel, allocated facilities-related costs, estimated warranty costs, third-party logistics costs, and estimated costs associated with excess and obsolete inventory.

Our cost of service revenue includes salary and benefit expenses, including stock-based compensation, for our maintenance and support services and professional services personnel, fees incurred for subcontracted professional services provided to our customers, and allocated facilities-related costs.

Gross Profit

Our product gross profit and gross margin have been, and may in the future be, influenced by several factors, including changes in the volume of our software-centric broadband products sold, product configuration, sales of capacity expansions, geographic location of our customers, pricing due to competitive pressure, estimated warranty costs, inventory obsolescence, and favorable and unfavorable changes in inventory production volume and component costs. As some products mature, the average selling prices of those products may decline. We expect that over time our product mix will move toward a higher percentage of sales of software-based capacity expansions and incremental line cards, which generate higher gross margins than sales of our initial hardware-based deployments.

Our service gross profit and gross margin have been, and may in the future be, influenced by the amount and timing of renewals of maintenance and support services contracts by customers and, to a lesser extent, the amount of professional services ordered by customers and performed by us.

Operating Expenses

Our operating expenses consist of research and development, sales and marketing, and general and administrative expenses.

Research and Development Expenses

Research and development expenses consist primarily of salary and benefit expenses, including stock-based compensation, for our employees engaged in research, design and development activities. Research and development expenses also include project-specific engineering services purchased from external vendors, prototype costs, depreciation expense, amortization of purchased intellectual property, allocated facilities-related costs and travel expenses.

We expect that our research and development costs will continue to increase in absolute dollars and will increase modestly as a percentage of revenue from 2016 to 2017 as we continue to make significant investments to enhance our software-centric broadband products and develop new software-centric broadband products and technologies, including our new wireless solutions.

Sales and Marketing Expenses

Sales and marketing expenses include salary and benefit expenses, including stock-based compensation, for employees and costs for contractors engaged in sales and marketing activities. Sales and marketing expenses also

include commissions, calculated as a percentage of the related customer payment, to sales agents that assist us in the sales process with certain customers primarily located in the Latin America and Asia-Pacific regions. These sales agent commissions fluctuate from period to period based on the amount and timing of sales to the customers subject to sales agent commissions. Sales and marketing expenses also include marketing activities, such as trade shows, marketing programs and promotional materials, as well as allocated facilities-related costs. We are also establishing a new sales force to sell and undertake new marketing programs to promote our new wireless solutions.

We expect that our sales and marketing expenses will increase in absolute dollars and will increase modestly as a percentage of revenue from 2016 to 2017 as we continue to make investments in our sales and marketing organizations and expand our marketing programs and efforts to increase the market awareness and sales of our products and services.

General and Administrative Expenses

General and administrative expenses include salary and benefit expenses, including stock-based compensation, for employees engaged in general and administrative activities, as well as professional service fees, allocated facilities-related costs, insurance, travel and bad debt expenses related to accounts receivable.

We expect that our general and administrative expenses will increase in absolute dollars and will increase modestly as a percentage of revenue from 2016 to 2017 primarily due to our continued growth and the increased cost of compliance associated with being a public company.

Other Income (Expense), Net

Other income (expense), net consists of interest income from our investments in short-term financial instruments, such as certificates of deposits, money market mutual funds and commercial paper, and interest expense associated with the mortgage on our corporate office and debt maintenance costs related to our working capital line of credit. Other income (expense), net also includes realized and unrealized gains and losses from foreign currency transactions. We hedge certain significant transactions denominated in currencies other than the U.S. dollar, and we expect to continue to do so to minimize our exposure to foreign currency fluctuations.

We classified warrants for the purchase of shares of our common stock as a liability on our consolidated balance sheets due to the anti-dilution provisions in those warrants. The warrants were initially recorded at fair value on date of issuance and were subsequently remeasured to fair value at each balance sheet date. Changes in fair value of these warrants were recognized as a component of other income (expense), net in our consolidated statements of operations and comprehensive income, and we continued to adjust the liability for changes in fair value until the warrants were exercised on March 31, 2014.

Provision for Income Taxes

We are subject to income taxes in the United States and the foreign jurisdictions in which we do business. These foreign jurisdictions have statutory tax rates different from those in the United States. Our effective tax rates will vary depending on the relative proportion of foreign to U.S. income, the utilization of foreign tax and research and development credits, changes in corporate structure, the amount and timing of certain employee stock-based compensation transactions, changes in the valuation of our deferred tax assets and liabilities and changes in tax laws and interpretations. We plan to regularly assess the likelihood of outcomes that could result from the examination of our tax returns by the U.S. Internal Revenue Service, or IRS, and other tax authorities to determine the adequacy of our income tax reserves and expense. Should actual events or results differ from our then-current expectations, charges or credits to our provision for income taxes may become necessary. Any such adjustments could have a significant effect on our results of operations.

In the third quarter of 2016, we began the process of restructuring our international operations and, as a result, we expect that our future effective tax rates may be lower than our historical effective tax rates. However,

due to the timing and status of this restructuring program as of September 30, 2016, the impact on our effective tax rate in the third quarter of 2016 was insignificant.

Results of Operations

The following tables set forth our consolidated results of operations in dollar amounts and as percentage of total revenue for the periods shown:

	Year Ended December 31,		Nine Months Ended September 30,	
	2014	2015	2015	2016
	(in thousands)			
Consolidated Statement of Operations Data:				
Revenue:				
Product	$194,358	$247,588	$166,167	$191,763
Service	16,920	24,862	16,376	25,139
Total revenue	211,278	272,450	182,543	216,902
Cost of revenue(1):				
Product	59,088	74,349	48,484	68,793
Service	5,917	5,265	3,652	5,983
Total cost of revenue	65,005	79,614	52,136	74,776
Gross profit	146,273	192,836	130,407	142,126
Operating expenses:				
Research and development(1)	25,481	37,155	27,408	37,213
Sales and marketing(1)	21,409	36,157	23,876	27,289
General and administrative(1)	10,346	16,453	12,558	13,532
Total operating expenses	57,236	89,765	63,842	78,034
Income from operations	89,037	103,071	66,565	64,092
Other income (expense), net	(2,942)	(1,408)	(1,561)	953
Income before provision for income taxes	86,095	101,663	65,004	65,045
Provision for income taxes	26,387	33,742	23,405	16,228
Net income	$ 59,708	$ 67,921	$ 41,599	$ 48,817

(1) Includes stock-based compensation expense related to stock options, stock appreciation rights and restricted stock units granted to employees and non-employee consultants as follows:

	Year Ended December 31,		Nine Months Ended September 30,	
	2014	2015	2015	2016
	(in thousands)			
Cost of revenue	$ 161	$ 143	$ 103	$ 178
Research and development expense	852	1,843	1,422	1,637
Sales and marketing expense	598	775	542	846
General and administrative expense	380	4,560	3,340	3,313
Total stock-based compensation expense	$ 1,991	$ 7,321	$ 5,407	$ 5,974

	Year Ended December 31,		Nine Months Ended September 30,	
	2014	2015	2015	2016
	(as a percentage of total revenue)			
Revenue:				
Product	92%	91%	91%	88%
Service	8	9	9	12
Total revenue	100	100	100	100
Cost of revenue:				
Product	28	27	27	32
Service	3	2	2	3
Total cost of revenue	31	29	29	34
Gross profit	69	71	71	66
Operating expenses:				
Research and development	12	14	15	17
Sales and marketing	10	13	13	13
General and administrative	5	6	7	6
Total operating expenses	27	33	35	36
Income from operations	42	38	36	30
Other income (expense), net	(1)	(1)	(1)	—
Income before provision for income taxes	41	37	36	30
Provision for income taxes	12	12	13	7
Net income	28%	25%	23%	23%

Percentages in the table above are based on actual values. As a result, some totals may not sum due to rounding.

Nine Months Ended September 30, 2015 Compared to Nine Months Ended September 30, 2016

Revenue

	Nine Months Ended September 30,				Change	
	2015		2016			
	Amount	% of Total	Amount	% of Total	Amount	%
	(dollars in thousands)					
Revenue:						
Product	$166,167	91.0%	$191,763	88.4%	$ 25,596	15.4%
Service	16,376	9.0%	25,139	11.6%	8,763	53.5%
Total revenue	$182,543	100.0%	$216,902	100.0%	$ 34,359	18.8%
Revenue by geographic region:						
North America	$ 44,820	24.6%	$128,298	59.2%	$ 83,478	186.3%
Latin America	48,636	26.6%	33,043	15.2%	(15,593)	(32.1)%
Europe, Middle East and Africa	50,351	27.6%	27,377	12.6%	(22,974)	(45.6)%
Asia-Pacific	38,736	21.2%	28,184	13.0%	(10,552)	(27.2)%
Total revenue	$182,543	100.0%	$216,902	100.0%	$ 34,359	18.8%

The increase in product revenue was due to an increase in sales of our software-centric broadband products in North America primarily due to an increase of $50.4 million in sales to new customers, which predominantly

deployed our CCAP solution that includes DOCSIS 3.1 capabilities, and an increase of $26.6 million in sales of our CCAP solutions to existing customers to increase the proportion of their networks using our products to provide their subscribers with greater bandwidth capacity through capacity expansions. These increases were partially offset by an aggregate decrease of $51.4 million in sales in all other regions resulting primarily from decreases in purchases by customers in those regions of capacity expansions from us, which we believe was primarily due to the timing of customer expenditures on network upgrades.

The increase in service revenue was primarily due to a $7.0 million increase in maintenance and support services revenue due to an increase in our installed base of customers from both new customers and existing customers renewing their maintenance and support service contracts as well as a $1.8 million increase in professional services revenue related to new customer installations to deploy our DOCSIS 3.1 capabilities.

Cost of Revenue and Gross Profit

	Nine Months Ended September 30,		Change	
	2015	2016	Amount	%
	(dollars in thousands)			
Cost of revenue:				
Product	$48,484	$68,793	$20,309	41.9%
Service	3,652	5,983	2,331	63.8%
Total cost of revenue	$52,136	$74,776	$22,640	43.4%

The increase in cost of product revenue was primarily due to an increase in the quantity of our software-centric broadband products sold and an increase in personnel-related costs resulting from hiring additional employees.

The increase in cost of service revenue was primarily due to a $1.7 million increase in subcontracted professional services related to new customer deployments of our DOCSIS 3.1 capabilities and a $0.6 million increase in personnel-related costs resulting from hiring additional employees.

	Nine Months Ended September 30,				Change	
	2015		2016			
	Amount	Gross Margin	Amount	Gross Margin	Amount	Gross Margin (bps)
	(dollars in thousands)					
Gross profit:						
Product	$117,683	70.8%	$122,970	64.1%	$ 5,287	(670)
Service	12,724	77.7%	19,156	76.2%	6,432	(150)
Total gross profit	$130,407	71.4%	$142,126	65.5%	$11,719	(590)

The decrease in product gross margin was primarily due to higher cost of goods related to initial sales of our software-centric broadband products as a result of the significant amount of hardware in these sales.

Service gross margin declined slightly due to an increase in professional services revenue as a percentage of total service revenue during the nine months ended September 30, 2016.

Research and Development

	Nine Months Ended September 30,		Change	
	2015	2016	Amount	%
	(dollars in thousands)			
Research and development	$27,408	$37,213	$9,805	35.8%
Percentage of revenue	15.0%	17.2%		

The increase in research and development expense was due to a $7.7 million increase in personnel-related costs (including a $0.2 million increase in stock-based compensation expense) as a result of the increase in the headcount of our research and development personnel from 243 to 321 to support the development of our new wireless and software-centric broadband products and to enhance our existing software-centric broadband products, a $0.9 million increase in facilities and infrastructure expenses and a $0.7 million increase in prototype development costs for new broadband products.

Sales and Marketing

	Nine Months Ended September 30,		Change	
	2015	2016	Amount	%
	(dollars in thousands)			
Sales and marketing	$23,876	$27,289	$3,413	14.3%
Percentage of revenue	13.1%	12.6%		

The increase in sales and marketing expense was due to a $6.2 million increase in personnel-related costs (including a $0.3 million increase in stock-based compensation expense) as a result of the increase in the headcount of our sales and marketing personnel from 90 to 114 in order to increase the sales force associated with our software-centric broadband products and to develop a new sales force assigned to our new wireless solutions and a $1.2 million increase in marketing costs related to trade shows and events to promote our solutions, both partially offset by a $4.3 million decrease in sales agent commissions related to a decrease in sales in Latin America.

General and Administrative

	Nine Months Ended September 30,		Change	
	2015	2016	Amount	%
	(dollars in thousands)			
General and administrative	$12,558	$13,532	$ 974	7.8%
Percentage of revenue	6.9%	6.2%		

The increase in general and administrative expense was primarily due to a $1.5 million increase in personnel-related costs (which reflected no change in stock-based compensation expense) to support the continued growth in our business, partially offset by a $0.3 million decrease in professional fees.

Other Income (Expense), Net

	Nine Months Ended September 30,		Change	
	2015	2016	Amount	%
	(dollars in thousands)			
Other income (expense), net	$(1,561)	$ 953	$2,514	161.1%
Percentage of revenue	0.9%	0.4%		

The change from a net other expense of $1.6 million to a net other income of $1.0 million was primarily due to a lower carrying value of foreign-denominated cash and receivables during the nine months ended September 30, 2016 as compared to the nine months ended September 30, 2015 and the related absence of foreign currency transaction losses arising from the depreciation of the euro.

Provision for Income Taxes

	Nine Months Ended September 30,		Change	
	2015	2016	Amount	%
	(dollars in thousands)			
Provision for income taxes	$23,405	$16,228	$(7,177)	(30.7)%
Effective tax rate	36.0%	24.9%		

The 11.1% decrease in our effective tax rate primarily resulted from the tax benefits from certain employee stock-based compensation transactions during the nine months ended September 30, 2016 related to our adoption effective as of January 1, 2016 of a new share-based payment accounting standard, a decrease in the foreign tax rate differential, and the timing of the enactment of the U.S. federal research and development credit, which was effective as of September 30, 2016 but not effective as of September 30, 2015.

Year Ended December 31, 2014 Compared to Year Ended December 31, 2015

Revenue

	Year Ended December 31,				Change	
	2014		2015			
	Amount	% of Total	Amount	% of Total	Amount	%
	(dollars in thousands)					
Revenue:						
Product	$194,358	92.0%	$247,588	90.9%	$ 53,230	27.4%
Service	16,920	8.0%	24,862	9.1%	7,942	46.9%
Total revenue	$211,278	100.0%	$272,450	100.0%	$ 61,172	29.0%
Revenue by geographic region:						
North America	$107,376	50.8%	$ 54,518	20.0%	$(52,858)	(49.2)%
Latin America	29,915	14.2%	87,382	32.1%	57,467	192.1%
Europe, Middle East and Africa	32,407	15.3%	75,767	27.8%	43,360	133.8%
Asia-Pacific	41,580	19.7%	54,783	20.1%	13,203	31.8%
Total revenue	$211,278	100.0%	$272,450	100.0%	$ 61,172	29.0%

The increase in product revenue was primarily due to product sales to new customers that deployed our CCAP solution of $42.4 million in Latin America, $16.8 million in Europe, Middle East and Africa, and $13.8 million in Asia-Pacific; an increase in product sales of $8.9 million to existing customers in such regions; and recognition of previously deferred revenue of $23.1 million upon the product acceptance by a new customer in Europe that deployed our CCAP solution. These increases were partially offset by a decrease in product sales in North America of $51.9 million resulting primarily from decreases in purchases by customers in North America of capacity expansions from us, which we believe was primarily due to the timing of customer expenditures on network upgrades.

The increase in service revenue was primarily due to a $12.7 million increase in maintenance and support services revenue as a result of an increase in our installed base of customers from both new customers and

existing customers renewing their maintenance and support service contracts, which was partially offset by a $4.7 million decrease in professional services revenue, which was primarily due to revenue recognized in 2014 in connection with one major professional services engagement.

Cost of Revenue and Gross Profit

	Year Ended December 31,		Change	
	2014	2015	Amount	%
	(dollars in thousands)			
Cost of revenue:				
Product	$59,088	$74,349	$15,261	25.8%
Service	5,917	5,265	(652)	(11.0)%
Total cost of revenue	$65,005	$79,614	$14,609	22.5%

The increase in cost of product revenue was primarily due to an increase in the quantity of our software-centric broadband products sold and an increase in personnel-related costs resulting from hiring additional employees.

The decrease in cost of service revenue was primarily due to a $1.8 million decrease in subcontracted professional services related to new customer deployments of our CCAP solution, partially offset by a $0.9 million increase in personnel-related costs resulting from hiring additional employees.

	Year Ended December 31,				Change	
	2014		2015			
	Amount	Gross Margin	Amount	Gross Margin	Amount	Gross Margin (bps)
	(dollars in thousands)					
Gross profit:						
Product	$135,270	69.6%	$173,239	70.0%	$37,969	40
Service	11,003	65.0%	19,597	78.8%	8,594	1,380
Total gross profit	$146,273	69.2%	$192,836	70.8%	$46,563	160

The slight increase in product gross margin was primarily due to an increase in sales of software-based capacity expansions during the year ended December 31, 2015.

The increase in service gross margin was due to a decrease in sales of lower-margin professional services related to new customer deployments of our CCAP solution during 2015 as compared to 2014.

Research and Development

	Year Ended December 31,		Change	
	2014	2015	Amount	%
	(dollars in thousands)			
Research and development	$25,481	$37,155	$11,674	45.8%
Percentage of revenue	12.1%	13.6%		

The increase in research and development expense was due to a $8.9 million increase in personnel-related costs (including a $1.0 million increase in stock-based compensation expense) as a result of the increase in headcount of our research and development personnel from 187 to 256 to support the development of our new

wireless and software-centric broadband products and to enhance our existing software-centric broadband products, a $1.5 million increase in facilities and infrastructure expenses and a $1.1 million increase in hardware prototype development costs for new broadband products.

Sales and Marketing

	Year Ended December 31,		Change	
	2014	2015	Amount	%
	(dollars in thousands)			
Sales and marketing	$21,409	$36,157	$14,748	68.9%
Percentage of revenue	10.1%	13.3%		

The increase in sales and marketing expense was due to a $7.5 million increase in sales agent commissions related to an increase in sales in Latin America, a $5.7 million increase in personnel-related costs (including a $0.2 million increase in stock-based compensation expense) as a result of the increase in the headcount of our sales and marketing personnel from 67 to 94 in order to increase the sales force associated with our software-centric broadband products and to start the development a new sales force assigned to our new wireless solutions, a $0.8 million increase in facilities and infrastructure expenses and a $0.5 million increase in marketing costs related to trade shows and events to promote our solutions.

General and Administrative

	Year Ended December 31,		Change	
	2014	2015	Amount	%
	(dollars in thousands)			
General and administrative	$10,346	$16,453	$6,107	59.0%
Percentage of revenue	4.9%	6.0%		

The increase in general and administrative expense was primarily due to a $4.0 million increase in stock-based compensation expense, a $1.3 million increase in personnel-related costs due to an increase in the headcount of personnel in our general and administrative functions due to the growth in our business and a $0.7 million increase in professional fees.

Other Income (Expense), Net

	Year Ended December 31,		Change	
	2014	2015	Amount	%
	(dollars in thousands)			
Other income (expense), net	$(2,942)	$(1,408)	$1,534	52.1%
Percentage of revenue	1.4%	0.5%		

The change from a net other expense of $2.9 million to a net other expense of $1.4 million was due to a $1.5 million decrease in other expense associated with our revaluation in 2014 of a liability for a common stock warrant, which was exercised on March 31, 2014.

Provision for Income Taxes

	Year Ended December 31,		Change	
	2014	2015	Amount	%
	(dollars in thousands)			
Provision for income taxes	$26,387	$33,742	$7,355	27.9%
Effective tax rate	30.6%	33.2%		

The increase in the effective tax rate of 2.6% primarily resulted from an increase in the foreign tax rate differential.

Consolidated Quarterly Results of Operations

The following table sets forth our unaudited quarterly consolidated statement of operations data, in both dollar amounts and as a percentage of total revenue, for each of the seven fiscal quarters in the period ended September 30, 2016. In management's opinion, the quarterly statement of operations data has been prepared on the same basis as the audited consolidated financial statements included in this prospectus and reflect all adjustments, consisting only of normal recurring adjustments, necessary for a fair presentation of this data. This information should be read together with our consolidated financial statements and related notes appearing elsewhere in this prospectus. Our operating results may fluctuate due to a variety of factors. The results of historical periods are not necessarily indicative of the results of operations for a full year or any future period.

	Three Months Ended						
	Mar. 31, 2015	June 30, 2015	Sept. 30, 2015	Dec. 31, 2015	Mar. 31, 2016	June 30, 2016	Sept. 30, 2016
	(in thousands)						
Revenue:							
Product	$55,884	$68,276	$42,007	$81,421	$76,433	$56,777	$58,553
Service	3,505	6,814	6,057	8,486	6,996	8,148	9,995
Total revenue	59,389	75,090	48,064	89,907	83,429	64,925	68,548
Cost of revenue:							
Product	16,379	18,783	13,322	25,865	27,103	22,427	19,263
Services	1,141	1,233	1,278	1,613	1,408	1,997	2,578
Total cost of revenue	17,520	20,016	14,600	27,478	28,511	24,424	21,841
Gross profit	41,869	55,074	33,464	62,429	54,918	40,501	46,707
Operating expenses:							
Research and development	8,270	9,284	9,854	9,747	12,189	12,573	12,451
Sales and marketing	7,129	7,155	9,592	12,281	8,644	9,125	9,520
General and administrative	3,600	4,671	4,287	3,895	4,347	4,665	4,520
Total operating expenses	18,999	21,110	23,733	25,923	25,180	26,363	26,491
Income from operations	22,870	33,964	9,731	36,506	29,738	14,138	20,216
Other income (expense), net	(3,464)	2,016	(113)	153	319	278	356
Income before provision for income taxes	19,406	35,980	9,618	36,659	30,057	14,416	20,572
Provision for income taxes	6,757	13,278	3,370	10,337	8,345	2,412	5,471
Net income	$12,649	$22,702	$ 6,248	$26,322	$21,712	$12,004	$15,101

	Three Months Ended						
	Mar. 31, 2015	June 30, 2015	Sept. 30, 2015	Dec. 31, 2015	Mar. 31, 2016	June 30, 2016	Sept. 30, 2016
	(as a percentage of total revenue)						
Revenue:							
Product	94%	91%	87%	91%	92%	87%	85%
Service	6	9	13	9	8	13	15
Total revenue	100	100	100	100	100	100	100
Cost of revenue:							
Product	28	25	28	29	32	35	28
Service	2	2	3	2	2	3	4
Total cost of revenue	30	27	30	31	34	38	32
Gross profit	70	73	70	69	66	62	68
Operating expenses:							
Research and development	14	12	21	11	15	19	18
Sales and marketing	12	10	20	14	10	14	14
General and administrative	6	6	9	4	5	7	7
Total operating expenses	32	28	49	29	30	41	39
Income from operations	39	45	20	41	36	22	29
Other income (expense), net	(6)	3	—	—	—	—	1
Income before provision for income taxes	33	48	20	41	36	22	30
Provision for income taxes	11	18	7	11	10	4	8
Net income	21%	30%	13%	29%	26%	18%	22%

Percentages in the table above are based on actual values. As a result, some totals may not sum due to rounding.

Quarterly Revenue and Cost of Revenue

Our revenue has been influenced over the periods presented by demand for and sales of our software-centric broadband products, including our CCAP solution and DOCSIS 3.1 capabilities, an increase in our sales of software-based capacity expansions, and an increase in our maintenance and support services revenue due to an increase in the supported installed base of equipment. An overall increase in demand for our products over the periods presented, combined with the introduction of new products, has contributed to the overall increase in our revenue.

We believe that seasonality generally causes product revenue to be greater for the first and fourth quarters of our year as compared to the second and third quarters. We believe that this seasonality results primarily from the procurement, budgeting and deployment cycles of many of our customers.

Product revenue during the three months ended June 30, 2015 included the recognition of previously deferred product revenue of $23.1 million upon the product acceptance by a new customer in Europe that deployed our CCAP solution. The cost of product revenue for the same period also included the recognition of previously deferred inventory costs related to this product acceptance.

Quarterly Gross Profit

Our gross profit and gross margin are primarily driven by the mix of products sold, the amount of capacity expansions sold, and the amount of maintenance and support services revenue recognized for the period. The decreases in gross profit and gross margin during the three months ended March 31, 2016 and June 30, 2016

were primarily due to lower gross profit from the initial sales to new customers of our broadband products as a result of the amount of hardware in these sales.

Quarterly Operating Expenses

Our operating expenses have generally increased over the periods presented primarily related to the increase in personnel and the related salary and benefit costs to support the growth of our business and the development of new products. Our total headcount was 352, 481 and 579 as of December 31, 2014 and 2015 and September 30, 2016, respectively. The increase in research and development costs was primarily attributable to increased personnel added throughout each of the quarters presented to support the development of our new wireless and software-centric broadband products and to enhance our existing software-centric broadband products. Sales and marketing expenses and general and administrative expenses have increased over the periods presented primarily due to increases in personnel to support the growth of our business.

Sales and marketing expenses during the three months ended September 30, 2015 and December 31, 2015 included sales agent commissions of $3.5 million and $4.4 million, respectively, related to sales to certain customers in the Latin America and Asia-Pacific regions.

Liquidity and Capital Resources

Since our inception, we have primarily funded our operations through issuances of shares of our convertible preferred stock and cash flows from operations. The following tables set forth our cash and cash equivalents and working capital as of December 31, 2014 and 2015 and September 30, 2016 as well as our net cash flows for the years ended December 31, 2014 and 2015 and the nine months ended September 30, 2015 and 2016:

	As of December 31,		As of September 30,
	2014	2015	2016
	(in thousands)		
Consolidated Balance Sheet Data:			
Cash and cash equivalents	$77,155	$ 92,496	$ 161,706
Working capital	99,237	162,981	158,675

	Year Ended December 31,		Nine Months Ended September 30,	
	2014	2015	2015	2016
	(in thousands)			
Consolidated Cash Flow Data:				
Net cash provided by operating activities	$ 60,348	$ 24,602	$ 27,086	$124,069
Net cash used in investing activities	(4,030)	(15,503)	(14,009)	(6,159)
Net cash provided by (used in) financing activities	(21,695)	7,304	7,428	(48,146)

As of September 30, 2016, we had cash and cash equivalents of $161.7 million and accounts receivable of $74.9 million. We maintain a $25.0 million working capital line of credit under which $24.0 million was available and $1.0 million was used as collateral for a stand-by letter of credit as of September 30, 2016.

Of our total cash and cash equivalents of $161.7 million as of September 30, 2016, $18.4 million was held by our foreign subsidiaries. We intend to utilize the cash and cash equivalents held by our foreign subsidiaries to support our business growth in the regions in which they operate. If we were to repatriate to the U.S. the cash and cash equivalents held by these foreign subsidiaries, we would need to accrue and pay U.S. income taxes on the cash amounts repatriated.

We believe our existing cash and cash equivalents and anticipated cash flows from future operations and liquidity available from our line of credit will be sufficient to meet our working capital and capital expenditure

needs for at least the next 12 months. Our future capital requirements may vary materially from those currently planned and will depend on many factors, including our rate of revenue growth, the timing and extent of spending on research and development efforts and other business initiatives, purchases of capital equipment to support our growth, the expansion of sales and marketing activities, expansion of our business through acquisitions or our investments in complementary products, technologies or businesses, the use of working capital to purchase additional inventory, the timing of new product introductions, market acceptance of our products and overall economic conditions. To the extent that current and anticipated future sources of liquidity are insufficient to fund our future business activities and requirements, we may be required to seek additional equity or debt financing. In the event additional financing is required from outside sources, we may not be able to raise it on terms acceptable to us or at all.

From our inception through September 30, 2016, our board of directors has declared a special dividend on two separate occasions to provide a return of capital to stockholders. The dividend payments totaled $28.9 million and $0.7 million in the years ended December 31, 2014 and 2015, respectively, and totaled $47.8 million in the nine months ended September 30, 2016. We do not anticipate declaring cash dividends following the closing of this offering. Any future determination to declare dividends will be subject to the discretion of our board of directors and applicable law, and will depend on various factors, including our results of operations, financial condition, prospects and any other factors deemed relevant by our board of directors.

Cash Flows

Operating Activities

Our primary source of cash from operating activities has been from cash collections from our customers. We expect cash inflows from operating activities to be affected by increases in sales and timing of collections and by purchases and shipments of inventory. Our primary uses of cash from operating activities have been for personnel costs and investment in sales and marketing and research and development. We expect cash outflows from operating activities to increase as a result of further investment in research and development and sales and marketing and increases in personnel costs as we continue to enhance our products and introduce new products in an effort to continue to expand our business.

During the nine months ended September 30, 2016, cash provided by operating activities was $124.1 million, primarily resulting from our net income of $48.8 million, net non-cash charges of $6.4 million and net cash provided by changes in our operating assets and liabilities of $68.9 million. The net cash provided by changes in our operating assets and liabilities during the nine months ended September 30, 2016 was primarily due to a $25.8 million decrease in accounts receivable due to the timing of billings and collections during the period and a higher proportion of our sales in geographic regions with shorter payment terms, a $22.3 million increase in deferred revenue due to the deferral of the revenue recognition for certain sales transactions resulting from the customer acceptance provisions of those arrangements and an increase in sales of maintenance and support service contracts as a result of an increase in our installed base, a $15.6 million increase in accounts payable primarily attributable to the timing of our payments for the purchases of inventory, and a $10.3 million increase in accrued expenses and other current liabilities, which included an increase of $13.9 million for accrued customer incentives, all partially offset by a $4.9 million increase in accrued income taxes as a result of increased taxable income.

During the nine months ended September 30, 2015, cash provided by operating activities was $27.1 million, primarily resulting from net income of $41.6 million and net non-cash charges of $9.2 million, both partially offset by net cash used by changes in our operating assets and liabilities of $23.7 million. The net cash used by changes in our operating assets and liabilities during the nine months ended September 30, 2015 was primarily due to a $27.9 million increase in inventory due to the anticipated growth in our business, a $15.7 million decrease in accrued income taxes due to the timing of tax payments and an $11.7 million decrease in deferred revenue primarily due to recognition of $23.1 million of revenue upon the product acceptance by a new customer in Europe that deployed our CCAP solution, which was partially offset by a $12.3 million increase in deferred

revenue due primarily to the deferral of revenue recognition related to the finalization of a contractual arrangement with a customer in Europe. These uses of cash were partially offset by a $24.2 million decrease in accounts receivable due to the timing of billings and collections during the period and a high concentration of our sales in geographic regions with shorter payment terms, and a $9.4 million increase in accounts payable primarily attributable to timing of vendor payments.

During the year ended December 31, 2015, cash provided by operating activities was $24.6 million, primarily resulting from our net income of $67.9 million and net non-cash charges of $12.7 million, both partially offset by net cash used by changes in our operating assets and liabilities of $56.0 million. The net cash used by changes in our operating assets and liabilities during the year ended December 31, 2015 was primarily due to a $28.6 million decrease in deferred revenue primarily due to recognition of $23.1 million of revenue upon the product acceptance by a new customer in Europe that deployed our CCAP solution, a $10.8 million decrease in accrued income taxes due to the timing of tax payments, a $17.4 million increase in inventory for anticipated growth in our business and a $9.7 million increase in accounts receivable due to an increase in sales and timing of the related collections. These uses of cash were partially offset by a $2.7 million increase in accounts payable primarily attributable to the timing of our payments for the purchases of inventory and an $8.0 million increase in accrued expenses and other current liabilities, which included an increase of $3.4 million for personnel-related accrued liabilities, such as accrued salaries and bonuses, due to the growth in headcount.

During the year ended December 31, 2014, cash provided by operating activities was $60.3 million, primarily resulting from our net income of $59.7 million and net cash provided by changes in our operating assets and liabilities of $1.9 million, both partially offset by net non-cash gains of $1.2 million. The net cash provided by changes in our net operating assets and liabilities during the year ended December 31, 2014 was primarily due to a $46.6 million increase in accounts receivable as a result of an increase in sales, the timing of our billings and a higher proportion of our sales in geographic regions with shorter payment terms; a $22.1 million increase in inventory due to anticipated growth in our business; and a $6.6 million decrease in accounts payable primarily attributable to the timing of our payments for the purchases of inventory. These uses of cash were partially offset by a $59.4 million increase in deferred revenue due primarily to the deferral of the revenue recognition for several sales transactions resulting from the customer acceptance provisions of those arrangements, a $13.9 million increase in accrued income taxes and an $8.0 million increase in accrued expenses and other current liabilities, which included an increase of $6.6 million for personnel-related accrued liabilities, such as accrued salaries and bonuses, due to the growth in headcount.

Investing Activities

Our investing activities have consisted primarily of expenditures for lab and computer equipment and software to support the development of new products and increase our manufacturing capacity to meet customer demand for our products. In addition, our investing activities include expansion of, improvements to, and the purchase of our facilities. As our business expands, we expect that we will continue to invest in these areas.

Net cash used in investing activities during the nine months ended September 30, 2016 was $6.2 million for purchases of property and equipment.

Net cash used in investing activities during the nine months ended September 30, 2015 was $14.0 million for purchases of property and equipment, consisting primarily of the purchase of and improvements to our corporate offices totaling $10.3 million during that period.

Net cash used in investing activities during the year ended December 31, 2015 was $15.5 million for purchases of property and equipment, consisting primarily of the purchase of and improvements to our corporate offices totaling $10.4 million during that period.

Net cash used in investing activities during year ended December 31, 2014 was $4.0 million for purchases of property and equipment.

Financing Activities

Net cash used in financing activities during the nine months ended September 30, 2016 was $48.1 million and consisted primarily of dividend payments of $47.8 million.

Net cash provided by financing activities during the nine months ended September 30, 2015 was $7.4 million and consisted primarily of proceeds of $7.9 million from the commercial mortgage on our corporate offices, partially offset by $0.6 million of dividends paid.

Net cash provided by financing activities during the year ended December 31, 2015 was $7.3 million and consisted primarily of proceeds of $7.9 million from the commercial mortgage on our corporate offices, partially offset by $0.7 million of dividends paid.

Net cash used in financing activities during the year ended December 31, 2014 was $21.7 million and primarily consisted of dividend payments of $28.9 million, partially offset by proceeds from the exercise of stock options and a common stock warrant totaling $6.7 million.

Working Capital Facility and Commercial Mortgage

In April 2014, we entered into a revolving credit agreement with Bank of America, which, as amended in 2016, provided for borrowings of up to $25.0 million, subject to certain limitations. Borrowings under the revolver accrued interest, at our election, at either (1) the bank's prime rate or (2) LIBOR plus two percentage points, due quarterly in arrears. We were required to pay a fee of 0.20% per year, payable quarterly in arrears, on the unused amount of the revolver. The revolver was scheduled to mature on June 30, 2019 but was earlier terminated by us on December 20, 2016.

Borrowings under the revolver were secured by substantially all of our assets, excluding intellectual property and investments in foreign subsidiaries. In connection with the revolver, we were subject to various affirmative, negative and financial covenants, including a funded debt to consolidated EBITDA ratio and a basic fixed charge coverage ratio. We were in compliance with all the covenants of the revolver as of December 31, 2015 and September 30, 2016. As of December 31, 2015 and September 30, 2016, we did not have any borrowings under the revolver, but we used $1.0 million as collateral for a stand-by letter of credit to guarantee our contractual performance with a customer.

In July 2015, we entered into an $8.0 million commercial mortgage loan agreement. The annual interest rate on the loan is 3.5%, and the loan is repayable in 60 monthly installments of principal and interest based on a 20-year amortization schedule. The loan is secured by the land and building, which are our corporate offices, purchased in March 2015, and contains annual affirmative, negative and financial covenants, including maintenance of a minimum debt service ratio. We were in compliance with all the covenants of the loan as of December 31, 2015 and September 30, 2016. As of December 31, 2015 and September 30, 2016, the outstanding principal amount under the loan was $7.8 million and $7.6 million, respectively.

Term Loan and Revolving Credit Facilities

On December 20, 2016, we entered into a credit agreement with JPMorgan Chase Bank, N.A., as administrative agent, various lenders and JPMorgan Chase Bank, N.A. and Barclays Bank PLC, as joint lead arrangers and joint bookrunners, providing for:

- a term loan facility of $300.0 million and
- a revolving credit facility of up to $25.0 million in revolving credit loans and letters of credit.

As of December 31, 2016, $300.0 million in principal amount was outstanding under the term loan facility and we did not have any borrowings under the revolving credit facility; however, we had used $1.0 million under

the revolving credit facility for a stand-by letter of credit that serves as collateral for a stand-by letter of credit issued by Bank of America to one of our customers pursuant to a contractual performance guarantee. In addition, we may, subject to certain conditions, including the consent of the administrative agent and the institutions providing such increases, increase the facilities by an unlimited amount so long as we are in compliance with specified leverage ratios, or otherwise by up to $70.0 million.

Borrowings under the facilities bear interest at a floating rate, which can be either a Eurodollar rate plus an applicable margin or, at our option, a base rate (defined as the highest of (x) the JPMorgan Chase, N.A. prime rate, (y) the federal funds effective rate, plus one half percent (0.50%) per annum and (z) a one-month Eurodollar rate plus 1.00% per annum) plus an applicable margin. The applicable margin for borrowings under the term loan facility is 4.00% per annum for Eurodollar rate loans (subject to a 1.00% interest rate floor) and 3.00% per annum for base rate loans. The applicable margin for borrowings under the revolving credit facility is 2.00% per annum for Eurodollar rate loans and 1.00% per annum for base rate loans, subject to reduction based on various factors, including our completion of this offering and our maintaining of specified net leverage ratios. The interest rates payable under the facilities are subject to an increase of 2.00% per annum during the continuance of any payment default.

For Eurodollar rate loans, we may select interest periods of one, two, three or six months or, with the consent of all relevant affected lenders, twelve months. Interest will be payable at the end of the selected interest period, but no less frequently than every three months within the selected interest period. Interest on any base rate loan is not set for any specified period and is payable quarterly. We have the right to convert Eurodollar rate loans into base rate loans and the right to convert base rate loans into Eurodollar rate loans at our option, subject, in the case of Eurodollar rate loans, to prepayment penalties if the conversion is effected prior to the end of the applicable interest period. As of December 31, 2016, the interest rate on the term loans was 5.0% per annum, based on a one-month Eurodollar rate at the applicable floor of 1.0% plus the 4.0% margin.

The revolving credit facility also requires payment of quarterly commitment fees at a rate of 0.25% per annum on the difference between committed amounts and amounts actually borrowed under the facility and customary letter of credit fees.

The term loan facility matures on December 20, 2023 and the revolving credit facility matures on December 20, 2021. The term loan facility is subject to amortization in equal quarterly installments, commencing on March 31, 2017, of principal in an annual aggregate amount equal to 1.0% of the original principal amount of the term loans of $300.0 million, with the remaining outstanding balance payable at the date of maturity.

Voluntary prepayments of principal amounts outstanding under the term loan facility are permitted at any time; however, if a prepayment of principal is made with respect to a Eurodollar loan on a date other than the last day of the applicable interest period, we are required to compensate the lenders for any funding losses and expenses incurred as a result of the prepayment. Prior to the revolving credit facility maturity date, funds borrowed under the revolving credit facility may be borrowed, repaid and reborrowed, without premium or penalty.

In addition, we are required to make mandatory prepayments under the facilities with respect to (i) 100% of the net cash proceeds from certain asset dispositions (including casualty and condemnation events) by us or certain of our subsidiaries, subject to certain exceptions and reinvestment provisions, (ii) 100% of the net cash proceeds from the issuance or incurrence of any additional debt by us or certain of our subsidiaries, subject to certain exceptions, and (iii) 50% of our excess cash flow, as defined in the credit agreement, subject to reduction upon our achievement of specified performance targets.

The facilities are secured by, among other things, a first priority security interest, subject to permitted liens, in substantially all of our assets and all of the assets of certain of our subsidiaries and a pledge of certain of the stock of certain of our subsidiaries, in each case subject to specified exceptions. The facilities contain customary affirmative and negative covenants, including certain restrictions on our ability to pay dividends, and, with

respect to the revolving credit facility, a financial covenant requiring us to maintain a specified total net leverage ratio in the event that on the last day of any fiscal quarter we have utilized more than 30% of our borrowing capacity under the facility. As of December 31, 2016, we had not utilized more than 30% of our borrowing capacity under the revolving credit facility and compliance with the financial covenant was not applicable.

In connection with entering into the facilities, we terminated our revolving credit facility with Bank of America. We did not have any outstanding borrowings under the Bank of America revolving credit facility at the time of termination.

Special Dividend

Following our borrowing of $300.0 million under the term loan facility, on December 21, 2016, our board of directors declared a special dividend of $171.4 million to the holders of our common stock and preferred stock and approved cash payments of $28.6 million to be made to holders of our stock options, stock appreciation rights and restricted stock units as an equitable adjustment in connection with the special dividend.

Contractual Obligations and Commitments

The following table summarizes our contractual obligations and commitments as of December 31, 2015.

	Payments Due by Period				
	Total	Less than 1 Year	1 to 3 Years	4 to 5 Years	More than 5 Years
	(in thousands)				
Commercial mortgage	$ 7,835	$ 282	$ 595	$6,958	$ —
Interest expense(1)	1,168	274	516	378	—
Operating lease(2)	1,124	291	612	204	17
Total	$10,127	$ 847	$1,723	$7,540	$ 17

(1) Reflects contractual obligations to pay interest on the commercial mortgage until the maturity date.

(2) In January 2016, we leased 9,000 square feet of manufacturing space in China through 2019. In September 2016, we leased 29,880 square feet of manufacturing, warehouse and office space in Ireland through 2026, with a right to terminate in 2021. Aggregate payments due under these leases are $40,000 during the year ending December 31, 2016, $747,000 in total during the years ending December 31, 2017 and 2018, $820,000 in total during the years ending December 31, 2019 and 2020, and $305,000 thereafter. Such amounts are not reflected in the table.

We enter into purchase agreements with our contract manufacturers and suppliers, generally with terms of a year or more. We have no minimum purchase requirements under these agreements.

Critical Accounting Policies and Significant Judgments and Estimates

Our management's discussion and analysis of financial condition and results of operations is based on our consolidated financial statements, which have been prepared in accordance with accounting principles generally accepted in the United States of America, or GAAP. In preparing our consolidated financial statements, we make estimates, assumptions and judgments that can have a significant effect on our reported revenue, results of operations and net income or loss, as well as on the value of certain assets and liabilities on our balance sheet during and as of the reporting periods. These estimates, assumptions and judgments are necessary because future events and their effects on our results and the value of our assets cannot be determined with certainty, and are made based on our historical experience and on other assumptions that we believe to be reasonable under the circumstances. We evaluate our estimates and assumptions on an ongoing basis. These estimates may change as new events occur or additional information is obtained, and we may periodically be faced with uncertainties, the outcomes of which are not within our control and may not be known for a prolonged period of time. As the use of estimates is inherent in the financial reporting process, actual results could differ from those estimates.

While our significant accounting policies are described in more detail in Note 2 to our consolidated financial statements appearing at the end of this prospectus, we believe that the following accounting policies are those most critical to the judgments and estimates used in the preparation of our consolidated financial statements.

Revenue Recognition

We generate revenue from sales of our broadband products, along with associated maintenance and support services, and, to a lesser extent, from sales of professional services and extended warranty services. We also generate revenue from sales of additional line cards and software-based capacity expansions. Maintenance and support services include telephone support and unspecified software upgrades and updates provided on a when-and-if-available basis.

We recognize revenue from sales when the following revenue recognition criteria are met:

- *Persuasive evidence of an arrangement exists*. Binding contracts and/or customer purchase orders are generally evidence of an arrangement. For professional services, evidence of an arrangement may also include information documenting the scope of work to be performed, and customer acceptance terms, if any.
- *Delivery has occurred*. For broadband products, shipping documents and customer acceptance, if applicable, verify that delivery has occurred. For software-enabled capacity expansions, delivery occurs when the additional bandwidth capacity is made available to the customer. For professional services, delivery occurs as the services are completed.
- *The sales price is fixed or determinable*. The sales price is considered fixed or determinable when the fees have been contractually agreed with the customer and are not deemed to be subject to refund, adjustment or future discounts, and when the payment terms of the transaction do not extend beyond our customary payment terms, which are one year or less.
- *Collectibility is reasonably assured*. We assess the ability to collect from our customers based on a number of factors that generally include information supplied by credit agencies, references and/or analysis of customer accounts and payment history. If collection from a customer is not considered reasonably assured, all revenue related to the customer arrangement is deferred until payment is received and all other revenue recognition criteria have been met.

When customer acceptance of the product is required and is other than perfunctory, revenue for the entire customer arrangement is deferred until the acceptance has been received.

Our products have both software and non-software (i.e., hardware) components that function together to deliver the products' essential functionality. In addition, the hardware sold generally cannot be used apart from the embedded software. As a result, all of our product and service offerings are excluded from the scope of software revenue recognition requirements and instead fall within the scope of Accounting Standards Codification, or ASC, Topic 605, *Revenue Recognition*.

Many of our sales involve multiple-deliverable arrangements that include products and maintenance and support services and, on a limited basis, may also include professional services and extended warranty services. We have determined that our products, maintenance and support services, professional services and extended warranty services have standalone value to the customer because each of these elements is sold separately to our customers or, in the case of professional services, is sold separately by other vendors. As a result, we treat each of these elements as a separate unit of accounting for purposes of allocating the arrangement fee and recognizing the revenue of each unit.

For our multiple-deliverable arrangements, we allocate the arrangement fee to each deliverable based on the relative selling prices of each of the deliverables in the arrangement using the selling price hierarchy. In such circumstances, we determine the selling price of each deliverable based on vendor-specific objective evidence, or VSOE, of selling price, if it exists; otherwise, third-party evidence, or TPE, of selling price. If neither VSOE nor TPE exists, we use our best estimate of the selling price, or BESP, for the deliverable. We limit the amount of the arrangement fee allocated to deliverables to the amount that is not contingent on the future delivery of products or services or future performance obligations and the amount that is not subject to customer-specific return or refund privileges.

To date, we have not been able to establish VSOE of selling price of any of our products, maintenance and support services, professional services or extended warranty services because we have not established a history of consistently pricing each product or service within a narrow range. In addition, we are not able to determine TPE of selling price for our products or services because our various product and service offerings contain a significant level of differentiation and, therefore, comparable pricing of competitors' products and services with similar functionality cannot be obtained. As we are unable to establish selling price using VSOE or TPE, we use BESP to allocate the arrangement fee to products, maintenance and support services, professional services and extended warranty services in multiple-deliverable arrangements. The objective of BESP is to determine the price at which we would transact a sale if a product or service was sold on a standalone basis. We determine BESP of selling price for our products and services by considering multiple factors, including, but not limited to, our historical pricing practices by customer type and geographic-specific market factors.

Revenue from product sales is recognized upon delivery to the customer, or upon the later receipt of customer acceptance of the product when such acceptance is required.

Revenue from maintenance and support services is recognized ratably over the contract period, which is typically one year, but can be as long as three or five years. When customer acceptance of a product is required, the recognition of any associated maintenance and support services revenue commences only upon customer acceptance of the associated product. Revenue from extended warranty services is recognized ratably over the contract period, which is typically one to three years.

Revenue from professional services is recognized as the services are performed. Professional services generally include installation or configuration services that are not deemed to be essential to the functionality of the products. When customer acceptance is required, the recognition of any associated professional services revenue is deferred until the associated product and/or professional service is accepted by the customer.

Resellers

We market and sell our products through our direct global sales force, supported by sales agents, and through resellers. Our resellers receive an order from an end customer prior to placing an order with us, and we confirm the identification of or are aware of the end customer prior to accepting such order. We invoice the reseller an amount that reflects a reseller discount and record revenue based on the amount of the discounted arrangement fee. Our resellers do not stock inventory received from us.

When we transact with a reseller, our contractual arrangement is with the reseller and not with the end customer. Whether we transact business with and receive the order from a reseller or directly from an end customer, our revenue recognition policy and resulting pattern of revenue recognition for the order are the same.

We also use sales agents that assist us in the sales process with certain customers primarily located in the Latin America and Asia-Pacific regions. Sales agents are not resellers. If a sales agent is engaged in the sales process, we receive the order directly from and sell the products and services directly to the end customer, and we pay a commission to the sales agent, calculated as a percentage of the related customer payment. Sales agent commissions are recorded as expenses when incurred and are classified as sales and marketing expenses in our consolidated statements of operations and comprehensive income.

Deferred Revenue

Amounts billed in excess of revenue recognized are recorded as deferred revenue. Deferred revenue includes customer deposits, amounts billed for maintenance and support services contracts in advance of services being performed, amounts for trade-in right liabilities and amounts related to arrangements that have been deferred as a result of not meeting the required revenue recognition criteria as of the end of the reporting period. Deferred revenue expected to be recognized as revenue more than one year subsequent to the balance sheet date is reported within long-term liabilities in our consolidated balance sheets.

When the payment terms of a customer order extend beyond our customary payment terms, which are one year or less, we consider the arrangement to be an extended payment term arrangement and conclude that the sales price is not fixed or determinable for revenue recognition purposes. In these circumstances, we defer all revenue of the arrangement and only recognize revenue to the extent of the payment amounts that become due, provided that all other revenue recognition criteria have been met.

We defer recognition of incremental direct costs, such as cost of goods and services, until recognition of the related revenue. Such costs are classified as current assets if the related deferred revenue is classified as current, and such costs are classified as non-current assets if the related deferred revenue is classified as non-current.

Other Revenue Recognition Policies

In limited instances, we have offered future rebates to customers based on a fixed or variable percentage of actual sales volumes over specified periods. The future rebates earned based on the customer's purchasing from us in one period may be used as credits to be applied by them against accounts receivable due to us in later periods. We account for these future rebates as a reduction of the revenue recorded for the customer's current purchasing activity giving rise to the future rebates. The liability for these future rebates is recorded as accrued customer incentives until the credits have been applied by the customer against accounts receivable due to us or the credits expire.

When future trade-in rights are granted to customers at the time of sale, we defer a portion of the revenue recognized for the sale and account for it as a guarantee at fair value until the trade-in right is exercised or the right expires, in accordance with ASC Topic 460, *Guarantees*. Determining the fair value of the trade-in right requires us to estimate the probability of the trade-in right being exercised and the future value of the product upon trade-in. We assess and update these estimates at each reporting period, and our updates to these estimates may result in either an increase or decrease in the amount of revenue deferred.

Billings to customers for shipping costs and reimbursement of out-of-pocket expenses, including travel, lodging and meals, are recorded as revenue, and the associated costs incurred by us for those items are recorded as cost of revenue.

We exclude any taxes assessed by a governmental authority that are directly imposed on a revenue-producing transaction (e.g., sales, use and value added taxes) from our revenue and costs.

Inventories

Inventories are valued at the lower of cost or market value. Cost is computed using the first-in first-out convention. Inventories are composed of hardware and related component parts of finished goods. We establish provisions for excess and obsolete inventories after evaluating historical sales, future demand, market conditions, expected product life cycles, and current inventory levels to reduce such inventories to their estimated net realizable value. Such provisions are made in the normal course of business and charged to cost of revenue in our consolidated statements of operations and comprehensive income.

Deferred inventory costs are included within inventory in our consolidated balance sheets. Deferred inventory costs represent the cost of products that have been delivered to the customer for which revenue associated with the arrangement has been deferred as a result of not meeting all of the required revenue recognition criteria, such as receipt of customer acceptance. Until the revenue recognition criteria are met, we retain the right to a return of the underlying inventory. Deferred inventory costs are recognized as cost of revenue in our consolidated statement of operations and comprehensive income when the related revenue is recognized.

Product Warranties

Substantially all of our products are covered by a warranty for software and hardware for periods ranging from 90 days to one year. In addition, in conjunction with customers' renewals of maintenance and support

services contracts, we offer an extended warranty for periods typically of one to three years for agreed-upon fees. In the event of a failure of a hardware product or software covered by these warranties, we must repair or replace the software or hardware or, if those remedies are insufficient, provide a refund at our discretion. Our warranty reserve, which is included in accrued expenses and other current liabilities in our consolidated balance sheets, reflects estimated material, labor and other costs related to potential or actual software and hardware warranty claims for which we expect to incur an obligation. Our estimates of anticipated rates of warranty claims and the costs associated therewith are primarily based on historical information and future forecasts. We periodically assess the adequacy of the warranty reserve and adjust the amount as necessary. If the historical data used to calculate the adequacy of the warranty reserve are not indicative of future requirements, additional or reduced warranty reserves may be required.

Derivative Instruments

We have certain international customers that are billed in foreign currencies. To mitigate the volatility related to fluctuations in the foreign exchange rates for accounts receivable denominated in foreign currencies, we enter into foreign currency forward contracts. We do not use derivative financial instruments for speculative purposes. As of September 30, 2016, we had foreign currency forward contracts outstanding with notional amounts totaling 2.3 million euros maturing in the fourth quarter of 2016. There were no outstanding derivative instruments as of December 31, 2015.

Our foreign currency forward contracts economically hedge certain risk but are not designated as hedges for financial reporting purposes, and accordingly, all changes in the fair value of these derivative instruments are recorded as unrealized foreign currency transaction gains or losses and are included in our consolidated statements of operations and comprehensive income. We record all derivative instruments on the balance sheet at fair value and had a liability of $12,000 related to foreign currency forward contracts outstanding as of September 30, 2016, which was included in accrued expenses and other current liabilities in our consolidated balance sheet.

Income Taxes

We account for income taxes using the asset and liability method, which requires the recognition of deferred tax assets and liabilities for the expected future tax consequences of temporary differences between the financial statement and tax basis of assets and liabilities, as measured by enacted tax rates anticipated to be in effect when these differences reverse. This method also requires the recognition of future tax benefits to the extent that realization of such benefits is more likely than not. Deferred tax expense or benefit is the result of changes in the deferred tax assets and liabilities. We assess the likelihood that our deferred tax assets will be recovered from future taxable income and, to the extent we believe, based upon the weight of available evidence, that it is more likely than not that all or a portion of the deferred tax assets will not be realized, we establish a valuation allowance through a charge to income tax expense. We evaluate the potential for recovery of deferred tax assets by estimating the future taxable profits expected and considering prudent and feasible tax planning strategies.

We record a liability for potential payments of taxes to various tax authorities related to uncertain tax positions and other tax matters. The recorded liability is based on a determination of whether and how much of a tax benefit in our tax filings or positions is more likely than not to be realized. The amount of the benefit that may be recognized in the financial statements is the largest amount that has a greater than 50% likelihood of being realized upon ultimate settlement. To the extent that the assessment of such tax positions changes, the change in estimate is recorded in the period in which the determination is made. We establish a liability, which is included in accrued income taxes in our consolidated balance sheets, for tax-related uncertainties based on estimates of whether, and the extent to which, additional taxes will be due. These liabilities are established when we believe that certain positions might be challenged despite our belief that the tax return positions are fully supportable. We adjust the recorded liability in light of changing facts and circumstances. Our provision for income taxes includes the impact of the recorded liability and changes thereto.

We recognize interest and penalties related to uncertain tax positions within other income (expense) in our consolidated statements of operations and comprehensive income. Accrued interest and penalties are included in accrued income taxes in our consolidated balance sheets.

Stock-Based Compensation

We measure stock options and other stock-based awards granted to employees and directors based on the fair value on the date of the grant and recognize compensation expense of those awards, net of estimated forfeitures, over the requisite service period, which is generally the vesting period of the respective award. Generally, we issue stock options with only service-based vesting conditions and record the expense for these awards using the straight-line method.

For stock-based awards granted to non-employee consultants, compensation expense is recognized over the period during which services are rendered by such non-employee consultants until completed. At the end of each financial reporting period prior to completion of the service, the fair value of these awards is remeasured using the then-current fair value of our common stock and updated assumption inputs in the Black-Scholes option-pricing model.

We have also granted stock appreciation rights, or SARs, to certain employees, which require us to pay in cash upon exercise an amount equal to the product of the excess of the per share fair market value of our common stock on the date of exercise over the exercise price, multiplied by the number of shares of common stock with respect to which the stock appreciation right is exercised. Because these awards may require us to settle the awards in cash, they are accounted for as a liability in our consolidated balance sheets. The liability related to these awards, as well as related compensation expense, is recognized over the period during which services are rendered until completed. Changes in the fair value of the SAR liability are recorded in our consolidated statements of operations and comprehensive income. After vesting is completed, we will continue to remeasure the fair market value of the liability until the award is either exercised or cancelled, with changes in the fair value of the liability recorded in our consolidated statements of operations and comprehensive income.

We estimate the fair value of each stock option and SAR grant using the Black-Scholes option-pricing model, which uses as inputs the fair value of our common stock and assumptions we make for the volatility of our common stock, the expected term of the award, the risk-free interest rate for a period that approximates the expected term of our stock options and our expected dividend yield.

Valuation of Common Stock

Given the absence of an active market for our common stock prior to our initial public offering, the estimated fair value of our common stock has been determined by our board of directors at the time of each award grant based upon several factors, including its consideration of input from management, our most recently available third-party valuations of common stock and our board of directors' assessment of additional objective and subjective factors that it believed were relevant and which may have changed from the date of the most recent valuation through the date of the grant. These third-party valuations were performed in accordance with the guidance outlined in the American Institute of Certified Public Accountants' Accounting and Valuation Guide, *Valuation of Privately-Held-Company Equity Securities Issued as Compensation* and used a combination of income and market approaches to estimate our enterprise value. Cash is added and interest bearing debt is subtracted from the estimated enterprise value in order to estimate the underlying equity value. Once the equity value is estimated, it is then allocated among the various classes of securities to arrive at the fair value of the common stock. These allocations were prepared using the option-pricing method, or OPM. The OPM treats common stock and preferred stock as call options on the total equity value of a company, with exercise prices based on the value thresholds at which the allocation among the various holders of a company's securities changes. Under this method, the common stock has value only if the funds available for distribution to stockholders exceed the value of the preferred stock liquidation preferences at the time of a liquidity event, such as a strategic sale or merger.

The third-party valuations were performed at various dates, which resulted in valuations of our common stock of $41.97 per share as of October 23, 2015, $54.22 per share as of April 30, 2016 and $61.18 per share as of October 31, 2016 (in the case of the valuation as of October 31, 2016, giving pro forma effect to our borrowing in December 2016 of $300.0 million under our term loan facility as well as the special dividend of $171.4 million declared by our board of directors in December 2016 and cash payments of $28.6 million to holders of our stock options, stock appreciation rights and restricted stock units approved by our board of directors as an equitable adjustment in connection with such dividend). In addition to considering the results of these third-party valuations, our board of directors considered various objective and subjective factors to determine the fair value of our common stock as of each grant date, which may be a date later than the most recent third-party valuation date, including:

- our historical operating and financial performance;
- the market performance of comparable publicly traded companies within our industry;
- external market conditions affecting the networking industry, and trends within the networking industry;
- the identification and analysis of mergers and acquisitions of comparable companies;
- the prices, rights, preferences and privileges of our convertible preferred stock relative to the common stock;
- the likelihood of achieving a liquidity event such as an initial public offering or sale given prevailing market conditions and the nature and history of our business;
- any adjustments necessary to recognize a lack of marketability for our common stock;
- our financial position, including cash on hand, and our historical and forecasted performance and operating results; and
- U.S. and global economic market conditions.

The assumptions underlying these valuations represent management’s best estimates. There are significant judgments and estimates inherent in the determination of the fair value of our common stock. These judgments and estimates include assumptions regarding our future operating performance, the timing of a potential IPO or other liquidity event and the determination of the appropriate valuation method at each valuation date. If we had made different assumptions, our stock-based compensation expense, net income and net income per share attributable to common stockholders could have been significantly different.

Once a public trading market for our common stock has been established in connection with the closing of this offering, it will no longer be necessary for our board of directors to estimate the fair value of our common stock in connection with our accounting for stock-based awards, as the fair value of our common stock will be its trading price in the public market.

Awards Granted

The following table summarizes by grant date the number of shares of common stock subject to stock options, restricted stock units, or RSUs, and SARs granted from January 1, 2016 through the date of this prospectus, as well as the associated per share exercise price or reference price and the estimated fair value per share of our common stock on each grant date:

Grant Date	Type of Award	Number of Shares Underlying Awards	Per Share Exercise Price of Options or SARs	Per Share Fair Value of Common Stock on Grant Date	Per Share Estimated Fair Value of Awards
March 26, 2016	Options	165,463	$ 41.97	$ 41.97	$ 16.80
March 26, 2016	RSUs	48,894	N/A	$ 41.97	$ 41.97
March 28, 2016	Options	60,500	$ 41.97	$ 41.97	$ 17.09
July 7, 2016	Options	79,500	$ 54.22	$ 54.22	$ 21.84
September 6, 2016	Options	50,340	$ 54.22	$ 54.22	$ 20.84
September 6, 2016	SARs	6,000	$ 54.22	$ 54.22	$ 20.52
January 13, 2017	Options	53,500	$ 61.18	$ 61.18	$ 24.74
January 13, 2017	SARs	22,000	$ 61.18	$ 61.18	$ 22.60
January 31, 2017	RSUs	35,218	N/A	$ 61.18	$ 61.18
January 31, 2017	Options	119,184	$ 61.18	$ 61.18	$ 24.55

Emerging Growth Company Status

The JOBS Act provides that an “emerging growth company” can take advantage of the extended transition period afforded by the JOBS Act for the implementation of new or revised accounting standards. However, we are choosing to “opt out” of such extended transition period, and as a result, we will comply with new or revised accounting standards on the relevant dates on which adoption of such standards is required for non-emerging growth companies. The JOBS Act provides that our decision to not take advantage of the extended transition period for complying with new or revised accounting standards is irrevocable.

Off-Balance Sheet Arrangements

As of December 31, 2015 and September 30, 2016, we did not have any off-balance sheet arrangements, as defined in Item 303(a)(4)(ii) of Regulation S-K, such as the use of unconsolidated subsidiaries, structured finance, special purpose entities or variable interest entities.

Recent Accounting Pronouncements

We have reviewed all recently issued standards and have determined that, other than as disclosed in Note 2 to our audited consolidated financial statements appearing at the end of this prospectus, such standards will not have a material impact on our consolidated financial statements or do not otherwise apply to our operations.

Quantitative and Qualitative Disclosures about Market Risks

Market risk is the risk of loss to future earnings, values or future cash flows that may result from changes in the price of a financial instrument. The value of a financial instrument may change as a result of changes in interest rates, exchange rates, commodity prices, equity prices and other market changes. We are exposed to market risk related to changes in foreign currency exchange rates. We do not use derivative financial instruments for speculative or trading purposes. However, we have entered into, and in the future expect to continue to enter into, exchange rate hedging arrangements to manage the risks described below.

Foreign Currency Exchange Risk

We have accounts receivables denominated in foreign currencies, and our operations outside of the United States incur their operating expenses in foreign currencies. To date, the majority of our product sales and

inventory purchases have been denominated in U.S. dollars. The functional currency of our international subsidiaries, except for our subsidiary in Ireland, is their local currency. During the years ended December 31, 2014 and 2015 and the nine months ended September 30, 2015 and 2016, we incurred foreign currency transaction losses of $3.2 million, $3.0 million, $2.6 million and $45,000, respectively, primarily related to unrealized and realized foreign currency losses for accounts receivables denominated in foreign currencies. These foreign currency transaction losses were recorded as a component of other income (expense), net in our consolidated statements of operations and comprehensive income. We believe that a 5% change in the exchange rate between the U.S. dollar and euro would not materially impact our operating results or financial position. We entered into foreign currency exchange contracts during the nine months ended September 30, 2016, and we expect to continue to hedge certain significant transactions denominated in currencies other than the U.S. dollar in the future.

Interest Rate Sensitivity

Our cash and cash equivalents as of September 30, 2016 consisted of cash maintained in FDIC-insured operating accounts as well as investments in money market funds, certificates of deposits and commercial paper. Our primary exposure to market risk for our cash and cash equivalents is interest income sensitivity, which is affected by changes in the general level of U.S. interest rates. However, we do not believe a sudden change in the interest rates would have a material impact on our financial condition or results of operations.

Our revolving credit agreement with Bank of America provided for aggregate borrowings of up to $25.0 million, under which, as of September 30, 2016, $1.0 million was pledged as collateral for a stand-by letter of credit to guarantee our contractual performance with a customer and reduced the aggregate amount of borrowings available to us. Borrowings under the revolving line of credit accrued interest, at our election, at either (1) the bank's prime rate or (2) LIBOR plus two percentage points. A 10% increase or decrease in interest rates would not have resulted in a material change in our obligations under the line of credit, even at the borrowing limit. We terminated the revolving credit agreement with Bank of America on December 20, 2016. We did not have any outstanding borrowings under the Bank of America revolving credit facility at the time of termination.

Inflation Risk

We do not believe that inflation has had a material effect on our business. However, if global demand for the base materials utilized in our suppliers' components were to significantly increase for the components we purchase from our suppliers to manufacture our products, our costs could become subject to significant inflationary pressures, and we may not be able to fully offset such higher costs through price increases. Our inability or failure to do so could harm our business, operating results and financial condition.

BUSINESS

Our Vision

Our products help our customers provide and manage broadband connectivity. We believe consumers and enterprises should be able to enjoy ultra-fast speeds and enhanced digital content experiences through their phones, tablets, computers, TVs and other connected devices at home or on the go. We believe that connectivity should be ubiquitous and seamless; it should not matter whether the user is accessing the Internet through wireless or fixed connections, and it should not matter whether that service is being provided by a cable operator, fixed telecom carrier or wireless services provider. Our innovative, software-centric products are designed to help achieve this vision.

Overview

We provide a suite of software-centric infrastructure solutions that allow cable service providers to deliver voice, video and data services over a single platform at multi-gigabit speeds. In addition, we offer solutions for next-generation distributed and virtualized architectures in cable operator, fixed telecom and wireless networks. Our innovative solutions enable customers to cost-effectively and dynamically increase network speed, add bandwidth capacity and new services for consumers and enterprises, reduce network complexity and reduce operating and capital expenditures.

We focus our development efforts on innovation and being the first to market with new products at each generational shift in cable network technology. We pioneered the use of a software-centric approach to leverage the programmability of field programmable gate arrays, or FPGAs, and general purpose processors for use in the cable industry. In addition, we believe we were the first to provide each of the following to our customers: a solution enabling cable service providers to deliver IP voice, digital video and data over a single port; a solution enabling cable service providers to deliver multi-gigabit speeds to their subscribers; and a remote node solution to enable distributed broadband cable access at gigabit speeds.

We have created a software-centric, multi-service portfolio that enables a broad range of core and access network functions for fixed and wireless networks. These networks share a common set of core and access network functions that enable network services such as subscriber management, session management, transport security and radio frequency, or RF, management. Our Axyom software architecture allows each of these network functions to be provided and controlled by a distinct segment of software, which can be integrated or combined together in a building block-style fashion with the segments of software responsible for each other network function. This allows us to offer network architectures that can be efficiently tailored to meet each customer’s specific requirements, both as they exist at the time of initial implementation and as they evolve over time. While we initially focused on providing solutions for cable service providers due to our founders’ experience in the cable industry, the commonalities between fixed and wireless network architectures have allowed us to expand our solutions into the wireless market as cable service providers have increasingly sought to add wireless capabilities to their service offerings.

We offer a scalable solution that can meet the evolving bandwidth needs of our customers and their subscribers. Our first installation in a cable service provider’s network frequently involves deploying our broadband products in only a portion of the provider’s network and with only a fraction of the capacity of our products enabled at the time of initial installation. Over time, our customers have generally expanded the use of our solutions to other areas of their networks to increase network capacity. Capacity expansions are accomplished either by deploying additional systems or line cards, or by our remote enablement of additional channels through the use of software. Sales of additional line cards and software-based capacity expansions generate higher gross margins than our initial hardware-based deployments.

Our solutions are commercially deployed in over 60 countries by more than 350 customers, including regional service providers as well as some of the world’s largest Tier 1 broadband service providers, serving

millions of subscribers. Our principal customers include Charter/Time Warner Cable, Rogers and Mediacom in North America; Liberty Global, Vodafone and DNA Oyj in Europe; and Jupiter Communications and Beijing Gehua CATV Networks in Asia-Pacific.

One of our largest customers, Time Warner Cable, launched its flagship “TWC Maxx” initiative in the New York City metropolitan area in 2014 using our solution. By deploying our C100G CCAP solution, TimeWarner Cable was able to triple the maximum speed offered to its customers and reduce power consumption by nearly 30%, or approximately 11GWh per year, which we estimate is enough power for over 1,800 residential homes. Our solution also enabled Time Warner Cable to reduce facility space and remove over 140 miles of coaxial copper cable.

We have achieved significant growth and profitability. For the year ended December 31, 2015, we generated revenue of $272.5 million, net income of $67.9 million and adjusted EBITDA of $115.5 million, representing increases of 29.0%, 13.8% and 22.1%, respectively, from the amounts for the year ended December 31, 2014. For the nine months ended September 30, 2016, we generated revenue of $216.9 million, net income of $48.8 million and adjusted EBITDA of $74.5 million, representing increases of 18.8% and 17.4% and a decrease of 1.5%, respectively, from the amounts for the nine months ended September 30, 2015.

Adjusted EBITDA is a non-GAAP financial measure. Please see “Selected Consolidated Financial Data—Non-GAAP Financial Measures” for information regarding the limitations of using adjusted EBITDA and for a reconciliation of adjusted EBITDA to net income, the most directly comparable financial measure calculated and presented in accordance with GAAP.

Industry Background and Broadband Service Provider Challenges

As broadband service providers look to address the rapidly evolving demands of consumers and enterprises, we believe they must address several key challenges.

Rapidly Increasing Bandwidth Demand

Bandwidth demand has grown substantially and is expected to continue to increase. Key drivers of this increased demand include:

- more users with more connected devices and applications;
- more time spent online by users;
- the increased use of bandwidth-intensive streaming media services, such as Amazon Prime Video, Netflix and YouTube; cloud applications, such as iCloud and Dropbox; and augmented and virtual reality applications;
- Internet of Things, or IoT, solutions, as already seen in connected homes, business and industries; connected devices such as Amazon Alexa or Google Assistant; machine-to-machine connectivity; car connectivity and smart cities;
- the backhaul demand by wireless service providers; and
- the rise of data consumption by enterprises with strict latency requirements on mission-critical and public safety-related applications.

According to a July 2016 Cisco Systems Visual Networking Index report, global IP traffic per month is forecasted to grow from 73 exabytes (1 exabyte = 1,000,000,000 GB) to 194 exabytes, representing a 22% compound annual growth rate; global IP traffic per capita per month is forecast to grow 150% from 2015 to 2020, from 10GB to 25GB; and the number of connected devices per capita in North America is expected to reach 12 in 2020, up from 7 in 2015, representing an increase of more than 70%.

Competition Fueled by Increasing Breadth of Service Offerings

Consumers and enterprises enjoy increased choice among broadband service providers, including cable service providers such as Charter and Comcast, diversified telecommunications companies such as AT&T and Verizon, and mobile-only network operators such as Sprint and T-Mobile. As a result, broadband service providers are facing increasing pressure to develop differentiated service offerings with higher levels of performance at lower cost to consumers and enterprises. They are also under competitive pressure to offer a wider range of services, from Internet access, television, telephone and wireless services to additional services such as voice over Wi-Fi, video calling and, in general, smart Internet and security-related services. Moreover, the increasing popularity of over-the-top services puts additional pressure on the traditional video business of broadband service providers. In this new environment, fixed service providers have deployed fiber and Wi-Fi networks and have been exploring ways to provide mobile service offerings.

Increasing Network Complexity

Historically, broadband service providers have deployed separate systems within their fixed broadband networks for video and data services and have operated separate networks for fixed, Wi-Fi and mobile services. This traditional model requires service providers to maintain separate network infrastructure and personnel for each service. As network capacity and coverage have increased, and the diversity of service offerings has grown, the lack of interoperability of these separate networks has resulted in increasing network complexity and inefficient parallel network infrastructure.

Need to Control Operating and Capital Expenditures

The operation of network infrastructure is space, power and personnel intensive. In addition, the lack of interoperability between networks means that broadband service providers cannot optimize bandwidth usage by allocating traffic from networks experiencing high demand to those experiencing low demand, which can result in unused capacity and an unsatisfactory user experience.

Hardware-centric networks can also be expensive to update or replace. With frequent technology shifts and introductions of new service offerings, competition in the broadband industry is constantly changing. To remain competitive, service providers are regularly required to incur significant capital expenditures to upgrade existing equipment.

Opportunity to Transform Broadband Networks

Given the challenges they face, broadband service providers are undertaking three key technology initiatives to help build next-generation networks.

Densification

Increasing demand for bandwidth and user expectations for ubiquitous and seamless connectivity require, among other things, the addition of more end points for users to access broadband networks, also known as network densification. Consequently, broadband service providers are shifting from centralized to more distributed architectures. Densification requires extending network connectivity and distributing access aggregation solutions closer to end users. This results in the deployment of additional hardware, such as access aggregation nodes, small cells and related gateways.

Network Convergence

Many traditional service providers have historically either operated just one network type or operated fixed and wireless networks as separate businesses. However, more and more service providers that may have started

out providing just fixed or wireless services are recognizing the benefits, especially those associated with quality of experience, of being able to provide both services to their subscribers. For example, cable service providers in the United States have formed a joint consortium, Cable WiFi, that provides Wi-Fi access to broadband cable subscribers at over 500,000 access points. Continued acquisition activity, such as Altice's acquisitions of Cablevision and SuddenLink and Vodafone's acquisition of Kabel Deutschland, has accelerated fixed and wireless convergence. This consolidation trend has caused a heightened focus on the economics of maintaining two networks. Broadband service providers are seeking to integrate their separate delivery modes with all-IP architectures, shared transport and a common suite of software-centric core and access network functions.

Virtualization

Service providers are re-thinking traditional network architectures and moving toward more software-driven architectures. The use of software permits a fundamental change in the way broadband service providers deliver critical network functions. Software-enabled architectures that are decoupled from underlying hardware allow for increased efficiencies, upgradability, configuration flexibility, service agility and scalability not feasible with hardware-centric approaches.

Our Solutions

We offer solutions for fixed and wireless networks. Our software-centric, multi-service broadband platform, Axyom, enables ultra-broadband delivery and convergence.

We engineered our platform from the ground-up to be high performance, flexible and adaptable, and to allow our customers to seamlessly address the growing demand for bandwidth and connectivity and competitive need for service agility. Axyom also enables our customers to efficiently manage their networks and provide their subscribers with additional services.

Our software-centric broadband platform provides the following key benefits to broadband service providers:

Addition of Critical Bandwidth Capacity

Our solutions enable broadband service providers to offer multi-gigabit speeds to meet the growing demand for bandwidth. Our platform permits software-centric expansion of network capacity to enable rapid bandwidth and service provisioning, helping broadband service providers to respond flexibly to increased customer demands.

Flexibility to Add New and Expand Existing Services

Our platform provides us with the flexibility to adapt to changing industry standards and customer needs. We designed our Axyom software platform using what we refer to as Network Function Virtualization 2.0, or NFV 2.0, principles, which allow us to provide and control each needed network function through a distinct segment of software, which can be integrated or combined together in a building block-style fashion with the segments of software responsible for each other network function. This allows us to offer network architectures that can be efficiently tailored to meet each customer's specific requirements, both as they exist at the time of initial implementation and as they evolve over time. When possible, we also seek to implement new features and enhanced customization through the use of FPGAs, which can be re-programmed in the field as service needs evolve. This software-centric approach enables our customers, in turn, to commercialize new features faster than they could with hardware-centric solutions. For example, our solutions enable broadband service providers to efficiently add new services and features, such as wholesale connectivity services for wireless service providers, enterprise-class connectivity services and interactive communication services, such as voice over Wi-Fi and video calling.

Ability to Upgrade Networks Remotely

Our programmable architecture allows us to deploy technology updates to our customers remotely without the expense, disruption or network downtime caused by hardware replacements or field visits by personnel, while minimizing network downtime. Similarly, we can remotely turn on additional features or capacity in order to scale our solutions to meet the needs of our customers as they look to broaden the use and capabilities of our products. Similarly, we are often able to troubleshoot and assist our customers with technical issues through seamless software updates.

Reduced Network Complexity, Operating Costs and Capital Expenditures

Our converged software platform allows broadband service providers to significantly reduce the complexity and costs of their networks by reducing parallel and otherwise redundant network architecture. The large capacity increases that our solutions enable, and the ability of our solutions to deliver voice, video and data over a single platform, mean fewer pieces of equipment in the network, and lower energy usage, operating costs and capital expenditures. For example, our solutions permit our customers to transition from DOCSIS 3.0 to DOCSIS 3.1 with less network downtime and fewer hardware replacements that result in lower costs than those of our competitors.

Ability to Densify Networks

Our products help broadband service providers deploy more capacity at the network edge, closer to where end users and devices are accessing the network, thereby increasing available bandwidth and reducing latency to improve quality of service. For example, our solutions allow cable service providers to take advantage of new technologies and standards such as distributed access remote-PHY, or R-PHY, to address network densification.

Common Platform Capabilities to Address the Needs of Both Fixed and Wireless Networks

Our software-centric, multi-service platform enables a broad range of network services for fixed and wireless networks, allowing for the delivery of diverse consumer and enterprise applications. Both fixed and wireless networks share a common set of core and access network functions that enable network services, such as subscriber management, session management, transport security, access aggregation and RF management. Our Axyom software architecture allows each of these network functions to be provided and controlled by a distinct segment of software, which can be integrated or combined together in a building block-style fashion with the segments of software responsible for each other network function. This allows us to offer network architectures that can be efficiently tailored to meet each customer’s specific requirements, both as they exist at the time of initial implementation and as they evolve over time.

Our Competitive Strengths

The following competitive strengths have helped us become a market leader:

Highly Flexible, Software-Centric Architecture

We have designed our product portfolio from the ground up to be software-centric and modular in nature. Our proprietary software is at the heart of our products. Our software allows us to leverage the programmability of FPGAs and general purpose processors in our solutions. Our software-centric architecture allows us to virtualize core network and access functions allowing these functions to be decoupled from underlying hardware, which is not feasible with hardware-centric approaches. As a result, our software-centric architecture allows for increased efficiencies, upgradability, configuration flexibility, service agility and scalability while increasing the potential service life of the underlying hardware.

Proven Engineering and Product Development Track Record

We have a proven history of anticipating network evolutions and developing solutions that enable next-generation networks. Our forward-looking design and investment approach, coupled with our proven product development track record, has enabled us to deliver fully featured next-generation solutions in advance of competitors. For example, we believe we were:

- first to market (2005) with a software-centric cable solution leveraging the programmability of FPGAs and general purpose processors;
- first to market (2008) with a commercially deployed, fully qualified DOCSIS 3.0 cable modem termination system, or CMTS;
- first to market (2012) with a commercially deployed converged cable access platform, or CCAP, delivering IP voice, digital video and data over a single port;
- first to market (2015) with commercially deployed DOCSIS 3.1-compliant solutions supporting speeds of up to 10 gigabits per second; and
- first to market (2016) with a commercially deployable remote-PHY solution.

Strong Management and Engineering Team with a Culture of Innovation

We pride ourselves on our culture of innovation, which is driven by our management team of experienced executives and engineers with deep industry expertise. As of September 30, 2016, approximately 85% of our employees were engineers or had other technical backgrounds. With our talented and passionate engineering-led organization, we aim to be an industry visionary and are committed to delivering products based on next-generation technology before our competitors do. By providing customers with direct access to our engineers for product feedback and assistance, we believe our engineering expertise contributes to an enhanced customer experience.

Customer Focus

We have a passion to serve our customers and the agility and flexibility to offer solutions to meet their evolving requirements. Our sales, sales engineering, development and support teams work directly with customers to design, develop and implement new solutions and to resolve customer problems, even if another provider is the root cause of the problem. Our product development roadmap is based on our vision for the future but heavily influenced by near-term and mid-term customer requirements. This market insight helps us meet customer demands and achieve faster time to market with new features.

Diversified and Established Customer Base

Our solutions are commercially deployed in more than 60 countries by more than 350 customers, including regional service providers as well as some of the largest Tier 1 broadband service providers, serving millions of subscribers. According to S&P Global Intelligence, our market share by revenue in the CCAP market was 22% for the first half of 2016, as compared to 54% for Arris and 22% for Cisco, which was an increase from 2015, for which our market share was 16%, as compared to 58% for Arris and 23% for Cisco. Our wireless solutions are currently being commercially deployed by one customer and are deployed in over 20 prospective customer field trials, and we are in negotiations with several broadband service providers for commercial deployment of our small cell-related solutions.

Market Opportunity

We believe that the shift to software-centric ultra-broadband networks and fixed and wireless convergence presents us with a compelling market opportunity. Because fixed and wireless networks share a common set of core and access network functions, our platform is capable of addressing the needs of both fixed and wireless networks.

Our current CCAP solution addresses the service delivery needs of cable service providers. As fixed and wireless networks continue to converge, we believe there is an opportunity for us to take advantage of this fundamental shift. Although we currently only generate revenue from the fixed broadband CCAP market, we are currently engaged in over 20 trials with potential customers for our wireless solutions and expect to generate revenue in the future from sales of wireless solutions to new and existing customers. Our current wireless products consist of small cells, Wi-Fi and related gateways as well as evolved packet core products. Our small cells and related products enable wireless access, routing and traffic management functions to support the delivery of a number of services to end users. Our evolved packet core products enable subscriber and session management, security and data exchange between the core wireless network and wireless subscribers.

We believe the global market for our fixed broadband CCAP solutions and small cells and evolved packet core wireless solutions will grow from $10.6 billion in 2016 to $18.4 billion in 2020, based on the following:

- According to S&P Global Market Intelligence, the CCAP market is projected to grow from $1.9 billion in 2016 to $2.4 billion in 2020, representing a 6% compound annual growth rate. This market currently accounts for all of our revenue.
- According to Gartner, the small cells market is projected to grow from $4.0 billion in 2016 to $8.6 billion in 2020, representing a 21% compound annual growth rate.[1] Our small cell-related solutions are currently being implemented for commercial deployment by one customer and are deployed in 20 field trials, and we are in negotiations with several broadband service providers for commercial deployment of our small cell-related solutions.
- According to ABI Research, the evolved packet core market is expected to grow from $4.7 billion in 2016 to $7.4 billion in 2020, representing a 12% compound annual growth rate. Components of our evolved packet core application are currently deployed in two field trials.

Our Growth Strategy

The key elements of our growth strategy are:

Continue to Innovate and Extend Technology Leadership Through R&D Investment

We believe that we offer market-leading broadband infrastructure products today. We intend to continue to enhance our existing products and develop new products in both our current and adjacent markets. For example, we have invested in and launched distributed access architecture solutions to allow our cable customers to densify their networks, providing higher bandwidth, which enhances user experience.

Further Penetrate Existing Customers

Our customers often deploy our products in a specific region or for a specific application, which may only account for a portion of their overall network infrastructure needs. We plan to expand our footprint within the networks of existing customers as they realize the technological and financial benefits of our solutions. Our software-centric approach, which is embedded in our products already deployed in our customers' networks, allows those customers to expand network capacity to address increasing bandwidth demand and serve additional users through software.

[1] Source: Gartner, Forecast: Communications Service Provider Operational Technology 3Q16 Update, 21 September 2016 (the "Gartner Report"). The Gartner Report represents research opinion or viewpoints published, as part of a syndicated subscription service, by Gartner, Inc. ("Gartner"), and are not representations of fact. The Gartner Report speaks as of its original publication date (and not as of the date of this prospectus) and the opinions expressed in the Gartner Report are subject to change without notice.

Expand Our Customer Base

We intend to continue to invest in our sales and marketing organization to increase awareness of our products and services and expand our customer base. We believe our focus on hiring, training and retaining a knowledgeable and technical sales team helps us build better relationships with customers. We added 24 customers in the nine months ended September 30, 2016.

Expand the Breadth of Solutions Sold to Customers

We intend to sell additional products and solutions to our growing installed base of broadband service providers. We have invested in developing a virtualized platform that allows us to rapidly provide new applications and services to our customers.

Leverage Our Core Technology for the Cable Industry into Adjacent Wireless Markets

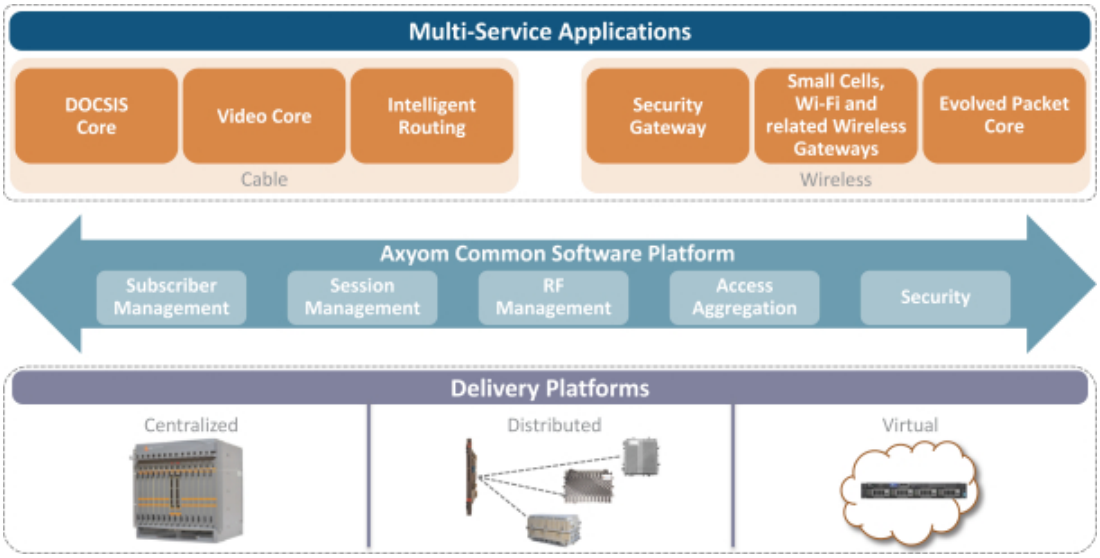
While we initially focused on providing solutions for cable service providers due to our founders' experience in the cable industry, the commonalities between fixed and wireless network architectures have allowed us to expand our solutions into the wireless market as cable service providers have increasingly sought to add wireless capabilities to their service offerings. We have trials underway with several wireless providers and continue to invest in wireless research and development.

Invest in Our Platform through Selective Acquisitions

We may selectively pursue acquisitions that enhance our existing platform capabilities and are consistent with our overall growth strategy.

Products and Technology

We offer physical and virtual network solutions that enable our customers to provide fixed and wireless broadband services to consumers and enterprises.



Axyom Software Platform

Our Axyom software platform is central to our multi-service, ultra-broadband delivery architecture, integrating multiple core and access network functions. Axyom is Linux-based and is designed to provide high performance, programmability, scalability and flexibility. We designed Axyom using NFV 2.0 principles, which allow us to provide and control each needed network function through a distinct segment of software, which can be integrated or combined together in a building block-style fashion with the segments of software responsible for each other network function. This allows us to offer network architectures that can be efficiently tailored to meet each customer's specific requirements, both as they exist at the time of initial implementation and as they evolve over time. Axyom has predominantly been integrated into our physical products to date and is increasingly being deployed in virtual environments.

Our Axyom software platform performs several critical network services:

- *Subscriber Management*. Enables dynamic management of subscriber authentication, provisioning, policy enforcement and allocation of network resources based on specific end-user service requirements to enhance quality of service
- *Session Management.* Intelligently manages application layer data streams to enable service creation and delivery and enhance quality of service
- *RF Management.* Efficiently manages RF signal generation (modulation/demodulation) while reducing noise to increase available RF spectrum and maximize data throughput over the network link in both fixed and wireless applications
- *Access Aggregation.* Manages and combines high volume data streams, regardless of connection type, including fixed broadband, Wi-Fi, LTE and 5G
- *Security.* Enables end-to-end secure connectivity between users, devices and networks without sacrificing performance

Axyom can be deployed on a centralized basis on one of our hardware chassis, over distributed network hardware or as a virtualized solution, allowing operators to place network functions where they choose, whether close to the network edge or at a centralized location or data center.

Delivery Platforms

Depending on customer preference, network requirements and current network configuration, our solutions can be deployed in either a centralized, distributed or virtual environment. While centralized deployments allow our customers to deploy all critical CCAP functions in a single location, distributed and virtual deployments enable our customers to densify the access network by distributing access deeper into the network, away from existing data centers.

Centralized Deployment. Our C100G CCAP combines Cable Modem Termination System, or CMTS, functionality that enables IP data transport from data centers to end-users over cable networks, including voice over IP and edge-quadrature amplitude modulation, or Edge-QAM, functionality to enable video delivery over cable networks in one integrated chassis. We believe our C100G CCAP solution was the industry's first fully integrated CCAP and DOCSIS 3.1 solution. Our C100G CCAP is capable of supporting downstream speeds of 10 gigabits per second. Our C100G CCAP also features high downstream and upstream channel capacity, and low space and energy consumption requirements. Using our C100G CCAP, our customers whose networks are configured for DOCSIS 3.0 can adopt DOCSIS 3.1 through either a software upgrade or a simple line card addition, while continuing to service their end customers who use DOCSIS 3.0 modems. We are also able to increase capacity for our C100G CCAP through channel expansions, which are remotely installed software-enabled increases in the bandwidth capacity, regardless of whether it is configured for DOCSIS 3.0 or 3.1. We believe that our software-centric approach will enable us to seamlessly provide our customers with future upgrades as standards evolve. In addition to our C100G CCAP, we also offer our C40G CCAP, that provides per rack unit performance comparable to that of our C100G CCAP, but in a smaller form factor.

Distributed Deployment. We offer two solutions for distributed deployment:

- *Remote-PHY Solution.* Our R-PHY solution for cable networks consists of remotely deployable hardware that primarily performs RF modulation and connects to a CCAP at the network core to provide subscriber management, session management, access aggregation and security functions. The remotely deployed R-PHY nodes aggregate end user traffic for delivery back to the central data center. The software at the central data center can run on our C100G CCAP chassis or in a virtual environment. Our R-PHY solution allows broadband service providers that have implemented fiber-deep architectures to deploy ultra-fast fiber connections closer to the end user. By retaining software-driven network control and intelligence functions at the network core and placing physical layer functions remotely in a fiber node, broadband services providers can densify their networks to increase operational efficiencies and network capacity.
- *Apex Small Cell Solution.* Our Apex small cell solution consists of remotely deployable access points that provide cellular connectivity services at the network edge in conjunction with transport security functions to address coverage and capacity challenges. It allows a number of connectivity options including LTE and 3G. The Apex small cell solution allows broadband service providers to more cost-effectively densify cellular networks.

Virtual Deployment. Using our NFV 2.0 software architecture, all of the multi-service applications supported across fixed and wireless by our Axyom software platform can be delivered on a virtualized basis utilizing commodity servers. We are in trials with 20 wireless service providers to deliver multi-service applications virtually.

Multi-Service Applications

Our Axyom software platform initially focused on supporting applications enabling fixed broadband delivery. We have focused our recent development efforts on expanding Axyom's capabilities to support wireless applications. We refer to multi-service to describe a set of applications that are able to support requirements for both fixed and wireless networks.

Cable Network Applications

We believe our CCAP was the first solution offering full CCAP functionality, allowing the delivery of voice, video and data on a single platform. Our CCAP enables three key applications over a single cable network:

- *DOCSIS Core.* Provides high-speed delivery of IP data for broadband connectivity services, including voice over IP
- *Video Core.* Delivers high speed video processing, including for HD and 4K
- *Intelligent Routing.* Intelligently manages network traffic to optimize service quality

Wireless Network Applications

Our Axyom software platform also enables a number of applications addressing the evolving needs of fixed-mobile convergence as well as mobile network operators:

- *Security Gateway.* Enables secure encrypted access for subscribers roaming between trusted and untrusted networks, while providing high levels of density and performance.
- *Small Cells, Wi-Fi and Related Wireless Gateways.* Enables routing and security functions as well as traffic management to provide secure connectivity for wireless endpoints and enable broadband services such as LTE over Wi-Fi, including Wi-Fi calling.
- *Evolved Packet Core.* Enables subscriber management, session management and authentication, security and data exchange between the core network and subscribers.

Capacity Expansion Products

Our CCAP's flexible design allows our customers to rapidly increase service capabilities and tailor our solution to meet their evolving service needs.

Our software platform permits additional capacity and features to be provisioned remotely, as compared to hardware-centric solutions, which require wholesale hardware replacements. As new standards and services evolve and broadband networks become increasingly virtualized, we expect we will be able to deliver additional capabilities as software-only updates.

Our line card expansion options allow our customers to rapidly add new service interfaces and physical connection capacity without the need for chassis replacements. In addition, our expansion cards can cost-effectively enable support for our distributed access R-PHY solution utilizing the same C100G CCAP chassis.

Our Customers

Our solutions are commercially deployed by more than 350 customers, including some of the world's largest Tier 1 broadband service providers:

- in North America: Charter/Time Warner Cable, Rogers and Mediacom
- in Europe: Liberty Global, Vodafone and DNA Oyj
- in Asia-Pacific: Jupiter Communications and Beijing Gehua CATV Networks

Customer Case Studies

The following case studies illustrate why and how our customers deploy our solutions and the impact of our solutions on their businesses.

Time Warner Cable

Challenge: In 2014, Time Warner Cable, or TWC, launched its "TWC Maxx" initiative in the New York City metropolitan area. The goal of the initiative was to provide increasingly competitive service offerings, deliver a superior customer experience with ultra-fast Internet speeds and prepare for continued growth in demand. TWC needed a solution that increased bandwidth and consolidated IP voice, digital video and data services while minimizing space and energy requirements.

Solution and results: TWC implemented our C100G CCAP solution across the New York City metropolitan area, representing the first commercial deployment of full integrated CCAP services including voice, video and data over a single port. Our C100G CCAP solution is able to provide these services through a single network using only one chassis design, enabling a reduction in power consumption and facilities space requirements. Prior to the deployment of our solution, these services were provided through two separate networks. Deployment of our C100G CCAP solution permitted TWC to reduce power consumption by nearly 30%, or approximately 11 GWh per year, which we estimate is enough power for over 1,800 residential homes, reduce facility space and remove over 140 miles of coaxial copper cable, yielding substantial energy and operational savings. In addition, our C100G CCAP solution enabled TWC to offer faster speeds because it allowed more bandwidth to be provided by hardware occupying a smaller footprint than the legacy equipment that was removed. As a result of deploying our C100G CCAP solution, TWC was able to triple the maximum speed offered to its customers. The implementation enabled TWC to increase bandwidth to customers by a factor of up to three. In addition, deployment of our solution permitted TWC to reduce power consumption by nearly 30%, or approximately 11 GWh per year, which we estimate is enough power for over 1,800 residential homes, to reduce facility space, and remove over 140 miles of coaxial copper cable, yielding substantial energy and operational savings.

Tier 1 Cable Service Provider in North America

Challenge: In the fourth quarter of 2015, a Tier 1 cable service provider in North America launched an initiative to make 1 gigabit per second service available across its entire cable footprint.

Solution and results: The customer recognized that a CCAP solution was necessary to offer 1 gigabit per second service. The customer required a DOCSIS 3.1-compliant solution and initially considered purchasing solutions from multiple vendors; however, after evaluating our technology compared to that of our competitors, the customer selected us to complete 100% of the project, citing our rapid deployment timelines. The customer deployed our C100G CCAP solution to service its entire footprint, replacing its existing third-party CMTSs in their entirety. As a result of the initiative, the customer is achieving its objective and rolling out 1 gigabit per second service across its entire footprint, and now provides 1 gigabit per second service in the largest metropolitan market it serves.

Sales and Marketing

We sell our products and services through our direct sales force and in partnership with our resellers and sales agents. Our sales force is supported by our sales engineering team, which has deep technical expertise and the capability for product presentations, product evaluations, field trials and customer care. Each sales team is responsible for specific direct end-customer accounts and/or a geographic territory across the following regions: North America, Latin America, Asia-Pacific and Europe, and Middle East & Africa. We intend to expand our sales force and our reseller and sales agent network.

Our products typically have a long sales cycle, requiring detailed discussions with prospective customers about their network requirements and technology roadmaps. To help us succeed in a market characterized by long sales cycles, we have developed strong customer relationships, which in turn provide us with insight into how our products will be deployed in our customers' networks. We involve product engineers in the sales process, enabling them to build relationships with customers that are valuable both during implementation and in post-sales customer support. These relationships also provide us with opportunities to leverage our familiarity with our customers' needs to make additional sales following the initial sale.

We also use resellers to market, sell and support our products and services, and we use sales agents to assist our direct global sales force with certain customers primarily located in the Latin America and Asia-Pacific regions.

Our marketing activities consist primarily of technology conferences, web marketing, trade shows, seminars and events, public relations, analyst relations, demand generation and direct marketing to build our brand, increase customer awareness, communicate our product advantages and generate qualified leads for our field sales force and resellers and sales agents.

Competition

The broadband service provider market is highly competitive and subject to rapidly changing technology trends and shifting customer needs.

We primarily compete with larger and more established companies in the broadband service provider market, such as Arris and Cisco. As we seek to enter the wireless market, we expect to encounter additional competition from large, established providers of wireless communication networks, including Ericsson and Nokia.

The principal factors upon which we compete are:

- product capabilities;

- performance;
- scalability, flexibility and adaptability to new standards;
- ability to innovate;
- time to market;
- customer support; and
- total cost of ownership relative to performance and features.

We believe that we compete favorably with respect to these factors. Nevertheless, many of our competitors have substantial competitive advantages against us, including greater name recognition, longer operating histories, and substantially greater financial, technical, research and development or other resources.

Research and Development

Our research and development efforts are focused on developing new broadband products for the cable and wireless markets and enhancing our current products to meet the current and future needs of our customers. We aim to be first to market with deployable products and are willing to invest early in research and development and take technological risks to meet this goal. We also seek to enhance our technological innovation through our partnerships with industry standard-setting organizations and groups, such as CableLabs, 3GPP and Wi-Fi Alliance. These efforts position us to be able to advance industry standards while evolving our solutions to meet such new standards.

As of September 30, 2016, our research and development organization consisted of 321 employees worldwide, including both software and hardware engineers. Our research and development expense totaled $25.5 million, $37.2 million and $37.2 million for the years ended December 31, 2014 and 2015 and the nine months ended September 30, 2016, respectively. We plan to continue to devote substantial resources to our research and development activities.

Manufacturing

We contract with multiple U.S.-based manufacturing firms, including Benchmark and Sanmina, to manufacture the hardware for our products using the designs, components and standards that we specify. After taking delivery from our contract manufacturers, we conduct final assembly and quality assurance testing at our facilities in Lawrence, Massachusetts and Limerick, Ireland. We believe our combination of local manufacturing and in-house assembly and quality assurance allows us to maintain consistency and quality in the products we ship to customers. We also believe that this manufacturing model enables us to respond quickly to technological changes and supports our engineering goal of being first to market with deployable products. We believe our inventory management enables us to offer shorter times between order and delivery to our customers as compared to our competitors.

We enter into purchase agreements with our contract manufacturers, generally with terms of one year or more. There are no minimum purchase requirements under these agreements and we purchase manufactured goods on a purchase order basis. As a result of our use of multiple contract manufacturers, we believe that we are not substantially dependent on the availability of any single contract manufacturer. Our contract manufacturers purchase the materials and components for our products through a variety of major electronics distributors. The materials and components of our solutions are generally available in adequate quantities from multiple potential suppliers.

Backlog

We do not have any long-term purchase commitments from customers. Customers generally order products on an as-needed basis with short lead and delivery times on a per-purchase-order basis. We maintain substantial finished goods inventory to ensure that products can generally be shipped shortly after receipt of an order.

A portion of our customer shipments in any fiscal period relate to orders received in prior fiscal periods. As of September 30, 2015 and 2016, we had backlog of $17.0 million and $26.8 million, respectively. The increase in backlog over that period was due principally to orders from an existing customer for network capacity expansion. Of the amount of backlog as of September 30, 2016, we expect that approximately $23.7 million will be shipped within the following twelve months. However, because our customers utilize purchase orders containing non-binding purchase commitments and customers may cancel, change or reschedule orders without penalty at any time prior to shipment, we have no assurance that we will be able to convert our backlog into shipped orders.

Intellectual Property

Our success depends to a significant degree upon our ability to protect our core technology and intellectual property. To accomplish this, we rely on a combination of trade secrets, patents, copyrights and trademarks, as well as contractual protections. To date, we have focused our efforts to protect our intellectual property primarily on trade secrets because the cable industry generally relies on non-patentable CableLabs standards and specifications that are jointly developed by market participants.

We limit access to and use of our proprietary software, technology and other confidential information through the use of internal and external controls, including nondisclosure agreements with employees, consultants, customers and vendors and other measures for maintaining trade secret protection. We generally license our software to customers pursuant to agreements that impose restrictions on the customers' ability to use the software, including prohibitions on reverse engineering and limitations on the use of copies. We also seek to avoid disclosure of our intellectual property by requiring employees and consultants with access to our proprietary information to execute nondisclosure and assignment of intellectual property agreements and by restricting access to our source code.

We also incorporate a number of third-party software programs into our solutions pursuant to license agreements. Our software is not substantially dependent on any third-party software, although in some cases it utilizes open source code.

Employees

As of December 31, 2016, we employed 604 full-time employees, of which 357 were located in the United States and 247 were located outside the United States. Our workforce as of December 31, 2016 consisted of 328 employees in engineering and research and development, 114 employees in sales and marketing, 62 employees in general and administrative, 58 employees in manufacturing and 42 employees in services and support. None of our employees are represented by unions. We consider our relationship with our employees to be good and have not experienced significant interruptions of operations due to labor disagreements.

Facilities

Our corporate headquarters is located in Andover, Massachusetts and consists of approximately 122,000 square feet of space. We own the property constituting our corporate headquarters, subject to an $8.0 million mortgage loan. The annual interest rate on the loan is 3.5%, and the loan is repayable in 60 monthly installments of principal and interest based on a 20-year amortization schedule. The remaining amount of unpaid principal under the loan is due on the maturity date of July 1, 2020. The loan terms include annual affirmative, negative

and financial covenants, including a requirement that we maintain a minimum debt service ratio. We were in compliance with all annual covenants of the loan as of December 31, 2015 and September 30, 2016. As of December 31, 2015 and September 30, 2016, outstanding borrowings under the loan were $7.8 million and $7.6 million, respectively.

We lease additional facilities in Lawrence, Massachusetts and Limerick, Ireland that we use for manufacturing, testing, logistics, research and development and customer support. We also lease a facility in Guangzhou, China that we use for manufacturing, testing, logistics, research and development and technical support.

We believe that our current facilities are adequate to meet our current needs. We anticipate expanding our facilities as we add employees and enter new geographic markets. We believe that suitable additional or alternative space will be available on acceptable terms as needed to accommodate future growth.

Legal Proceedings

From time to time, we are a party to various litigation matters and subject to claims that arise in the ordinary course of business including, for example, patent infringement lawsuits by non-practicing entities. In addition, third parties may from time to time assert claims against us in the form of letters and other communications. There is no pending or threatened legal proceeding to which we are a party that, in our opinion, is likely to have a material adverse effect on our financial condition or results of operations. However, litigation is inherently unpredictable. Regardless of the outcome, litigation can adversely affect us because of defense and settlement costs, diversion of management resources and other factors.

MANAGEMENT

Executive Officers and Directors

The following table provides information regarding our executive officers and directors as of December 1, 2016:

Name	Age	Position
Jerry Guo	53	President, Chief Executive Officer and Chairman
Gary Hall	55	Chief Financial Officer
Weidong Chen	49	Chief Technology Officer and Director
Lucy Xie	50	Senior Vice President of Operations and Director
Abraham Pucheril	50	Senior Vice President of Worldwide Sales
Bruce Evans	57	Director
Bill Styslinger	70	Director

(1) Member of audit committee
(2) Member of compensation committee

Executive Officers

Jerry Guo, the founder of our company, has served as our president and chief executive officer and as the chairman of our board of directors since our founding in 2003. Prior to founding our company, Mr. Guo served as the Vice President of Broadband at River Delta Networks, which was acquired by Motorola in 2001. Prior to that, Mr. Guo was a research scientist at Bell Laboratories' research division. Mr. Guo holds a Ph.D. degree in electrical engineering from the University of Wisconsin-Madison and an M.S. degree in optical instruments from the Department of Precision Instruments at Tsinghua University. We believe that Mr. Guo is qualified to serve on our board of directors due to his leadership experience in the broadband and network industries, his extensive knowledge of our company and his service as our president and chief executive officer.

Gary Hall has served as our chief financial officer since June 2011. Prior to joining Casa, from April 2007 to March 2010, Mr. Hall was the chief financial officer of eCopy, a provider of document management solutions. From August 2004 to June 2006, he served as the chief financial officer of MatrixOne, a product life-cycle management company, where he had previously served as controller from April 1999 to August 2004. Previously, Mr. Hall served in various accounting and auditing roles at Deloitte & Touche, a multinational professional services firm. Mr. Hall holds a M.S. degree in finance from Bentley College and a B.A. degree in accounting from Southern New Hampshire University.

Weidong Chen has served as our chief technology officer since 2004 and as a member of our board of directors since 2010. Prior to joining Casa, Mr. Chen served as a software manager at Motorola, a multinational telecommunications company from October 2001 to November 2003. Mr. Chen holds a Ph.D. degree in physics from the University of Pennsylvania. We believe that Mr. Chen's deep experience in the telecommunications industry, his extensive knowledge of our company and his position as our chief technology officer enable Mr. Chen to make a valuable contribution to our board of directors.

Lucy Xie has served as our senior vice president of operations since 2011 and as a member of our board of directors since 2003. From 2003 to 2011, Ms. Xie served as our chief financial officer and vice president of operations. Prior to joining Casa, Ms. Xie held various accounting, finance and management positions at Raytheon, a U.S. defense contractor and industrial corporation, and Lucent Technologies, a telecommunications equipment company. Ms. Xie has also served as the vice chairman and a board member of the Asia-America Chamber of Commerce since 2015. Ms. Xie holds an M.B.A. degree in accounting from Fairleigh Dickinson University. We believe that Ms. Xie is qualified to serve on our board of directors due to her experience as an executive in the telecommunications industry, her extensive knowledge of our company and her service as our senior vice president of operations.

Abraham Pucheril has served as our senior vice president of worldwide sales since August 2012. Prior to joining Casa, Mr. Pucheril was the vice president of sales at Fujitsu Network Communications, Inc., a communications network equipment provider and a wholly owned subsidiary of Fujitsu Limited, from April 2005 to July 2012. Prior to joining Fujitsu, Mr. Pucheril served as area vice president of sales for Alcatel North America, a telecommunications conglomerate, from April 2003 to April 2005, and regional vice president of sales of Atoga Systems, a provider of advanced video and data transmission systems that was acquired by Arris Systems, Inc., from January 2002 to April 2003. He started his professional career with Bell Canada. Mr. Pucheril holds a B.E. degree in electronics and communications engineering from Mangalore University, an M.E. degree in electrical and electronics engineering from Anna University and an M.A.Sc. degree in electrical engineering from the University of Waterloo.

Board of Directors

Bruce Evans has been a director of our company since 2010. Since 1986, Mr. Evans has served in various positions with Summit Partners, a venture capital and investment firm, including most recently as a Managing Director and the Chairman of Summit Partners' Board of Managers. He is also currently a director of Analog Devices, a public company which designs and manufactures high-performance semiconductor products, as well as several private companies. Mr. Evans previously served as a director of more than a dozen public companies, including, from May 2012 to November 2014, FleetCor Technologies, a provider of fuel cards and workforce payment products and services. Mr. Evans holds a B.E. degree in mechanical engineering and economics from Vanderbilt University and an M.B.A. degree from Harvard Business School. We believe that Mr. Evans is qualified to serve as a director of our company due to his wide-ranging experience in growth equity and venture capital investing in the technology sector and his experience on other private and public company boards.

Bill Styslinger has been a director of our company since 2012. Mr. Styslinger served as chairman, president and chief executive officer of SeaChange International, a provider of multiscreen video software and services, from its inception in July 1993 until his retirement in November 2011. Mr. Styslinger was also previously a member of the board of directors of Omtool, a provider of enterprise client/server facsimile software solutions. Mr. Styslinger holds a B.S. degree in Engineering Science from the State University of New York at Buffalo. We believe that Mr. Styslinger is qualified to serve on our board of directors due to his leadership expertise, including service as chief executive officer of a public company with international operations, as well as his knowledge of the telecommunications industry.

Jerry Guo and Lucy Xie are married to one another. There are no other family relationships among any of our directors or executive officers.

Composition of the Board of Directors

Our board of directors currently consists of five members. The current members of our board of directors were elected pursuant to a voting agreement among certain of our preferred and common stockholders. The agreement will terminate upon the closing of this offering, at which time there will be no further contractual obligations regarding the election of our directors. Our directors hold office until their successors have been elected and qualified or until the earlier of their resignation or removal.

In accordance with the terms of our restated certificate of incorporation and amended and restated bylaws, each of which will become effective upon the closing of this offering, our board of directors will be divided into three classes, each of whose members will serve for staggered three year terms. Upon the closing of this offering, the members of the classes will be divided as follows:

- the class I directors will be , and their term will expire at the first annual meeting of stockholders held after the closing of this offering;
- the class II directors will be , and their term will expire at the second annual meeting of stockholders held after the closing of this offering; and
- the class III directors will be , and their term will expire at the third annual meeting of stockholders held after the closing of this offering.

Our restated certificate of incorporation that will become effective upon the closing of this offering provides that the authorized number of directors may be changed only by . Any additional directorships resulting from an increase in the number of directors will be distributed among the three classes so that, as nearly as possible, each class will consist of one-third of the directors. This classification of our board of directors may have the effect of delaying or preventing changes in our control or management.

Our restated certificate of incorporation and amended and restated bylaws that will become effective upon the closing of this offering provide that our directors may be removed only for cause by the affirmative vote of the holders of at least of the votes that all our stockholders would be entitled to cast in an annual election of directors. Upon the expiration of the term of a class of directors, directors in that class will be eligible to be elected for a new three-year term at the annual meeting of stockholders in the year in which their term expires. An election of our directors by our stockholders will be determined by a plurality of the votes cast by the stockholders entitled to vote on the election.

Director Independence

Rule 5605 of the Nasdaq Listing Rules requires a majority of a listed company's board of directors to be comprised of independent directors within one year of listing. In addition, the Nasdaq Listing Rules require that, subject to specified exceptions, each member of a listed company's audit, compensation and nominations committees be independent, or, if a listed company has no nominations committee, that director nominees be selected or recommended for the board's selection by independent directors constituting a majority of the board's independent directors, and that audit committee members also satisfy independence criteria set forth in Rule 10A-3 under the Exchange Act and compensation committee members must also satisfy the independence criteria set forth in Rule 10C-1 under the Exchange Act. Under Rule 5605(a)(2), a director will only qualify as an "independent director" if, in the opinion of our board of directors, that person does not have a relationship that would interfere with the exercise of independent judgment in carrying out the responsibilities of a director. In order to be considered independent for purposes of Rule 10A-3, a member of an audit committee of a listed company may not, other than in his or her capacity as a member of the audit committee, the board of directors, or any other board committee, accept, directly or indirectly, any consulting, advisory or other compensatory fee from the listed company or any of its subsidiaries or otherwise be an affiliated person of the listed company or any of its subsidiaries.

The phase-in periods with respect to director independence under the Nasdaq Listing Rules allow us to have only one independent member on each of the audit committee, compensation committee and, if we choose to form one, nominating and corporate governance committee upon the listing date of our common stock, a majority of independent members on each committee within 90 days of the listing date (or the effective date of the registration statement, in the case of the audit committee) and fully independent committees and a majority of independent directors on our board of directors within one year of the listing date (or the effective date of the registration statement, in the case of the audit committee). The phase-in periods also allow us to have only one member comprise our audit committee by the listing date, two members comprise our audit committee within 90 days of the listing date and at least three members within one year of the listing date.

In , our board of directors undertook a review of the composition of our board of directors and its committees and the independence of each director. Based upon information requested from and provided by each director concerning his background, employment and affiliations, including family relationships, our board of directors has determined that each of Messrs. and is an "independent director" as defined under Rule 5605(a)(2) of the Nasdaq Listing Rules. Our board of directors also determined that Messrs. , who comprise our audit committee, and Messrs. , who comprise our compensation committee, satisfy the independence standards for such committees established by the Securities and Exchange Commission and the Nasdaq Listing Rules, as applicable. In making such determinations, our board of directors considered the relationships that each such non-employee director has with our company and all other facts and circumstances our board of directors deemed relevant in determining independence, including the beneficial ownership of our capital stock by each non-employee director and any institutional stockholder with which he is affiliated.

We expect to satisfy the member independence requirements for each of the audit, compensation and, if we choose to form one, nominating and corporate governance committee prior to the end of the transition period provided under current Nasdaq Listing Rules and SEC rules and regulations for companies completing their initial public offering.

Board Leadership Structure

Our corporate governance guidelines provide that the roles of chairman of the board and chief executive officer may be separated or combined. Our board of directors has considered its leadership structure and determined that at this time Mr. Guo should serve both as our chief executive officer and as chairman of the board. Since 2003, Mr. Guo has served as our president and chief executive officer and has been an integral part of the leadership of our company and our board of directors, and his strategic vision has guided our growth and performance. Our board of directors believes that having Mr. Guo also serve as our chairman facilitates the board's decision-making process and enables Mr. Guo to act as the key link between the board of directors and other members of management.

Board Committees

Our board of directors has established an audit committee and compensation committee. Each of these committees will operate under a charter to be approved by our board of directors prior to this offering. Following this offering, a copy of each committee's charter will be posted on the corporate governance section of our website, *www.casa-systems.com*. Information contained on our website is not incorporated by reference into this prospectus, and you should not consider information contained on our website to be part of this prospectus or in deciding whether to purchase shares of our common stock.

Audit Committee

The audit committee's responsibilities will include:

- appointing, approving the compensation of, and assessing the independence of our registered public accounting firm;
- overseeing the work of our registered public accounting firm, including through the receipt and consideration of reports from such firm;
- reviewing and discussing with management and the registered public accounting firm our annual and quarterly financial statements and related disclosures;
- monitoring our internal control over financial reporting, disclosure controls and procedures and code of business conduct and ethics;
- discussing our risk management policies;
- establishing policies regarding hiring employees from the registered public accounting firm and procedures for the receipt and retention of accounting related complaints and concerns;
- meeting independently with our registered public accounting firm and management;
- reviewing and approving or ratifying any related person transactions; and
- preparing the audit committee report required by SEC rules.

All audit services and all non-audit services, other than de minimis non-audit services, to be provided to us by our independent registered public accounting firm will be required to be approved in advance by our audit committee.

Effective upon the effectiveness of the registration statement of which this prospectus is a part, the members of our audit committee will be Messrs. . Our board of directors has determined that is an "audit committee financial expert" as defined by applicable SEC rules.

We expect to satisfy the member independence requirements for the audit committee prior to the end of the transition period provided under current Nasdaq Listing Rules and SEC rules and regulations for companies completing their initial public offering.

Compensation Committee

The compensation committee's responsibilities will include:

- annually reviewing and approving or advising with respect to corporate goals and objectives relevant to CEO compensation;
- determining or advising with respect to our CEO's compensation;
- reviewing and approving, or making recommendations to our board of directors with respect to, the compensation of our other executive officers;
- overseeing an evaluation of our senior executives;
- overseeing and administering our equity incentive plans;
- reviewing and making recommendations to our board of directors with respect to director compensation;
- reviewing and discussing annually with management our "Compensation Discussion and Analysis" disclosure to the extent such disclosure is required by SEC rules; and
- preparing annual compensation committee reports to the extent required by SEC rules.

Effective upon the effectiveness of the registration statement of which this prospectus is a part, the members of our compensation committee will be Messrs. .

We expect to satisfy the member independence requirements for the compensation committee prior to the end of the transition period provided under current Nasdaq Listing Rules and SEC rules and regulations for companies completing their initial public offering.

Compensation Committee Interlocks and Insider Participation

None of our executive officers serves as a member of the board of directors or compensation committee, or other committee serving an equivalent function, of any entity that has one or more executive officers who serve as members of our board of directors or our compensation committee. None of the members of our compensation committee is an officer or employee of our company, nor have they ever been an officer or employee of our company.

Code of Business Conduct and Ethics

We expect to adopt a written code of business conduct and ethics that applies to our directors, officers and employees, including our principal executive officer, principal financial officer, principal accounting officer or controller, or persons performing similar functions. Following this offering, we will post a current copy of the code on our website, *www.casa-systems.com*. In addition, we intend to post on our website all disclosures that are required by law or the Nasdaq Listing Rules concerning any amendments to, or waivers from, any provision of the code.

EXECUTIVE COMPENSATION

Summary Compensation Table

The following table sets forth the total compensation paid to our chief executive officer and each of our two other most highly compensated executive officers for the year ended December 31, 2016. We refer to these individuals as our "named executive officers."

Name and Principal Position	Year	Salary ($)	Stock Awards ($)(1)	Option Awards ($)(1)	All Other Compensation ($)(2)	Total ($)(3)
Jerry Guo *President, Chief Executive Officer and Chairman*	2016	688,029(4)	1,065,115	1,989,328	7,950	3,750,422
Lucy Xie *Senior Vice President of Operations and Director*	2016	377,516(5)	628,081	502,724	7,950	1,516,271
Weidong Chen *Chief Technology Officer and Director*	2016	378,206(6)	358,885	287,266	7,950	1,032,307

(1) The amounts reported represent the aggregate grant-date fair value of the stock and option grants awarded to the named executive officer in the fiscal year ended December 31, 2016, calculated in accordance with FASB ASC Topic 718. Such grant-date fair values do not take into account any estimated forfeitures related to service-vesting conditions. The assumptions used in calculating the grant-date fair value of the sale of the stock or equity awards reported in this column are set forth in the notes to our consolidated financial statements included elsewhere in this prospectus. The amounts reported in this column reflect the accounting cost for these stock options and do not correspond to the actual economic value that may be received by the named executive officers upon exercise of the stock options.

(2) Constitutes matching contributions to 401(k) plans.

(3) Excludes bonus for 2016 performance to be determined and paid in early 2017.

(4) Includes $42,499 of cash paid in lieu of vacation earned in 2016 and to be paid in 2017.

(5) Includes $18,624 of cash paid in lieu of vacation earned in 2016 and to be paid in 2017.

(6) Includes $19,315 of cash paid in lieu of vacation earned in 2016 and to be paid in 2017.

Outstanding Equity Awards at Fiscal Year-End

The following table sets forth information regarding outstanding stock awards held as of December 31, 2016 by our named executive officers.

	Option Awards						
Name	Grant Date	Number of Securities Underlying Unexercised Options Exercisable (#)	Number of Securities Underlying Unexercised Options Unexercisable (#)	Option Exercise Price ($)	Option Expiration Date	Number of Shares or Units of Stock That Have Not Vested (#)	Market Value of Shares or Units of Stock That Have Not Vested ($)(1)
Jerry Guo	1/23/2015(2)	103,499	112,500	20.92	1/23/2025		
	1/23/2015(3)					115,714	
	1/23/2015(4)					34,715	
	3/26/2016(5)	—	118,432	41.97	3/25/2026		
	3/26/2016(6)					25,378	
Lucy Xie	1/23/2015(2)	21,796	23,692	20.92	1/23/2025		
	1/23/2015(3)					34,116	
	1/23/2015(4)					17,058	
	3/26/2016(5)	—	29,929	41.97	3/25/2026		
	3/26/2016(6)					14,965	
Weidong Chen	5/25/2012	120,000	—	8.46	5/24/2022		
	1/23/2015(2)	12,454	13,539	20.92	1/23/2025		
	1/23/2015(3)					19,495	
	1/23/2015(4)					9,748	
	3/26/2016(5)		17,102	41.97	3/25/2026		
	3/26/2016(6)					8,551	

(1) Based on an assumed market price of $ per share, which is the midpoint of the price range set forth on the cover page of this prospectus.
(2) One-fourth (1/4) of the shares of our common stock subject to this stock option award vested on January 1, 2016, and the balance is scheduled to vest in 36 equal monthly installments thereafter, subject to continued service with us through each applicable vesting date.
(3) One-half (1/2) of these RSUs vested on January 1, 2016, one-third (1/3) are scheduled to vest on January 1, 2017 and one-sixth (1/6) are scheduled to vest on January 1, 2018, subject to continued service with us through each applicable vesting date.
(4) One-fourth (1/4) of these RSUs vested on January 1, 2016, and one-fourth (1/4) are scheduled to vest each year thereafter, subject to continued service with us through each applicable vesting date.
(5) One-fourth (1/4) of the shares of our common stock subject to this stock option award vest on January 1, 2017, and the balance is scheduled to vest in 36 equal monthly installments thereafter, subject to continued service with us through each applicable vesting date.
(6) One-fourth (1/4) of these RSUs are scheduled to vest on January 1, 2017, and one-fourth (1/4) are scheduled to vest each year thereafter, subject to continued service with us through each applicable vesting date.

Potential Payments upon Termination or Change in Control

Under our 2011 Stock Incentive Plan, our board of directors may provide that outstanding awards shall become exercisable, realizable, or deliverable, or restrictions applicable to an award shall lapse, in whole or in part, in connection with (a) any merger or consolidation of the company with or into another entity as a result of which all of the common stock of the company is converted into or exchanged for the right to receive cash, securities or other property or is cancelled, (b) any transfer or disposition of all of the common stock of the company for cash, securities or other property pursuant to a share exchange or other transaction or (c) any liquidation or dissolution of the company. Further, under both our 2003 Stock Incentive Plan and our 2011 Stock Incentive Plan, our board of directors has complete discretion to cause any award to become immediately exercisable in whole or in part, free of some or all restrictions or conditions, or otherwise realizable in whole or in part, as the case may be.

Retirement Benefits

We maintain a retirement plan for the benefit of our employees, including our named executive officers. The plan is intended to qualify as a tax-qualified 401(k) plan so that contributions to the 401(k) plan, and income earned on such contributions, are not taxable to participants until withdrawn or distributed from the 401(k) plan (except in the case of contributions under the 401(k) plan designated as Roth contributions). Under the 401(k) plan, each employee is fully vested in his or her deferred salary contributions. Employee contributions are held and invested by the plan's trustee as directed by participants. We match 50% of employee contributions to our 401(k) plan up to a maximum amount of 6% of eligible wages.

Employee Benefits and Perquisites

Our named executive officers are eligible to participate in our health and welfare plans to the same extent as all full-time employees.

Director Compensation

During the year ended December 31, 2016, none of our directors received any cash compensation or stock-based awards for their service on our board of directors or committees of our board of directors.

We also have a policy of reimbursing our directors for their reasonable out-of-pocket expenses incurred in attending board of directors and committee meetings.

In , we approved a non-employee director compensation program to become effective upon the closing of this offering. Under this program, non-employee directors will receive the cash compensation set forth below, and an annual grant of . Each such will vest . In addition, new non-employee directors will also be eligible for an initial grant of following such director's initial election to our board of directors. Such will vest .

Following the closing of this offering, each non-employee director will be eligible to receive compensation for his or her service on our board of directors or committees thereof consisting of annual cash retainers paid quarterly in arrears, as follows:

Position	Retainer
Board member	$
Audit committee chair	
Compensation committee chair	
Audit committee member	
Compensation committee member	

Stock Option and Other Compensation Plans

Prior to this offering, we granted awards under our 2003 Stock Incentive Plan, as amended to date, and our 2011 Stock Incentive Plan, as amended to date. Following the effectiveness of the registration statement of which this prospectus is a part, we expect to grant awards under the 2017 Stock Incentive Plan.

2017 Stock Incentive Plan

In , our board of directors adopted, and we expect our stockholders will approve, the 2017 Stock Incentive Plan, which will become effective immediately prior to the effectiveness of the registration statement of which this prospectus is a part. The 2017 Stock Incentive Plan provides for the grant of incentive stock options, nonstatutory stock options, stock appreciation rights, restricted stock awards, RSUs and other stock-based awards. Upon effectiveness of the 2017 Stock Incentive Plan, the number of shares of our common stock

that will be reserved for issuance under the 2017 Stock Incentive Plan will be the sum of: (1) plus; (2) the number of shares (up to shares) equal to the sum of the number of shares of our common stock then available for issuance under the 2003 Stock Incentive Plan and the 2011 Stock Incentive Plan and the number of shares of our common stock subject to outstanding awards under the 2003 Stock Incentive Plan and the 2011 Stock Incentive Plan that expire, terminate or are otherwise surrendered, cancelled, forfeited or repurchased by us at their original issuance price pursuant to a contractual repurchase right; plus (3) an annual increase, to be added on the first day of each fiscal year, beginning with the fiscal year ending December 31, 2018 and continuing until, and including, the fiscal year ending December 31, 2027, equal to the lowest of shares of our common stock, % of the number of shares of our common stock outstanding on the first day of such fiscal year and an amount determined by our board of directors.

Our employees, officers, directors, consultants and advisors will be eligible to receive awards under the 2017 Stock Incentive Plan. Incentive stock options, however, may only be granted to our employees.

Pursuant to the terms of the 2017 Stock Incentive Plan, our board of directors (or a committee delegated by our board of directors) will administer the plan and, subject to any limitations in the plan, will select the recipients of awards and determine:

- the number of shares of our common stock covered by options and the dates upon which the options become exercisable;
- the type of options to be granted;
- the duration of options, which may not be in excess of ten years;
- the exercise price of options, which must be at least equal to the fair market value of our common stock on the date of grant; and
- the number of shares of our common stock subject to and the terms of any stock appreciation rights, restricted stock awards, RSUs or other stock-based awards and the terms and conditions of such awards, including conditions for repurchase, issue price and repurchase price (though the measurement price of stock appreciation rights must be at least equal to the fair market value of our common stock on the date of grant and the duration of such awards may not be in excess of ten years).

If our board of directors delegates authority to an executive officer to grant awards under the 2017 Stock Incentive Plan, the executive officer will have the power to make awards to all of our employees, except executive officers. Our board of directors will fix the terms of the awards to be granted by such executive officer, including the exercise price of such awards (which may include a formula by which the exercise price will be determined), and the maximum number of shares subject to awards that such executive officer may make.

Effect of Certain Changes in Capitalization. Upon the occurrence of any stock split, reverse stock split, stock dividend, recapitalization, combination of shares, reclassification of shares, spin-off or other similar change in capitalization or event, or any dividend or distribution to holders of our common stock other than an ordinary cash dividend, our board of directors shall equitably adjust:

- the number and class of securities available under the 2017 Stock Incentive Plan;
- the share counting rules under the 2017 Stock Incentive Plan;
- the number and class of securities and exercise price per share of each outstanding option;
- the share and per-share provisions and the measurement price of each outstanding stock appreciation right;
- the number of shares subject to, and the repurchase price per share subject to, each outstanding restricted stock award; and
- the share and per-share related provisions and the purchase price, if any, of each other stock-based award.

Effect of Certain Corporate Transactions. Upon a merger or other reorganization event (as defined in our 2017 Stock Incentive Plan), our board of directors may, on such terms as our board of directors determines (except to the extent specifically provided otherwise in an applicable award agreement or other agreement between the participant and us), take any one or more of the following actions pursuant to the 2017 Stock Incentive Plan as to some or all outstanding awards, other than restricted stock awards:

- provide that all outstanding awards shall be assumed, or substantially equivalent awards shall be substituted, by the acquiring or successor corporation (or an affiliate thereof);
- upon written notice to a participant, provide that all of the participant's unvested and/or vested but unexercised awards will terminate immediately prior to the consummation of such reorganization event unless exercised by the participant (to the extent then exercisable);
- provide that outstanding awards shall become exercisable, realizable or deliverable, or restrictions applicable to an award shall lapse, in whole or in part, prior to or upon such reorganization event;
- in the event of a reorganization event pursuant to which holders of shares of our common stock will receive a cash payment for each share surrendered in the reorganization event, make or provide for a cash payment to the participants with respect to each award held by a participant equal to (1) the number of shares of our common stock subject to the vested portion of the award (after giving effect to any acceleration of vesting that occurs upon or immediately prior to such reorganization event) multiplied by (2) the excess, if any, of the cash payment for each share surrendered in the reorganization event over the exercise, measurement or purchase price of such award and any applicable tax withholdings, in exchange for the termination of such award; and/or
- provide that, in connection with a liquidation or dissolution, awards shall convert into the right to receive liquidation proceeds (if applicable, net of the exercise, measurement or purchase price thereof and any applicable tax withholdings).

Our board of directors does not need to take the same action with respect to all awards, all awards held by a participant or all awards of the same type.

In the case of certain RSUs, no assumption or substitution is permitted, and the RSUs will instead be settled in accordance with the terms of the applicable RSU agreement.

Upon the occurrence of a reorganization event other than a liquidation or dissolution, the repurchase and other rights with respect to outstanding restricted stock awards will continue for the benefit of the successor company and will, unless the board of directors may otherwise determine, apply to the cash, securities or other property into which shares of our common stock are converted or exchanged pursuant to the reorganization event. Upon the occurrence of a reorganization event involving a liquidation or dissolution, all restrictions and conditions on each outstanding restricted stock award will automatically be deemed terminated or satisfied, unless otherwise provided in the agreement evidencing the restricted stock award or any other agreement between the participant and us.

At any time, our board of directors may, in its sole discretion, provide that any award under the 2017 Stock Incentive Plan will become immediately exercisable in full or in part, free of some or all restrictions or conditions, or otherwise realizable in whole or in part as the case may be.

No award may be granted under the 2017 Stock Incentive Plan on or after the date that is ten years following the effectiveness of the registration statement of which this prospectus is a part. Our board of directors may amend, suspend or terminate the 2017 Stock Incentive Plan at any time, except that stockholder approval may be required to comply with applicable law or stock market requirements.

2011 Stock Incentive Plan

Our 2011 Stock Incentive Plan was adopted by our board of directors on August 2, 2011, approved by our stockholders on September 22, 2011 and subsequently amended on May 25, 2012, June 11, 2014, and June 29,

2015. The 2011 Stock Incentive Plan provides for the grant of incentive stock options, nonstatutory stock options, stock appreciation rights, restricted stock units and shares, restricted or otherwise, of our common stock. Our employees, officers, directors, consultants and advisors are eligible to receive awards under our 2011 Stock Incentive Plan; however incentive stock options may only be granted to our employees. A maximum of 4,604,732 shares of our common stock are authorized for issuance under the 2011 Stock Incentive Plan.

The type of award granted under our 2011 Stock Incentive Plan and the terms of such award are set forth in the applicable award agreement.

Pursuant to the terms of the 2011 Stock Incentive Plan, our board of directors (or a committee assigned by our board of directors) administers the 2011 Stock Incentive Plan. The board of directors has complete discretion to take any actions it deems necessary or advisable for the administration of the 2011 Stock Incentive Plan. All decisions, interpretations and other actions of our board of directors are final and binding on all participants and all persons deriving their rights from a participant. In addition, subject to any limitations in the 2011 Stock Incentive Plan, our board of directors selects the recipients of awards and determines:

- the number of shares of our common stock covered by options and the dates upon which the options become exercisable;
- the type of options to be granted;
- the duration of options, which may not be in excess of ten years;
- the exercise price of options, which must be at least equal to the fair market value of our common stock on the date of grant; and
- the number of shares of our common stock subject to, and the terms of any restricted stock awards or restricted stock units, and the terms and conditions of such awards, including conditions for repurchase, issue price and repurchase price.

Effect of Certain Changes in Capitalization. Pursuant to the 2011 Stock Incentive Plan, in the event of stock split, stock dividend, a combination of shares, reverse stock-split, a reclassification, or any other increase or decrease in the number of issued shares of our common stock effected without receipt of consideration by us, proportionate adjustments shall automatically be made in each of:

- the number of shares of our common stock available for issuance under the 2011 Stock Incentive Plan;
- the number of shares of our common stock covered by each outstanding option or RSU granted under the 2011 Stock Incentive Plan; and
- the exercise price under each outstanding option granted under the 2011 Stock Incentive Plan.

Our board of directors, in its sole discretion, may also make appropriate adjustments to one or more of the same items described above in the event of a declaration of an extraordinary dividend payable in a form other than shares of our common stock that has a material effect on the fair market value of shares of our common stock, a recapitalization, a spin-off or any similar occurrence.

Effect of Certain Corporate Transactions. In the event that we are a party to a merger or consolidation, all shares of our common stock acquired under the 2011 Stock Incentive Plan and all awards outstanding under the 2011 Stock Incentive Plan on the effective date of the transaction shall be treated in the manner described in the agreement of merger or consolidation, which agreement need not treat all awards in an identical manner but which must preserve an award’s status as exempt from or compliant with Section 409A of the Internal Revenue Code of 1986, as amended, or the Code, and must provide for one or more of the following:

- continuation of the outstanding award by us if we are the surviving corporation;
- assumption, or substitution of substantially equivalent awards, of the outstanding award by the surviving corporation or its parent, provided that the assumption or substitution is accomplished in a

manner that complies with the rules regarding assumptions or substitutions that apply to incentive stock options under the Code (whether the outstanding award is an incentive stock option or a nonstatutory stock option);

- acceleration of the date of exercise or vesting of an option (which may be contingent on the closing of the merger or consolidation) followed by the termination of the option if it is not timely exercised prior to the closing of the merger or consolidation (which exercise may also be contingent on the closing of the merger or consolidation); or
- cancellation of the outstanding award in exchange for a payment (if any) equal to the fair market value of a share of common stock as of the closing date of the merger or consolidation minus the per-share exercise price of the award (if any).

Subject to the limitations of the 2011 Stock Incentive Plan, our board of directors may modify, extend or assume outstanding options and RSUs and may accept the cancellation of outstanding options in return for the grant of new options for the same or a different number of shares of our common stock or a different exercise price.

As of December 1, 2016, options to purchase 2,918,113 shares of common stock were outstanding under the 2011 Stock Incentive Plan, at a weighted-average exercise price of $18.37 per share, and options to purchase 560,425 shares of our common stock had been exercised. In addition, as of such date, 279,740 RSUs were outstanding under the 2011 Stock Incentive Plan.

No further awards will be made under our 2011 Stock Incentive Plan on or after the effectiveness of the registration statement of which this prospectus is a part; however, awards outstanding under our 2011 Stock Incentive Plan will continue to be governed by their existing terms. Our board of directors may amend, suspend or terminate the 2011 Stock Incentive Plan at any time and for any reason, except that any amendment of the 2011 Stock Incentive Plan that increases the number of shares of our common stock available for issuance under the 2011 Stock Incentive Plan or that materially changes the class of persons who are eligible for the grant of incentive stock options is subject to the approval of our stockholders.

2003 Stock Incentive Plan

Our 2003 Stock Incentive Plan was adopted by our board of directors on December 24, 2003, approved by our stockholders on December 24, 2003 and subsequently amended on April 26, 2004 and July 1, 2005. The 2003 Stock Incentive Plan provides for the grant of incentive stock options, nonstatutory stock options, stock appreciation rights, restricted stock units and shares, restricted or otherwise, of our common stock. Our employees, officers, directors, consultants and advisors are eligible to receive awards under our 2003 Stock Incentive Plan; however incentive stock options may only be granted to our employees. A maximum of 6,322,000 shares of our common stock are authorized for issuance under the 2003 Stock Incentive Plan.

The type of award granted under our 2003 Stock Incentive Plan and the terms of such award are set forth in the applicable award agreement.

Pursuant to the terms of the 2003 Stock Incentive Plan, our board of directors (or a committee assigned by our board of directors) administers the 2003 Stock Incentive Plan. The board of directors has complete discretion to take any actions it deems necessary or advisable for the administration of the 2003 Stock Incentive Plan. All decisions, interpretations and other actions of our board of directors are final and binding on all participants and all persons deriving their rights from a participant. In addition, subject to any limitations in the 2003 Stock Incentive Plan, our board of directors selects the recipients of awards and determines:

- the number of shares of our common stock covered by options and the dates upon which the options become exercisable;
- the type of options to be granted;

- the duration of options, which may not be in excess of ten years;
- the exercise price of options, which must be at least equal to the fair market value of our common stock on the date of grant; and
- the number of shares of our common stock subject to, and the terms of any restricted stock awards or restricted stock units, and the terms and conditions of such awards, including conditions for repurchase, issue price and repurchase price.

Effect of Certain Changes in Capitalization. Pursuant to the 2003 Stock Incentive Plan, in the event of stock split, stock dividend, a combination of shares, reverse stock-split, a reclassification, or any other increase or decrease in the number of issued shares of our common stock effected without receipt of consideration by us, proportionate adjustments shall automatically be made in each of:

- the number of shares of our common stock available for issuance under the 2003 Stock Incentive Plan;
- the number of shares of our common stock covered by each outstanding option or RSU granted under the 2003 Stock Incentive Plan; and
- the exercise price under each outstanding option granted under the 2003 Stock Incentive Plan.

Our board of directors, in its sole discretion, may also make appropriate adjustments to one or more of the same items described above in the event of a declaration of an extraordinary dividend payable in a form other than shares of our common stock that has a material effect on the fair market value of shares of our common stock, a recapitalization, a spin-off or any similar occurrence.

Effect of Certain Corporate Transactions. In the event that we are a party to a merger or consolidation, all shares of our common stock acquired under the 2003 Stock Incentive Plan and all awards outstanding under the 2003 Stock Incentive Plan on the effective date of the transaction shall be treated in the manner described in the agreement of merger or consolidation, which agreement need not treat all awards in an identical manner but which must preserve an award's status as exempt from or compliant with Section 409A of the Code and must provide for one or more of the following:

- continuation of the outstanding award by us if we are the surviving corporation;
- assumption, or substitution of substantially equivalent awards, of the outstanding award by the surviving corporation or its parent, provided that the assumption or substitution is accomplished in a manner that complies with the rules regarding assumptions or substitutions that apply to incentive stock options under the Code (whether the outstanding award is an incentive stock option or a nonstatutory stock option);
- acceleration of the date of exercise or vesting of an option (which may be contingent on the closing of the merger or consolidation) followed by the termination of the option if it is not timely exercised prior to the closing of the merger or consolidation (which exercise may also be contingent on the closing of the merger or consolidation); or
- cancellation of the outstanding award in exchange for a payment (if any) equal the fair market value of a share of common stock as of the closing date of the merger or consolidation minus the per-share exercise price of the award (if any).

Subject to the limitations of the 2003 Stock Incentive Plan, our board of directors may modify, extend or assume outstanding options and RSUs and may accept the cancellation of outstanding options in return for the grant of new options for the same or a different number of shares of our common stock or a different exercise price.

As of December 1, 2016, options to purchase 40,000 shares of common stock were outstanding under the 2003 Stock Incentive Plan, at a weighted-average exercise price of $1.05 per share, and options to purchase 502,000 shares of our common stock had been exercised. In addition, as of such date no RSUs were outstanding under the 2003 Stock Incentive Plan.

No further awards will be made under our 2003 Stock Incentive Plan on or after the effectiveness of the registration statement of which this prospectus is a part; however, awards outstanding under our 2003 Stock Incentive Plan will continue to be governed by their existing terms. Our board of directors may amend, suspend or terminate the 2003 Stock Incentive Plan at any time and for any reason, except that any amendment of the 2003 Stock Incentive Plan that increases the number of shares of our common stock available for issuance under the 2003 Stock Incentive Plan or that materially changes the class of persons who are eligible for the grant of incentive stock options is subject to the approval of our stockholders.

Limitation of Liability and Indemnification

Our restated certificate of incorporation, which will become effective upon the closing of this offering, limits the personal liability of directors for breach of fiduciary duty to the maximum extent permitted by the Delaware General Corporation Law and provides that no director will have personal liability to us or to our stockholders for monetary damages for breach of fiduciary duty or other duty as a director. However, these provisions do not eliminate or limit the liability of any of our directors:

- for any breach of the director's duty of loyalty to us or our stockholders;
- for acts or omissions not in good faith or which involve intentional misconduct or a knowing violation of law;
- for voting or assenting to unlawful payments of dividends, stock repurchases or other distributions; or
- for any transaction from which the director derived an improper personal benefit.

Any amendment to, or repeal of, these provisions will not eliminate or reduce the effect of these provisions in respect of any act, omission or claim that occurred or arose prior to such amendment or repeal. If the Delaware General Corporation Law is amended to provide for further limitations on the personal liability of directors of corporations, then the personal liability of our directors will be further limited to the greatest extent permitted by the Delaware General Corporation Law.

In addition, our restated certificate of incorporation, which will become effective upon the closing of this offering, provides that we must indemnify our directors and officers and we must advance expenses, including attorneys' fees, to our directors and officers in connection with legal proceedings, subject to very limited exceptions.

We maintain a general liability insurance policy that covers certain liabilities of our directors and officers arising out of claims based on acts or omissions in their capacities as directors or officers. In addition, we have entered into indemnification agreements with certain of our executive officers and directors, and we intend to enter into indemnification agreements with all of our directors and executive officers prior to the closing of this offering. These indemnification agreements may require us, among other things, to indemnify each such director and executive officer for some expenses, including attorneys' fees, judgments, fines and settlement amounts incurred by him or her in any action or proceeding arising out of his or her service as one of our directors or executive officers.

Certain of our non-employee directors may, through their relationships with their employers, be insured and/or indemnified against certain liabilities incurred in their capacity as members of our board of directors. We have agreed that we will be the indemnitor of "first resort," however, with respect to any claims against these directors for indemnification claims that are indemnifiable by both us and their employers. Accordingly, to the extent that indemnification is permissible under applicable law, we will have full liability for such claims (including for the advancement of any expenses) and we have waived all related rights of contribution, subrogation or other recovery that we might otherwise have against these directors' employers.

Rule 10b5-1 Sales Plans

Our directors and executive officers may adopt written plans, known as Rule 10b5-1 plans, in which they will contract with a broker to buy or sell shares of our common stock on a periodic basis. Under a Rule 10b5-1 plan, a broker executes trades pursuant to parameters established by the director or officer when entering into the plan, without further direction from them. The director or officer may amend or terminate the plan in some circumstances. Our directors and executive officers may also buy or sell additional shares outside of a Rule 10b5-1 plan when they are not in possession of material, nonpublic information.

RELATED PERSON TRANSACTIONS

Other than compensation arrangements for our executive officers which are described elsewhere in this prospectus, below we describe transactions since January 1, 2013 to which we were a party or will be a party, in which:

- the amounts involved exceeded or will exceed $120,000; and
- any of our directors, executive officers or holders of more than 5% of our capital stock, or any member of the immediate family of, or person sharing the household with, the foregoing persons, had or will have a direct or indirect material interest.

Transactions Involving Liberty Global Ventures Holding B.V. and its Affiliates

Liberty Global Ventures Holding B.V., one of our 5% stockholders, is affiliated with certain of our customers. In the years ended December 31, 2013, 2014 and 2015, sales to these customers accounted for $13.8 million, $14.8 million and $46.1 million, respectively, and in the nine months ended September 30, 2016, sales to these customer accounted for $16.3 million of our revenue.

We also issued 528,580 shares of our common stock to Liberty Global Ventures Holding B.V. on March 31, 2014, upon Liberty Global Ventures Holding B.V.'s exercise of outstanding warrants, for aggregate consideration of $2.4 million.

Consulting Agreement with Bill Styslinger

On March 5, 2012, we entered into a consulting agreement with Bill Styslinger, one of our directors, for the provision of sales management, corporate strategy and advisory services. We extended the term of the consulting agreement, which was initially scheduled to expire on January 31, 2014, on two occasions, and it will expire on December 31, 2016. We paid Mr. Styslinger $240,000, $453,600, $542,430 and $379,000 for his services in the years ended December 31, 2013, 2014 and 2015 and the nine months ended September 30, 2016, respectively, under this consulting agreement. In addition, in May 2012, we granted to Mr. Styslinger an option to purchase 120,000 shares of common stock, at an exercise price of $8.46 per share, which vested as to 1/3 of the option shares on February 1, 2013 and as to the remainder in equal monthly installments over the following two years. The option had a grant-date fair value of $526,837.

Employment of Rongke Xie

Rongke Xie, who serves as Deputy General Manager of Guangzhou Casa Communication Technology LTD, one of our subsidiaries, is the sister of Lucy Xie, our Senior Vice President of Operations and a member of our board of directors. We paid Rongke Xie $120,275, $153,650, $140,278 and $130,058 in total compensation in the years ended December 31, 2013, 2014 and 2015 and the nine months ended September 30, 2016, respectively, for her services as an employee.

Indemnification Agreements

Our restated certificate of incorporation provides that we will indemnify our officers and directors to the fullest extent permitted by Delaware law. In addition, we have entered into indemnification agreements with certain of our executive officers and directors, and we intend to enter into indemnification agreements with all of our directors and executive officers prior to the closing of this offering. See "Limitation of Liability and Indemnification."

Arrangements with Executive Officers

For a description of the compensation arrangements that we have with our named executive officers and directors, see "Executive Compensation".

Policies and Procedures for Related Person Transactions

We will adopt written policies and procedures, which will become effective upon the closing of this offering, for the review of any transaction, arrangement or relationship in which our company is a participant, the amount involved exceeds $120,000, and one of our executive officers, directors, director nominees or 5% stockholders (or their immediate family members), each of whom we refer to as a "related person," has a direct or indirect material interest.

If a related person proposes to enter into such a transaction, arrangement or relationship, which we refer to as a "related person transaction," the related person must report the proposed related person transaction. The policy will call for the proposed related person transaction to be reviewed and, if deemed appropriate, approved by the audit committee of our board of directors. Whenever practicable, the reporting, review and approval will occur prior to entry into the transaction. If advance review and approval is not practicable, the committee will review, and, in its discretion, may ratify the related person transaction. The policy will also permit the chairman of the audit committee to review and, if deemed appropriate, approve proposed related person transactions that arise between audit committee meetings, subject to ratification by the audit committee at its next meeting. Any related person transactions that are ongoing in nature will be reviewed annually.

A related person transaction reviewed under the policy will be considered approved or ratified if it is authorized by the audit committee after full disclosure of the related person's interest in the transaction. As appropriate for the circumstances, the audit committee will review and consider:

- the related person's interest in the related person transaction;
- the approximate dollar value of the amount involved in the related person transaction;
- the approximate dollar value of the amount of the related person's interest in the transaction without regard to the amount of any profit or loss;
- whether the transaction was undertaken in the ordinary course of our business;
- whether the terms of the transaction are no less favorable to us than terms that could have been reached with an unrelated third party;
- the purpose of, and the potential benefits to us of, the transaction; and
- any other information regarding the related person transaction or the related person in the context of the proposed transaction that would be material to investors in light of the circumstances of the particular transaction.

The audit committee may approve or ratify the transaction only if it determines that, under all of the circumstances, the transaction is in or is not inconsistent with our company's best interests. The audit committee may impose any conditions on the related person transaction that it deems appropriate.

In addition to the transactions that are excluded by the instructions to the SEC's related person transaction disclosure rule, the policy will provide that the following transactions do not create a material direct or indirect interest on behalf of related persons and, therefore, are not related person transactions for purposes of this policy:

- interests arising only from the related person's position as a director of another corporation or organization that is a party to the transaction;
- interests arising only from the direct or indirect ownership by the related person and all other related persons in the aggregate of less than a 10% equity interest (other than a general partnership interest) in another entity which is a party to the transaction;
- interests arising from both the position and ownership level described above;
- interests arising solely from the related person's position as an executive officer of another entity (whether or not the person is also a director of such entity), that is a participant in the transaction,

where (a) the related person and all other related persons own in the aggregate less than a 10% equity interest in such entity, (b) the related person and his or her immediate family members are not involved in the negotiation of the terms of the transaction and do not receive any special benefits as a result of the transaction and (c) the amount involved in the transaction equals less than the greater of $200,000 or 5% of the annual gross revenues of the company receiving payment under the transaction;

- interests arising solely from the ownership of a class of our equity securities if all holders of that class of equity securities receive the same benefit on a pro rata basis;
- a transaction that involves compensation to an executive officer if the compensation has been approved, or recommended to our board of directors for approval, by the compensation committee of the board of directors or a group of independent directors of ours performing a similar function;
- a transaction that involves compensation to a director for services as one of our directors if such compensation will be reported pursuant to Item 402(k) of Regulation S-K;
- a transaction that is specifically contemplated by provisions of our certificate of incorporation or bylaws;
- interests arising solely from indebtedness of a significant shareholder or an immediate family member of a significant shareholder of ours, as such terms are defined under the policy;
- a transaction where the rates or charges involved in the transaction are determined by competitive bids;
- a transaction that involves the rendering of services as a common or contract carrier or public utility at rates or charges fixed in conformity with law or governmental authority; and
- a transaction that involves services as a bank depositary of funds, transfer agent, registrar, trustee under a trust indenture, or similar services.

The policy will provide that transactions involving compensation of executive officers shall be reviewed and approved by the compensation committee in the manner specified in its charter.

PRINCIPAL STOCKHOLDERS

The following table sets forth information with respect to the beneficial ownership of our common stock, as of December 1, 2016, by:

- each person, or group of affiliated persons, known by us to beneficially own more than 5% of our common stock;
- each of our directors;
- each of our named executive officers; and
- all of our executive officers and directors as a group.

The column entitled "Shares Beneficially Owned Prior to Offering—Percentage" is based on a total of 14,666,720 shares of our common stock outstanding as of December 1, 2016, assuming the automatic conversion of all outstanding shares of our convertible preferred stock into an aggregate of 8,076,394 shares of our common stock upon the closing of this offering. The column entitled "Shares Beneficially Owned After Offering—Percentage" is based on shares of our common stock to be outstanding after this offering, including the shares of our common stock that we are selling in this offering, but not including any additional shares issuable pursuant to the underwriters' option to purchase additional shares in this offering or any additional shares issuable upon exercise of outstanding options.

The number of shares beneficially owned by each stockholder is determined under rules of the SEC and includes voting or investment power with respect to securities. Under these rules, beneficial ownership includes any shares as to which the individual or entity has sole or shared voting power or investment power. In computing the number of shares beneficially owned by an individual or entity and the percentage ownership of that person, shares of common stock subject to options or other rights held by such person that are currently exercisable or will become exercisable within 60 days after December 1, 2016 are considered outstanding, although these shares are not considered outstanding for purposes of computing the percentage ownership of any other person. Unless otherwise indicated, the address of all listed stockholders is c/o Casa Systems, Inc., 100 Old River Road, Andover, Massachusetts 01810. Each of the stockholders listed has sole voting and investment power with respect to the shares beneficially owned by the stockholder unless noted otherwise, subject to community property laws where applicable. Beneficial ownership representing less than 1% is denoted with an asterisk (*).

	Shares Beneficially Owned Prior to Offering		Shares Beneficially Owned After Offering	
Name of Beneficial Owner	**Number**	**Percentage**	**Number**	**Percentage**
5% Stockholders				
Entities affiliated with Summit Partners(1)	7,718,400	52.6%		
Liberty Global Ventures Holding B.V.(2)	886,574	6.1%		
Dragonfly Trust(3)	800,000	5.4%		
Executive Officers and Directors				
Jerry Guo(4)	2,359,950	15.3%		
Gary Hall(5)	120,000	*		
Weidong Chen(6)	1,470,887	9.5%		
Lucy Xie(7)	472,197	3.1%		
Abraham Pucheril(8)	120,000	*		
Bruce R. Evans(9)	7,718,400	50.1%		
Bill Styslinger(10)	120,000	*		
All executive officers and directors as a group (7 persons)(11)	12,381,434	80.3%		

(1) Consists of 2,405,291 shares of Series C Convertible Preferred Stock held by Summit Partners Private Equity Fund VII-A, L.P., 1,444,657 shares of Series C Convertible Preferred Stock held by Summit Partners Private Equity Fund VII-B, L.P., 8,211 shares of Series C Convertible Preferred Stock held by Summit Investors I, LLC and 1,401 shares of Series C Convertible Preferred Stock held by Summit Investors I (UK), L.P. Summit Partners, L.P. is the managing member of Summit Partners PE VII, LLC, which is the general partner of Summit Partners PE VII, L.P., which is the general partner of each of Summit Partners Private Equity Fund VII-A, L.P. and Summit Partners Private Equity Fund VII-B, L.P. Summit Master Company, LLC is the managing member of Summit Investors Management, LLC, which is the manager of Summit Investors I, LLC, and the general partner of Summit Investors I (UK), L.P. Summit Master Company, LLC, as the managing member of Summit Investors Management, LLC, has delegated investment decisions, including voting and dispositive power, to Summit Partners, L.P. and its investment committee responsible for voting and investment decisions with respect to Casa. Summit Partners, L.P., through a two-person investment committee responsible for voting and investment decisions with respect to Casa, currently comprised of Bruce R. Evans and Martin J. Mannion, has voting and dispositive power over the shares held by each of these entities and therefore may be deemed to beneficially own such shares. Each of the Summit entities and persons mentioned in this footnote disclaims beneficial ownership of the shares, except for those shares held of record by such entity, and except to the extent of their pecuniary interest therein. The address of the entities and persons mentioned in this footnote is 222 Berkeley Street, 18th Floor, Boston, Massachusetts 02116.

(2) Consists of (i) 528,580 shares of common stock and (ii) 357,994 shares of our Series B Convertible Preferred Stock held by Liberty Global Ventures Holding B.V. Liberty Global Ventures Holding B.V. has delegated investment decisions, including voting and dispositive power, to Liberty Global Europe Holding B.V. Liberty Global Europe Management B.V. may be deemed to have voting and dispositive control over Liberty Global Europe Holding B.V. Liberty Global Europe Management B.V., Liberty Global Europe Holding B.V. and Liberty Global Ventures Holding B.V. each disclaim beneficial ownership of such shares, except for those shares held of record by such entity, and except to the extent of its pecuniary interest therein. The address of Liberty Global Ventures Holding B.V. is Boeing Avenue 53, 1119PE Schiphol-Rijk, The Netherlands.

(3) Consists of 800,000 shares of common stock held by Dragonfly Trust, a family trust established for the children of Mr. Guo and Ms. Xie. Mr. Chen serves as trustee for Dragonfly Trust and has voting and dispositive control over the shares held by Dragonfly Trust. Mr. Chen and Dragonfly Trust each disclaim beneficial ownership of such shares, except for those shares held of record by such person or entity, and except to the extent of such person or entity's pecuniary interest therein.

(4) Consists of (i) 2,127,285 shares of common stock held by Mr. Guo, (ii) options to purchase 137,607 shares of common stock that may be exercised within 60 days of December 1, 2016 and (iii) 95,058 shares of common stock issuable upon vesting of restricted stock units within 60 days of December 1, 2016.

(5) Consists of options to purchase 120,000 shares of common stock held by Mr. Hall that may be exercised within 60 days of December 1, 2016.

(6) Consists of (i) 515,236 shares of common stock held by Mr. Chen, (ii) options to purchase 137,269 shares of common stock that may be exercised within 60 days of December 1, 2016 and (iii) 18,382 shares of common stock issuable upon vesting of restricted stock units within 60 days of December 1, 2016.

(7) Consists of (i) 409,802 shares of common stock held by Ms. Xie, (ii) options to purchase 30,225 shares of common stock that may be exercised within 60 days of December 1, 2016 and (iii) 32,170 shares of common stock issuable upon vesting of restricted stock units within 60 days of December 1, 2016.

(8) Consists of options to purchase 120,000 shares of common stock held by Mr. Pucheril that may be exercised within 60 days of December 1, 2016.

(9) Consists of the shares noted in note (1) above. Mr. Evans is a Managing Director at Summit Partners, the general partner of the Summit-affiliated entities listed in note (1), and may be deemed the indirect beneficial owner of such shares.

(10) Consists of (i) 60,000 shares of common stock held by Mr. Styslinger and (ii) an option to purchase 60,000 shares of common stock that may be exercised within 60 days of December 1, 2016.

(11) Consists of (i) 3,112,323 shares of common stock held by our current directors and executive officers, (ii) options to purchase 605,101 shares of common stock that may be exercised within 60 days of December 1, 2016 by our current directors and executive officers and (iii) 145,610 shares of common stock issuable upon vesting of restricted stock units within 60 days of December 1, 2016 by our current directors and executive officers.

DESCRIPTION OF CAPITAL STOCK

General

Following the closing of this offering, our authorized capital stock will consist of shares of common stock, par value $0.001 per share, and shares of preferred stock, par value $0.001 per share. The following description of our capital stock and provisions of our restated certificate of incorporation and amended and restated bylaws are summaries and are qualified by reference to the restated certificate of incorporation and amended and restated bylaws that will become effective upon the closing of this offering. Copies of these documents have been filed with the SEC as exhibits to our registration statement, of which this prospectus forms a part. The description of our common stock reflects changes to our capital structure that will occur upon the closing of this offering.

As of December 1, 2016, we had issued and outstanding:

- 6,590,326 shares of our common stock held by 45 stockholders of record;
- 178,997 shares of our Series B convertible preferred stock held by one stockholder of record; and
- 3,859,200 shares of our Series C convertible preferred stock held by four stockholders of record.

Immediately prior to the closing of this offering, all of the outstanding shares of our convertible preferred stock will automatically convert into an aggregate of 8,076,394 shares of our common stock.

Common Stock

Holders of our common stock are entitled to one vote for each share held on all matters submitted to a vote of stockholders and do not have cumulative voting rights. An election of directors by our stockholders shall be determined by a plurality of the votes cast by the stockholders entitled to vote on the election. Holders of common stock are entitled to receive proportionately any dividends as may be declared by our board of directors, subject to any preferential dividend rights of any series of preferred stock that we may designate and issue in the future.

In the event of our liquidation or dissolution, the holders of common stock are entitled to receive proportionately our net assets available for distribution to stockholders after the payment of all debts and other liabilities and subject to the prior rights of any outstanding preferred stock. Holders of common stock have no preemptive, subscription, redemption or conversion rights. Our outstanding shares of common stock are, and the shares offered in this offering will be, when issued and paid for, validly issued, fully paid and nonassessable. The rights, preferences and privileges of holders of common stock are subject to and may be adversely affected by the rights of the holders of shares of any series of preferred stock that we may designate and issue in the future.

Preferred Stock

Under the terms of our restated certificate of incorporation that will become effective upon the closing of this offering, our board of directors is authorized to direct us to issue shares of preferred stock in one or more series without stockholder approval. Our board of directors has the discretion to determine the rights, preferences, privileges and restrictions, including voting rights, dividend rights, conversion rights, redemption privileges and liquidation preferences, of each series of preferred stock.

The purpose of authorizing our board of directors to issue preferred stock and determine its rights and preferences is to eliminate delays associated with a stockholder vote on specific issuances. The issuance of preferred stock, while providing flexibility in connection with possible acquisitions, future financings and other corporate purposes, could have the effect of making it more difficult for a third party to acquire, or could discourage a third party from seeking to acquire, a majority of our outstanding voting stock. Upon the closing of this offering, there will be no shares of preferred stock outstanding, and we have no present plans to issue any shares of preferred stock.

Stock Options

As of December 1, 2016, options to purchase 40,000 shares of our common stock were outstanding under our 2003 Stock Incentive Plan at a weighted-average exercise price of $1.05 per share, of which 40,000 shares were vested and exercisable as of that date. As of December 1, 2016, options to purchase 2,918,113 shares of our common stock were outstanding under our 2011 Stock Incentive Plan at a weighted-average exercise price of $18.37 per share, of which 1,940,263 shares were vested and exercisable.

RSUs

As of December 1, 2016, 279,740 shares of our common stock were issuable upon the vesting of RSUs outstanding under our 2011 Stock Incentive Plan.

Registration Rights

Demand Registration Rights

Pursuant to our registration rights agreement, until the earlier of six months after the close of this offering and six months after the effective date of the registration statement of which this prospectus forms a part, the holders of at least 20% of the shares having rights under this agreement, which we refer to as registrable securities, can demand that we file up to two registration statements on Form S-1 registering all or a portion of their registrable securities, provided that the aggregate offering price is expected to be at least $5 million. As of December 1, 2016, the holders of 8,076,394 shares of our common stock, including shares issuable upon the conversion of our convertible preferred stock, have demand registration rights. Under specified circumstances, we also have the right to defer filing of a requested registration statement for a period of not more than 60 days, which right may not be exercised more than once during any 12-month period. These registration rights are subject to additional conditions and limitations, including the right of the underwriters to limit the number of shares included in any such registration under certain circumstances.

Form S-3 Registration Rights

Pursuant to the registration rights agreement, if we are eligible to file a registration statement on Form S-3, the holders of at least 20% of our registrable securities have the right to demand that we file additional registration statements, including a shelf registration statement, for such holders on Form S-3, if the aggregate anticipated offering price is at least $5 million. These holders can demand up to two such registrations in any 12-month period.

Piggyback Registration Rights

Pursuant to the registration rights agreement, if we propose to file a registration statement under the Securities Act, other than with respect to a registration related to employee benefit or similar plans, a registration on any form which does not include substantially the same information as would be required to be included in this registration statement, or a registration in which the only common stock being registered is common stock issuable upon conversion of debt securities which are also being registered, the holders of registrable securities are entitled to receive notice of the registration and to include their registrable securities in such registration. As of December 1, 2016, the holders of 8,076,394 shares of our common stock, including shares issuable upon the conversion of our convertible preferred stock, will be entitled to notice of this registration and will be entitled to include their registrable securities in this registration statement, but we anticipate that such right will be waived prior to consummation of this offering. The underwriters of any underwritten offering will have the right to limit the number of the number of registrable securities that may be included in the registration statement.

Expenses of Registration

We are required to pay all expenses relating to any demand, Form S-3 or piggyback registration, other than underwriting discounts and commissions, subject to certain limited exceptions. We will not pay for any expenses

of any demand registration if the request is subsequently withdrawn by the holders of a majority of the shares requested to be included in such a registration statement, subject to limited exceptions.

Anti-Takeover Provisions

We are subject to Section 203 of the Delaware General Corporation Law. Subject to certain exceptions, Section 203 prevents a publicly held Delaware corporation from engaging in a “business combination” with any “interested stockholder” for three years following the date that the person became an interested stockholder, unless the interested stockholder attained such status with the approval of our board of directors or unless the business combination is approved in a prescribed manner. A “business combination” includes, among other things, a merger or consolidation involving us and the “interested stockholder” and the sale of more than 10% of our assets. In general, an “interested stockholder” is any entity or person beneficially owning 15% or more of our outstanding voting stock and any entity or person affiliated with or controlling or controlled by such entity or person.

Staggered Board; Removal of Directors

Our restated certificate of incorporation and our amended and restated bylaws, which will be effective upon the closing of this offering, divide our board of directors into three classes with staggered three-year terms. In addition, a director may be removed only for cause and only by the affirmative vote of the holders of at least of the votes that all our stockholders would be entitled to cast in an annual election of directors. Any vacancy on our board of directors, including a vacancy resulting from an enlargement of our board of directors, may be filled only by vote of a majority of our directors then in office.

The classification of our board of directors and the limitations on the removal of directors and filling of vacancies could make it more difficult for a third party to acquire, or discourage a third party from seeking to acquire, control of our company.

Supermajority Voting

The Delaware General Corporation Law provides generally that the affirmative vote of a majority of the shares entitled to vote on any matter is required to amend a corporation’s certificate of incorporation or bylaws, unless a corporation’s certificate of incorporation or bylaws, as the case may be, requires a greater percentage. Our amended and restated bylaws, which will be effective upon the closing of this offering, may be amended or repealed by a majority vote of our board of directors or the affirmative vote of the holders of at least of the votes that all our stockholders would be entitled to cast in an annual election of directors. In addition, the affirmative vote of the holders of at least of the votes which all our stockholders would be entitled to cast in an election of directors is required to amend, repeal, or adopt any provisions inconsistent with, any of the provisions of our restated certificate of incorporation described in the prior two paragraphs.

Stockholder Action; Special Meeting of Stockholders; Advance Notice Requirements for Stockholder Proposals and Director Nominations

Our restated certificate of incorporation, which will be effective upon the closing of this offering, provides that any action required or permitted to be taken by our stockholders must be effected at a duly called annual or special meeting of such stockholders and may not be effected by any consent in writing by such stockholders. Our restated certificate of incorporation and our amended and restated bylaws also provide that, except as otherwise required by law, special meetings of our stockholders can only be called by our chairman of the board, our chief executive officer or our board of directors. In addition, our amended and restated bylaws, which will be effective upon the closing of this offering, establish an advance notice procedure for stockholder proposals to be brought before an annual meeting of stockholders, including proposed nominations of candidates for election to our board of directors. Stockholders at an annual meeting may only consider proposals or nominations specified

in the notice of meeting or brought before the meeting by or at the direction of our board of directors, or by a stockholder of record on the record date for the meeting, who is entitled to vote at the meeting and who has delivered timely written notice in proper form to our secretary of the stockholder's intention to bring such business before the meeting. These provisions could have the effect of delaying until the next stockholder meeting stockholder actions that are favored by the holders of a majority of our outstanding voting securities. These provisions also could discourage a third party from making a tender offer for our common stock, because even if it acquired a majority of our outstanding voting stock, it would be able to take action as a stockholder, such as electing new directors or approving a merger, only at a duly called stockholders meeting and not by written consent.

Authorized But Unissued Shares

The authorized but unissued shares of common stock and preferred stock are available for future issuance without stockholder approval, subject to any limitations imposed by the Nasdaq Listing Rules. These additional shares may be used for a variety of corporate finance transactions, acquisitions and employee benefit plans. The existence of authorized but unissued and unreserved common stock and preferred stock could make more difficult or discourage an attempt to obtain control of us by means of a proxy contest, tender offer, merger or otherwise.

Choice of Forum

Upon the closing of this offering, our restated certificate of incorporation will provide that unless we consent in writing to the selection of an alternative forum, the Court of Chancery of the State of Delaware shall, to the fullest extent permitted by law, be the sole and exclusive forum for (1) any derivative action or proceeding brought on behalf of our company, (2) any action asserting a claim of breach of fiduciary duty owed by any director, officer or other employee or stockholder of our company to us or our stockholders, (3) any action asserting a claim arising pursuant to any provision of the General Corporation Law or as to which the General Corporation Law of the State of Delaware confers jurisdiction on the Court of Chancery or (4) any action asserting a claim governed by the internal affairs doctrine.

Transfer Agent and Registrar

The transfer agent and registrar for our common stock will be .

Nasdaq Global Market

We have applied to list our common stock on the Nasdaq Global Market under the symbol "CASA."

SHARES ELIGIBLE FOR FUTURE SALE

Prior to this offering, there was no public market for our common stock. Future sales of substantial amounts of common stock in the public market, or the perception that such sales may occur, could adversely affect the market price of our common stock. Although we have applied to list our common stock on the Nasdaq Global Market, we cannot assure you that there will be an active public market for our common stock.

Based on the 6,590,326 shares of our common stock that were outstanding on December 1, 2016, upon the closing of this offering, we will have outstanding an aggregate of shares of common stock, assuming the issuance of shares of common stock offered in this offering and the conversion of all outstanding shares of our convertible preferred stock into 8,076,394 shares of our common stock upon the closing of this offering. Of these shares, all shares sold in this offering will be freely tradable without restriction or further registration under the Securities Act, except for any shares purchased by our "affiliates," as that term is defined in Rule 144 under the Securities Act, whose sales would be subject to the Rule 144 resale restrictions described below, other than the holding period requirement.

The remaining 14,666,720 shares of common stock outstanding upon the closing of this offering will be "restricted securities," as that term is defined in Rule 144 under the Securities Act. These restricted securities are eligible for public sale only if they are registered under the Securities Act or if they qualify for an exemption from registration under Rules 144 or 701 under the Securities Act, which are summarized below.

As a result of the lock-up agreements described below and the provisions of Rules 144 and 701 under the Securities Act, these restricted securities will be available for sale in the public market as follows:

- On the date of this prospectus
- 90 days after the date of this prospectus
- 180 days after the date of this prospectus

In addition, of the 2,958,113 shares of our common stock that were subject to stock options outstanding as of December 1, 2016, options to purchase 1,980,263 shares of common stock were vested as of December 1, 2016 and, upon exercise, these shares will be eligible for sale subject to the lock-up agreements and securities laws described below.

Lock-Up Agreements

We and each of our directors and executive officers and holders of substantially all of our capital stock and stock options have agreed that, without the prior written consent of Morgan Stanley & Co. LLC, we and they will not, subject to limited exceptions, during the period ending 180 days after the date of this prospectus:

- offer, pledge, sell, contract to sell, sell any option or contract to purchase, purchase any option or contract to sell, grant any option, right or warrant to purchase, lend, or otherwise transfer or dispose of, directly or indirectly, any shares of our common stock or any other securities so owned convertible into or exercisable or exchangeable for shares of our common stock; or
- enter into any swap or other arrangement that transfers to another, in whole or in part, any of the economic consequences of ownership of our common stock.

These agreements are subject to certain exceptions, as described in the section of this prospectus entitled "Underwriters."

Upon the expiration of the lock-up period, substantially all of the shares subject to such lock-up restrictions will become eligible for sale, subject to the limitations discussed above.

Rule 144

Affiliate Resales of Restricted Securities

In general, beginning 90 days after the effective date of the registration statement of which this prospectus is a part, a person who is an affiliate of ours, or who was an affiliate at any time during the 90 days before a sale, who has beneficially owned shares of our common stock for at least six months would be entitled to sell in "broker's transactions" or certain "riskless principal transactions" or to market makers, a number of shares within any three-month period that does not exceed the greater of:

- 1% of the number of shares of our common stock then outstanding, which will equal approximately shares immediately after this offering; or
- the average weekly trading volume in our common stock on the Nasdaq Global Market during the four calendar weeks preceding the filing of a notice on Form 144 with respect to such sale.

Affiliate resales under Rule 144 are also subject to the availability of current public information about us. In addition, if the number of shares being sold under Rule 144 by an affiliate during any three-month period exceeds 5,000 shares or has an aggregate sale price in excess of $50,000, the seller must file a notice on Form 144 with the SEC and the Nasdaq Global Market concurrently with either the placing of a sale order with the broker or the execution directly with a market maker.

Non-Affiliate Resales of Restricted Securities

In general, beginning 90 days after the effective date of the registration statement of which this prospectus is a part, a person who is not an affiliate of ours at the time of sale, and has not been an affiliate at any time during the three months preceding a sale, and who has beneficially owned shares of our common stock for at least six months but less than a year, is entitled to sell such shares subject only to the availability of current public information about us. If such person has held our shares for at least one year, such person can resell under Rule 144(b)(1) without regard to any Rule 144 restrictions, including the 90-day public company requirement and the current public information requirement.

Non-affiliate resales are not subject to the manner of sale, volume limitation or notice filing provisions of Rule 144.

Rule 701

In general, under Rule 701, any of an issuer's employees, directors, officers, consultants or advisors who purchases shares from the issuer in connection with a compensatory stock or option plan or other written agreement before the effective date of a registration statement under the Securities Act is entitled to sell such shares 90 days after such effective date in reliance on Rule 144. An affiliate of the issuer can resell shares in reliance on Rule 144 without having to comply with the holding period requirement, and non-affiliates of the issuer can resell shares in reliance on Rule 144 without having to comply with the current public information and holding period requirements.

The SEC has indicated that Rule 701 will apply to typical stock options granted by an issuer before it becomes subject to the reporting requirements of the Exchange Act, along with the shares acquired upon exercise of such options, including exercises after an issuer becomes subject to the reporting requirements of the Exchange Act.

Equity Plans

We intend to file one or more registration statements on Form S-8 under the Securities Act to register all shares of common stock issued or issuable under our 2003 Stock Incentive Plan, 2011 Stock Incentive Plan and 2017 Stock Incentive Plan. We expect to file the registration statement covering shares offered pursuant to our 2011 Stock Incentive Plan and 2017 Stock Incentive Plan shortly after the date of this prospectus, permitting the resale of such shares by non-affiliates in the public market without restriction under the Securities Act and the sale by affiliates in the public market, subject to compliance with the resale provisions of Rule 144.

Registration Rights

Upon the closing of this offering, the holders of 8,076,394 shares of common stock will be entitled to various rights with respect to the registration of these shares under the Securities Act. Registration of these shares under the Securities Act would result in these shares becoming fully tradable without restriction under the Securities Act immediately upon the effectiveness of the registration, except for shares purchased by affiliates. See “Description of Capital Stock—Registration Rights” for additional information. Shares covered by a registration statement will be eligible for sale in the public market upon the expiration or release from the terms of the lock-up agreement.

MATERIAL U.S. FEDERAL INCOME AND ESTATE TAX CONSIDERATIONS FOR NON-U.S. HOLDERS OF COMMON STOCK

The following is a discussion of material U.S. federal income and estate tax considerations relating to ownership and disposition of our common stock by a non-U.S. holder. For purposes of this discussion, the term “non-U.S. holder” means a beneficial owner (other than a partnership or other pass-through entity) of our common stock that is not, for U.S. federal income tax purposes:

- an individual who is a citizen or resident of the United States;
- a corporation, or other entity treated as a corporation for U.S. federal income tax purposes, created or organized in or under the laws of the United States or of any political subdivision of the United States;
- an estate the income of which is subject to U.S. federal income taxation regardless of its source; or
- a trust if (1) a U.S. court is able to exercise primary supervision over the administration of the trust and one or more U.S. persons have authority to control all substantial decisions of the trust or (2) the trust has a valid election in effect under applicable U.S. Treasury Regulations to be treated as a U.S. person.

This discussion does not address the tax treatment of partnerships or other entities that are pass-through entities for U.S. federal income tax purposes or persons who hold their common stock through partnerships or other pass-through entities. A partner in a partnership or other pass-through entity that will hold our common stock should consult his, her or its own tax advisor regarding the tax consequences of the ownership and disposition of our common stock through a partnership or other pass-through entity, as applicable.

This discussion is based on current provisions of the Internal Revenue Code of 1986, as amended, or the Code, existing and proposed U.S. Treasury Regulations promulgated thereunder, current administrative rulings and judicial decisions, all as in effect as of the date of this prospectus and all of which are subject to change or to differing interpretation, possibly with retroactive effect. Any change could alter the tax consequences to non-U.S. holders described in this prospectus. There can be no assurance that the Internal Revenue Service, or the IRS, will not challenge one or more of the tax consequences described in this prospectus.

We assume in this discussion that each non-U.S. holder holds shares of our common stock as a capital asset (generally, property held for investment) for U.S. federal income tax purposes. This discussion does not address all aspects of U.S. federal income and estate taxation that may be relevant to a particular non-U.S. holder in light of that non-U.S. holder’s individual circumstances nor does it address any aspects of U.S. state, local or non-U.S. taxes, the alternative minimum tax, or the Medicare tax on net investment income. This discussion also does not consider any specific facts or circumstances that may apply to a non-U.S. holder and does not address the special tax rules applicable to particular non-U.S. holders, such as:

- financial institutions;
- brokers or dealers in securities;
- tax-exempt organizations;
- pension plans;
- owners that hold our common stock as part of a straddle, hedge, conversion transaction, synthetic security or other integrated investment or who have elected to mark securities to market;
- insurance companies;
- controlled foreign corporations;
- passive foreign investment companies;
- non-U.S. governments; and
- certain U.S. expatriates.

THIS DISCUSSION IS FOR INFORMATIONAL PURPOSES ONLY AND IS NOT, AND IS NOT INTENDED TO BE, LEGAL OR TAX ADVICE. PROSPECTIVE INVESTORS SHOULD CONSULT THEIR OWN TAX ADVISORS REGARDING THE U.S. FEDERAL, STATE, LOCAL AND NON-U.S. INCOME, ESTATE AND OTHER TAX CONSIDERATIONS OF ACQUIRING, HOLDING AND DISPOSING OF OUR COMMON STOCK.

Distributions

If we make distributions in respect of our common stock, those distributions generally will constitute dividends for U.S. federal income tax purposes to the extent paid from our current or accumulated earnings and profits, as determined under U.S. federal income tax principles, subject to the tax treatment described in this section. If a distribution exceeds our current and accumulated earnings and profits, the excess will be treated as a tax-free return of the non-U.S. holder's investment, up to the holder's tax basis in the common stock. Any remaining excess will be treated as capital gain, subject to the tax treatment described below under the heading "Gain on Sale, Exchange or Other Taxable Disposition of Our Common Stock." Any such distributions will also be subject to the discussions below under the headings "Information Reporting and Backup Withholding" and "FATCA."

Dividends paid to a non-U.S. holder generally will be subject to withholding of U.S. federal income tax at a 30% rate or such lower rate as may be specified by an applicable income tax treaty between the United States and such holder's country of residence.

Dividends that are treated as effectively connected with a trade or business conducted by a non-U.S. holder within the United States, and, if an applicable income tax treaty so provides, that are attributable to a permanent establishment or a fixed base maintained by the non-U.S. holder within the United States, are generally exempt from the 30% withholding tax if the non-U.S. holder satisfies applicable certification and disclosure requirements (generally including provision of a valid IRS Form W-8ECI (or applicable successor form) certifying that the dividends are effectively connected with the non-U.S. holder's conduct of a trade or business within the United States). However, such U.S. effectively connected income, net of specified deductions and credits, is taxed in the hands of the non-U.S. holder at the same graduated U.S. federal income tax rates as would apply if such holder were a U.S. person (as defined in the Code). Any U.S. effectively connected income received by a non-U.S. holder that is classified as a corporation for U.S. federal income tax purposes may also, under certain circumstances, be subject to an additional "branch profits tax" at a 30% rate or such lower rate as may be specified by an applicable income tax treaty between the United States and such holder's country of residence.

A non-U.S. holder of our common stock who claims the benefit of an applicable income tax treaty between the United States and such holder's country of residence generally will be required to provide a properly executed IRS Form W-8BEN or W-8BEN-E (or successor form) and satisfy applicable certification and other requirements. Non-U.S. holders are urged to consult their own tax advisors regarding their entitlement to benefits under a relevant income tax treaty and the specific methods available to them to satisfy these requirements.

A non-U.S. holder that is eligible for a reduced rate of U.S. withholding tax under an income tax treaty may obtain a refund or credit of any excess amounts withheld by timely filing an appropriate claim for a refund with the IRS.

Gain on Sale, Exchange or Other Taxable Disposition of Our Common Stock

Subject to the discussions below under the headings "Information Reporting and Backup Withholding" and "FATCA," a non-U.S. holder generally will not be subject to U.S. federal income tax on any gain realized upon such non-U.S. holder's sale, exchange or other disposition of our common stock unless:

- the gain is effectively connected with the non-U.S. holder's conduct of a trade or business in the United States, and, if an applicable income tax treaty so provides, the gain is attributable to a permanent establishment or fixed base maintained by the non-U.S. holder in the United States; in these cases, the

non-U.S. holder generally will be taxed on a net income basis at the graduated U.S. federal income tax rates applicable to U.S. persons, and, if the non-U.S. holder is a foreign corporation, the branch profits tax described above under the heading “Distributions” may also apply;

- the non-U.S. holder is a non-resident alien present in the United States for 183 days or more in the taxable year of the disposition and certain other requirements are met, in which case the non-U.S. holder will be subject to a 30% tax (or such lower rate as may be specified by an applicable income tax treaty between the United States and such holder’s country of residence) on the net gain derived from the disposition, which may be offset by certain U.S.-source capital losses of the non-U.S. holder, if any; or
- we are or have been, at any time during the five-year period preceding such disposition (or the non-U.S. holder’s holding period, if shorter) a “U.S. real property holding corporation” unless our common stock is regularly traded on an established securities market and the non-U.S. holder held no more than 5% of our outstanding common stock, directly or indirectly, during the shorter of the five-year period ending on the date of the disposition or the period that the non-U.S. holder held our common stock. Generally, a corporation is a “U.S. real property holding corporation” if the fair market value of its “U.S. real property interests” (as defined in the Code and applicable regulations) equals or exceeds 50% of the sum of the fair market value of its worldwide real property interests plus its other assets used or held for use in a trade or business. Although there can be no assurance, we believe that we are not currently, and we do not anticipate becoming, a “U.S. real property holding corporation” for U.S. federal income tax purposes. If we are a U.S. real property holding corporation and either our common stock is not regularly traded on an established securities market or a non-U.S. holder holds more than 5% of our outstanding common stock, directly or indirectly, during the applicable testing period, such non-U.S. holder’s gain on the disposition of shares of our common stock generally will be taxed in the same manner as gain that is effectively connected with the conduct of a U.S. trade or business, except that the branch profits tax generally will not apply.

U.S. Federal Estate Tax

Shares of our common stock that are owned or treated as owned by an individual who is not a citizen or resident of the United States (as specially defined for U.S. federal estate tax purposes) at the time of death are considered U.S. situs assets and will be included in the individual’s gross estate for U.S. federal estate tax purposes. Such shares, therefore, may be subject to U.S. federal estate tax, unless an applicable estate tax or other treaty provides otherwise.

Information Reporting and Backup Withholding

We must report annually to the IRS and to each non-U.S. holder the gross amount of the distributions on our common stock paid to such holder and the tax withheld, if any, with respect to such distributions. Non-U.S. holders generally will have to comply with specific certification procedures to establish that the holder is not a U.S. person (as defined in the Code) in order to avoid backup withholding at the applicable rate with respect to dividends on our common stock. Generally, a holder will comply with such procedures if it provides a properly executed IRS Form W-8BEN or W-8BEN-E (or other applicable Form W-8), or otherwise meets documentary evidence requirements for establishing that it is a non-U.S. holder, or otherwise establishes an exemption. Dividends paid to non-U.S. holders subject to withholding of U.S. federal income tax, as described above under “Distributions,” will generally be exempt from U.S. backup withholding.

Information reporting and backup withholding generally will apply to the proceeds of a disposition of our common stock by a non-U.S. holder effected by or through the U.S. office of any broker, U.S. or non-U.S., unless the holder certifies its status as a non-U.S. holder and satisfies certain other requirements, or otherwise establishes an exemption. Generally, information reporting and backup withholding will not apply to a payment of disposition proceeds to a non-U.S. holder where the transaction is effected outside the United States through a

non-U.S. office of a broker. However, for information reporting purposes, dispositions effected through a non-U.S. office of a broker with substantial U.S. ownership or operations generally will be treated in a manner similar to dispositions effected through a U.S. office of a broker. Non-U.S. holders should consult their own tax advisors regarding the application of the information reporting and backup withholding rules to them.

Copies of information returns may be made available to the tax authorities of the country in which the non-U.S. holder resides or is incorporated under the provisions of a specific treaty or agreement.

Backup withholding is not an additional tax. Any amounts withheld under the backup withholding rules from a payment to a non-U.S. holder can be refunded or credited against the non-U.S. holder's U.S. federal income tax liability, if any, provided that an appropriate claim is timely filed with the IRS.

FATCA

Provisions of the Code commonly known as the Foreign Account Tax Compliance Act, or FATCA, generally impose a 30% withholding tax on dividends on, and gross proceeds from the sale or disposition of, our common stock if paid to a foreign entity unless (1) if the foreign entity is a "foreign financial institution," the foreign entity undertakes certain due diligence, reporting, withholding, and certification obligations, (2) if the foreign entity is not a "foreign financial institution," the foreign entity identifies certain of its U.S. investors, or (iii) the foreign entity is otherwise exempt under FATCA.

Withholding under FATCA generally (1) applies to payments of dividends on our common stock, and (2) will apply to payments of gross proceeds from a sale or other disposition of our common stock made after December 31, 2018. An intergovernmental agreement between the United States and an applicable foreign country may modify the requirements described in this section. Under certain circumstances, a non-U.S. holder may be eligible for refunds or credits of the tax. Non-U.S. holders should consult their own tax advisors regarding the possible implications of FATCA on their investment in our common stock.

THE PRECEDING DISCUSSION OF MATERIAL U.S. FEDERAL INCOME AND ESTATE TAX CONSIDERATIONS IS FOR INFORMATIONAL PURPOSES ONLY. IT IS NOT LEGAL OR TAX ADVICE. PROSPECTIVE INVESTORS SHOULD CONSULT THEIR OWN TAX ADVISORS REGARDING THE PARTICULAR U.S. FEDERAL, STATE, LOCAL AND NON-U.S. TAX CONSEQUENCES OF PURCHASING, HOLDING AND DISPOSING OF OUR COMMON STOCK, INCLUDING THE CONSEQUENCES OF ANY PROPOSED CHANGES IN APPLICABLE LAWS.

UNDERWRITERS (CONFLICT OF INTEREST)

Under the terms and subject to the conditions in an underwriting agreement dated the date of this prospectus, the underwriters named below, for whom Morgan Stanley & Co. LLC, J.P. Morgan Securities LLC and Barclays Capital Inc. are acting as representatives, have severally agreed to purchase, and we have agreed to sell to them, severally, the number of shares indicated below:

Name	Number of Shares
Morgan Stanley & Co. LLC	
J.P. Morgan Securities LLC	
Barclays Capital Inc.	
Raymond James & Associates, Inc.	
Stifel, Nicolaus & Company, Incorporated	
Total	

The underwriters and the representatives are collectively referred to as the “underwriters” and the “representatives,” respectively. The underwriters are offering the shares of common stock subject to their acceptance of the shares from us and subject to prior sale. The underwriting agreement provides that the obligations of the several underwriters to pay for and accept delivery of the shares of common stock offered by this prospectus are subject to the approval of certain legal matters by their counsel and to certain other conditions. The underwriters are obligated to take and pay for all of the shares of common stock offered by this prospectus if any such shares are taken. However, the underwriters are not required to take or pay for the shares covered by the underwriters’ option to purchase additional shares described below. The underwriting agreement also provides that if an underwriter defaults, the purchase commitment of non-defaulting underwriters may be increased or the offering terminated.

The underwriters initially propose to offer part of the shares of common stock directly to the public at the offering price listed on the cover page of this prospectus and part to certain dealers. After the initial offering of the shares of common stock, the offering price and other selling terms may from time to time be varied by the representatives.

We have granted to the underwriters an option, exercisable for 30 days from the date of this prospectus, to purchase up to additional shares of common stock at the public offering price listed on the cover page of this prospectus, less underwriting discounts and commissions. To the extent the option is exercised, each underwriter will become obligated, subject to certain conditions, to purchase about the same percentage of the additional shares of common stock as the number listed next to the underwriter’s name in the preceding table bears to the total number of shares of common stock listed next to the names of all underwriters in the preceding table.

The following table shows the per share and total public offering price, underwriting discounts and commissions, and proceeds before expenses. These amounts are shown assuming both no exercise and full exercise of the underwriters’ option to purchase up to an additional shares of common stock.

	Per Share	Total	
		No Exercise	Full Exercise
Public offering price	$	$	$
Underwriting discounts and commissions to be paid by us	$	$	$
Proceeds, before expenses	$	$	$

The estimated offering expenses payable by us, exclusive of underwriting discounts and commissions, are approximately $. We have agreed to reimburse the underwriters for expense relating to clearance of this offering with the Financial Industry Regulatory Authority up to $.

The underwriters have informed us that they do not intend sales to discretionary accounts to exceed 5% of the total number of shares of common stock offered by them.

We have applied to list our common stock on the Nasdaq Global Market under the symbol “CASA”.

We and all directors and officers and the holders of substantially all of our outstanding stock and stock options have agreed that, without the prior written consent of Morgan Stanley & Co. LLC on behalf of the underwriters, we and they will not, during the period ending 180 days after the date of this prospectus, which we refer to as the restricted period:

- offer, pledge, sell, contract to sell, sell any option or contract to purchase, purchase any option or contract to sell, grant any option, right or warrant to purchase, lend, or otherwise transfer or dispose of, directly or indirectly, any shares of our common stock or any other securities so owned convertible into or exercisable or exchangeable for our common stock;
- enter into any swap or other arrangement that transfers to another, in whole or in part, any of the economic consequences of ownership of our common stock; or
- file any registration statement with the Securities and Exchange Commission relating to the offering of any shares of our common stock or any securities convertible into or exercisable or exchangeable for shares of our common stock

whether any such transaction described above is to be settled by delivery of common stock or such other securities, in cash or otherwise. In addition, we and each such person agrees that, without the prior written consent of Morgan Stanley & Co. LLC on behalf of the underwriters, we or such other person will not, during the restricted period, make any demand for, or exercise any right with respect to, the registration of any shares of common stock or any security convertible into or exercisable or exchangeable for common stock.

The restrictions described in the immediately preceding paragraph do not apply to certain specified types of transactions, including the following, subject in certain cases to specified limitations:

- the sale of shares in this offering;
- transactions relating to shares of our common stock acquired in open market transactions after the completion of this offering;
- transfers as bona fide gifts;
- transfers to a trust, or other entity formed for estate planning purposes;
- transfers to a corporation, partnership, limited liability company, trust or other business entity that controls, is controlled by or is under common control with the transferor, or distributions to partners, limited liability company members or stockholders of the transferor;
- transfers by will or intestate succession upon death;
- transfers in connection with the “net” or “cashless” exercise or settlement of equity awards;
- transfers in connection with our repurchase of shares of our common stock issued pursuant to an employee benefit plan disclosed in this prospectus or pursuant to the agreements pursuant to which such shares were issued as disclosed in this prospectus;
- the establishment of a trading plan pursuant to Rule 10b5-1 under the Securities Exchange Act of 1934, as amended, for the transfer of shares of our common stock;
- the conversion of outstanding shares of our preferred stock into shares of our common stock;
- transfers pursuant to qualified domestic orders or in connection with divorce settlements; or
- transfers pursuant to a bona fide third-party tender offer, merger, consolidation or other similar transaction involving a change of control approved by our board of directors.

Morgan Stanley & Co. LLC, in its sole discretion, may release the common stock and other securities subject to the lock-up agreements described above in whole or in part at any time.

In order to facilitate the offering of the common stock, the underwriters may engage in transactions that stabilize, maintain or otherwise affect the price of the common stock. Specifically, the underwriters may sell more shares than they are obligated to purchase under the underwriting agreement, creating a short position. A short sale is covered if the short position is no greater than the number of shares available for purchase by the underwriters under the option. The underwriters can close out a covered short sale by exercising the option or purchasing shares in the open market. In determining the source of shares to close out a covered short sale, the underwriters will consider, among other things, the open market price of shares compared to the price available under the option. The underwriters may also sell shares in excess of the option, creating a naked short position. The underwriters must close out any naked short position by purchasing shares in the open market. A naked short position is more likely to be created if the underwriters are concerned that there may be downward pressure on the price of the common stock in the open market after pricing that could adversely affect investors who purchase in this offering. As an additional means of facilitating this offering, the underwriters may bid for, and purchase, shares of common stock in the open market to stabilize the price of the common stock. These activities may raise or maintain the market price of the common stock above independent market levels or prevent or retard a decline in the market price of the common stock. The underwriters are not required to engage in these activities and may end any of these activities at any time.

We and the underwriters have agreed to indemnify each other against certain liabilities, including liabilities under the Securities Act.

A prospectus in electronic format may be made available on websites maintained by one or more underwriters, or selling group members, if any, participating in this offering. The representatives may agree to allocate a number of shares of common stock to underwriters for sale to their online brokerage account holders. Internet distributions will be allocated by the representatives to underwriters that may make Internet distributions on the same basis as other allocations.

The underwriters and their respective affiliates are full service financial institutions engaged in various activities, which may include securities trading, commercial and investment banking, financial advisory, investment management, investment research, principal investment, hedging, financing and brokerage activities. Certain of the underwriters and their respective affiliates have, from time to time, performed, and may in the future perform, various financial advisory and investment banking services for us, for which they received or will receive customary fees and expenses. In addition, affiliates of J.P. Morgan Securities LLC and Barclays Capital Inc. serve as agents, arrangers and lenders under our term loan facility.

In addition, in the ordinary course of their various business activities, the underwriters and their respective affiliates may make or hold a broad array of investments and actively trade debt and equity securities (or related derivative securities) and financial instruments (including bank loans) for their own account and for the accounts of their customers and may at any time hold long and short positions in such securities and instruments. Such investment and securities activities may involve our securities and instruments. The underwriters and their respective affiliates may also make investment recommendations or publish or express independent research views in respect of such securities or instruments and may at any time hold, or recommend to clients that they acquire, long or short positions in such securities and instruments.

Pricing of the Offering

Prior to this offering, there has been no public market for our common stock. The initial public offering price was determined by negotiations between us and the representatives. Among the factors considered in determining the initial public offering price were the information set forth in this prospectus and otherwise available to the representatives, our future prospects and those of our industry in general, assessment of our

management, conditions of the securities markets at the time of this offering, our sales, earnings and certain other financial and operating information in recent periods, and the price-earnings ratios, price-sales ratios, market prices of securities, and certain financial and operating information of companies engaged in activities similar to ours.

Neither we nor the underwriters can assure investors that an active trading market will develop for our common shares, or that the shares will trade in the public market at or above the initial public offering price.

Selling Restrictions

Canada

The shares may be sold only to purchasers purchasing, or deemed to be purchasing, as principal that are accredited investors, as defined in National Instrument 45-106 Prospectus Exemptions or subsection 73.3(1) of the Securities Act (Ontario), and are permitted clients, as defined in National Instrument 31-103 Registration Requirements, Exemptions and Ongoing Registrant Obligations. Any resale of the shares must be made in accordance with an exemption from, or in a transaction not subject to, the prospectus requirements of applicable securities laws.

Securities legislation in certain provinces or territories of Canada may provide a purchaser with remedies for rescission or damages if this prospectus (including any amendment thereto) contains a misrepresentation, provided that the remedies for rescission or damages are exercised by the purchaser within the time limit prescribed by the securities legislation of the purchaser's province or territory. The purchaser should refer to any applicable provisions of the securities legislation of the purchaser's province or territory for particulars of these rights or consult with a legal advisor.

Pursuant to section 3A.3 (or, in the case of securities issued or guaranteed by the government of a non-Canadian jurisdiction, section 3A.4) of National Instrument 33-105 Underwriting Conflicts (NI 33-105), the underwriters are not required to comply with the disclosure requirements of NI 33-105 regarding underwriter conflicts of interest in connection with this offering.

European Economic Area

In relation to each Member State of the European Economic Area which has implemented the Prospectus Directive (each, a "Relevant Member State"), with effect from and including the date on which the Prospectus Directive is implemented in that Relevant Member State, no offer of shares may be made to the public in that Relevant Member State other than:

A. to any legal entity which is a qualified investor as defined in the Prospectus Directive;

B. to fewer than 150 natural or legal persons (other than qualified investors as defined in the Prospectus Directive), subject to obtaining the prior consent of the underwriters; or

C. in any other circumstances falling within Article 3(2) of the Prospectus Directive,

provided that no such offer of shares shall require our company or any underwriter to publish a prospectus pursuant to Article 3 of the Prospectus Directive or supplement a prospectus pursuant to Article 16 of the Prospectus Directive and each person who initially acquires any shares or to whom any offer is made will be deemed to have represented, acknowledged and agreed to and with each of the underwriters and our company that it is a "qualified investor" within the meaning of the law in that Relevant Member State implementing Article 2(1)(e) of the Prospectus Directive.

In the case of any shares being offered to a financial intermediary as that term is used in Article 3(2) of the Prospectus Directive, each such financial intermediary will be deemed to have represented, acknowledged and agreed that the shares acquired by it in the offer have not been acquired on a non-discretionary basis on behalf of, nor have they been acquired with a view to their offer or resale to, persons in circumstances which may give rise to an offer of any shares to the public other than their offer or resale in a Relevant Member State to qualified investors as so defined or in circumstances in which the prior consent of the representatives has been obtained to each such proposed offer or resale.

For the purposes of this provision, the expression an “offer of shares to the public” in relation to any shares in any Relevant Member State means the communication in any form and by means of sufficient information on the terms of the offer and the shares to be offered so as to enable an investor to decide to purchase shares, as the same may be varied in that Member State by any measure implementing the Prospectus Directive in that Member State, the expression “Prospectus Directive” means Directive 2003/71/EC (as amended, including by Directive 2010/73/EU), and includes any relevant implementing measure in the Relevant Member State.

United Kingdom

In the United Kingdom, this document is being distributed only to, and is directed only at, and any offer subsequently made may only be directed at persons who are “qualified investors” (as defined in the Prospectus Directive) (i) who have professional experience in matters relating to investments falling within Article 19(5) of the Financial Services and Markets Act 2000 (Financial Promotion) Order 2005, as amended (the “Order”) and/or (ii) who are high net worth companies (or persons to whom it may otherwise be lawfully communicated) falling within Article 49(2)(a) to (d) of the Order (all such persons together being referred to as “relevant persons”) or otherwise in circumstances which have not resulted and will not result in an offer to the public of the shares in the United Kingdom within the meaning of the Financial Services and Markets Act 2000.

Any person in the United Kingdom that is not a relevant person should not act or rely on the information included in this document or use it as basis for taking any action. In the United Kingdom, any investment or investment activity that this document relates to may be made or taken exclusively by relevant persons.

Hong Kong

Shares of our common stock may not be offered or sold by means of any document other than (i) in circumstances which do not constitute an offer to the public within the meaning of the Companies Ordinance (Cap.32, Laws of Hong Kong), or (ii) to “professional investors” within the meaning of the Securities and Futures Ordinance (Cap.571, Laws of Hong Kong) and any rules made thereunder, or (iii) in other circumstances which do not result in the document being a “prospectus” within the meaning of the Companies Ordinance (Cap.32, Laws of Hong Kong), and no advertisement, invitation or document relating to shares of our common stock may be issued or may be in the possession of any person for the purpose of issue (in each case whether in Hong Kong or elsewhere), which is directed at, or the contents of which are likely to be accessed or read by, the public in Hong Kong (except if permitted to do so under the laws of Hong Kong) other than with respect to shares of our common stock which are or are intended to be disposed of only to persons outside Hong Kong or only to “professional investors” within the meaning of the Securities and Futures Ordinance (Cap.571, Laws of Hong Kong) and any rules made thereunder.

Japan

Shares of our common stock have not been and will not be registered under the Financial Instruments and Exchange Law of Japan (the Financial and Exchange Law) and each underwriter has agreed that it will not offer or sell any shares of our common stock, directly or indirectly, in Japan or to, or for the benefit of, any resident of Japan (which term as used herein means any person resident in Japan, including any corporation or other entity organized under the laws of Japan), or to others for re-offering or resale, directly or indirectly, in Japan or to a

resident of Japan, except pursuant to an exemption from the registration requirements of, and otherwise in compliance with, the Financial Instruments an Exchange Law and any other applicable laws, regulations and ministerial guidelines of Japan.

Singapore

This prospectus has not been registered as a prospectus with the Monetary Authority of Singapore. Accordingly, this prospectus and any other document or material in connection with the offer or sale, or invitation for subscription or purchase, of shares of our common stock may not be circulated or distributed, nor may the shares of our common stock be offered or sold, or be made the subject of an invitation for subscription or purchase, whether directly or indirectly, to persons in Singapore other than (i) to an institutional investor under Section 274 of the Securities and Futures Act, Chapter 289 of Singapore (the "SFA"), (ii) to a relevant person, or any person pursuant to Section 275(1A), and in accordance with the conditions, specified in Section 275 of the SFA or (iii) otherwise pursuant to, and in accordance with the conditions of, any other applicable provision of the SFA.

Where shares of our common stock are subscribed or purchased under Section 275 by a relevant person which is: (a) a corporation (which is not an accredited investor) the sole business of which is to hold investments and the entire share capital of which is owned by one or more individuals, each of whom is an accredited investor; or (b) a trust (where the trustee is not an accredited investor) whose sole purpose is to hold investments and each beneficiary is an accredited investor, shares, debentures and units of shares and debentures of that corporation or the beneficiaries' rights and interest in that trust shall not be transferable for 6 months after that corporation or that trust has acquired shares of our common stock under Section 275 except: (1) to an institutional investor under Section 274 of the SFA or to a relevant person, or any person pursuant to Section 275(1A), and in accordance with the conditions, specified in Section 275 of the SFA; (2) where no consideration is given for the transfer; or (3) by operation of law.

Conflict of Interest

We intend to use a portion of the net proceeds of this offering to repay $ million of indebtedness outstanding under our term loan facility. Each of J.P. Morgan Securities LLC and Barclays Capital Inc., two of the lead underwriters in this offering, is affiliated with a lender under our term loan facility and is therefore deemed to have a "conflict of interest" within the meaning of FINRA Rule 5121. As a result, this offering will be made in compliance with the applicable provisions of Rule 5121. Rule 5121 requires that no sale be made to discretionary accounts by underwriters having a conflict of interest without the prior written approval of the account holder and that a "qualified independent underwriter," as defined in the rule, has participated in the preparation of the registration statement and prospectus and exercised the usual standards of due diligence with respect thereto. Morgan Stanley & Co. LLC is assuming the responsibilities of acting as the "qualified independent underwriter" in this offering. Morgan Stanley & Co. LLC will not receive any additional compensation for acting as a qualified independent underwriter. We have agreed to indemnify Morgan Stanley & Co. LLC against liabilities incurred in connection with acting as a "qualified independent underwriter," including liabilities under the Securities Act, or contribute to payments that the underwriters may be required to make in that respect. In addition, in accordance with Rule 5121, neither J.P. Morgan Securities LLC nor Barclays Capital Inc. will make sales to discretionary accounts without the prior written consent of the customer.

LEGAL MATTERS

The validity of the shares of common stock offered hereby will be passed upon for us by Wilmer Cutler Pickering Hale and Dorr LLP, Boston, Massachusetts. Wilson Sonsini Goodrich & Rosati, Professional Corporation, Boston, Massachusetts, has acted as counsel for the underwriters in connection with certain legal matters related to this offering.

EXPERTS

The financial statements as of December 31, 2014 and 2015 and for each of the two years in the period ended December 31, 2015 included in this prospectus have been so included in reliance on the report of PricewaterhouseCoopers LLP, an independent registered public accounting firm, given on the authority of said firm as experts in auditing and accounting.

WHERE YOU CAN FIND MORE INFORMATION

We have filed with the Securities and Exchange Commission a registration statement on Form S-1 under the Securities Act with respect to the shares of common stock offered hereby. This prospectus, which constitutes a part of the registration statement, does not contain all of the information set forth in the registration statement or the exhibits and schedules filed therewith. For further information about us and the common stock offered hereby, we refer you to the registration statement and the exhibits and schedules filed thereto. Statements contained in this prospectus regarding the contents of any contract or any other document that is filed as an exhibit to the registration statement are not necessarily complete, and each such statement is qualified in all respects by reference to the full text of such contract or other document filed as an exhibit to the registration statement.

You may read and copy the registration statement of which this prospectus is a part at the SEC's public reference room, which is located at 100 F Street, N.E., Room 1580, Washington, DC 20549. You can request copies of the registration statement by writing to the SEC and paying a fee for the copying cost. Please call the SEC at 1-800-SEC-0330 for more information about the operation of the SEC's public reference room. In addition, the SEC maintains an Internet website, which is located at www.sec.gov, that contains reports, proxy and information statements and other information regarding issuers that file electronically with the SEC. You may access the registration statement of which this prospectus is a part at the SEC's Internet website.

Upon the closing of this offering, we will be subject to the informational and periodic reporting requirements of the Exchange Act. We will fulfill our obligations with respect to such requirements by filing periodic reports and other information with the SEC. We intend to furnish our stockholders with annual reports containing consolidated financial statements certified by an independent registered public accounting firm. We also maintain a website at *www.casa-systems.com*. The information contained on, or which can be accessed through, our website does not constitute a part of this prospectus.

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REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

To the Board of Directors and Management
of Casa Systems, Inc.

In our opinion, the accompanying consolidated balance sheets and the related consolidated statements of operations and comprehensive income, of convertible preferred stock and stockholders' equity and of cash flows present fairly, in all material respects, the financial position of Casa Systems, Inc. and its subsidiaries as of December 31, 2014 and 2015, and the results of their operations and their cash flows for the years then ended in conformity with accounting principles generally accepted in the United States of America. These financial statements are the responsibility of the Company's management. Our responsibility is to express an opinion on these financial statements based on our audits. We conducted our audits of these statements in accordance with the standards of the Public Company Accounting Oversight Board (United States) and in accordance with auditing standards generally accepted in the United States of America. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements, assessing the accounting principles used and significant estimates made by management, and evaluating the overall financial statement presentation. We believe that our audits provide a reasonable basis for our opinion.

As discussed in Note 7 to the consolidated financial statements, the Company changed the manner in which it classifies deferred tax assets and liabilities in the year ended December 31, 2015.

/s/ PricewaterhouseCoopers LLP

Boston, Massachusetts
December 13, 2016

CASA SYSTEMS, INC.

CONSOLIDATED BALANCE SHEETS
(Amounts in thousands, except per share amounts)

	December 31, 2014	December 31, 2015
Assets		
Current assets:		
Cash and cash equivalents	$ 77,155	$ 92,496
Accounts receivable, net of provision for doubtful accounts of $485 and $768 as of December 31, 2014 and 2015, respectively	85,669	90,945
Inventory	34,454	47,501
Prepaid expenses and other current assets	3,654	4,173
Prepaid income taxes	1,687	945
Deferred tax assets	11,050	—
Total current assets	213,669	236,060
Property and equipment, net	8,991	22,328
Accounts receivable, net of current portion	6,114	9,839
Deferred tax assets	1,593	14,280
Other assets	448	590
Total assets	$230,815	$283,097
Liabilities, Convertible Preferred Stock and Stockholders' Equity		
Current liabilities:		
Accounts payable	$ 3,353	$ 7,218
Accrued expenses and other current liabilities	18,767	25,354
Accrued income taxes	15,691	4,882
Deferred revenue	76,621	35,353
Current portion of long-term debt	—	272
Total current liabilities	114,432	73,079
Accrued income taxes, net of current portion	429	449
Deferred revenue, net of current portion	9,775	22,109
Long-term debt, net of current portion	—	7,523
Total liabilities	124,636	103,160
Commitments and contingencies (Note 16)		
Convertible preferred stock (Series A, B and C), $0.001 par value; 5,502 shares authorized as of December 31, 2014 and 2015; 4,038 shares issued and outstanding as of December 31, 2014 and 2015; aggregate liquidation preference of $131,577 as of December 31, 2015	97,479	97,479
Stockholders' equity:		
Common stock, $0.001 par value; 20,000 shares authorized as of December 31, 2014 and 2015; 6,335 and 6,362 shares issued and outstanding as of December 31, 2014 and 2015, respectively	6	6
Additional paid-in capital	7,664	14,745
Accumulated other comprehensive income (loss)	1,030	(214)
Retained earnings	—	67,921
Total stockholders' equity	8,700	82,458
Total liabilities, convertible preferred stock and stockholders' equity	$230,815	$283,097

The accompanying notes are an integral part of these consolidated financial statements.

CASA SYSTEMS, INC.

CONSOLIDATED STATEMENTS OF OPERATIONS AND COMPREHENSIVE INCOME
(Amounts in thousands, except share and per share amounts)

	Year Ended December 31,	
	2014	2015
Revenue:		
Product	$ 194,358	$ 247,588
Service	16,920	24,862
Total revenue	211,278	272,450
Cost of revenue:		
Product	59,088	74,349
Service	5,917	5,265
Total cost of revenue	65,005	79,614
Gross profit	146,273	192,836
Operating expenses:		
Research and development	25,481	37,155
Sales and marketing	21,409	36,157
General and administrative	10,346	16,453
Total operating expenses	57,236	89,765
Income from operations	89,037	103,071
Other income (expense):		
Interest income	913	955
Interest expense	(23)	(214)
Loss on foreign currency	(3,173)	(3,020)
Other income (expense), net	(659)	871
Total other expense, net	(2,942)	(1,408)
Income before provision for income taxes	86,095	101,663
Provision for income taxes	26,387	33,742
Net income	59,708	67,921
Other comprehensive expense—foreign currency translation adjustment	(149)	(1,244)
Comprehensive income	$ 59,559	$ 66,677

CASA SYSTEMS, INC.

CONSOLIDATED STATEMENTS OF OPERATIONS AND COMPREHENSIVE INCOME (Continued)
(Amounts in thousands, except share and per share amounts)

	Year Ended December 31,	
	2014	2015
Cash dividends declared per common share or common share equivalent	$ 1.9173	$ —
Net income attributable to common stockholders:		
Basic	$ 23,287	$ 27,302
Diluted	$ 23,843	$ 30,402
Net income per share attributable to common stockholders:		
Basic	$ 3.88	$ 4.30
Diluted	$ 3.65	$ 3.92
Weighted-average shares used to compute net income per share attributable to common stockholders:		
Basic	5,997	6,348
Diluted	6,537	7,761
Pro forma net income per share attributable to common stockholders (unaudited):		
Basic		$
Diluted		$
Weighted-average shares used to compute pro forma net income per share attributable to common stockholders (unaudited):		
Basic		
Diluted		

The accompanying notes are an integral part of these consolidated financial statements.

CASA SYSTEMS, INC.

CONSOLIDATED STATEMENTS OF CONVERTIBLE PREFERRED STOCK AND STOCKHOLDERS' EQUITY
(Amounts in thousands, except per share amounts)

	Series A, B and C Convertible Preferred Stock		Common Stock		Additional Paid-in Capital	Accumulated Other Comprehensive Income (Loss)	Retained Earnings (Accumulated Deficit)	Total Stockholders' Equity (Deficit)
	Shares	Amount	Shares	Amount				
Balances at January 1, 2014	4,038	$97,479	5,294	$ 5	$ 8,215	$ 1,179	$ (42,944)	$ (33,545)
Exercise of stock options	—	—	512	—	4,297	—	—	4,297
Exercise of warrants	—	—	529	1	2,368	—	—	2,369
Reclassification of warrant liability	—	—	—	—	3,695	—	—	3,695
Foreign currency translation adjustment, net of tax of $0	—	—	—	—	—	(149)	—	(149)
Cash dividends declared ($1.9173 per share of common stock, $3.8346 per share of convertible preferred stock and $1.9173 per share to holders of stock-based awards)	—	—	—	—	(13,201)	—	(16,764)	(29,965)
Stock-based compensation	—	—	—	—	1,782	—	—	1,782
Income tax benefits related to stock-based compensation plans	—	—	—	—	508	—	—	508
Net income	—	—	—	—	—	—	59,708	59,708
Balances at December 31, 2014	4,038	97,479	6,335	6	7,664	1,030	—	8,700
Exercise of stock options	—	—	27	—	226	—	—	226
Foreign currency translation adjustment, net of tax of $0	—	—	—	—	—	(1,244)	—	(1,244)
Stock-based compensation	—	—	—	—	6,855	—	—	6,855
Net income	—	—	—	—	—	—	67,921	67,921
Balances at December 31, 2015	4,038	$97,479	6,362	$ 6	$ 14,745	$ (214)	$ 67,921	$ 82,458

The accompanying notes are an integral part of these consolidated financial statements.

CASA SYSTEMS, INC.

CONSOLIDATED STATEMENTS OF CASH FLOWS
(Amounts in thousands)

	Year Ended December 31,	
	2014	2015
Cash flows from operating activities:		
Net income	$ 59,708	$ 67,921
Adjustments to reconcile net income to net cash provided by operating activities:		
Depreciation and amortization	3,604	5,149
Stock-based compensation	1,991	7,321
Deferred income taxes	(8,398)	(1,637)
Increase in fair value of warrant liability	1,523	—
Excess and obsolete inventory valuation adjustment	264	1,379
Increase in provision for doubtful accounts	311	454
Excess income tax benefits from stock-based compensation plans	(508)	—
Changes in operating assets and liabilities:		
Accounts receivable	(46,634)	(9,717)
Inventory	(22,075)	(17,373)
Prepaid expenses and other assets	(2,404)	(875)
Prepaid income taxes	(1,687)	742
Accounts payable	(6,621)	2,744
Accrued expenses and other current liabilities	7,993	7,967
Accrued income taxes	13,880	(10,842)
Deferred revenue	59,401	(28,631)
Net cash provided by operating activities	60,348	24,602
Cash flows used in investing activities:		
Purchases of property and equipment	(4,030)	(15,503)
Net cash used in investing activities	(4,030)	(15,503)
Cash flows from financing activities:		
Proceeds from issuance of debt, net of issuance costs	—	7,905
Principal repayments of debt	—	(115)
Proceeds from exercise of warrants	2,369	—
Proceeds from exercise of stock options	4,297	226
Payments of dividends and equitable adjustments	(28,869)	(712)
Excess income tax benefits from stock-based awards	508	—
Net cash provided by (used in) financing activities	(21,695)	7,304
Effect of exchange rate changes on cash and cash equivalents	28	(1,062)
Net increase in cash and cash equivalents	34,651	15,341
Cash and cash equivalents at beginning of year	42,504	77,155
Cash and cash equivalents at end of year	$ 77,155	$ 92,496
Supplemental disclosures of cash flow information:		
Cash paid for interest	$ —	$ 117
Cash paid for income taxes	$ 22,279	$ 45,182
Supplemental disclosures of non-cash investing and financing activities:		
Purchases of property and equipment included in accounts payable	$ —	$ 1,140
Unpaid dividends and equitable adjustments included in accrued expenses and other current liabilities	$ 1,096	$ 383

The accompanying notes are an integral part of these consolidated financial statements.

CASA SYSTEMS, INC.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS
(Amounts in thousands, except per share amounts)

1. Nature of Business and Basis of Presentation

Casa Systems, Inc. (the "Company") was incorporated under the laws of the State of Delaware on February 28, 2003. The Company is a global communications technology company headquartered in Andover, Massachusetts and has wholly owned subsidiaries in China, France, Canada and the Netherlands.

The Company provides a suite of software-centric infrastructure solutions that allow cable service providers to deliver voice, video and data services over a single platform at multi-gigabit speeds. In addition, the Company offers solutions for next-generation distributed and virtualized architectures in cable operator, fixed telecom and wireless networks. The Company's innovative solutions enable customers to cost-effectively and dynamically increase network speed, add bandwidth capacity, reconfigure and add new services for consumers and enterprises, reduce network complexity and reduce operating and capital expenditures.

The Company is subject to a number of risks similar to other companies of comparable size and other companies selling and providing services to the communications industry. These risks include, but are not limited to, the level of capital spending by the communications industry, a lengthy sales cycle, dependence on the development of new products and services, unfavorable economic and market conditions, competition from larger and more established companies, limited management resources, dependence on a limited number of contract manufacturers and suppliers, the rapidly changing nature of the technology used by the communications industry and reliance on resellers. Failure by the Company to anticipate or to respond adequately to technological developments in its industry, changes in customer or supplier requirements, changes in regulatory requirements or industry standards, or any significant delays in the development or introduction of products could have a material adverse effect on the Company's operating results, financial condition and cash flows.

The accompanying consolidated financial statements have been prepared in accordance with accounting principles generally accepted in the United States of America ("GAAP") and include the accounts of the Company and its wholly owned subsidiaries. All intercompany accounts and transactions have been eliminated in consolidation.

2. Summary of Significant Accounting Policies

Use of Estimates

The preparation of financial statements in conformity with GAAP requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities and the disclosures of contingent assets and liabilities at the date of the financial statements and the reported amounts of revenue and expenses during the reporting periods.

Significant estimates and judgments relied upon by management in preparing these consolidated financial statements include revenue recognition, provision for doubtful accounts, reserves for excess and obsolete inventory, valuation of inventory and deferred inventory costs, the expensing and capitalization of software-related research and development costs, amortization and depreciation periods, recoverability of net deferred tax assets, valuation of uncertain tax positions, warranty allowances and of the Company's common stock and other equity instruments, and stock-based compensation expense.

Although the Company regularly reassesses the assumptions underlying these estimates, actual results could differ materially from these estimates. Changes in estimates are recorded in the period in which they become known. The Company bases its estimates on historical experience and various other assumptions that it believes to be reasonable under the circumstances existing at the time such estimates are made.

CASA SYSTEMS, INC.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS
(Amounts in thousands, except per share amounts)

Unaudited Pro Forma Information

In the accompanying consolidated statements of operations and comprehensive income, the calculation of the unaudited pro forma basic and diluted net income per share attributable to common stockholders for the year ended December 31, 2015 has been prepared to give effect, upon the closing of a qualified initial public offering, to (i) the automatic conversion of all outstanding shares of convertible preferred stock into shares of common stock as if the proposed initial public offering had occurred on January 1, 2015 and (ii) the number of shares offered in the initial public offering whose proceeds are deemed necessary, based on an assumed initial public offering price of $ per share, which is the midpoint of the price range set forth on the cover page of this prospectus, to pay (a) the special cash dividend of $43,148 declared by the Company's board of directors on June 17, 2016 and (b) special cash dividends of $171,425 and $ declared by the Company's board of directors on December 21, 2016 and , respectively, because the Company's earnings for the twelve months ended September 30, 2016 were not sufficient to fully fund those dividends.

The unaudited pro forma net income per share data have been presented in accordance with Securities and Exchange Commission Staff Accounting Bulletin Topic 1B.3 ("SAB Topic 1B.3"). In accordance with SAB Topic 1B.3, dividends declared at or in the year preceding an initial public offering are deemed to be in contemplation of the offering with the intention of repayment out of the offering proceeds to the extent that the amount of dividends exceeded the amount of earnings during the twelve-month period ended on the balance sheet date. For the twelve months ended September 30, 2016, the Company's net income was $75,140 (unaudited).

Cash Equivalents

Cash equivalents include all highly liquid investments maturing within three months from the date of purchase. As of December 31, 2014 and 2015, the Company's cash equivalents consisted of investments in certificates of deposit and money market mutual funds.

Accounts Receivable

Accounts receivable are presented net of a provision for doubtful accounts, which is an estimate of amounts that may not be collectible. Accounts receivable for arrangements with customary payment terms, which are one year or less, are recorded at invoiced amounts and do not bear interest. The Company generally does not require collateral, but the Company may, in certain instances based on its credit assessment, require full or partial prepayment prior to shipment.

For certain customers and/or for certain transactions, the Company provides extended payment arrangements to allow the customer to pay for the purchased equipment in monthly, other periodic or lump-sum payments over a period of one to five years. Certain of these arrangements are collateralized by the underlying assets during the term of the arrangement. Payments due beyond 12 months from the balance sheet date are recorded as non-current assets. In addition, amounts recorded as current and non-current accounts receivable for extended payment term arrangements at any balance sheet date have a corresponding amount recorded as deferred revenue because the Company defers the recognition of revenue for all extended payment term arrangements and only recognizes revenue to the extent of the payment amounts that become due from the customer (see—Revenue Recognition—Deferred Revenue below).

Although there is no contractual interest rate for customer arrangements with extended payment terms, the Company imputes interest on the accounts receivable related to these arrangements and reduces the arrangement

fee that will be recognized as revenue for the amount of the imputed interest, which is recorded as interest income over the payment term using the effective interest method. For the periods presented in the accompanying consolidated financial statements, the impact of imputing interest on revenue and interest income was insignificant.

Accounts receivable as of December 31, 2014 and 2015 consisted of the following:

	December 31,	
	2014	2015
Current portion of accounts receivable, net:		
Accounts receivable, net	$51,535	$ 71,155
Amounts due from related party (see Note 15)	28,046	12,367
Accounts receivable, extended payment arrangements	6,088	7,423
	85,669	90,945
Accounts receivable, net of current portion:		
Accounts receivable, extended payment arrangements	6,114	9,839
	$91,783	$100,784

The Company performs ongoing credit evaluations of its customers and, if necessary, provides a provision for doubtful accounts and expected losses. When assessing and recording its provision for doubtful accounts, the Company evaluates the age of its accounts receivable, current economic trends, creditworthiness of the customers, customer payment history, and other specific customer and transaction information. The Company writes off accounts receivable against the provision when it determines a balance is uncollectible and no longer actively pursues collection of the receivable. Adjustments to the provision for doubtful accounts are recorded as general and administrative expenses in the consolidated statements of operations and comprehensive income. A summary of changes in the provision for doubtful accounts for the years ended December 31, 2014 and 2015 is as follows:

	Year Ended December 31,	
	2014	2015
Provision for doubtful accounts at beginning of year	$ 174	$ 485
Provisions	311	454
Write-offs	—	(171)
Provision for doubtful accounts at end of year	$ 485	$ 768

As December 31, 2014 and 2015, the Company concluded that all amounts due under extended payment term arrangements were collectible and no reserve for credit losses was recorded. During the years ended December 31, 2014 and 2015, the Company did not provide a reserve for credit losses and did not write off any uncollectible receivables due under extended payment term arrangements.

Inventories

Inventories are valued at the lower of cost or market value. Cost is computed using the first-in first-out convention. Inventories are composed of hardware and related component parts of finished goods. The Company establishes provisions for excess and obsolete inventories after evaluating historical sales, future demand, market

conditions, expected product life cycles, and current inventory levels to reduce such inventories to their estimated net realizable value. Such provisions are made in the normal course of business and charged to cost of revenue in the consolidated statements of operations and comprehensive income.

Deferred inventory costs are included within inventory in the consolidated balance sheets. Deferred inventory costs represent the cost of products that have been delivered to the customer for which revenue associated with the arrangement has been deferred as a result of not meeting all of the required revenue recognition criteria, such as receipt of customer acceptance. Until the revenue recognition criteria are met, the Company retains the right to a return of the underlying inventory. Deferred inventory costs are recognized as cost of revenue in the consolidated statements of operations and comprehensive income when the related revenue is recognized.

Property and Equipment

Property and equipment is stated at historical cost less accumulated depreciation. Depreciation is computed using the straight-line method over the estimated useful lives of the assets. Leasehold improvements are recorded at cost with any reimbursement from the landlord being accounted for as deferred rent, which is amortized using the straight-line method over the lease term. Costs for trial systems held and used by the Company's customers pursuant to evaluation agreements are also included within property and equipment. Trial systems held and used by the Company's customers are depreciated over the estimated useful life of such assets, which is two years. Whenever a trial system is sold to a customer and the selling price is recorded as revenue, the related net book value of the trial system sold is removed from property and equipment and recorded as a cost of revenue. Maintenance and repairs expenditures are charged to expense as incurred.

Estimated useful lives of the respective property and equipment assets are as follows:

	Estimated Useful Life
Computers and purchased software	3 years
Leasehold improvements	Shorter of lease term or 7 years
Furniture and fixtures	7 years
Machinery and equipment	3 – 5 years
Building	40 years
Building improvements	5 – 40 years
Trial systems at customers' sites	2 years

Upon retirement or sale, the cost of assets disposed of and the related accumulated depreciation are removed from the accounts and any resulting gain or loss is included in income from operations.

Impairment of Long-Lived Assets

The Company evaluates its long-lived assets, which consist primarily of property and equipment, for impairment whenever events or changes in circumstances indicate that the carrying amount of such assets may not be recoverable. Factors that the Company considers in deciding when to perform an impairment review include significant underperformance of the business in relation to expectations, significant negative industry or economic trends and significant changes or planned changes in the use of the assets. Recoverability of assets to be held and used is measured by a comparison of the carrying amount of an asset to the future undiscounted net cash flows expected to be generated by the asset. If such assets are considered to be impaired, the impairment to

be recognized is measured by the amount by which the carrying amount of the asset exceeds the fair value of the asset, less the cost to sell. No events or changes in circumstances existed to require an impairment assessment during the years ended December 31, 2014 and 2015.

Deferred Offering Costs

The Company capitalizes certain legal, professional accounting and other third-party fees that are directly associated with in-process equity financings as deferred offering costs until such financings are consummated. After consummation of the equity financing, these costs are recorded in stockholders' equity as a reduction of additional paid-in capital generated as a result of the offering. Should the planned equity financing be abandoned, the deferred offering costs will be expensed immediately as a charge to operating expenses in the statement of operations and comprehensive income. The Company did not record any deferred offering costs as of December 31, 2014 and 2015.

Concentration of Risks

Financial instruments that potentially subject the Company to concentrations of credit risk consist principally of cash and cash equivalents and accounts receivable. Cash and cash equivalents consist of demand deposits, savings accounts, money market mutual funds, and certificates of deposits with financial institutions, which may exceed Federal Deposit Insurance Corporation limits. The Company has not experienced any losses related to its cash and cash equivalents and does not believe that it is subject to unusual credit risk beyond the normal credit risk associated with commercial banking relationships.

Significant customers are those that represent 10% or more of revenue or accounts receivable balances as set forth in the following table:

	Revenue		Accounts Receivable, Net	
	Year Ended December 31,		December 31,	
	2014	2015	2014	2015
Customer A	41%	14%	*	*
Customer B	13%	*	25%	*
Customer C	*	17%	31%	12%
Customer D	*	*	*	17%
Customer E	*	*	*	12%
Customer F	*	*	11%	15%
Customer G	*	*	14%	*

* Less than 10% of total

Customer C is a related party, Liberty Global Services B.V. and its affiliates (see Note 15).

Certain of the components and subassemblies included in the Company's products are obtained from a single source or a limited group of suppliers. In addition, the Company primarily relies on two third parties to manufacture its products. Although the Company seeks to reduce dependence on those limited sources of suppliers and manufacturers, the partial or complete loss of certain of these sources could have a material adverse effect on the Company's operating results, financial condition and cash flows and damage its customer relationships.

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Product Warranties

Substantially all of the Company's products are covered by a warranty for software and hardware for periods ranging from 90 days to one year. In addition, in conjunction with renewals of maintenance and support contracts, the Company offers an extended warranty for periods typically of one to three years for agreed-upon fees. In the event of a failure of a hardware product or software covered by these warranties, the Company must repair or replace the software or hardware or, if those remedies are insufficient, and at the discretion of the Company, provide a refund. The Company's warranty reserve, which is included in accrued expenses and other current liabilities in the consolidated balance sheets, reflects estimated material, labor and other costs related to potential or actual software and hardware warranty claims for which the Company expects to incur an obligation. The Company's estimates of anticipated rates of warranty claims and the costs associated therewith are primarily based on historical information and future forecasts. The Company periodically assesses the adequacy of the warranty reserve and adjusts the amount as necessary. If the historical data used to calculate the adequacy of the warranty reserve are not indicative of future requirements, additional or reduced warranty reserves may be required.

A summary of changes in the amount reserved for warranty costs for the years ended December 31, 2014 and 2015 is as follows:

	Year Ended December 31,	
	2014	2015
Warranty reserve at beginning of year	$ 646	$ 949
Provisions	988	1,272
Charges	(685)	(1,228)
Warranty reserve at end of year	$ 949	$ 993

Revenue Recognition

The Company generates revenue from sales of its broadband products, along with associated maintenance and support services, and, to a lesser extent, from sales of professional services and extended warranty services. The Company also generates revenue from sales of additional line cards and software-based capacity expansions. Maintenance and support services include telephone support and unspecified software upgrades and updates provided on a when-and-if-available basis.

In the Company's consolidated statements of operations and comprehensive income, revenue from sales of broadband products and capacity expansions is classified as product revenue, and revenue from maintenance and support, professional services and extended warranty services is classified as service revenue.

The Company recognizes revenue from sales when the following revenue recognition criteria are met:

- *Persuasive evidence of an arrangement exists*. Binding contracts and/or customer purchase orders are generally evidence of an arrangement. For professional services, evidence of an arrangement may also include information documenting the scope of work to be performed, and customer acceptance terms, if any.
- *Delivery has occurred.* For broadband products, shipping documents and customer acceptance, if applicable, verify that delivery has occurred. For software-enabled capacity expansions, delivery occurs when the additional bandwidth capacity is made available to the customer. For professional services, delivery occurs as the services are completed.

- *The sales price is fixed or determinable.* The sales price is considered fixed or determinable when the fees have been contractually agreed with the customer and are not deemed to be subject to refund, adjustment or future discounts, and when the payment terms of the transaction do not extend beyond the Company's customary payment terms, which are one year or less.
- *Collectibility is reasonably assured.* The Company assesses the ability to collect from its customers based on a number of factors that generally include information supplied by credit agencies, references and/or analysis of customer accounts and payment history. If collection from a customer is not considered reasonably assured, all revenue related to the customer arrangement is deferred until payment is received and all other revenue recognition criteria have been met.

When customer acceptance of the product is required and is other than perfunctory, revenue for the entire customer arrangement is deferred until the acceptance has been received.

The Company's products have both software and non-software (i.e., hardware) components that function together to deliver the products' essential functionality. In addition, the hardware sold generally cannot be used apart from the embedded software. As a result, all of the Company's product and service offerings are excluded from the scope of software revenue recognition requirements and instead fall within the scope of Accounting Standards Codification ("ASC") Topic 605, *Revenue Recognition*.

Many of the Company's sales involve multiple-deliverable arrangements that include products and maintenance and support services and, on a limited basis, may also include professional services and extended warranty services. The Company has determined that its products, maintenance and support services, professional services and extended warranty services have standalone value to the customer because each of these elements is sold separately by the Company to its customers or, in the case of professional services, is sold separately by other vendors. As a result, the Company treats each of these elements as a separate unit of accounting for purposes of allocating the arrangement fee and recognizing the revenue of each unit.

For its multiple-deliverable arrangements, the Company allocates the arrangement fee to each deliverable based on the relative selling prices of each of the deliverables in the arrangement using the selling price hierarchy. In such circumstances, the Company determines the selling price of each deliverable based on vendor-specific objective evidence ("VSOE") of selling price, if it exists; otherwise, third-party evidence ("TPE") of selling price. If neither VSOE nor TPE exists, the Company uses its best estimate of the selling price ("BESP") for the deliverable. The Company limits the amount of the arrangement fee allocated to deliverables to the amount that is not contingent on the future delivery of products or services or future performance obligations and the amount that is not subject to customer-specific return or refund privileges.

To date, the Company has not been able to establish VSOE of selling price of any of its products, maintenance and support services, professional services or extended warranty services because the Company has not established a history of consistently pricing each product or service within a narrow range. In addition, the Company is not able to determine TPE of selling price for its products or services because the Company's various product and service offerings contain a significant level of differentiation and, therefore, comparable pricing of competitors' products and services with similar functionality cannot be obtained. As the Company is unable to establish selling price using VSOE or TPE, the Company uses BESP to allocate the arrangement fee to products, maintenance and support services, professional services and extended warranty services in multiple-deliverable arrangements. The objective of BESP is to determine the price at which the Company would transact a sale if a product or service was sold on a standalone basis. The Company determines BESP of selling price for its products and services by considering multiple factors, including, but not limited to, its historical pricing practices by customer type and geographic-specific market factors.

Revenue from product sales is recognized upon delivery to the customer, or upon the later receipt of customer acceptance of the product when such acceptance is required.

Revenue from maintenance and support services is recognized ratably over the contract period, which is typically one year, but can be as long as three or five years. When customer acceptance of a product is required, the recognition of any associated maintenance and support services revenue commences only upon customer acceptance of the associated product. Revenue from extended warranty services is recognized ratably over the contract period, which is typically one to three years.

Revenue from professional services is recognized as the services are performed. Professional services generally include installation or configuration services that are not deemed to be essential to the functionality of the products. When customer acceptance is required, the recognition of any associated professional services revenue is deferred until the associated product and/or professional service is accepted by the customer.

Resellers

The Company markets and sell its products through its direct global sales force, supported by sales agents, and through resellers. The Company's resellers receive an order from an end customer prior to placing an order with the Company, and the Company confirms the identification of or is aware of the end customer prior to accepting such order. The Company invoices the reseller an amount that reflects a reseller discount and records revenue based on the amount of the discounted arrangement fee. The Company's resellers do not stock inventory received from the Company.

When the Company transacts with a reseller, its contractual arrangement is with the reseller and not with the end customer. Whether the Company transacts business with and receives the order from a reseller or directly from an end customer, its revenue recognition policy and resulting pattern of revenue recognition for the order are the same.

The Company also uses sales agents that assist in the sales process with certain customers primarily located in the Latin America and Asia-Pacific regions. Sales agents are not resellers. If a sales agent is engaged in the sales process, the Company receives the order directly from and sells the products and services directly to the end customer, and the Company pays a commission to the sales agent, calculated as a percentage of the related customer payment. Sales agent commissions are recorded as expenses when incurred and are classified as sales and marketing expenses in the Company's consolidated statements of operations and comprehensive income.

Deferred Revenue

Amounts billed in excess of revenue recognized are recorded as deferred revenue. Deferred revenue includes customer deposits, amounts billed for maintenance and support services contracts in advance of services being performed, amounts for trade-in right liabilities and amounts related to arrangements that have been deferred as a result of not meeting the required revenue recognition criteria as of the end of the reporting period. Deferred revenue expected to be recognized as revenue more than one year subsequent to the balance sheet date is reported within long-term liabilities in the consolidated balance sheets.

When the payment terms of a customer order extend beyond the Company's customary payment terms, which are one year or less, the Company considers the arrangement to be an extended payment term arrangement and concludes that the sales price is not fixed or determinable for revenue recognition purposes. In these circumstances, the Company defers all revenue of the arrangement and only recognizes revenue to the extent of the payment amounts that become due, provided that all other revenue recognition criteria have been met.

The Company defers recognition of incremental direct costs, such as cost of goods and services, until recognition of the related revenue. Such costs are classified as current assets if the related deferred revenue is classified as current, and such costs are classified as non-current assets if the related deferred revenue is classified as non-current.

Other Revenue Recognition Policies

In limited instances, the Company has offered future rebates to customers based on a fixed or variable percentage of actual sales volumes over specified periods. The future rebates earned based on the customer's purchasing from the Company in one period may be used as credits to be applied by them against accounts receivable due to the Company in later periods. The Company accounts for these future rebates as a reduction of the revenue recorded for the customer's current purchasing activity giving rise to the future rebates. The liability for these future rebates is recorded as accrued customer incentives (within accrued expenses and other current liabilities) until the credits have been applied by the customer against accounts receivable due to the Company.

When future trade-in rights are granted to customers at the time of sale, the Company defers a portion of the revenue recognized for the sale and accounts for it as a guarantee at fair value until the trade-in right is exercised or the right expires, in accordance with ASC Topic 460, *Guarantees*. Determining the fair value of the trade-in right requires the Company to estimate the probability of the trade-in right being exercised and the future value of the product upon trade-in. The Company assesses and updates these estimates each reporting period, and updates to these estimates may result in either an increase or decrease in the amount of revenue deferred.

Billings to customers for shipping costs and reimbursement of out-of-pocket expenses, including travel, lodging and meals, are recorded as revenue, and the associated costs incurred by the Company for those items are recorded as cost of revenue.

The Company excludes any taxes assessed by a governmental authority that are directly imposed on a revenue-producing transaction (e.g., sales, use and value added taxes) from its revenue and costs.

Stock-Based Compensation

The Company measures stock options and other stock-based awards granted to employees and directors based on the fair value on the date of the grant and recognizes compensation expense of those awards, net of estimated forfeitures, over the requisite service period, which is generally the vesting period of the respective award. Generally, the Company issues stock options with only service-based vesting conditions and records the expense for these awards using the straight-line method.

For stock-based awards granted to non-employee consultants, compensation expense is recognized over the period during which services are rendered by such non-employee consultants until completed. At the end of each financial reporting period prior to completion of the service, the fair value of these awards is remeasured using the then-current fair value of the Company's common stock and updated assumption inputs in the Black-Scholes option-pricing model.

The Company classifies stock-based compensation expense in its consolidated statements of operations and comprehensive income in the same manner in which the award recipient's payroll costs are classified or in which the award recipient's service payments are classified.

The Company recognizes compensation expense for only the portion of awards that are expected to vest. In developing a forfeiture rate estimate, the Company has considered its historical experience to estimate pre-

vesting forfeitures for service-based awards. The impact of a forfeiture rate adjustment will be recognized in full in the period of adjustment, and if the actual forfeiture rate is materially different from the Company's estimate, the Company may be required to record adjustments to stock-based compensation expense in future periods.

The fair value of each stock option grant is estimated on the date of grant using the Black-Scholes option pricing model. The Company historically has been a private company and lacks company-specific historical and implied volatility information for its stock. Therefore, it estimates its expected stock volatility based on the historical volatility of publicly traded peer companies and expects to continue to do so until such time as it has adequate historical data regarding the volatility of its own traded stock price. The expected term of the Company's stock options has been determined utilizing the "simplified" method for awards that qualify as "plain-vanilla" options. The expected term of stock options granted to non-employees is equal to the contractual term of the option award. The risk-free interest rate is determined by reference to the U.S. Treasury yield curve in effect at the time of grant of the award for time periods approximately equal to the expected term of the award. Expected dividend yield is based on the fact that the Company does not have a history of declaring or paying cash dividends, except for the special cash dividend declared in November 2014, and in that circumstance the board of directors approved cash dividends to be paid to holders of the Company's stock options and SARs upon vesting as an equitable adjustment to the holders of such instruments.

The Company has also granted stock appreciation rights ("SARs") to certain employees, which require the Company to pay in cash upon exercise an amount equal to the product of the excess of the per share fair market value of the Company's common stock on the date of exercise over the exercise price, multiplied by the number of shares of common stock with respect to which the stock appreciation right is exercised. Because these awards may require the Company to settle the awards in cash, they are accounted for as a liability in the Company's consolidated balance sheets. The liability related to these awards, as well as related compensation expense, is recognized over the period during which services are rendered until completed. Changes in the fair value of the SAR liability are estimated using the Black-Scholes option pricing model and are recorded in the consolidated statements of operations and comprehensive income. After vesting is completed, the Company will continue to remeasure the fair market value of the liability until the award is either exercised or canceled, with changes in the fair value of the liability recorded in the consolidated statements of operations and comprehensive income.

Research and Development Costs

The Company expenses research and development costs as incurred. Costs incurred to develop software to be licensed to customers are expensed prior to the establishment of technological feasibility of the software and are capitalized thereafter until commercial release of the software. The Company has not historically capitalized software development costs as the establishment of technological feasibility typically occurs shortly before the commercial release of its software, which is embedded in its products. As such, all software development costs related to software for license to customers are expensed as incurred and included within research and development expense in the accompanying consolidated statements of operations and comprehensive income.

Advertising Costs

Advertising costs are expensed as incurred and are included in selling and marketing expense in the accompanying consolidated statements of operations and comprehensive income. Advertising expenses were $12 and $28 for the years ended December 31, 2014 and 2015, respectively.

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Foreign Currency Translation

For each of the Company's foreign subsidiaries, the functional currency is its local currency. Assets and liabilities of these foreign operations are translated into U.S. dollars using period-end exchange rates, and revenues and expenses are translated into U.S. dollars using average exchange rates in effect during each period. The effects of foreign currency translation adjustments are included in accumulated other comprehensive income, a separate component of stockholders' equity.

Foreign currency transaction losses are included in the consolidated statements of operations and comprehensive income and are classified as other income (expense) and totaled $3,173 and $3,020 for the years ended December 31, 2014 and 2015, respectively.

Fair Value Measurements

Certain assets and liabilities are carried at fair value under GAAP. Fair value is defined as the price that would be received for an asset or the exit price that would be paid to transfer a liability in the principal or most advantageous market in an orderly transaction between market participants on the measurement date. Valuation techniques used to measure fair value must maximize the use of observable inputs and minimize the use of unobservable inputs. Financial assets and liabilities carried at fair value are to be classified and disclosed in one of the following three levels of the fair value hierarchy, of which the first two are considered observable and the last is considered unobservable:

Level 1— Quoted prices in active markets for identical assets and liabilities.

Level 2— Observable inputs (other than Level 1 quoted prices), such as quoted prices in active markets for similar assets or liabilities at the measurement date; quoted prices in markets that are not active for identical or similar assets and liabilities; or other inputs that are observable or can be corroborated by observable market data.

Level 3— Unobservable inputs that involve management judgment and are supported by little or no market activity, including pricing models, discounted cash flow methodologies and similar techniques.

The categorization of a financial instrument within the valuation hierarchy is based on the lowest level of input that is significant to the fair value measurement.

The Company's cash equivalents, SARs and warrant liability are carried at fair value, determined according to the fair value hierarchy described above (see Note 6). The fair values of accounts receivable, accounts payable and accrued expenses and other current liabilities approximate their fair values due to the short-term nature of these assets and liabilities, with the exception of amounts recorded by the Company as "accounts receivable, non-current," which represent amounts billed to customers for which payment has not yet become due and for which an offsetting amount of deferred revenue has been recorded. The carrying value of the Company's debt obligations (see Note 8) as of December 31, 2015 approximates its fair value due to the proximity of that date to the date of borrowing.

Income Taxes

The Company accounts for income taxes using the asset and liability method, which requires the recognition of deferred tax assets and liabilities for the expected future tax consequences of temporary differences between the financial statement and tax basis of assets and liabilities, as measured by enacted tax rates anticipated to be in

effect when these differences reverse. This method also requires the recognition of future tax benefits to the extent that realization of such benefits is more likely than not. Deferred tax expense or benefit is the result of changes in the deferred tax assets and liabilities. The Company assesses the likelihood that its deferred tax assets will be recovered from future taxable income and, to the extent it believes, based upon the weight of available evidence, that it is more likely than not that all or a portion of the deferred tax assets will not be realized, a valuation allowance is established through a charge to income tax expense. Potential for recovery of deferred tax assets is evaluated by estimating the future taxable profits expected and considering prudent and feasible tax planning strategies.

The Company records a liability for potential payments of taxes to various tax authorities related to uncertain tax positions and other tax matters. The recorded liability is based on a determination of whether and how much of a tax benefit taken by the Company in its tax filings or positions is “more likely than not” to be realized. The amount of the benefit that may be recognized in the financial statements is the largest amount that has a greater than 50% likelihood of being realized upon ultimate settlement. To the extent that the assessment of such tax positions changes, the change in estimate is recorded in the period in which the determination is made. The Company establishes a liability, which is included in accrued income taxes in the consolidated balance sheets, for tax-related uncertainties based on estimates of whether, and the extent to which, additional taxes will be due. These liabilities are established when the Company believes that certain positions might be challenged despite the Company’s belief that the tax return positions are fully supportable. The recorded liability is adjusted in light of changing facts and circumstances. The provision for income taxes includes the impact of the recorded liability and changes thereto.

The Company recognizes interest and penalties related to uncertain tax positions within other income (expense) in the accompanying consolidated statements of operations and comprehensive income. Accrued interest and penalties are included in accrued income taxes in the consolidated balance sheets.

Comprehensive Income

Comprehensive income includes net income as well as other changes in stockholders’ equity that result from transactions and economic events other than those with stockholders. Comprehensive income for the periods presented consists of net income and the change in the cumulative foreign currency translation adjustment.

Net Income per Share

The Company follows the two-class method when computing net income (loss) per share as the Company has issued shares that meet the definition of participating securities. The two-class method determines net income (loss) per share for each class of common and participating securities according to dividends declared or accumulated and participation rights in undistributed earnings. The two-class method requires income available to common stockholders for the period to be allocated between common and participating securities based upon their respective rights to receive dividends as if all income for the period had been distributed.

Basic net income (loss) per share attributable to common stockholders is computed by dividing the net income (loss) attributable to common stockholders by the weighted-average number of shares of common stock outstanding for the period. Diluted net income (loss) attributable to common stockholders is computed by adjusting net income (loss) attributable to common stockholders to reallocate undistributed earnings based on the potential impact of dilutive securities. Diluted net income (loss) per share attributable to common stockholders is computed by dividing the diluted net income (loss) attributable to common stockholders by the weighted-average

number of shares of common stock outstanding for the period, including potential dilutive common shares. For purpose of this calculation, outstanding stock-based awards, warrants to purchase common stock and convertible preferred stock are considered potential dilutive common shares.

Impact of Recently Issued Accounting Standards

In May 2014, the Financial Accounting Standards Board ("FASB") issued Accounting Standards Update ("ASU") 2014-09, *Revenue from Contracts with Customers (Topic 606)* ("ASU 2014-09"), which supersedes existing revenue recognition guidance under GAAP. The core principle of this standard is that an entity should recognize revenue to depict the transfer of promised goods or services to customers in an amount that reflects the consideration to which the entity expects to be entitled in exchange for those goods or services. In August 2015, the FASB issued ASU 2015-14, *Revenue from Contracts with Customers (Topic 606): Deferral of the Effective Date*, which delays the effective date of ASU 2014-09 such that the standard is effective for annual periods beginning after December 15, 2017 and for interim periods within those fiscal years. Early adoption of the standard is permitted for annual periods beginning after December 15, 2016. This standard can be adopted either retrospectively to each prior reporting period presented or as a cumulative effect adjustment as of the date of adoption. In March 2016, the FASB issued ASU No. 2016-08, *Revenue from Contracts with Customers (Topic 606): Principal versus Agent Considerations* ("ASU 2016-08"), which further clarifies the implementation guidance on principal versus agent considerations in ASU 2014-09. In April 2016, the FASB issued ASU No. 2016-10, *Revenue from Contracts with Customers (Topic 606): Identifying Performance Obligations and Licensing*, clarifying the implementation guidance on identifying performance obligations and licensing. In May 2016, the FASB issued ASU No. 2016-12, *Revenue from Contracts with Customers (Topic 606): Narrow-Scope Improvements and Practical Expedients* ("ASU 2016-12"), which clarifies the objective of the collectibility criterion, presentation of taxes collected from customers, non-cash consideration, contract modifications at transition, completed contracts at transition and how guidance in ASU 2014-09 is retrospectively applied. ASU 2016-08, ASU 2016-10 and ASU 2016-12 have the same effective dates and transition requirements as ASU 2014-09. The Company is currently assessing the potential impact that the adoption of ASU 2014-09, ASU 2016-08, ASU 2016-10 and ASU 2016-12 will have on its consolidated financial statements.

In July 2015, the FASB issued ASU 2015-11, *Simplifying the Measurement of Inventory*. Under ASU 2015-11, subsequent measurement of inventory is based on the lower of cost or net realizable value. Net realizable value is estimated selling price in the ordinary course of business, less the estimated cost of completion and disposal. This update does not apply to inventory that is measured using last-in, first-out or the retail inventory method. The new guidance is effective for fiscal years beginning after December 15, 2016. Early application is permitted. The Company is currently assessing the potential impact that the adoption of ASU 2015-11 will have on its consolidated financial statements.

In November 2015, the FASB issued ASU 2015-17, *Balance Sheet Classification of Deferred Taxes* ("ASU 2015-17"). ASU 2015-17 requires deferred tax assets and liabilities be classified as non-current on the balance sheet. The classification change for deferred taxes as non-current eliminates the need to separately identify the current and non-current deferred tax asset or liability in each jurisdiction. The Company elected to prospectively adopt ASU 2015-17 in the year ended December 31, 2015. Prior periods in the consolidated financial statements were not retrospectively adjusted. See Note 7 for the amount of deferred tax assets as of December 31, 2014 that was not classified as non-current assets.

In February 2016, the FASB issued ASU 2016-02, *Leases*, which will require lessees to recognize most leases on their balance sheets as a right-of-use asset with a corresponding lease liability, and lessors to recognize

a net lease investment. Additional qualitative and quantitative disclosures will also be required. The new guidance is effective for annual reporting periods beginning after December 15, 2018 and for interim periods within those fiscal years. Early application is permitted. The Company is currently assessing the potential impact that the adoption of ASU 2016-02 will have on its consolidated financial statements.

In March 2016, the FASB issued ASU 2016-09, *Improvements to Employee Share-Based Payment Accounting* (“ASU 2016-09”), which simplifies share-based payment accounting through a variety of amendments. The standard is effective for annual periods beginning after December 15, 2016 and for interim periods within those fiscal years. Early adoption is permitted. The Company elected to prospectively adopt the standard as of January 1, 2016. The primary impacts of the adoption were (i) the recognition of excess tax benefits from equity transactions as a reduction of the provision for income taxes rather than as an increase to additional paid-in capital and (ii) excluding from the calculation of diluted net income per share attributable to common stockholders the effect of the excess tax benefit when applying the treasury stock method to determine the dilutive effect of outstanding stock-based awards.

In June 2016, the FASB issued ASU 2016-13, *Measurement of Credit Losses on Financial Instruments*. This guidance requires that financial assets measured at amortized cost be presented at the net amount expected to be collected. The measurement of expected credit losses is based on historical experience, current conditions and reasonable and supportable forecasts that affect the collectibility. This guidance is effective for annual reporting periods beginning after December 15, 2019 and for interim periods within those fiscal years. The Company is currently assessing the potential impact that the adoption of ASU 2016-13 will have on its consolidated financial statements.

In August 2016, the FASB issued ASU 2016-15, *Statement of Cash Flows: Classification of Certain Cash Receipts and Cash Payments* (“ASU 2016-15”), to address diversity in practice in how certain cash receipts and cash payments are presented and classified in the statement of cash flows. The standard is effective for annual periods beginning after December 15, 2017, including interim periods within those fiscal years. The Company is currently assessing the potential impact that the adoption of ASU 2016-15 will have on its consolidated financial statements.

In October 2016, the FASB issued ASU 2016-16, *Income Taxes (Topic 740): Intra-Entity Transfer of Assets Other than Inventory* (“ASU 2016-16”), which requires the recognition of the income tax consequences of an intra-entity transfer of an asset, other than inventory, when the transfer occurs. The standard is effective for annual periods beginning after December 15, 2017, including interim periods within those fiscal years. The Company is currently assessing the potential impact that the adoption of ASU 2016-16 will have on its consolidated financial statements.

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3. Inventory

Inventory as of December 31, 2014 and 2015 consisted of the following:

	December 31,	
	2014	2015
Raw materials	$ 2,348	$ 4,267
Work in process	479	361
Finished goods:		
Manufactured finished goods	16,549	40,052
Deferred inventory costs	16,568	5,680
	35,944	50,360
Valuation adjustment for excess and obsolete inventory	(1,490)	(2,859)
	$34,454	$47,501

4. Property and Equipment

Property and equipment as of December 31, 2014 and 2015 consisted of the following:

	December 31,	
	2014	2015
Computers and purchased software	$ 3,755	$ 6,570
Leasehold improvements	2,357	905
Furniture and fixtures	932	1,416
Machinery and equipment	4,688	8,068
Land	—	3,091
Building	—	4,765
Building improvements	—	3,152
Trial systems at customers' sites	4,643	6,028
	16,375	33,995
Less: Accumulated depreciation and amortization	(7,384)	(11,667)
	$ 8,991	$ 22,328

During years ended December 31, 2014 and 2015, the Company transferred trial systems from inventory into property and equipment with a value of $1,229 and $1,545, respectively, net of transfers of trial systems to cost of revenue. In addition, the Company transferred $1,357 and $806 of equipment from inventory into property and equipment during the years ended December 31, 2014 and 2015, respectively.

Total depreciation and amortization expense was $3,604 and $5,149 for the years ended December 31, 2014 and 2015, respectively.

In March 2015, the Company purchased the land and building of its U.S. corporate offices for $8,325. As a result of the purchase, the Company recorded closing costs of $57 and reclassified $1,887 of leasehold improvements net of accumulated depreciation, $238 of leasehold improvement receivable and $1,098 of deferred rent liability to land, building and building improvements.

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5. Accrued Expenses and Other Current Liabilities

Accrued expenses and other current liabilities as of December 31, 2014 and 2015 consisted of the following:

	December 31,	
	2014	2015
Accrued compensation and related taxes	$13,913	$17,346
Accrued warranty	949	993
Accrued rent	1,013	64
Accrued sales and use tax	1,259	51
Dividends and equitable adjustments payable (see Note 9)	1,096	383
Other accrued expenses	537	6,517
	$18,767	$25,354

6. Fair Value Measurements

The Company's cash equivalents include certificates of deposit and money market mutual funds, which are valued using Level 1 or Level 2 inputs in the fair value hierarchy. The Company's warrant liabilities and SARs valued using as Level 3 inputs in the fair value hierarchy based on management's judgment and the assumptions set forth in Notes 11 and 12 as there is no market activity to derive an estimate of their fair value. Changes in the fair value of warrant liabilities and SARs are recorded in other income (expense) and operating expenses, respectively, in the consolidated statements of operations and comprehensive income.

The following tables present information about the fair value of the Company's financial assets and liabilities as of December 31, 2014 and 2015 and indicate the level of the fair value hierarchy utilized to determine such fair values:

	Fair Value Measurements as of December 31, 2014 Using:			
	Level 1	Level 2	Level 3	Total
Assets:				
Certificates of deposit	$ —	$ 13,808	$ —	$ 13,808
Money market mutual funds	31,019	—	—	31,019
	$ 31,019	$ 13,808	$ —	$ 44,827
Liabilities:				
SARs	$ —	$ —	$ 271	$ 271
	$ —	$ —	$ 271	$ 271

	Fair Value Measurements as of December 31, 2015 Using:			
	Level 1	Level 2	Level 3	Total
Assets:				
Certificates of deposit	$ —	$ 342	$ —	$ 342
Money market mutual funds	45,065	—	—	45,065
	$ 45,065	$ 342	$ —	$ 45,407
Liabilities:				
SARs	$ —	$ —	$ 737	$ 737
	$ —	$ —	$ 737	$ 737

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During the years ended December 31, 2014 and 2015, there were no transfers between Level 1, Level 2 and Level 3.

The liability for SARs in the table above consists of the fair value of the SARs granted to the Company's employees. The fair values of the SARs is based on significant inputs not observable in the market, which represents a Level 3 measurement within the fair value hierarchy. The Company's valuation of these SARs utilized the Black-Scholes option-pricing model, which incorporates assumptions and estimates to determine their fair values (see Note 12). The Company assesses these assumptions and estimates on a quarterly basis as additional information impacting the assumptions is obtained. Changes in the fair value of the SARs liability are recognized as stock-based compensation expense in the consolidated statements of operations and comprehensive income.

Until March 31, 2014, the Company had classified warrants for the purchase of shares of its common stock as a liability in its consolidated balance sheets due to the anti-dilution provisions in those warrants. The warrants were initially recorded at fair value on date of issuance and were subsequently remeasured to fair value at each balance sheet date. The Company continued to adjust the liability for changes in fair value until the warrants were exercised on March 31, 2014. The Company's valuation of the warrants utilized the Black-Scholes option-pricing model, which incorporates assumptions and estimates, to value these warrants (see Note 11). The Company assessed these assumptions and estimates on a quarterly basis as additional information impacting the assumptions was obtained. The Company continued to adjust the liability for changes in fair value until the warrants were exercised. Changes in the fair value of the warrant liability were recognized as other income (expense) in the consolidated statements of operations and comprehensive income.

The following table provides a summary of changes in the fair values of the Company's SARs liability and warrant liability, for which fair value is determined by Level 3 inputs:

	SARs Liability		Warrant Liability	
	Year Ended December 31,		Year Ended December 31,	
	2014	2015	2014	2015
Fair value at beginning of the year	$ 62	$ 271	$ 2,172	$ —
Change in fair value	209	466	1,523	—
Exercises	—	—	(3,695)	—
Fair value at end of year	$ 271	$ 737	$ —	$ —

The Company's cash and cash equivalents as of December 31, 2014 and 2015 consisted of the following:

	December 31,	
	2014	2015
Cash	$32,328	$47,089
Cash equivalents:		
Certificates of deposit	13,808	342
Money market mutual funds	31,019	45,065
Total cash equivalents	44,827	45,407
Total cash and cash equivalents	$77,155	$92,496

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7. Income Taxes

Income before the provision for income taxes for the years ended December 31, 2014 and 2015 consisted of the following:

	Year Ended December 31,	
	2014	2015
United States	$ 82,237	$ 99,972
Foreign	3,858	1,691
	$ 86,095	$ 101,663

The provision for income taxes for the years ended December 31, 2014 and 2015 consisted of the following:

	Year Ended December 31,	
	2014	2015
Current income tax provision:		
Federal	$ 30,556	$ 34,124
State	3,644	924
Foreign	585	331
Total current income tax provision	34,785	35,379
Deferred income tax provision (benefit):		
Federal	(6,556)	(2,260)
State	(1,081)	346
Foreign	(761)	277
Total deferred income tax provision (benefit)	(8,398)	(1,637)
Total income tax provision	$ 26,387	$ 33,742

A reconciliation of the U.S. federal statutory rate to the Company's effective income tax rate for the years ended December 31, 2014 and 2015 is as follows:

	Year Ended December 31,	
	2014	2015
Federal statutory income tax rate	35.0%	35.0%
State taxes, net of federal tax benefit	1.9	0.7
Research and development tax credits	(1.1)	(1.6)
Permanent differences	(0.2)	1.6
Domestic manufacturing deduction	(3.3)	(3.2)
Foreign rate differential	(1.2)	0.6
Uncertain tax positions	(0.4)	—
Other, net	(0.1)	0.1
Effective income tax rate	30.6%	33.2%

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The income tax effect of each type of temporary difference and carryforward as of December 31, 2014 and 2015 was as follows:

	December 31,	
	2014	2015
Deferred tax assets:		
Nonqualified stock options	$ 1,163	$ 2,846
Tax credit carryforwards	756	1,057
Inventory valuation	566	1,090
Unrealized foreign exchange gain	924	—
Accrued liabilities and reserves	4,504	3,859
Deferred revenue	8,147	7,367
Other	311	525
Total deferred tax assets	16,371	16,744
Deferred tax liabilities:		
Depreciation and amortization	(1,398)	(1,626)
Deferred costs	(1,638)	(589)
Nonqualified stock options	(378)	(86)
Deferred revenue	(307)	(156)
Other	(7)	(7)
Total deferred tax liabilities	(3,728)	(2,464)
Net deferred tax assets	$12,643	$14,280

In the year ended December 31, 2015, the Company prospectively adopted the guidance of ASU 2015-17, which requires that all deferred tax assets and liabilities be classified as non-current on the balance sheet (see Note 2). Prior periods in the consolidated financial statements were not retrospectively adjusted.

As of December 31, 2014 and 2015, deferred tax assets were reported in the following balance sheet captions:

	December 31,	
	2014	2015
Deferred tax assets, current	$11,050	$ —
Deferred tax assets, non-current	1,593	14,280
Net deferred tax assets	$12,643	$14,280

The Company has concluded that these net tax assets will be recovered based upon its expectation that current and future earnings will provide sufficient taxable income to realize the recorded net tax assets. However, the realization of the Company's net deferred tax assets cannot be assured, and to the extent that future taxable income against which these tax assets may be applied is not sufficient, some or all of the Company's recorded net deferred tax assets would not be realizable. The Company is required to compute income tax expense in each jurisdiction in which it operates. This process requires the Company to project its current tax liability and estimate its deferred tax assets and liabilities, including tax credit carryforwards. In assessing the need for a valuation allowance against its net deferred tax assets, the Company considers its recent operating results, future taxable income projections and feasible tax planning strategies.

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As of December 31, 2015, the Company had state research and development tax credits of $1,626 that will begin to expire in 2028 through 2030. Management believes that it is more likely than not that the research and development tax benefit will be realized and thus has not provided a valuation allowance relating to these tax credit carryforwards.

The Company's intent is to indefinitely reinvest the total amount of the unremitted earnings of each of its foreign subsidiaries to support business growth in international regions. As such, the Company has not provided for U.S. taxes on the unremitted earnings of its international subsidiaries, which totaled approximately $19,600 as of December 31, 2015. It is not practicable to estimate the amount of deferred tax liability related to the unremitted earnings of these foreign subsidiaries.

Interest and penalties related to uncertain tax positions are recorded in the consolidated statements of operations and comprehensive income within other income (expense) and totaled $24 and $20 for the years ended December 31, 2014 and 2015, respectively. The liability recorded for potential penalties and interest was $111 and $131 as of December 31, 2014 and 2015, respectively. The Company had a total recorded liability of $429 and $449 related to uncertain tax positions, inclusive of penalties and interest, as of December 31, 2014 and 2015, respectively, which is included in accrued income taxes in the consolidated balance sheets.

The aggregate changes in the balance of gross unrecognized tax benefits, which excludes interest and penalties, for the years ended December 31, 2014 and 2015 were as follows:

Balance at January 1, 2014	$ 532
Settlement/decreases related to tax positions taken during prior years	(336)
Increases related to tax positions taken during prior years	122
Increases related to tax positions taken during the current year	—
Balance at December 31, 2014	318
Settlement/decreases related to tax positions taken during prior years	—
Increases related to tax positions taken during prior years	—
Increases related to tax positions taken during the current year	—
Balance at December 31, 2015	$ 318

The Company and its subsidiaries file income tax returns in the U.S. federal jurisdiction as well as various states and foreign jurisdictions. As of December 31, 2015, the tax years 2013 through 2015 remained open to examination in the U.S. federal jurisdiction and the tax years 2012 through 2015 remained open to examination in the Massachusetts state and China federal jurisdictions. If any issues addressed in the Company's tax audits are resolved in a manner not consistent with management's expectations, the Company would be required to adjust its provision for income tax in the period such resolution occurs. Although timing of the resolution and/or closure of audits is highly uncertain, the Company does not believe it is reasonably possible that its unrecognized tax benefits will materially change in the next 12 months.

The Company recorded stock-based compensation expense of $1,782 and $6,855 in the years ended December 31, 2014 and 2015, respectively. Accounting for the tax effects of certain stock-based awards requires that the Company establish a deferred tax asset as the compensation expense is recognized for financial reporting purposes prior to recognizing the related income tax deduction upon exercise of the awards.

Upon the settlement of certain stock-based awards, such as exercise, vesting, forfeiture or cancellation, the actual tax deduction is compared with the cumulative stock-based compensation expense and any excess tax

deduction related to such awards is considered a windfall tax benefit. Windfall tax benefits are tracked within a windfall tax benefit pool to offset any future tax deduction shortfalls. Prior to the Company's adoption of ASU 2016-09 as of January 1, 2016 (see Note 2), windfall tax benefits were recorded as increases to additional paid-in capital in the period in which the tax deduction reduced income taxes. During the year ended December 31, 2014, the Company recorded a net windfall tax benefit of $508 as an increase to additional paid-in capital.

8. Debt

Revolving Credit Agreement

On April 11, 2014, the Company entered into a revolving credit agreement (the "Revolver") with a bank that, as of December 31, 2015, provided for borrowings of up to $10,000, subject to certain limitations, that accrued interest, at the Company's election, at either (i) the bank's prime rate or (ii) LIBOR plus two percentage points and that was due to expire on April 11, 2017. Interest on amounts borrowed under the Revolver is due quarterly in arrears, and, as of December 31, 2015, the Company was required to pay a fee of 0.25% per year, payable quarterly in arrears, on the unused amount of the Revolver.

On July 1, 2016, the Company amended the Revolver to increase the amount of the line of credit, extend the maturity date and decrease the fee for the unused amount of the Revolver. The amended Revolver expires on June 30, 2019 and provides for borrowings of up to $25,000, subject to certain limitations, that accrue interest, at the Company's election, at either (i) the bank's prime rate or (ii) LIBOR plus two percentage points. Interest on amounts borrowed under the Revolver is due quarterly in arrears, and the Company is required to pay a fee of 0.20% per year, payable quarterly in arrears, on the unused amount of the Revolver.

As of December 31, 2014 and 2015, the Company did not have any borrowings under the Revolver but used $27 and $1,000, respectively, under the Revolver as collateral for a stand-by letter of credit to guarantee the Company's contractual performance with a customer. For the year ended December 31, 2015, interest expense related to the fee for the unused amount of the Revolver totaled $25. For the year ended December 31, 2014, no interest expense was recorded related to the fee for the unused amount of the Revolver.

Borrowings under the Revolver are secured by substantially all of the Company's assets, excluding its intellectual property, as defined, and its investments in foreign subsidiaries. Under the Revolver, the Company is subject to various affirmative, negative and financial covenants, including a funded debt to consolidated EBITDA ratio and a basic fixed charge coverage ratio. The Company was in compliance with all covenants of the Revolver as of December 31, 2014 and 2015.

The Revolver was terminated by the Company on December 20, 2016 (see Note 18).

Commercial Mortgage Loan Agreement

On July 1, 2015, the Company entered into a commercial mortgage loan agreement in the amount of $7,950 (the "Loan"). Borrowings under the Loan bear interest at a rate of 3.5% per annum and are repayable in 60 monthly installments of $46, consisting of principal and interest based on a 20-year amortization schedule. The remaining amount of unpaid principal under the Loan is due on the maturity date of July 1, 2020. Upon entering into the Loan, the Company incurred debt issuance costs of $45, which was initially recorded as a direct deduction from the debt liability and are amortized to interest expense using the effective interest rate method from issuance date of the loan until the maturity date.

The Company made principal payments under the Loan of $115 during the year ended December 31, 2015. Interest expense, including the amortization of debt issuance costs, totaled $145 for the year ended December 31, 2015.

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The Loan is secured by the land and building purchased in March 2015 and subjects the Company to various affirmative, negative and financial covenants, including maintenance of a minimum debt service ratio. The Company was in compliance with all covenants of the Loan as of December 31, 2015.

As of December 31, 2015, minimum future principal payments of debt are summarized as follows:

Year Ending December 31,	
2016	$ 282
2017	292
2018	303
2019	314
2020	6,644
	7,835
Unamortized debt issuance costs	(40)
	$7,795

9. Convertible Preferred Stock

The Company has issued Series A, Series B and Series C convertible preferred stock (collectively, the “Convertible Preferred Stock”). All of the issued and outstanding shares of Series A convertible preferred stock (the “Series A Preferred Stock”) were repurchased by the Company in April 2010. The holders of Convertible Preferred Stock have liquidation rights in the event of a deemed liquidation that, in certain situations, is not solely within the control of the Company. Therefore, the Convertible Preferred Stock is classified outside of stockholders’ equity in the consolidated balance sheets. As of December 31, 2015, the Company’s certificate of incorporation, as amended and restated, authorized the Company to issue 6,000 shares of $0.001 par value preferred stock.

As of each balance sheet date, Convertible Preferred Stock consisted of the following:

	December 31, 2014				
	Preferred Shares Authorized	Preferred Shares Issued and Outstanding	Carrying Value	Liquidation Preference	Common Stock Issuable Upon Conversion
Series A convertible preferred stock	1,291	$ —	$ —	$ —	—
Series B convertible preferred stock	352	179	1,542	2,134	358
Series C convertible preferred stock	3,859	3,859	95,937	123,559	7,718
	5,502	$ 4,038	$97,479	$ 125,693	8,076

	December 31, 2015				
	Preferred Shares Authorized	Preferred Shares Issued and Outstanding	Carrying Value	Liquidation Preference	Common Stock Issuable Upon Conversion
Series A convertible preferred stock	1,291	$ —	$ —	$ —	—
Series B convertible preferred stock	352	179	1,542	2,230	358
Series C convertible preferred stock	3,859	3,859	95,937	129,347	7,718
	5,502	$ 4,038	$97,479	$ 131,577	8,076

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The rights and preferences of the Series A Preferred Stock, Series B convertible preferred stock (the "Series B Preferred Stock") and Series C convertible preferred stock (the "Series C Preferred Stock") are described below:

Voting Rights

The holders of Convertible Preferred Stock are entitled to vote, together with the holders of common stock, on all matters submitted to the stockholders for vote. The holders of the Convertible Preferred Stock are entitled to the number of votes equal to the number of shares of common stock into which such shares of Convertible Preferred Stock could convert.

Dividends

Holders of the Convertible Preferred Stock are entitled to receive cumulative dividends, when and if declared by the board of directors. Dividends on Convertible Preferred Stock accrue at a rate of $0.5376 per share for Series B Preferred Stock and $1.499694 per share for Series C Preferred Stock from the date of issuance of share of each series of Convertible Preferred Stock. In the case of a dividend on common stock, the holders of Convertible Preferred Stock are entitled to receive payment equal to the pro rata per share amount of the declared dividend on an as-converted to common stock basis. Except with the consent of the holders of the Convertible Preferred Stock voting as a single class on an as-converted to common stock basis, no dividends may be paid on common stock or a lesser class of preferred stock until the dividends accruing to the Convertible Preferred Stock are paid in full. As of December 31, 2015, no dividends had been declared by the board of directors, except for the special cash dividend declared on November 30, 2014 payable to the holders of the Company's common and preferred stock.

Conversion

Each share of Convertible Preferred Stock may be converted at any time at the option of the holder or will automatically be converted into shares of common stock at the applicable conversion rate then in effect (i) upon the closing of a firm commitment public offering of the Company's common stock with gross proceeds to the Company of at least $100,000 and a price per share of at least $24.9949 or (ii) upon the vote or written consent of the holders of at least a majority of the votes represented by the then-outstanding shares of Convertible Preferred Stock, voting together as a single class and on an as-converted to common stock basis.

The conversion ratio of each series of preferred stock is determined by dividing the Original Issue Price of each series by the Conversion Price of each series. The Original Issue Price per share is $8.96 for Series B Preferred Stock and $24.9949 for Series C Preferred Stock. The Conversion Price per share is $4.48 for Series B Preferred Stock and $12.49745 for Series C Preferred Stock, subject to appropriate adjustment in the event of any deemed issuance of additional shares, stock dividend, stock split combination or other similar recapitalization and other adjustments as set forth in the Company's certificate of incorporation, as amended and restated. As of December 31, 2014 and 2015, all outstanding shares of Convertible Preferred Stock were convertible into common stock on a 2-for-1 basis. Shares of preferred stock that are converted into shares of common stock may not be reissued.

Liquidation Preference

In the event of any voluntary or involuntary liquation, dissolution or winding-up of the Company or Liquidating Event (as described below), the holders of the Convertible Preferred Stock will receive, in preference

to the common stockholders, an amount equal to the greater of (i) the Original Issue Price per share of the respective share of preferred stock, plus all accrued but unpaid dividends (whether or not declared) or (ii) the amount the holders would receive if the Convertible Preferred Stock were converted into common stock immediately prior to such liquidation event. If, upon any such liquidation event, the assets of the Company available for distribution are insufficient to permit payment in full to the holders of Convertible Preferred Stock, the proceeds will be ratably distributed among the holders of Convertible Preferred Stock in proportion to the respective amounts that they would have received if they were paid in full. After payments of all preferential amounts have been made in full to the holders of Convertible Preferred Stock, then, to the extent available, the remaining assets available for distribution will be distributed among the common stockholders ratably in proportion to the number of shares of common stock held by each common stockholder. As of December 31, 2015, accrued but undeclared dividends totaled $626 for the Series B Preferred Stock and $32,886 for Series C Preferred Stock.

A Liquidating Event shall include a merger or consolidation (other than one in which stockholders of the Company own a majority by voting power of the outstanding shares of the surviving or acquiring corporation) or a sale, exchange, transfer or other disposition of all or substantially all of the assets of the Company.

Redemption

The Company's certificate of incorporation, as amended and restated, does not provide redemption rights to the holders of Convertible Preferred Stock.

Special Dividend to Holders of Common and Preferred Stock

On November 30, 2014, the board of directors declared and the stockholders approved a special dividend to the holders of common stock and preferred stock of record on that date. The cash dividend declared to stockholders was $1.9173 per share of common stock, $3.8346 per share of Series B Preferred Stock and $3.8346 per share of Series C Preferred Stock. The Company paid $27,251 and $345 in dividends to the stockholders during the years ended December 31, 2014 and 2015, respectively, and, as of December 31, 2014, $345 of dividends were payable and included in accrued expenses and other current liabilities in the accompanying consolidated balance sheet. No dividends were payable as of December 31, 2015.

In connection with the special dividend, the board of directors also approved cash payments to be made to holders of the Company's stock options and SARs as an equitable adjustment to the holders of such instruments in accordance with the provisions of the Company's 2011 Stock Incentive Plan (the "2011 Plan"). The equitable adjustment payments due to the holders of the stock options and SARs are equal to $1.9173 per share multiplied by the net number of shares subject to outstanding equity awards after applying the treasury stock method. The cash payments to the holders of stock options and SARs will be made as their equity awards vest through fiscal year 2018. The Company paid $1,618 and $367 to the holders of stock options and SARs during the years ended December 31, 2014 and 2015, respectively. As of December 31, 2014 and 2015, payments to be made through fiscal 2018, net of estimated forfeitures, totaled $751 and $383, respectively, and were included in accrued expenses and other current liabilities in the accompanying consolidated balance sheets.

The cash dividends declared to the holders of common stock, Series B Preferred Stock and Series C Preferred Stock totaled $12,111, $686 and $14,799, respectively, and the equitable adjustment to the holders of stock options and SARs, net of estimated forfeitures, totaled $2,369. During the year ended December 31, 2014, the $29,965 aggregate amount of such dividends was recorded as a charge to retained earnings (until reduced to zero) and a charge to additional paid-in capital.

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10. Common Stock

As of December 31, 2014 and 2015, the Company's certificate of incorporation, as amended and restated, authorized the Company to issue 20,000 shares of $0.001 par value common stock. The voting, dividend and liquidation rights of the holders of the Company's common stock are subject to and qualified by the rights, powers and preferences of the holders of the Convertible Preferred Stock set forth above.

Each share of common stock entitles the holder to one vote on all matters submitted to a vote of the Company's stockholders. Common stockholders are entitled to receive dividends, as may be declared by the board of directors, if any, subject to the preferential dividend rights of the preferred stock. Through December 31, 2015, except for the special cash dividend declared on November 30, 2014 (see Note 9), no dividends have been declared by the board of directors.

As of December 31, 2015, the Company had reserved 12,207 shares of common stock for the conversion of outstanding shares of Convertible Preferred Stock (see Note 9), the exercise of outstanding stock options, the vesting of outstanding restricted stock units, and the number of shares remaining available for grant under the Company's 2011 Stock Incentive Plan (see Note 12).

11. Common Stock Warrants

In June 2009, in connection with the issuance of Series B Preferred Stock, the Company entered into an agreement with an investor, Liberty Global Ventures Holding B.V. (the "Series B Investor"), to issue warrants for the purchase up to 793 shares of the Company's common stock, at an exercise price of $4.48 per share, subject to the achievement of specified targets for the amount of purchases made by a subsidiary of the Series B Investor, Liberty Global Services B.V. (the "Series B Subsidiary"), from the Company. Pursuant to the agreement, the Series B Investor was entitled to receive warrants for the purchase 53 shares of the Company's common stock for every $5,000 of net revenues, as defined in the warrant agreement, received by the Company from the Series B Subsidiary for the period from January 1, 2009 through December 31, 2011. Under the agreement, the Series B Investor received warrants for the purchase of 529 shares of the Company's common stock. The warrants were due to expire in June 2014. Due to specified anti-dilution provisions included in the terms of those warrants, the warrant was classified as a liability for accounting purposes. The warrant liability was remeasured to its fair value at the end of each reporting period until it was exercised, and the related change in fair value was recorded as an increase or decrease in other income (expense) in the consolidated statements of operations and comprehensive income. The Company recorded other expense of $1,523 during the year ended December 31, 2014 related to the change in fair value of these warrants.

All of the warrants for the purchase of 529 shares of common stock were exercised on March 31, 2014, and the Company received proceeds of $2,369. Upon exercise of the warrants, the Company recorded an increase to common stock and additional paid-in capital equal to the $3,695 remeasured fair value of the warrant liability immediately prior to exercise of the warrants and recorded an increase to additional paid-in capital of $2,369 for the cash proceeds received.

The Company calculated the fair value of the warrants outstanding as of the exercise date of March 31, 2014 using the Black-Scholes option-pricing model and the following assumptions:

Contractual term (in years)	0.2
Risk-free interest rate	0.1%
Expected volatility	55.7%
Expected dividend yield	0.0%

12. Stock-based Compensation

2003 Stock Incentive Plan

The Company's 2003 Stock Incentive Plan, as amended (the "2003 Plan"), provided for the grant of qualified incentive stock options, nonqualified stock options, restricted stock or other stock-based awards to the Company's employees, officers, directors, advisers and outside consultants. The number of shares authorized for grant under the 2003 Plan, as amended, was 6,500 shares. The 2003 Plan was administered by the board of directors, or at the discretion of the board of directors, by a committee of the board or by one or more executive officers of the Company. The exercise prices, vesting and other restrictions were determined at the discretion of the board of directors, or their committee or by one or more executive officers of the Company, if so delegated.

The 2003 Plan was terminated in August 2011, and the remaining 428 shares available for issuance under the plan at that time were transferred to the 2011 Plan. The shares of common stock underlying any awards that are forfeited, canceled, repurchased or are otherwise terminated by the Company under the 2003 Plan will be added back to the shares of common stock available for issuance under the 2011 Plan.

2011 Stock Incentive Plan

The 2011 Plan provides for the Company to sell or issue common stock or restricted common stock, or to grant qualified incentive stock options, nonqualified stock options, SARs, restricted stock units or other stock-based awards to the Company's employees, officers, directors, advisers and outside consultants. The 2011 Plan is administered by the board of directors, or at the discretion of the board of directors, by a committee of the board. The exercise prices, vesting and other restrictions are determined at the discretion of the board of directors, or their committee if so delegated, except that the exercise price per share of stock options may not be less than 100% of the fair market value of common stock on the date of grant and the term of the stock option may not be greater than ten years. The stock options generally vest over a four-year period and expire ten years from the date of grant. Certain options provide for accelerated vesting if there is a change in control (as defined in the stock option agreements). Any award that expires or is terminated, surrendered or canceled without having been fully exercised or is forfeited in whole or in part shall again be available for grant.

The total number of shares authorized for issuance under the 2011 Plan was 3,485 shares as of December 31, 2014, of which 928 shares remained available for future grant. In June 2015, the Company effected an increase in the number of shares of common stock authorized for future issuance under the 2011 Plan by 1,000 shares. The total number of shares authorized for issuance under the 2011 Plan was 4,605 shares as of December 31, 2015, of which 1,030 shares remained available for future grant.

Stock Option Valuation

The fair value of each option award is estimated on the date of grant using the Black-Scholes option-pricing model that uses the assumptions noted in the table below. Expected volatility for the Company's common stock

was determined based on an average of the historical volatility of a peer group of similar public companies. The expected term of options granted was calculated using the simplified method, which represents the average of the contractual term of the option and the weighted-average vesting period of the option. The Company uses the simplified method because it does not have sufficient historical option exercise data to provide a reasonable basis upon which to estimate the expected term. The expected dividend yield is based on the fact that the Company does not have a history paying cash dividends, except for the special dividend declared in November 2014 (see Note 9), and in that circumstance, the board of directors approved cash dividends to be paid to holders of the Company's stock options and SARs upon vesting as an equitable adjustment to the holders of such instruments. The risk-free rate for periods within the expected life of the option is based upon the U.S. Treasury yield curve in effect at the time of grant.

In determining the exercise prices for options granted, the Company's board of directors has considered the fair value of the common stock as of the measurement date. The fair value of the common stock has been determined by the board of directors at each award grant date based upon a variety of factors, including the results obtained from an independent third-party valuation of the Company's common stock, the Company's financial position and historical financial performance, the status of technological developments within the Company's products, the composition and ability of the current management team, an evaluation or benchmark of the Company's competition, the current business climate in the marketplace, the illiquid nature of the common stock, the effect of the rights and preferences of the holders of the Company's convertible preferred stock, and the prospects of a liquidity event, among others.

The assumptions used in the Black-Scholes option-pricing model were as follows, presented on a weighted-average basis:

	Year Ended December 31,	
	2014	2015
Risk-free interest rate	1.9%–2.1%	1.4%–2.0%
Expected term (in years)	5.8–6.2	5.6–6.2
Expected volatility	52.1%–56.5%	41.3%–52.5%
Expected dividend yield	0.0%	0.0%

Stock Options

A summary of option activity under the 2003 Plan and the 2011 Plan for the year ended December 31, 2015 is as follows:

	Number of Shares	Weighted-Average Exercise Price	Weighted-Average Remaining Contractual Term (in years)	Aggregate Intrinsic Value
Outstanding at January 1, 2015	2,230	$ 8.88	7.58	$ 26,855
Granted	720	29.39		
Exercised	(27)	8.46		
Forfeited	(213)	8.55		
Cancellations	(29)	8.38		
Outstanding at December 31, 2015	2,681	$ 14.42	7.41	$ 73,852
Options exercisable at December 31, 2015	1,663	$ 8.80	6.47	$ 55,153
Vested or expected to vest at December 31, 2015	2,608	$ 14.09	7.36	$ 72,713

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The weighted-average grant-date fair value of options granted during the years ended December 31, 2014 and 2015 was $7.56 and $13.77 per share, respectively. Cash proceeds received upon the exercise of options were $4,297 and $226 during the years ended December 31, 2014 and 2015, respectively. The intrinsic value of stock options exercised during the years ended December 31, 2014 and 2015 was $2,021 and $720, respectively. The aggregate intrinsic value of is calculated as the difference between the exercise price of the stock options and the fair value of the Company's common stock for those stock options that had exercise prices lower than the fair value of the Company's common stock.

Restricted Stock Units

On January 23, 2015, the Company granted 421 restricted stock units under the 2011 Plan. The restricted stock units vest ratably over a three- to four-year period from the date of grant and expire ten years from the date of grant. The grant-date fair value of each restricted stock unit award is being recorded as stock-based compensation expense on a straight-line basis, net of estimated forfeitures, over the requisite service period for the restricted stock units, which is generally three to four years. The fair value of each restricted stock unit on date of grant is the estimated fair value of the underlying common stock on the date of the grant. A summary of restricted stock units activity under the 2011 Plan as of and for the year ended December 31, 2015 is as follows:

	Number of Shares	Weighted-Average Grant Date Fair Value
Unvested balance at January 1, 2015	—	$ —
Granted	421	20.92
Unvested balance at December 31, 2015	421	$ 20.92

Stock Appreciation Rights

In 2012, the Company granted 28 SARs that allow the holder the right, upon exercise, to receive in cash the amount of the difference between the fair value of the Company's common stock at the date of exercise and the price of the underlying common stock at the date of grant of each SAR. The price of the underlying common stock on the date of grant was $8.46 per share and the grant-date fair value was $4.39 per SAR. The SARs vest over a four-year period from the date of grant and expire ten years from the date of grant. As of December 31, 2015, there were 22 SARs exercisable and the fair value of each SAR was $33.51. As of December 31, 2015, 22 SARs were outstanding and fully vested. The fair value of the SAR liability as of December 31, 2014 and 2015 was $271 and $737, respectively, and was included in accrued expenses and other current liabilities in the accompanying consolidated balance sheets.

Stock-Based Compensation Expense

The Company recorded stock-based compensation expense of $1,991 and $7,321 during the years ended December 31, 2014 and 2015, respectively, which is based on the number of stock options, restricted stock units and SARs ultimately expected to vest. As of December 31, 2015, there was $14,282 of unrecognized compensation cost related to outstanding stock options, restricted stock units and SARs, which is expected to be recognized over a weighted-average period of 1.44 years.

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Stock-based compensation expense related to stock options, restricted stock units and SARs for the years ended December 31, 2014 and 2015 was classified in the consolidated statements of operations and comprehensive income as follows as follows:

	Year Ended December 31,	
	2014	2015
Cost of revenue	$ 161	$ 143
Research and development expenses	852	1,843
Sales and marketing expenses	598	775
General and administrative expenses	380	4,560
	$ 1,991	$ 7,321

13. Net Income per Share and Unaudited Pro Forma Net Income per Share

Net Income per Share

Basic and diluted net income per share attributable to common stockholders was calculated as follows:

	Year Ended December 31,	
	2014	2015
Numerator:		
Net income	$ 59,708	$ 67,921
Cumulative dividends on convertible preferred stock	(5,884)	(5,884)
Dividends declared on convertible preferred stock	(15,485)	—
Undistributed earnings allocated to participating securities	(15,052)	(34,735)
Net income attributable to common stockholders, basic	23,287	27,302
Undistributed earnings reallocated to dilutive potential common shares	556	3,100
Net income attributable to common stockholders, diluted	$ 23,843	$ 30,402
Denominator:		
Weighted-average shares used to compute net income per share attributable to common stockholders, basic	5,997	6,348
Dilutive effect of stock options	540	1,266
Dilutive effect of restricted stock units	—	147
Weighted-average shares used to compute net income per share attributable to common stockholders, diluted	6,537	7,761
Net income per share attributable to common stockholders:		
Basic	$ 3.88	$ 4.30
Diluted	$ 3.65	$ 3.92

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The following outstanding shares of common stock equivalents were excluded from the computation of diluted net income per share attributable to common stockholders for the periods presented because including them would have been anti-dilutive (presented on a weighted-average basis):

	Year Ended December 31,	
	2014	2015
Convertible preferred stock (on an as-converted basis)	8,076	8,076
Options to purchase common stock	474	330
Warrants to purchase common stock	62	—

Unaudited Pro Forma Net Income per Share

The unaudited pro forma basic and diluted net income per share attributable to common stockholders for the year ended December 31, 2015 have been prepared to give effect, upon the closing of a qualified initial public offering, to (i) the automatic conversion of all outstanding shares of convertible preferred stock into shares of common stock as if the proposed initial public offering had occurred on January 1, 2015 and (ii) the number of shares offered in the initial public offering whose proceeds are deemed necessary, based on an assumed initial public offering price of $ per share, which is the midpoint of the price range set forth on the cover page of this prospectus, to pay (a) the special cash dividend of $43,148 declared by the Company's board of directors on June 17, 2016 and (b) special cash dividends of $171,425 and $ declared by the Company's board of directors on December 21, 2016 and , respectively, because the Company's earnings for the twelve months ended September 30, 2016 were not sufficient to fully fund those dividends.

The unaudited pro forma earnings per share data have been presented in accordance with Securities and Exchange Commission SAB Topic 1B.3. In accordance with SAB Topic 1B.3, dividends declared at or in the year preceding an initial public offering are deemed to be in contemplation of the offering with the intention of repayment out of the offering proceeds to the extent that the amount of dividends exceeded the amount of earnings during the twelve-month period ended on the balance sheet date. For the twelve months ended September 30, 2016, the Company's net income was $75,140 (unaudited).

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Unaudited pro forma basic and diluted net income per share attributable to common stockholders was calculated as follows:

	Year Ended December 31, 2015 (unaudited)
Numerator:	
Net income	$ 67,921
Denominator:	
Weighted-average shares used to compute net income per share attributable to common stockholders, basic	6,348
Pro forma adjustment to reflect assumed conversion of convertible preferred stock upon closing of initial public offering	8,076
Pro forma adjustments to reflect the number of shares whose proceeds are deemed necessary to pay dividends in excess of earnings	
Pro forma weighted-average shares used in computing pro forma net income per share attributable to common stockholders, basic	
Dilutive effect of stock options	1,266
Dilutive effect of restricted stock units	147
Pro forma weighted-average shares used in computing pro forma net income per share attributable to common stockholders, diluted	
Pro forma net income per share attributable to common stockholders:	
Basic	$
Diluted	$

14. Segment Information

The Company operates as one operating segment. Operating segments are defined as components of an enterprise for which separate financial information is regularly evaluated by the Company's chief operating decision maker, or decision-making group, in deciding how to allocate resources and assess performance. The Company has determined that its chief operating decision maker is its President and Chief Executive Officer. The Company's chief operating decision maker reviews the Company's financial information on a consolidated basis for purposes of allocating resources and assessing financial performance. Since the Company operates as one operating segment, all required financial segment information can be found in these consolidated financial statements.

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The following table summarizes the Company's revenue based on the customer's location, as determined by the customer's shipping address:

	Year Ended December 31,	
	2014	2015
North America:		
United States	$106,639	$ 54,365
Other	737	153
Total North America	107,376	54,518
Latin America:		
Mexico	4,092	66,991
Other	25,823	20,391
Total Latin America	29,915	87,382
Europe, Middle East and Africa:		
Belgium	—	30,794
Other	32,407	44,973
Total Europe, Middle East and Africa	32,407	75,767
Asia-Pacific:		
Japan	27,003	25,433
Other	14,577	29,350
Total Asia-Pacific	41,580	54,783
Total revenue(1)	$211,278	$272,450

(1) Other than the United States, Mexico, Belgium and Japan, no individual countries represented 10% or more of the Company's total revenue for each of the periods presented.

The Company's property and equipment, net by location was as follows:

	December 31,	
	2014	2015
United States	$6,646	$18,465
China	1,240	2,460
Other	1,105	1,403
Total property and equipment, net	$8,991	$22,328

15. Related Parties

Transactions Involving Liberty Global Ventures Holding B.V. and its Affiliates

Liberty Global Ventures Holding B.V. is a principal stockholder of the Company through its ownership of Series B Preferred Stock. Liberty Global Ventures Holding B.V. is an affiliate of Liberty Global Services B.V. and its affiliates, which are customers of the Company. During the years ended December 31, 2014 and 2015, the Company recognized revenue of $14,807 and $46,069, respectively, from transactions with these customers and

amounts received in cash from these customers totaled $13,774 and $37,012, respectively. As of December 31, 2014 and 2015, amounts due from Liberty Global Services B.V. and its affiliates totaled $28,046 and $12,367, respectively.

In addition, on March 31, 2014, Liberty Global Ventures Holding B.V. exercised outstanding warrants to purchase 529 shares of the Company's common stock (see Note 11), and the Company received proceeds of $2,369.

Consulting Agreement with Bill Styslinger

In March 2012, the Company entered into a consulting agreement with Bill Styslinger, a member of its board of directors, for the provision of sales management, corporate strategy and advisory services. The Company extended the term of the consulting agreement, which was initially scheduled to expire on January 31, 2014, on two occasions, and it will expire on December 31, 2016. During the years ended December 31, 2014 and 2015, the Company recognized sales and marketing expenses of $503 and $441, respectively, and paid Mr. Styslinger $454 and $542, respectively, for his services under this consulting agreement. As of December 31, 2014 and 2015, amounts due to Mr. Styslinger for his consulting services totaled $238 and $137, respectively.

In connection with Mr. Styslinger's services as a consultant, in May 2012, the Company granted Mr. Styslinger stock options for the purchase of 120,000 shares of common stock, at an exercise price of $8.46 per share, which vested as to one-third of the shares under the award on February 1, 2013 and in equal monthly installments thereafter for the following two years. The grant-date fair value of the award totaled $527, which was recorded by the Company as stock-based compensation expense over the vesting period of the award. During the years ended December 31, 2014 and 2015, the Company recognized sales and marketing expenses of $175 and $15, respectively, related to these stock options.

Employment of Rongke Xie

Rongke Xie, who serves as Deputy General Manager of Guangzhou Casa Communication Technology LTD, one of the Company's subsidiaries, is the sister of Lucy Xie, the Company's Senior Vice President of Operations and a member of its board of directors. During the years ended December 31, 2014 and 2015, the Company paid Rongke Xie $154 and $140, respectively, for her services as an employee of the Company.

16. Commitments and Contingencies

Operating Leases

The Company leases manufacturing and office space in the United States and China under non-cancelable operating leases, which expire in 2021 and 2018, respectively. Rent expense for the years ended December 31, 2014 and 2015 was $1,337 and $773, respectively. Rent expense is recorded on a straight-line basis, and, as a result, as of December 31, 2014 and 2015, the Company had a deferred rent liability of $1,013 and $64, respectively, which is included in accrued expenses and other current liabilities in the accompanying consolidated balance sheets.

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Future minimum lease payments under non-cancelable operating leases as of December 31, 2015 were as follows:

Year Ending December 31,	
2016	$ 291
2017	301
2018	311
2019	102
2020	102
Thereafter	17
	$1,124

In March 2015, the Company purchased the land and building of its U.S. corporate offices, which it had previously leased (see Note 4). As a result of the purchase, the deferred rent liability of $1,098 at that time was reclassified to land, building and building improvements.

In January 2016, the Company entered into a lease for 9,000 square feet of manufacturing space in China through 2019. In September 2016, the Company entered into a lease for 29,880 square feet of manufacturing, warehouse and office space in Ireland through 2026, with a right to terminate in 2021. The associated minimum lease payments of these two new leases are not included in the table above presented as of December 31, 2015. In aggregate, the two new leases entered into in 2016 require future minimum lease payments of $40, $289, $458, $413 and $407 during the years ending December 31, 2016, 2017, 2018, 2019 and 2020, respectively, and $305 thereafter.

Indemnification

The Company has, in the ordinary course of business, agreed to defend and indemnify certain customers against third-party claims asserting infringement of certain intellectual property rights, which may include patents, copyrights, trademarks or trade secrets.

As permitted under Delaware law, the Company indemnifies its officers, directors and employees for certain events or occurrences that happen by reason of their relationship with or position held at the Company.

As of December 31, 2014 and 2015, the Company had not experienced any losses related to these indemnification obligations and no material claims were outstanding. The Company does not expect significant claims related to these indemnification obligations and, consequently, concluded that the fair value of these obligations is negligible, and no related liabilities were recorded in its consolidated financial statements.

Litigation

From time to time, and in the ordinary course of business, the Company may be subject to various claims, charges and litigation. As of December 31, 2015, the Company did not have any pending claims, charges or litigation that it expects would have a material adverse effect on its consolidated financial position, results of operations or cash flows.

17. Employee Benefit Plan

The Company has a Section 401(k) defined contribution savings plan for its employees. The plan covers substantially all employees in the United States who meet minimum age and service requirements and allows

participants to defer a portion of their annual compensation on a pre-tax basis, subject to certain limitations. Company contributions to the plan may be made at the discretion of the board of directors. Effective January 1, 2014, the Company commenced matching contributions in the amount of 50% of the employee's contributions of up to 6% of eligible wages. The Company made matching contributions to the plan of $628 and $977 in the years ended December 31, 2014 and 2015, respectively.

18. Subsequent Events

For its consolidated financial statements as of December 31, 2015 and for the year then ended, the Company evaluated subsequent events through December 13, 2016, the date on which those financial statements were issued.

Special Dividend to Holders of Common and Preferred Stock

On June 17, 2016, the board of directors declared and the shareholders approved a special dividend to the holders of common stock and preferred stock of record on that date. The cash dividend declared to stockholders was $2.9455 per share of common stock, $5.8910 per share of Series B Preferred Stock and $5.8910 per share of Series C Preferred Stock. In connection with this special dividend, the board of directors also approved cash payments to be made to holders of the Company's stock options, SARs and restricted stock units as an equitable adjustment to the holders of such instruments in accordance with the provisions of the 2011 Plan. The equitable adjustment payments to the holders of stock options, SARs and restricted stock units are equal to $2.9455 per share multiplied by the net number of shares subject to outstanding equity awards after applying the treasury stock method. The cash payments to such holders will be made as their equity awards vest through fiscal year 2020.

The cash dividends declared to the holders of common stock and preferred stock aggregated $43,148 and the equitable adjustment to the holders of stock options, SARs and restricted stock units, net of estimated forfeitures, aggregated $6,733.

19. Subsequent Events (Unaudited)

Term Loan and Revolving Credit Facilities

On December 20, 2016, the Company entered into a credit agreement with JPMorgan Chase Bank, N.A., as administrative agent, various lenders and JPMorgan Chase Bank, N.A. and Barclays Bank PLC providing for (i) a term loan facility of $300,000 and (ii) a revolving credit facility of up to $25,000 in revolving credit loans and letters of credit.

As of December 31, 2016, $300,000 in principal amount was outstanding under the term loan facility and the Company did not have any borrowings under the revolving credit facility; however, the Company had used $1,000 under the revolving credit facility for a stand-by letter of credit that serves as collateral for a stand-by letter of credit issued by Bank of America to one of the Company's customers pursuant to a contractual performance guarantee. In addition, the Company may, subject to certain conditions, including the consent of the administrative agent and the institutions providing such increases, increase the facilities by an unlimited amount so long as the Company is in compliance with specified leverage ratios, or otherwise by up to $70,000.

Borrowings under the facilities bear interest at a floating rate, which can be either a Eurodollar rate plus an applicable margin or, at the Company's option, a base rate (defined as the highest of (x) the JPMorgan Chase, N.A. prime rate, (y) the federal funds effective rate, plus one half percent (0.50%) per annum and (z) a one-

month Eurodollar rate plus 1.00% per annum) plus an applicable margin. The applicable margin for borrowings under the term loan facility is 4.00% per annum for Eurodollar rate loans (subject to a 1.00% interest rate floor) and 3.00% per annum for base rate loans. The applicable margin for borrowings under the revolving credit facility is 2.00% per annum for Eurodollar rate loans and 1.00% per annum for base rate loans, subject to reduction based on various factors, including the Company's completion of an initial public offering and its maintaining of specified net leverage ratios. The interest rates payable under the facilities are subject to an increase of 2.00% per annum during the continuance of any payment default.

For Eurodollar rate loans, the Company may select interest periods of one, two, three or six months or, with the consent of all relevant affected lenders, twelve months. Interest will be payable at the end of the selected interest period, but no less frequently than every three months within the selected interest period. Interest on any base rate loan is not set for any specified period and payable quarterly. The Company has the right to convert Eurodollar rate loans into base rate loans and the right to convert base rate loans into Eurodollar rate loans at its option, subject, in the case of Eurodollar rate loans, to prepayment penalties if the conversion is effected prior to the end of the applicable interest period. As of December 31, 2016, the interest rate on the term loans was 5.0% per annum, based on a one-month Eurodollar rate at the applicable floor of 1.0% plus the 4.0% margin.

The revolving credit facility also requires payment of quarterly commitment fees at a rate of 0.25% per annum on the difference between committed amounts and amounts actually borrowed under the facility and customary letter of credit fees.

The term loan facility matures on December 20, 2023 and the revolving credit facility matures on December 20, 2021. The term loan facility is subject to amortization in equal quarterly installments, commencing on March 31, 2017, of principal in an annual aggregate amount equal to 1.0% of the original principal amount of the term loans of $300,000, with the remaining outstanding balance payable at the date of maturity.

Voluntary prepayments of principal amounts outstanding under the term loan facility are permitted at any time; however, if a prepayment of principal is made with respect to a Eurodollar loan on a date other than the last day of the applicable interest period, the Company is required to compensate the lenders for any funding losses and expenses incurred as a result of the prepayment. Prior to the revolving credit facility maturity date, funds borrowed under the revolving credit facility may be borrowed, repaid and reborrowed, without premium or penalty.

In addition, the Company is required to make mandatory prepayments under the facilities with respect to (i) 100% of the net cash proceeds from certain asset dispositions (including casualty and condemnation events) by the Company or certain of its subsidiaries, subject to certain exceptions and reinvestment provisions, (ii) 100% of the net cash proceeds from the issuance or incurrence of any additional debt by the Company or certain of its subsidiaries, subject to certain exceptions, and (iii) 50% of the Company's excess cash flow, as defined in the credit agreement, subject to reduction upon its achievement of specified performance targets.

The facilities are secured by, among other things, a first priority security interest, subject to permitted liens, in substantially all of the Company's assets and all of the assets of certain of its subsidiaries and a pledge of certain of the stock of certain of its subsidiaries, in each case subject to specified exceptions. The facilities contain customary affirmative and negative covenants, including certain restrictions on the Company's ability to pay dividends, and, with respect to the revolving credit facility, a financial covenant requiring the Company to maintain a specified total net leverage ratio in the event that on the last day of any fiscal quarter the Company has utilized more than 30% of its borrowing capacity under the facility. As of December 31, 2016, the Company had not utilized more than 30% of its borrowing capacity under the revolving credit facility and compliance with the financial covenant was not applicable.

In connection with entering into the facilities, the Company terminated its revolving credit facility with Bank of America (see Note 8). The Company did not have any outstanding borrowings under the Bank of America revolving credit facility at the time of termination.

Special Dividend to Holders of Common and Preferred Stock

On December 21, 2016, the board of directors declared, and on December 29, 2016 the stockholders approved, a special dividend to the holders of common stock and preferred stock of record on December 27, 2016. The cash dividend declared to stockholders was $11.6529 per share of common stock, $23.3058 per share of Series B Preferred Stock and $23.3058 per share of Series C Preferred Stock.

In connection with this special dividend, the board of directors also approved cash payments to be made to holders of the Company's stock options, SARs and restricted stock units as an equitable adjustment to the holders of such instruments in accordance with the provisions of the 2011 Plan. The equitable adjustment payments to the holders of the stock options, SARs and restricted stock units are equal to $11.6529 per share multiplied by the net number of shares subject to outstanding equity awards after applying the treasury stock method. The cash payments to such holders will be made as their equity awards vest through fiscal year 2020.

The cash dividends declared to the holders of common stock, Series B Preferred Stock and Series C Preferred Stock totaled $77,311, $4,172 and $89,942, respectively, and the equitable adjustment to the holders of stock options, SARs and restricted stock units, net of estimated forfeitures, totaled $28,120.

CASA SYSTEMS, INC.

CONDENSED CONSOLIDATED BALANCE SHEETS
(Amounts in thousands, except per share amounts)
(Unaudited)

	December 31, 2015	September 30, 2016	Pro Forma September 30, 2016
Assets			
Current assets:			
Cash and cash equivalents	$ 92,496	$ 161,706	$
Accounts receivable, net of provision for doubtful accounts of $768 and $735 as of December 31, 2015 and September 30, 2016, respectively	90,945	64,907	64,907
Inventory	47,501	44,259	44,259
Prepaid expenses and other current assets	4,173	5,881	5,881
Prepaid income taxes	945	1,129	1,129
Total current assets	236,060	277,882	
Property and equipment, net	22,328	24,789	24,789
Accounts receivable, net of current portion	9,839	10,023	10,023
Deferred tax assets	14,280	18,269	18,269
Other assets	590	705	705
Total assets	$ 283,097	$ 331,668	$
Liabilities, Convertible Preferred Stock and Stockholders' Equity			
Current liabilities:			
Accounts payable	$ 7,218	$ 22,178	$ 22,178
Accrued expenses and other current liabilities	25,354	37,985	
Accrued income taxes	4,882	—	—
Deferred revenue	35,353	58,763	58,763
Current portion of long-term debt	272	281	281
Total current liabilities	73,079	119,207	
Accrued income taxes, net of current portion	449	463	463
Deferred revenue, net of current portion	22,109	20,834	20,834
Long-term debt, net of current portion	7,523	7,312	
Total liabilities	103,160	147,816	
Commitments and contingencies (Note 15)			
Convertible preferred stock (Series A, B and C), $0.001 par value; 5,502 shares authorized as of December 31, 2015 and September 30, 2016; 4,038 shares issued and outstanding as of December 31, 2015 and September 30, 2016; aggregate liquidation preference of $131,577 and $135,978 as of December 31, 2015 and September 30, 2016, respectively; no shares issued or outstanding, pro forma as of September 30, 2016	97,479	97,479	—
Stockholders' equity:			
Common stock, $0.001 par value; 20,000 shares authorized as of December 31, 2015 and September 30, 2016; 6,362 and 6,587 shares issued and outstanding as of December 31, 2015 and September 30, 2016, respectively; 14,663 shares issued and outstanding, pro forma as of September 30, 2016	6	6	
Additional paid-in capital	14,745	20,298	
Accumulated other comprehensive loss	(214)	(788)	
Retained earnings	67,921	66,857	
Total stockholders' equity	82,458	86,373	
Total liabilities, convertible preferred stock and stockholders' equity	$ 283,097	$ 331,668	$

The accompanying notes are an integral part of these condensed consolidated financial statements.

CASA SYSTEMS, INC.

CONDENSED CONSOLIDATED STATEMENTS OF OPERATIONS AND COMPREHENSIVE INCOME
(Amounts in thousands, except per share amounts)
(Unaudited)

	Nine Months Ended September 30,	
	2015	2016
Revenue:		
Product	$166,167	$191,763
Service	16,376	25,139
Total revenue	182,543	216,902
Cost of revenue:		
Product	48,484	68,793
Service	3,652	5,983
Total cost of revenue	52,136	74,776
Gross profit	130,407	142,126
Operating expenses:		
Research and development	27,408	37,213
Sales and marketing	23,876	27,289
General and administrative	12,558	13,532
Total operating expenses	63,842	78,034
Income from operations	66,565	64,092
Other income (expense):		
Interest income	762	811
Interest expense	(123)	(256)
Gain (loss) on foreign currency	(2,642)	(45)
Other income	442	443
Total other income (expense), net	(1,561)	953
Income before provision for income taxes	65,004	65,045
Provision for income taxes	23,405	16,228
Net income	41,599	48,817
Other comprehensive expense—foreign currency translation adjustment	(767)	(574)
Comprehensive income	$ 40,832	$ 48,243

CASA SYSTEMS, INC.

CONDENSED CONSOLIDATED STATEMENTS OF OPERATIONS AND COMPREHENSIVE INCOME (Continued)
(Amounts in thousands, except per share amounts)
(Unaudited)

	Nine Months Ended September 30,	
	2015	2016
Cash dividends declared per common share or common share equivalent	$ —	$2.9455
Net income attributable to common stockholders:		
Basic	$16,365	$19,928
Diluted	$18,144	$20,006
Net income per share attributable to common stockholders:		
Basic	$ 2.58	$ 3.04
Diluted	$ 2.36	$ 2.37
Weighted-average shares used to compute net income per share attributable to common stockholders:		
Basic	6,344	6,564
Diluted	7,690	8,427
Pro forma net income per share attributable to common stockholders (unaudited):		
Basic		$
Diluted		$
Weighted-average shares used to compute pro forma net income per share attributable to common stockholders (unaudited):		
Basic		
Diluted		

The accompanying notes are an integral part of these condensed consolidated financial statements.

CASA SYSTEMS, INC.

CONDENSED CONSOLIDATED STATEMENTS OF CONVERTIBLE PREFERRED STOCK AND STOCKHOLDERS' EQUITY
(Amounts in thousands, except per share amounts)
(Unaudited)

	Series A, B and C Convertible Preferred Stock		Common Stock		Additional Paid-in Capital	Accumulated Other Comprehensive Income (Loss)	Retained Earnings	Total Stockholders' Equity
	Shares	Amount	Shares	Amount				
Balances at January 1, 2016	4,038	$97,479	6,362	$ 6	$ 14,745	$ (214)	$ 67,921	$ 82,458
Common stock issued, net of shares withheld for employee taxes	—		226	—	(146)	—	—	(146)
Foreign currency translation adjustment, net of tax of $0	—	—	—	—	—	(574)	—	(574)
Cash dividends declared ($2.9455 per share of common stock, $5.8910 per share of convertible preferred stock and $2.9455 per share to holders of stock-based awards)	—	—	—	—	—	—	(49,881)	(49,881)
Stock-based compensation	—	—	—	—	5,699	—	—	5,699
Net income	—	—	—	—	—	—	48,817	48,817
Balances at September 30, 2016	4,038	$97,479	6,588	$ 6	$ 20,298	$ (788)	$ 66,857	$ 86,373

The accompanying notes are an integral part of these condensed consolidated financial statements.

CASA SYSTEMS, INC.

CONDENSED CONSOLIDATED STATEMENTS OF CASH FLOWS
(Amounts in thousands, except per share amounts)
(Unaudited)

	Nine Months Ended September 30,	
	2015	2016
Cash flows from operating activities:		
Net income	$ 41,599	$ 48,817
Adjustments to reconcile net income to net cash provided by operating activities:		
Depreciation and amortization	3,713	4,451
Stock-based compensation	5,407	5,974
Deferred income taxes	(969)	(4,015)
Excess and obsolete inventory valuation adjustment	657	(19)
Increase in provision for doubtful accounts	378	17
Changes in operating assets and liabilities:		
Accounts receivable	24,182	25,848
Inventory	(27,946)	1,741
Prepaid expenses and other assets	(2,122)	(1,851)
Prepaid income taxes	(1,638)	(185)
Accounts payable	9,397	15,562
Accrued expenses and other current liabilities	1,770	10,282
Accrued income taxes	(15,683)	(4,873)
Deferred revenue	(11,659)	22,320
Net cash provided by operating activities	27,086	124,069
Cash flows used in investing activities:		
Purchases of property and equipment	(14,009)	(6,159)
Net cash used in investing activities	(14,009)	(6,159)
Cash flows from financing activities:		
Proceeds from issuance of debt, net of issuance costs	7,905	—
Principal repayments of debt	(46)	(210)
Proceeds from exercise of stock options	198	172
Employee taxes paid related to net share settlement of restricted stock units	—	(315)
Payments of dividends and equitable adjustments	(629)	(47,793)
Net cash provided by (used in) financing activities	7,428	(48,146)
Effect of exchange rate changes on cash and cash equivalents	(661)	(554)
Net increase in cash and cash equivalents	19,844	69,210
Cash and cash equivalents at beginning of period	77,155	92,496
Cash and cash equivalents at end of period	$ 96,999	$161,706
Supplemental disclosures of cash flow information:		
Cash paid for interest	$ 47	$ 207
Cash paid for income taxes	$ 41,695	$ 25,200
Supplemental disclosures of non-cash investing and financing activities:		
Purchases of property and equipment included in accounts payable	$ 932	$ 552
Unpaid equitable adjustments included in accrued expenses and other current liabilities	$ 470	$ 2,471

The accompanying notes are an integral part of these condensed consolidated financial statements.

CASA SYSTEMS, INC.

NOTES TO CONDENSED CONSOLIDATED FINANCIAL STATEMENTS
(Amounts in thousands, except per share amounts)
(Unaudited)

1. Nature of Business and Basis of Presentation

Casa Systems, Inc. (the "Company") was incorporated under the laws of the State of Delaware on February 28, 2003. The Company is a global communications technology company headquartered in Andover, Massachusetts and has wholly owned subsidiaries in China, France, Canada, Ireland and the Netherlands.

The Company provides a suite of software-centric infrastructure solutions that allow cable service providers to deliver voice, video and data services over a single platform at multi-gigabit speeds. In addition, the Company offers solutions for next-generation distributed and virtualized architectures in cable operator, fixed telecom and wireless networks. The Company's innovative solutions enable customers to cost-effectively and dynamically increase network speed, add bandwidth capacity, reconfigure and add new services for consumers and enterprises, reduce network complexity and reduce operating and capital expenditures.

The Company is subject to a number of risks similar to other companies of comparable size and other companies selling and providing services to the communications industry. These risks include, but are not limited to, the level of capital spending by the communications industry, a lengthy sales cycle, dependence on the development of new products and services, unfavorable economic and market conditions, competition from larger and more established companies, limited management resources, dependence on a limited number of contract manufacturers and suppliers, the rapidly changing nature of the technology used by the communications industry and reliance on resellers and sales agents. Failure by the Company to anticipate or to respond adequately to technological developments in its industry, changes in customer or supplier requirements, changes in regulatory requirements or industry standards, or any significant delays in the development or introduction of products could have a material adverse effect on the Company's operating results, financial condition and cash flows.

The accompanying condensed consolidated balance sheet as of September 30, 2016, the condensed consolidated statements of operations and comprehensive income and of cash flows for the nine months ended September 30, 2015 and 2016, and the condensed consolidated statement of convertible preferred stock and stockholders' equity for the nine months ended September 30, 2016 are unaudited. The financial data and other information disclosed in these notes related to the nine months ended September 30, 2015 and 2016 are also unaudited. The accompanying unaudited condensed consolidated financial statements have been prepared in accordance with generally accepted accounting principles in the United States ("GAAP") regarding interim financial reporting. Certain information and note disclosures normally included in the consolidated financial statements prepared in accordance with GAAP have been condensed or omitted. Therefore, these condensed consolidated financial statements should be read in conjunction with the consolidated financial statements and notes included in the Company's audited consolidated financial statements for the year ended December 31, 2015.

The unaudited interim condensed consolidated financial statements have been prepared on a basis consistent with that used to prepare the audited annual consolidated financial statements and, in the opinion of management, include all adjustments, consisting of only normal recurring adjustments, necessary for a fair statement of the financial position, results of operations and cash flows for the interim periods, but are not necessarily indicative of the results of operations to be anticipated for the full year ending December 31, 2016 or any future period.

The accompanying condensed consolidated financial statements include the accounts and results of operations of the Company and its wholly owned subsidiaries. All intercompany transactions and balances have been eliminated in consolidation.

CASA SYSTEMS, INC.

NOTES TO CONDENSED CONSOLIDATED FINANCIAL STATEMENTS
(Amounts in thousands, except per share amounts)
(Unaudited)

2. Summary of Significant Accounting Policies

Unaudited Pro Forma Information

The accompanying unaudited pro forma condensed consolidated balance sheet as of September 30, 2016 has been prepared to give effect, upon the closing of a qualified initial public offering, to the automatic conversion of all outstanding shares of convertible preferred stock into 8,076 shares of common stock, the Company's borrowing in December 2016 of $300,000 under its term loan facility and the accrual of special dividends of $171,425 and $, which were declared by its board of directors on December 21, 2016 and , respectively.

In the accompanying condensed consolidated statements of operations and comprehensive income, the calculation of the unaudited pro forma basic and diluted net income per share attributable to common stockholders for the year ended December 31, 2015 has been prepared to give effect, upon the closing of a qualified initial public offering, to (i) the automatic conversion of all outstanding shares of convertible preferred stock into shares of common stock as if the proposed initial public offering had occurred on January 1, 2015 and (ii) the number of shares offered in the initial public offering whose proceeds are deemed necessary, based on an assumed initial public offering price of $ per share, which is the midpoint of the price range set forth on the cover page of this prospectus, to pay (a) the special cash dividend of $43,148 declared by the Company's board of directors on June 17, 2016 and (b) special cash dividends of $171,425 and $ declared by the Company's board of directors on December 21, 2016 and , respectively, because the Company's earnings for the twelve months ended September 30, 2016 were not sufficient to fully fund those dividends.

The unaudited pro forma net income per share data have been presented in accordance with Securities and Exchange Commission Staff Accounting Bulletin Topic 1B.3 ("SAB Topic 1B.3"). In accordance with SAB Topic 1B.3, dividends declared at or in the year preceding an initial public offering are deemed to be in contemplation of the offering with the intention of repayment out of the offering proceeds to the extent that the amount of dividends exceeded the amount of earnings during the twelve-month period ended on the balance sheet date. For the twelve months ended September 30, 2016, the Company's net income was $75,140 (unaudited).

Accounts Receivable

Accounts receivable are presented net of a provision for doubtful accounts, which is an estimate of amounts that may not be collectible. Accounts receivable for arrangements with customary payment terms, which are one year or less, are recorded at invoiced amounts and do not bear interest. The Company generally does not require collateral, but the Company may, in certain instances based on its credit assessment, require full or partial prepayment prior to shipment.

For certain customers and/or for certain transactions, the Company provides extended payment arrangements to allow the customer to pay for the purchased equipment in monthly, other periodic or lump sum payments over a period of one to five years. Certain of these arrangements are collateralized by the underlying assets during the term of the arrangement. Payments due beyond 12 months from the balance sheet date are recorded as non-current assets. In addition, amounts recorded as current and non-current accounts receivable for extended payment term arrangements at any balance sheet date have a corresponding amount recorded as deferred revenue because the Company defers the recognition of revenue for all extended payment term arrangements and only recognizes revenue to the extent of the payment amounts that become due from the customer.

Although there is no contractual interest rate for customer arrangements with extended payment terms, the Company imputes interest on the accounts receivable related to these arrangements and reduces the arrangement

fee that will be recognized as revenue for the amount of the imputed interest, which is recorded as interest income over the payment term using the effective interest method. For the periods presented in the accompanying condensed consolidated financial statements, the impact of imputing interest on revenue and interest income was insignificant.

Accounts receivable as of December 31, 2015 and September 30, 2016 consisted of the following:

	December 31, 2015	September 30, 2016
Current portion of accounts receivable, net:		
Accounts receivable, net	$ 71,155	$ 53,784
Amounts due from related party (see Note 14)	12,367	3,714
Accounts receivable, extended payment arrangements	7,423	7,409
	90,945	64,907
Accounts receivable, net of current portion:		
Accounts receivable, extended payment arrangements	9,839	10,023
	$ 100,784	$ 74,930

The Company performs ongoing credit evaluations of its customers and, if necessary, provides a provision for doubtful accounts and expected losses. When assessing and recording its provision for doubtful accounts, the Company evaluates the age of its accounts receivable, current economic trends, creditworthiness of the customers, customer payment history, and other specific customer and transaction information. The Company writes off accounts receivable against the provision when it determines a balance is uncollectible and no longer actively pursues collection of the receivable. Adjustments to the provision for doubtful accounts are recorded as general and administrative expenses in the consolidated statements of operations and comprehensive income.

Deferred Offering Costs

The Company capitalizes certain legal, professional accounting and other third-party fees that are directly associated with in-process equity financings as deferred offering costs until such financings are consummated. After consummation of the equity financing, these costs are recorded in stockholders' equity as a reduction of additional paid-in capital generated as a result of the offering. Should the planned equity financing be abandoned, the deferred offering costs will be expensed immediately as a charge to operating expenses in the statement of operations and comprehensive income. The Company did not record any deferred offering costs as of December 31, 2015 or September 30, 2016.

Concentration of Risks

Financial instruments that potentially subject the Company to concentrations of credit risk, consist principally of cash and cash equivalents and accounts receivable. Cash and cash equivalents consist of demand deposits, savings accounts, money market mutual funds, commercial paper, and certificates of deposits with financial institutions, which may exceed Federal Deposit Insurance Corporation limits. The Company has not experienced any losses related to its cash and cash equivalents and does not believe that it is subject to unusual credit risk beyond the normal credit risk associated with commercial banking relationships.

CASA SYSTEMS, INC.

NOTES TO CONDENSED CONSOLIDATED FINANCIAL STATEMENTS
(Amounts in thousands, except per share amounts)
(Unaudited)

Significant customers are those that represent 10% or more of revenue or accounts receivable balances as set forth in the following table:

	Revenue		Accounts Receivable, Net	
	Nine Months Ended September 30,			
	2015	2016	December 31, 2015	September 30, 2016
Customer A	17%	26%	*	*
Customer B	*	17%	*	11%
Customer C	12%	*	*	*
Customer D	20%	*	12%	*
Customer E	*	*	15%	21%
Customer F	*	*	17%	*
Customer G	*	*	12%	*

* Less than 10% of total

Customer D is a related party, Liberty Global Services B.V. and its affiliates (see Note 14).

Certain of the components and subassemblies included in the Company's products are obtained from a single source or a limited group of suppliers. In addition, the Company primarily relies on two third-parties to manufacture its products. Although the Company seeks to reduce dependence on those limited sources of suppliers and manufacturers, the partial or complete loss of certain of these sources could have a material adverse effect on the Company's operating results, financial condition, and cash flows and damage its customer relationships.

Impact of Recently Adopted Accounting Standards

In March 2016, the Financial Accounting Standards Board ("FASB") issued Accounting Standards Update ("ASU") 2016-09, *Improvements to Employee Share-Based Payment Accounting* ("ASU 2016-09"), which simplifies the accounting for share-based payments. The amendments of the updated standard include, among other things, the requirement to recognize excess tax benefits (or deficiencies) through earnings instead of additional paid-in capital, changes to the classification of excess tax benefits on the statement of cash flows, and the election of a policy to either estimate forfeitures when determining periodic expense or recognize actual forfeitures when they occur. The standard is effective for annual periods beginning after December 15, 2016. Early adoption is permitted.

The Company elected to early adopt ASU 2016-09 as of January 1, 2016 and has applied the standard to the related unaudited condensed consolidated financial statements on a prospective basis. Prior periods were not retrospectively adjusted. The primary impacts of the adoption were (i) the recognition of excess tax benefits from equity transactions as a reduction of the provision for income taxes rather than as an increase to additional paid-in capital and (ii) excluding from the calculation diluted net income per share attributable to common stockholders the effect of the excess tax benefit when applying the treasury stock method to determine the dilutive effect of outstanding stock-based awards. If the Company had not adopted the standard as of January, 1, 2016, it would have reported a higher provision for income taxes for the nine months ended September 30, 2016 of $1,439 for the excess tax benefit of restricted stock vesting and of $1,516 for the equitable adjustment payments. Similarly, if the Company had not adopted the standard as of January 1, 2016, it would have reported lower net cash provided by operating activities of $2,955 and lower net cash used in financing activities of

$2,955 for the nine months ended September 30, 2016. The Company elected to maintain its existing policy to estimate forfeitures when determining periodic expense. The other provisions of the guidance had an insignificant impact on the Company's condensed consolidated financial statements.

Impact of Recently Issued Accounting Standards

In May 2014, the FASB issued ASU No. 2014-09, *Revenue from Contracts with Customers (Topic 606)* ("ASU 2014-09"), which supersedes existing revenue recognition guidance under GAAP. The core principle of this standard is that an entity should recognize revenue to depict the transfer of promised goods or services to customers in an amount that reflects the consideration to which the entity expects to be entitled in exchange for those goods or services. In August 2015, the FASB issued ASU 2015-14, *Revenue from Contracts with Customers (Topic 606): Deferral of the Effective Date*, which delays the effective date of ASU 2014-09 such that the standard is effective for annual periods beginning after December 15, 2017 and for interim periods within those fiscal years. Early adoption of the standard is permitted for annual periods beginning after December 15, 2016. This standard can be adopted either retrospectively to each prior reporting period presented or as a cumulative effect adjustment as of the date of adoption. In March 2016, the FASB issued ASU No. 2016-08, *Revenue from Contracts with Customers (Topic 606): Principal versus Agent Considerations* ("ASU 2016-08"), which further clarifies the implementation guidance on principal versus agent considerations in ASU 2014-09. In April 2016, the FASB issued ASU No. 2016-10, *Revenue from Contracts with Customers (Topic 606): Identifying Performance Obligations and Licensing*, clarifying the implementation guidance on identifying performance obligations and licensing. In May 2016, the FASB issued ASU No. 2016-12, *Revenue from Contracts with Customers (Topic 606): Narrow-Scope Improvements and Practical Expedients* ("ASU 2016-12"), which clarifies the objective of the collectibility criterion, presentation of taxes collected from customers, non-cash consideration, contract modifications at transition, completed contracts at transition and how guidance in ASU 2014-09 is retrospectively applied. ASU 2016-08, ASU 2016-10 and ASU 2016-12 have the same effective dates and transition requirements as ASU 2014-09. The Company is currently assessing the potential impact that the adoption of ASU 2014-09, ASU 2016-08, ASU 2016-10 and ASU 2016-12 will have on its consolidated financial statements.

In July 2015, the FASB issued ASU 2015-11, *Simplifying the Measurement of Inventory*. Under ASU 2015-11, subsequent measurement of inventory is based on the lower of cost or net realizable value. Net realizable value is estimated selling price in the ordinary course of business, less the estimated cost of completion and disposal. This update does not apply to inventory that is measured using last-in, first-out or the retail inventory method. The new guidance is effective for annual periods beginning after December 15, 2016. Early application is permitted. The Company is currently assessing the potential impact that the adoption of ASU 2015-11 will have on its consolidated financial statements.

In February 2016, the FASB issued ASU 2016-02, *Leases*, which will require lessees to recognize most leases on their balance sheets as a right-of-use asset with a corresponding lease liability, and lessors to recognize a net lease investment. Additional qualitative and quantitative disclosures will also be required. The new guidance is effective for annual periods beginning after December 15, 2018 and for interim periods within those fiscal years. Early application is permitted. The Company is currently assessing the potential impact that the adoption of ASU 2016-02 will have on its consolidated financial statements.

In June 2016, the FASB issued ASU 2016-13, *Measurement of Credit Losses on Financial Instruments*. This guidance requires that financial assets measured at amortized cost be presented at the net amount expected to be

collected. The measurement of expected credit losses is based on historical experience, current conditions and reasonable and supportable forecasts that affect the collectibility. This guidance is effective for annual reporting periods beginning after December 15, 2019 and for interim periods within those fiscal years. The Company is currently assessing the potential impact that the adoption of ASU 2016-13 will have on its consolidated financial statements.

In August 2016, the FASB issued ASU 2016-15, *Statement of Cash Flows: Classification of Certain Cash Receipts and Cash Payments* ("ASU 2016-15"), to address diversity in practice in how certain cash receipts and cash payments are presented and classified in the statement of cash flows. The standard is effective for annual periods beginning after December 15, 2017, including interim periods within those fiscal years. The Company is currently assessing the potential impact that the adoption of ASU 2016-15 will have on its consolidated financial statements.

In October 2016, the FASB issued ASU 2016-16, *Income Taxes (Topic 740): Intra-Entity Transfer of Assets Other than Inventory* ("ASU 2016-16"), which requires the recognition of the income tax consequences of an intra-entity transfer of an asset, other than inventory, when the transfer occurs. The standard is effective for annual periods beginning after December 15, 2017, including interim periods within those fiscal years. The Company is currently assessing the potential impact that the adoption of ASU 2016-16 will have on its consolidated financial statements.

3. Inventory

Inventory as of December 31, 2015 and September 30, 2016 consisted of the following:

	December 31, 2015	September 30, 2016
Raw materials	$ 4,267	$ 5,275
Work in process	361	359
Finished goods:		
Manufactured finished goods	40,052	36,122
Deferred inventory costs	5,680	5,333
	50,360	47,089
Valuation adjustment for excess and obsolete inventory	(2,859)	(2,830)
	$ 47,501	$ 44,259

CASA SYSTEMS, INC.

NOTES TO CONDENSED CONSOLIDATED FINANCIAL STATEMENTS
(Amounts in thousands, except per share amounts)
(Unaudited)

4. Property and Equipment

Property and equipment as of December 31, 2015 and September 30, 2016 consisted of the following:

	December 31, 2015	September 30, 2016
Computers and purchased software	$ 6,570	$ 8,538
Leasehold improvements	905	1,011
Furniture and fixtures	1,416	1,459
Machinery and equipment	8,068	10,477
Land	3,091	3,091
Building	4,765	4,765
Building improvements	3,152	4,648
Trial systems at customers' sites	6,028	6,784
	33,995	40,773
Less: Accumulated depreciation and amortization	(11,667)	(15,984)
	$ 22,328	$ 24,789

During nine months ended September 30, 2015 and 2016, the Company transferred trial systems from inventory into property and equipment with a value of $1,203 and $758, respectively, net of transfers of trial systems to cost of revenue. In addition, the Company transferred $791 and $571 of equipment from inventory into property and equipment during the nine months ended September 30, 2015 and 2016, respectively.

Total depreciation and amortization expense was $3,713 and $4,451 for the nine months ended September 30, 2015 and 2016.

5. Accrued Expenses and Other Current Liabilities

Accrued expenses and other current liabilities as of December 31, 2015 and September 30, 2016 consisted of the following:

	December 31, 2015	September 30, 2016
Accrued compensation and related taxes	$ 17,346	$ 17,392
Accrued warranty	993	1,413
Equitable adjustments payable (see Note 10)	383	2,471
Accrued customer incentives	—	13,873
Other accrued expenses	6,632	2,836
	$ 25,354	$ 37,985

Accrued Warranty

Substantially all of the Company's products are covered by a warranty for software and hardware for periods ranging from 90 days to one year. In addition, in conjunction with renewals of maintenance and support contracts, the Company offers an extended warranty for periods typically of one to three years for agreed-upon fees. The Company's warranty reserve, which is presented as accrued warranty in the table above, reflects

estimated material, labor and other costs related to potential or actual software and hardware warranty claims for which the Company expects to incur an obligation.

A summary of changes in the amount reserved for warranty costs for the nine months ended September 30, 2015 and 2016 is as follows:

	Nine Months Ended September 30,	
	2015	2016
Warranty reserve at beginning of period	$ 949	$ 993
Provisions	899	1,595
Charges	(917)	(1,175)
Warranty reserve at end of period	$ 931	$ 1,413

Accrued Customer Incentives

In limited instances, the Company has offered future rebates to customers based on a fixed or variable percentage of actual sales volumes over specified periods. The future rebates earned based on the customer's purchasing from the Company in one period may be used as credits to be applied by them against accounts receivable due to the Company in later periods. The Company accounts for these future rebates as a reduction of the revenue recorded for the customer's current purchasing activity giving rise to the future rebates. The liability for these future rebates is recorded as accrued customer incentives until the credits have been applied by the customer against accounts receivable due to the Company or the credits expire.

6. Fair Value Measurements

Certain assets and liabilities are carried at fair value under GAAP. Fair value is defined as the price that would be received for an asset or the exit price that would be paid to transfer a liability in the principal or most advantageous market in an orderly transaction between market participants on the measurement date. Valuation techniques used to measure fair value must maximize the use of observable inputs and minimize the use of unobservable inputs. Financial assets and liabilities carried at fair value are to be classified and disclosed in one of the following three levels of the fair value hierarchy, of which the first two are considered observable and the last is considered unobservable:

Level 1—Quoted prices in active markets for identical assets and liabilities.

Level 2—Observable inputs (other than Level 1 quoted prices) such as quoted prices in active markets for similar assets or liabilities at the measurement date; quoted prices in markets that are not active for identical or similar assets and liabilities; or other inputs that are observable or can be corroborated by observable market data.

Level 3—Unobservable inputs that involve management judgment and are supported by little or no market activity, including pricing models, discounted cash flow methodologies and similar techniques.

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The following tables present information about the Company's financial assets and liabilities measured at fair value on a recurring basis and indicate the level of the fair value hierarchy utilized to determine such fair values:

	Fair Value Measurements as of December 31, 2015 Using:			
	Level 1	Level 2	Level 3	Total
Assets:				
Certificates of deposit	$ —	$ 342	$ —	$ 342
Money market mutual funds	45,065	—	—	45,065
	$ 45,065	$ 342	$ —	$ 45,407
Liabilities:				
SARs	$ —	$ —	$ 737	$ 737
	$ —	$ —	$ 737	$ 737

	Fair Value Measurements as of September 30, 2016 Using:			
	Level 1	Level 2	Level 3	Total
Assets:				
Certificates of deposit	$ —	$ 15,017	$ —	$ 15,017
Commercial paper	—	12,493	—	12,493
Money market mutual funds	93,837	—	—	93,837
	$ 93,837	$ 27,510	$ —	$ 121,347
Liabilities:				
SARs	$ —	$ —	$ 1,013	$ 1,013
Foreign currency contracts	—	12	—	12
	$ —	$ 12	$ 1,013	$ 1,025

During the nine months ended September 30, 2015 and 2016, there were no transfers between Level 1, Level 2 and Level 3.

There were no changes to the valuation techniques used to measure asset and liability fair values on a recurring basis during the nine months ended September 30, 2016 from those included in the Company's audited consolidated financial statements for the year ended December 31, 2015. The following table provides a summary of changes in the fair value of the Company's liability for stock appreciation rights ("SARs"), for which fair value is determined by Level 3 inputs:

	Nine Months Ended September 30,	
	2015	2016
Fair value at beginning of period	$ 271	$ 737
Change in fair value	462	276
Fair value at end of period	$ 733	$ 1,013

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7. Derivative Instruments

The Company has certain international customers that are billed in foreign currencies. To mitigate the volatility related to fluctuations in the foreign exchange rates for accounts receivable denominated in foreign currencies, the Company enters into foreign currency forward contracts. As of September 30, 2016, the Company had foreign currency forward contracts outstanding with notional amounts totaling 2,300 euros maturing in the fourth quarter of 2016. The Company had no outstanding derivative instruments as of December 31, 2015.

The Company's foreign currency forward contracts economically hedge certain risk but are not designated as hedges for financial reporting purposes, and accordingly, all changes in the fair value of these derivative instruments are recorded as unrealized foreign currency transaction gains or losses and are included in the condensed consolidated statements of operations and comprehensive income. The Company records all derivative instruments on the balance sheet at fair value and had a liability of $12 related to foreign currency forward contracts outstanding as of September 30, 2016, which is included in accrued expenses and other current liabilities on the condensed consolidated balance sheet.

8. Income Taxes

The Company's effective income tax rate was 36.0% and 24.9% for the nine months ended September 30, 2015 and 2016, respectively. The effective income tax rate is based on the estimated annual effective tax rate, adjusted for discrete tax items recorded in the period. The provision for income taxes was $23,405 and $16,228 for the nine months ended September 30, 2015 and 2016, respectively.

The effective income tax rate for the nine months ended September 30, 2016 differed from the federal statutory rate due to state taxes, research and development tax credits, permanent differences, and the excess tax benefit from stock-based transactions due to the Company's adoption of the new accounting guidance relating to stock-based compensation (see Note 2). Permanent differences included the domestic production activities deduction, nondeductible stock-based compensation expense, and taxes in foreign jurisdictions with a tax rate different from the U.S. federal statutory rate.

The change in the income tax provision for the nine months ended September 30, 2016 compared to the nine months ended September 30, 2015 was primarily due to changes in U.S. federal research and development tax credits, foreign tax rate differential, and the excess tax benefit from stock-based transactions due to the Company's adoption of the new accounting guidance relating to stock-based compensation. For the nine months ended September 30, 2016, the Company recorded tax benefits attributed to U.S. federal research and development tax credits, foreign jurisdiction earnings income with lower effective tax rates, and excess tax benefits from stock-based transactions due to the Company's adoption of the new accounting guidance relating to stock-based compensation. For the nine months ended September 30, 2015, the Company did not record benefits attributed to U.S. federal research and development tax credits, as the tax credit had not been reenacted.

The Company's intent is to reinvest the total amount of its unremitted earnings in the local international jurisdictions to support business growth. As such, the Company has not provided for U.S. taxes on the unremitted earnings of its international subsidiaries. It is not practicable to estimate the amount of deferred tax liability related to the unremitted earnings of these foreign subsidiaries.

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9. Debt

Revolving Credit Agreement

On July 1, 2016, the Company amended its revolving credit agreement (the "Revolver") to increase the amount of the line of credit, extend the maturity date and decrease the fee for the unused amount of the Revolver. The amended Revolver expires on June 30, 2019 and provides for borrowings of up to $25,000, subject to certain limitations, that accrue interest, at the Company's election, at either (i) the bank's prime rate or (ii) LIBOR plus two percentage points. Interest on amounts borrowed under the Revolver is due quarterly in arrears, and the Company is required to pay a fee of 0.20% per year, payable quarterly in arrears, on the unused amount of the Revolver.

As of December 31, 2015 and September 30, 2016, the Company did not have any borrowings under the Revolver but used $1,000 under the Revolver as collateral for a stand-by letter of credit to guarantee the Company's contractual performance with a customer. For the nine months ended September 30, 2015 and 2016, interest expense related to the fee for the unused amount of the Revolver was $19 and $11, respectively.

Borrowings under the Revolver are secured by substantially all of the Company's assets, excluding its intellectual property, as defined, and its investments in foreign subsidiaries. In connection with the Revolver, the Company is subject to various affirmative, negative and financial covenants, including a funded debt to consolidated EBITDA ratio and a basic fixed charge coverage ratio. The Company was in compliance with all covenants of the Revolver as of December 31, 2015 and September 30, 2016.

The Revolver was terminated by the Company on December 20, 2016 (see Note 16).

Commercial Mortgage Loan Agreement

On July 1, 2015, the Company entered into a commercial mortgage loan agreement in the amount of $7,950 (the "Loan"). Borrowings under the Loan bear interest at a rate of 3.5% per annum and are repayable in 60 monthly installments of $46, consisting of principal and interest based on a 20-year amortization schedule. The remaining amount of unpaid principal under the Loan is due on the maturity date of July 1, 2020. Upon entering into the Loan, the Company incurred debt issuance costs of $45, which was initially recorded as a direct deduction from the debt liability and are amortized to interest expense using the effective interest rate method from issuance date of the Loan until the maturity date.

The Company made principal payments under the Loan of $46 and $210 during the nine months ended September 30, 2015 and 2016, respectively. Interest expense, including the amortization of debt issuance costs, related to the Loan totaled $73 and $212 for the nine months ended September 30, 2015 and 2016, respectively.

The Loan is secured by the land and building purchased in March 2015 and subjects the Company to various affirmative, negative and financial covenants, including maintenance of a minimum debt service ratio. The Company was in compliance with all annual covenants of the Loan as of September 30, 2016.

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As of September 30, 2016, minimum future principal payments of debt are summarized as follows:

Year Ending December 31,	
2016	$ 72
2017	292
2018	303
2019	314
2020	6,645
	7,626
Unamortized debt issuance costs	(33)
	$7,593

10. Stockholders' Equity

Special Dividends to Holders of Common and Preferred Stock

On June 17, 2016, the board of directors declared and the shareholders approved a special dividend to the holders of common stock and preferred stock of record on that date. The cash dividend declared to stockholders was $2.9455 per share of common stock, $5.8910 per share of Series B convertible preferred stock (the "Series B Preferred Stock"), and $5.8910 per share of Series C convertible preferred stock (the "Series C Preferred Stock"). Related to this special dividend declared in June 2016, the Company paid $43,148 in dividends to the common and preferred stockholders during the nine months ended September 30, 2016, and, as of September 30, 2016, no dividends were payable.

In connection with the special dividend declared in June 2016, the board of directors also approved cash payments to be made to holders of the Company's stock options, SARs and restricted stock units ("RSUs") as an equitable adjustment to the holders of such instruments in accordance with the provisions of the Company's 2011 Stock Inventive Plan. The equitable adjustment payments to the holders of stock options, SARs and RSUs are equal to $2.9455 per share multiplied by the net number of shares subject to outstanding equity awards after applying the treasury stock method. The cash payments to such holders will be made as their equity awards vest through fiscal year 2020. During the nine months ended September 30, 2016, the Company paid $4,487 to the holders of such vested equity awards. As of September 30, 2016, equitable adjustment payments to be made through fiscal 2020, net of estimated forfeitures, totaled $2,246 and were included in accrued expenses and other current liabilities in the accompanying condensed consolidated balance sheet.

The cash dividends declared to the holders of common stock, Series B Preferred Stock and Series C Preferred Stock totaled $19,359, $1,054 and $22,735, respectively, and the equitable adjustment to the holders of stock options, SARs and RSUs, net of estimated forfeitures, totaled $6,733. The $49,881 aggregate amount of such dividends was recorded as a charge to retained earnings during the nine months ended September 30, 2016.

On November 30, 2014, the board of directors declared and the shareholders approved a special cash dividend to the holders of common stock and preferred stock of record on that date. The cash dividend to stockholders was $1.9173 per share of common stock, $3.8346 per share of the Series B Preferred Stock and $3.8346 per share of the Series C Preferred Stock. Related to this special dividend declared in November 2014, the Company paid $345 in dividends to the common and preferred stockholders during the nine months ended September 30, 2015, and no dividends were payable as of September 30, 2016.

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In connection with the special dividend declared in November 2014, the board of directors also approved cash payments to be made to holders of the Company's stock options and SARs as an equitable adjustment to the holders of such instruments in accordance with the provisions of the Company's 2011 Stock Inventive Plan. During the nine months ended September 30, 2015 and 2016, the Company paid $284 and $158, respectively to the holders of stock options and SARs for vested equity awards. As of December 31, 2015 and September 30, 2016, equitable adjustment payments to be made as equity awards vest through fiscal 2018, net of estimated forfeitures, totaled $383 and $225, respectively, and were included in accrued expenses and other current liabilities in the accompanying condensed consolidated balance sheets.

11. Stock-Based Compensation

2011 Stock Incentive Plan

The Company's 2011 Stock Incentive Plan (the "2011 Plan") provides for the grant of qualified incentive stock options, nonqualified stock options, SARs, restricted stock, RSUs or other stock-based awards to the Company's employees, officers, directors, advisers and outside consultants. The total number of shares authorized for issuance under the 2011 Plan was 4,605 shares as of September 30, 2016, of which 660 shares remained available for future grant.

Stock Options

The following table summarizes the outstanding stock option activity and a summary of information related to stock options as of and for the nine months ended September 30, 2016:

	Number of Shares	Weighted-Average Exercise Price	Weighted-Average Remaining Contractual Term (in years)	Aggregate Intrinsic Value
Outstanding at January 1, 2016	2,681	$ 14.42	7.41	$ 73,852
Granted	356	46.44		
Exercised	(44)	3.95		
Forfeited	(27)	41.71		
Outstanding at September 30, 2016	2,966	$ 18.16	7.03	$106,929
Options exercisable at September 30, 2016	1,906	$ 10.41	6.09	$ 83,501
Vested or expected to vest at September 30, 2016	2,897	$ 17.75	6.99	$105,656

The fair value of each option is estimated on the date of grant using the Black-Scholes option-pricing model using the following assumptions, presented on a weighted-average basis:

	Nine Months Ended September 30,	
	2015	2016
Risk-free interest rate	1.4% - 1.9%	1.1% - 1.6%
Expected term (in years)	5.6 - 6.2	4.7 - 6.2
Expected volatility	41.8% - 52.5%	34.2% - 40.4%
Expected dividend yield	0.0%	0.0%

The weighted-average grant-date fair value of options granted during the nine months ended September 30, 2016 was $18.55 per share. Cash proceeds received upon the exercise of options were $198 and $172 during the

nine months ended September 30, 2015 and 2016, respectively. The intrinsic value of stock options exercised was $664 and $1,982 for the nine months ended September 30, 2015 and 2016, respectively.

Restricted Stock Units

The following table summarizes the outstanding activity of RSUs and a summary of information related to RSUs:

	Number of Shares	Weighted-Average Grant Date Fair Value	Aggregate Fair Value
Unvested balance at January 1, 2016	421	$ 20.92	
Granted	49	$ 41.97	
Vested	(190)	$ 20.92	$ 7,967
Unvested balance at September 30, 2016	280	$ 24.60	

During the nine months ended September 30, 2016, the Company withheld 8 shares of common stock in settlement of employee tax withholding obligations due upon the vesting of RSUs. The Company had no RSUs that vested during the nine months ended September 30, 2015.

Stock Appreciation Rights

In September 2016, the Company granted 6 SARs that allow the holder the right, upon exercise, to receive in cash the amount of the difference between the fair value of the Company's common stock at the date of exercise and the price of the underlying common stock at the date of grant of each SAR. The price of the underlying common stock on the date of grant was $54.22 per share and the grant-date fair value was $20.52 per SAR. The SARs vest over a four-year period from the date of grant and expire ten years from the date of grant. As of September 30, 2016, 28 SARs were outstanding and 6 were unvested. As of September 30, 2016, there were 22 SARs exercisable and the fair value of each SAR was $45.76 per SAR. The Company records the fair value of the SARs as a liability with a corresponding charge as stock-based compensation expense. The fair value of the SAR liability at December 31, 2015 and September 30, 2016 was $737 and $1,013, respectively, and was included in accrued expenses and other current liabilities in the accompanying condensed consolidated balance sheets.

Stock-Based Compensation Expense

Stock-based compensation expense related to stock options, RSUs and SARs for the nine months ended September 30, 2015 and 2016 was recorded in the condensed consolidated statements of operations and comprehensive income as follows:

	Nine Months Ended September 30,	
	2015	2016
Cost of revenue	$ 103	$ 178
Research and development expenses	1,422	1,637
Sales and marketing expenses	542	846
General and administrative expenses	3,340	3,313
	$5,407	$ 5,974

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As of September 30, 2016, there was $16,769 of unrecognized compensation cost related to stock options, RSUs and SARs, which is expected to be recognized over a weighted-average period of 2.79 years.

12. Net Income per Share and Unaudited Pro Forma Net Income per Share

Net Income per Share

Basic and diluted net income per share attributable to common stockholders was calculated as follows:

	Nine Months Ended September 30,	
	2015	2016
Numerator:		
Net income	$ 41,599	$ 48,817
Cumulative dividends on convertible preferred stock	(4,401)	(4,401)
Dividends declared on convertible preferred stock	—	(23,789)
Undistributed earnings allocated to participating securities	(20,833)	(699)
Net income attributable to common stockholders, basic	16,365	19,928
Undistributed earnings reallocated to dilutive potential common shares	1,779	78
Net income attributable to common stockholders, diluted	$ 18,144	$ 20,006
Denominator:		
Weighted-average shares used to compute net income per share attributable to common stockholders, basic	6,344	6,564
Dilutive effect of stock options	1,222	1,703
Dilutive effect of restricted stock units	124	160
Weighted-average shares used to compute net income per share attributable to common stockholders, diluted	7,690	8,427
Net income per share attributable to common stockholders:		
Basic	$ 2.58	$ 3.04
Diluted	$ 2.36	$ 2.37

The following outstanding shares of common stock equivalents were excluded from the computation of diluted net income per share attributable to common stockholders for the periods presented because including them would have been anti-dilutive (presented on a weighted-average basis):

	Nine Months Ended September 30,	
	2015	2016
Convertible preferred stock (on an as-converted basis)	8,076	8,076
Options to purchase common stock	318	488

Unaudited Pro Forma Net Income per Share

The unaudited pro forma basic and diluted net income per share attributable to common stockholders for the nine months ended September 30, 2016 have been prepared to give effect, upon the closing of a qualified initial

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public offering, to (i) the automatic conversion of all outstanding shares of convertible preferred stock into shares of common stock as if the proposed initial public offering had occurred on January 1, 2015 and (ii) the number of shares offered in the initial public offering whose proceeds are deemed necessary, based on an assumed initial public offering price of $ per share, which is the midpoint of the price range set forth on the cover page of this prospectus, to pay (a) the special cash dividend of $43,148 declared by the Company's board of directors on June 17, 2016 and (b) special cash dividends of $171,425 and $ declared by the Company's board of directors on December 21, 2016 and , respectively, because the Company's earnings for the twelve months ended September 30, 2016 were not sufficient to fully fund those dividends.

The unaudited pro forma earnings per share data have been presented in accordance with Securities and Exchange Commission SAB Topic 1B.3. In accordance with SAB Topic 1B.3, dividends declared at or in the year preceding an initial public offering are deemed to be in contemplation of the offering with the intention of repayment out of the offering proceeds to the extent that the amount of dividends exceeded the amount of earnings during the twelve-month period ended on the balance sheet date. For the twelve months ended September 30, 2016, the Company's net income was $75,140 (unaudited).

Unaudited pro forma basic and diluted net income per share attributable to common stockholders was calculated as follows:

	Nine Months Ended September 30, 2016
Numerator:	
Net income	$ 48,817
Denominator:	
Weighted-average shares used to compute net income per share attributable to common stockholders, basic	6,564
Pro forma adjustment to reflect assumed conversion of convertible preferred stock upon closing of initial public offering	8,076
Pro forma adjustments to reflect the number of shares whose proceeds are deemed necessary to pay dividends in excess of earnings	
Pro forma weighted-average shares used in computing pro forma net income per share attributable to common stockholders, basic	
Dilutive effect of stock options	1,703
Dilutive effect of restricted stock units	160
Pro forma weighted-average shares used in computing pro forma net income per share attributable to common stockholders, diluted	
Pro forma net income per share attributable to common stockholders:	
Basic	$
Diluted	$

13. Segment Information

The Company operates as one operating segment. Operating segments are defined as components of an enterprise for which separate financial information is regularly evaluated by the Company's chief operating

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decision maker, or decision-making group in deciding how to allocate resources and assess performance. The Company has determined that its chief operating decision maker is its President and Chief Executive Officer. The Company's chief operating decision maker reviews the Company's financial information on a consolidated basis for purposes of allocating resources and assessing financial performance. Since the Company operates as one operating segment, all required financial segment information can be found in these condensed consolidated financial statements.

The following table summarizes the Company's revenue based on the customer's location, as determined by the customer's shipping address:

	Nine Months Ended September 30,	
	2015	2016
North America:		
United States	$ 44,711	$ 77,790
Canada	109	50,508
Total North America	44,820	128,298
Latin America:		
Mexico	35,050	10,825
Other	13,586	22,218
Total Latin America	48,636	33,043
Europe, Middle East and Africa:		
Belgium	23,862	702
Other	26,489	26,675
Total Europe, Middle East and Africa	50,351	27,377
Asia-Pacific:		
Japan	20,997	12,247
Other	17,739	15,937
Total Asia-Pacific	38,736	28,184
Total revenue(1)	$182,543	$216,902

(1) Other than the United States, Canada, Mexico, Belgium and Japan, no individual countries represented 10% or more of the Company's total revenue for each of the periods presented in the table.

The Company's property and equipment, net by location was as follows:

	December 31, 2015	September 30, 2016
United States	$ 18,465	$ 20,881
China	2,460	2,632
Other	1,403	1,276
Total property and equipment, net	$ 22,328	$ 24,789

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14. Related Parties

Sales to Liberty Global Ventures Holding B.V. and its Affiliates

Liberty Global Ventures Holding B.V. is a principal stockholder of the Company through its ownership of Series B Preferred Stock. Liberty Global Ventures Holding B.V. is an affiliate of Liberty Global Services B.V. and its affiliates, which are customers of the Company. During the nine months ended September 30, 2015 and 2016, the Company recognized revenue of $35,886 and $16,332, respectively, from transactions with these customers and amounts received in cash from these customers totaled $34,869 and $24,981, respectively. As of December 31, 2015 and September 30, 2016, amounts due from Liberty Global Services B.V. and its affiliates totaled $12,367 and $4,047, respectively.

Consulting Agreement with Bill Styslinger

In March 2012, the Company entered into a consulting agreement with Bill Styslinger, a member of its board of directors, for the provision of sales management, corporate strategy and advisory services. The Company extended the term of the consulting agreement, which was initially scheduled to expire on January 31, 2014, on two occasions, and it will expire on December 31, 2016. During the nine months ended September 30, 2015 and 2016, the Company recognized sales and marketing expenses of $228 and $242, respectively, and paid Mr. Styslinger $466 and $379, respectively, for his services under this consulting agreement. As of December 31, 2015 and September 30, 2016, amounts due to Mr. Styslinger for his consulting services totaled $137 and $0, respectively.

Employment of Rongke Xie

Rongke Xie, who serves as Deputy General Manager of Guangzhou Casa Communication Technology LTD, one of the Company's subsidiaries, is the sister of Lucy Xie, the Company's Senior Vice President of Operations and a member of its board of directors. During the nine months ended September 30, 2015 and 2016, the Company paid Rongke Xie $124 and $130, respectively, for her services as an employee of the Company.

15. Commitments and Contingencies

Operating Leases

The Company leases manufacturing and office spaces in the United States, China and Ireland under non-cancelable operating leases, which expire at various dates through 2021. Rent expense was $634 and $363 for the nine months ended September 30, 2015 and 2016, respectively. Rent expense is recorded on a straight-line basis, and, as a result, as of December 31, 2015 and September 30, 2016, the Company had a deferred rent liability of $64 and $55, respectively, which is included in accrued expenses and other current liabilities in the accompanying condensed consolidated balance sheets.

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Future minimum lease payments under non-cancelable operating leases as of September 30, 2016 were as follows:

Year Ending December 31,	
2016	$ 83
2017	585
2018	764
2019	515
2020	508
Thereafter	322
	$2,777

In January 2016, the Company entered into a lease for 9,000 square feet of manufacturing space in China through 2019. In September 2016, the Company entered into a lease for 29,880 square feet of manufacturing, warehouse and office space in Ireland through 2026, with a right to terminate in 2021. The minimum lease payments of these two new leases are included in the table above.

Indemnification

The Company has, in the ordinary course of business, agreed to defend and indemnify certain customers against third-party claims asserting infringement of certain intellectual property rights, which may include patents, copyrights, trademarks or trade secrets.

As permitted under Delaware law, the Company indemnifies its officers, directors and employees for certain events or occurrences that happen by reason of their relationship with or position held at the Company.

As of December 31, 2015 and September 30, 2016, the Company had not experienced any losses related to these indemnification obligations and no material claims were outstanding. The Company does not expect significant claims related to these indemnification obligations and, consequently, concluded that the fair value of these obligations is negligible, and no related liabilities were recorded in the condensed consolidated financial statements.

Litigation

From time to time, and in the ordinary course of business, the Company may be subject to various claims, charges and litigation. As of September 30, 2016, the Company did not have any pending claims, charges or litigation that it expects would have a material adverse effect on its consolidated financial position, results of operations or cash flows.

16. Subsequent Events

For its interim condensed consolidated financial statements as of September 30, 2016 and for the nine months then ended, the Company evaluated subsequent events through December 13, 2016, the date on which those financial statements were issued.

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Term Loan and Revolving Credit Facilities

On December 20, 2016, the Company entered into a credit agreement with JPMorgan Chase Bank, N.A., as administrative agent, various lenders and JPMorgan Chase Bank, N.A. and Barclays Bank PLC providing for (i) a term loan facility of $300,000 and (ii) a revolving credit facility of up to $25,000 in revolving credit loans and letters of credit.

As of December 31, 2016, $300,000 in principal amount was outstanding under the term loan facility and the Company did not have any borrowings under the revolving credit facility; however, the Company had used $1,000 under the revolving credit facility for a stand-by letter of credit that serves as collateral for a stand-by letter of credit issued by Bank of America to one of the Company's customers pursuant to a contractual performance guarantee. In addition, the Company may, subject to certain conditions, including the consent of the administrative agent and the institutions providing such increases, increase the facilities by an unlimited amount so long as the Company is in compliance with specified leverage ratios, or otherwise by up to $70,000.

Borrowings under the facilities bear interest at a floating rate, which can be either a Eurodollar rate plus an applicable margin or, at the Company's option, a base rate (defined as the highest of (x) the JPMorgan Chase, N.A. prime rate, (y) the federal funds effective rate, plus one half percent (0.50%) per annum and (z) a one-month Eurodollar rate plus 1.00% per annum) plus an applicable margin. The applicable margin for borrowings under the term loan facility is 4.00% per annum for Eurodollar rate loans (subject to a 1.00% interest rate floor) and 3.00% per annum for base rate loans. The applicable margin for borrowings under the revolving credit facility is 2.00% per annum for Eurodollar rate loans and 1.00% per annum for base rate loans, subject to reduction based on various factors, including the Company's completion of an initial public offering and its maintaining of specified net leverage ratios. The interest rates payable under the facilities are subject to an increase of 2.00% per annum during the continuance of any payment default.

For Eurodollar rate loans, the Company may select interest periods of one, two, three or six months or, with the consent of all relevant affected lenders, twelve months. Interest will be payable at the end of the selected interest period, but no less frequently than every three months within the selected interest period. Interest on any base rate loan is not set for any specified period and is payable quarterly. The Company has the right to convert Eurodollar rate loans into base rate loans and the right to convert base rate loans into Eurodollar rate loans at its option, subject, in the case of Eurodollar rate loans, to prepayment penalties if the conversion is effected prior to the end of the applicable interest period. As of December 31, 2016, the interest rate on the term loans was 5.0% per annum, based on a one-month Eurodollar rate at the applicable floor of 1.0% plus the 4.0% margin.

The revolving credit facility also requires payment of quarterly commitment fees at a rate of 0.25% per annum on the difference between committed amounts and amounts actually borrowed under the facility and customary letter of credit fees.

The term loan facility matures on December 20, 2023 and the revolving credit facility matures on December 20, 2021. The term loan facility is subject to amortization in equal quarterly installments, commencing on March 31, 2017, of principal in an annual aggregate amount equal to 1.0% of the original principal amount of the term loans of $300,000, with the remaining outstanding balance payable at the date of maturity.

Voluntary prepayments of principal amounts outstanding under the term loan facility are permitted at any time; however, if a prepayment of principal is made with respect to a Eurodollar loan on a date other than the last day of the applicable interest period, the Company is required to compensate the lenders for any funding losses

and expenses incurred as a result of the prepayment. Prior to the revolving credit facility maturity date, funds borrowed under the revolving credit facility may be borrowed, repaid and reborrowed, without premium or penalty.

In addition, the Company is required to make mandatory prepayments under the facilities with respect to (i) 100% of the net cash proceeds from certain asset dispositions (including casualty and condemnation events) by the Company or certain of its subsidiaries, subject to certain exceptions and reinvestment provisions, (ii) 100% of the net cash proceeds from the issuance or incurrence of any additional debt by the Company or certain of its subsidiaries, subject to certain exceptions, and (iii) 50% of the Company's excess cash flow, as defined in the credit agreement, subject to reduction upon its achievement of specified performance targets.

The facilities are secured by, among other things, a first priority security interest, subject to permitted liens, in substantially all of the Company's assets and all of the assets of certain of its subsidiaries and a pledge of certain of the stock of certain of its subsidiaries, in each case subject to specified exceptions. The facilities contain customary affirmative and negative covenants, including certain restrictions on the Company's ability to pay dividends, and, with respect to the revolving credit facility, a financial covenant requiring the Company to maintain a specified total net leverage ratio in the event that on the last day of any fiscal quarter the Company has utilized more than 30% of its borrowing capacity under the facility. As of December 31, 2016, the Company had not utilized more than 30% of its borrowing capacity under the revolving credit facility and compliance with the financial covenant was not applicable.

In connection with entering into the facilities, the Company terminated its revolving credit facility with Bank of America (see Note 9). The Company did not have any outstanding borrowings under the Bank of America revolving credit facility at the time of termination.

Special Dividend to Holders of Common and Preferred Stock

On December 21, 2016, the board of directors declared, and on December 29, 2016 the stockholders approved, a special dividend to the holders of common stock and preferred stock of record on December 27, 2016. The cash dividend declared to stockholders was $11.6529 per share of common stock, $23.3058 per share of Series B Preferred Stock and $23.3058 per share of Series C Preferred Stock.

In connection with this special dividend, the board of directors also approved cash payments to be made to holders of the Company's stock options, SARs and RSUs as an equitable adjustment to the holders of such instruments in accordance with the provisions of the 2011 Plan. The equitable adjustment payments to the holders of the stock options, SARs and RSUs are equal to $11.6529 per share multiplied by the net number of shares subject to outstanding equity awards after applying the treasury stock method. The cash payments to such holders will be made as their equity awards vest through fiscal year 2020.

The cash dividends declared to the holders of common stock, Series B Preferred Stock and Series C Preferred Stock totaled $77,311, $4,172 and $89,942, respectively, and the equitable adjustment to the holders of stock options, SARs and RSUs, net of estimated forfeitures, totaled $28,120.

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casa systems

PART II

INFORMATION NOT REQUIRED IN PROSPECTUS

Item 13. Other Expenses of Issuance and Distribution.

The following table indicates the expenses to be incurred in connection with the offering described in this registration statement, other than underwriting discounts and commissions, all of which will be paid by us. All amounts are estimated except the SEC registration fee, the Financial Industry Regulatory Authority, Inc., or FINRA, filing fee and the Nasdaq Global Market listing fee.

	Amount
SEC registration fee	$ *
FINRA filing fee	*
Nasdaq Global Market listing fee	*
Legal fees and expenses	*
Accountants' fees and expenses	*
Printing and engraving expenses	*
Blue Sky fees and expenses	*
Transfer Agent's and registrar fees and expenses	*
Miscellaneous expenses	*
Total expenses	$ *

* To be filed by amendment.

Item 14. Indemnification of Directors and Officers.

Section 102 of the General Corporation Law of the State of Delaware permits a corporation to eliminate the personal liability of directors of a corporation to the corporation or its stockholders for monetary damages for a breach of fiduciary duty as a director, except where the director breached his duty of loyalty, failed to act in good faith, engaged in intentional misconduct or knowingly violated a law, authorized the payment of a dividend or approved a stock repurchase in violation of Delaware corporate law or obtained an improper personal benefit. Our restated certificate of incorporation that will be effective upon the closing of this offering provides that no director of the Registrant shall be personally liable to it or its stockholders for monetary damages for any breach of fiduciary duty as a director, notwithstanding any provision of law imposing such liability, except to the extent that the General Corporation Law of the State of Delaware prohibits the elimination or limitation of liability of directors for breaches of fiduciary duty.

Section 145 of the General Corporation Law of the State of Delaware provides that a corporation has the power to indemnify a director, officer, employee, or agent of the corporation, or a person serving at the request of the corporation for another corporation, partnership, joint venture, trust or other enterprise in related capacities against expenses (including attorneys' fees), judgments, fines and amounts paid in settlement actually and reasonably incurred by the person in connection with an action, suit or proceeding to which he was or is a party or is threatened to be made a party to any threatened, ending or completed action, suit or proceeding by reason of such position, if such person acted in good faith and in a manner he reasonably believed to be in or not opposed to the best interests of the corporation, and, in any criminal action or proceeding, had no reasonable cause to believe his conduct was unlawful, except that, in the case of actions brought by or in the right of the corporation, no indemnification shall be made with respect to any claim, issue or matter as to which such person shall have been adjudged to be liable to the corporation unless and only to the extent that the Court of Chancery or other adjudicating court determines that, despite the adjudication of liability but in view of all of the circumstances of the case, such person is fairly and reasonably entitled to indemnity for such expenses which the Court of Chancery or such other court shall deem proper.

Our restated certificate of incorporation that will be effective upon the closing of this offering provides that we will indemnify each person who was or is a party or threatened to be made a party to any threatened, pending or completed action, suit or proceeding (other than an action by or in the right of us) by reason of the fact that he or she is or was, or has agreed to become, a director or officer, or is or was serving, or has agreed to serve, at our request as a director, officer, partner, employee or trustee of, or in a similar capacity with, another corporation, partnership, joint venture, trust or other enterprise (all such persons being referred to as an "Indemnitee"), or by reason of any action alleged to have been taken or omitted in such capacity, against all expenses (including attorneys' fees), judgments, fines and amounts paid in settlement actually and reasonably incurred in connection with such action, suit or proceeding and any appeal therefrom, if such Indemnitee acted in good faith and in a manner he or she reasonably believed to be in, or not opposed to, our best interests, and, with respect to any criminal action or proceeding, he or she had no reasonable cause to believe his or her conduct was unlawful.

Our restated certificate of incorporation that will be effective upon the closing of this offering provides that we will indemnify any Indemnitee who was or is a party to an action or suit by or in the right of us to procure a judgment in our favor by reason of the fact that the Indemnitee is or was, or has agreed to become, a director or officer, or is or was serving, or has agreed to serve, at our request as a director, officer, partner, employee or trustee of, or in a similar capacity with, another corporation, partnership, joint venture, trust or other enterprise, or by reason of any action alleged to have been taken or omitted in such capacity, against all expenses (including attorneys' fees) and, to the extent permitted by law, amounts paid in settlement actually and reasonably incurred in connection with such action, suit or proceeding, and any appeal therefrom, if the Indemnitee acted in good faith and in a manner he or she reasonably believed to be in, or not opposed to, our best interests, except that no indemnification shall be made with respect to any claim, issue or matter as to which such person shall have been adjudged to be liable to us, unless a court determines that, despite such adjudication but in view of all of the circumstances, he or she is entitled to indemnification of such expenses. Notwithstanding the foregoing, to the extent that any Indemnitee has been successful, on the merits or otherwise, he or she will be indemnified by us against all expenses (including attorneys' fees) actually and reasonably incurred in connection therewith. Expenses must be advanced to an Indemnitee under certain circumstances.

We intend to enter into indemnification agreements with each of our directors and executive officers. These indemnification agreements may require us, among other things, to indemnify each such director or executive officer for some expenses, including attorneys' fees, judgments, fines and settlement amounts incurred by him or her in any action or proceeding arising out of his or her service as one of our directors or executive officers.

We maintain a general liability insurance policy that covers certain liabilities of directors and officers of our corporation arising out of claims based on acts or omissions in their capacities as directors or officers.

In any underwriting agreement we enter into in connection with the sale of common stock being registered hereby, the underwriters will agree to indemnify, under certain conditions, us, our directors, our officers and persons who control us within the meaning of the Securities Act of 1933, as amended, against certain liabilities.

Item 15. Recent Sales of Unregistered Securities.

Set forth below is information regarding shares of capital stock issued by us since December 1, 2013, that were not registered under the Securities Act. Also included is the consideration received by us for such shares and information relating to the section of the Securities Act, or rule of the Securities and Exchange Commission, under which exemption from registration was claimed.

(1) Under our 2011 Stock Incentive Plan, we granted stock options to purchase an aggregate of 1,755,342 shares of our common stock, with exercise prices ranging from $11.47 to $61.18 per share. 610,411 shares of common stock have been issued pursuant to the exercise of stock options for aggregate consideration of $5,137,746.

(2) Under our 2011 Stock Incentive Plan, we granted an aggregate of 504,789 restricted stock units to be settled in shares of our common stock to certain of our employees and we issued 265,989 shares of common stock upon the vesting of restricted stock units.

(3) Under our 2011 Stock Incentive Plan, we granted an aggregate of 28,000 stock appreciation rights to be settled in cash to certain of our employees.

(4) Under our 2003 Stock Incentive Plan, we issued 25,000 shares of common stock upon the exercise of stock options at a weighted-average exercise price of $0.74 per share, for aggregate consideration of $18,500.

(5) We issued 528,580 shares of our common stock to Liberty Global Ventures Holding B.V. on March 31, 2014, upon Liberty Global Ventures Holding B.V.'s exercise of outstanding warrants, for aggregate consideration of $2,369,000.

None of the foregoing transactions involved any underwriters, underwriting discounts or commissions, or any public offering. The stock options and the common stock issued upon the exercise of such options, and the restricted stock units and the common stock issued upon the vesting of such restricted stock units described in paragraphs (1), (2) and (3) of this Item 15 were issued under our 2011 Stock Incentive Plan in reliance on the exemptions provided by Rule 701 and Regulation D promulgated under the Securities Act. The common stock issued upon the exercise of the stock options described in paragraph (4) of this Item 15 was issued under our 2003 Stock Incentive Plan in reliance on the exemption provided by Rule 701 promulgated under the Securities Act. The common stock issued upon the exercise of the warrants described in paragraph (5) of this Item 15 was issued pursuant to the exemption provided by Regulation D promulgated under the Securities Act. Each of the recipients of securities in these transactions had adequate access, through employment, business or other relationships, to information about us. The sales of these securities were made without any general solicitation or advertising.

Item 16. Exhibits and Financial Statement Schedules.

(a) Exhibits.

The exhibits to the registration statement of which this prospectus is a part are listed in the Exhibit Index attached hereto and incorporated by reference herein.

(b) Financial Statement Schedules.

No financial statement schedules have been submitted because they are not required or are not applicable or because the information required is included in the consolidated financial statements or the notes thereto.

Item 17. Undertakings.

The undersigned registrant hereby undertakes to provide to the underwriter, at the closing specified in the underwriting agreement, certificates in such denominations and registered in such names as required by the underwriter to permit prompt delivery to each purchaser.

Insofar as indemnification for liabilities arising under the Securities Act may be permitted to directors, officers and controlling persons of the registrant pursuant to the foregoing provisions, or otherwise, the registrant has been advised that in the opinion of the Securities and Exchange Commission such indemnification is against public policy as expressed in the Securities Act and is, therefore, unenforceable. In the event that a claim for indemnification against such liabilities (other than the payment by the registrant of expenses incurred or paid by a director, officer or controlling person of the registrant in the successful defense of any action, suit or proceeding) is asserted by such director, officer or controlling person in connection with the securities being registered, the registrant will, unless in the opinion of its counsel the matter has been settled by controlling precedent, submit to a court of appropriate jurisdiction the question whether such indemnification by it is against public policy as expressed in the Securities Act and will be governed by the final adjudication of such issue.

The undersigned hereby undertakes that:

(1) For purposes of determining any liability under the Securities Act, the information omitted from the form of prospectus filed as part of this registration statement in reliance upon Rule 430A and contained in a form of prospectus filed by the registrant pursuant to Rule 424(b)(1) or (4) or 497(h) under the Securities Act shall be deemed to be part of this registration statement as of the time it was declared effective.

(2) For the purpose of determining any liability under the Securities Act, each post-effective amendment that contains a form of prospectus shall be deemed to be a new registration statement relating to the securities offered therein, and the offering of such securities at that time shall be deemed to be the initial bona fide offering thereof.

SIGNATURES

Pursuant to the requirements of the Securities Act, the registrant has duly caused this registration statement to be signed on its behalf by the undersigned, thereunto duly authorized, in the Town of Andover, Commonwealth of Massachusetts, on this day of , 2017.

CASA SYSTEMS, INC.

By: _____
Jerry Guo
President, Chief Executive Officer and Chairman

SIGNATURES AND POWER OF ATTORNEY

We, the undersigned officers and directors of Casa Systems, Inc., hereby severally constitute and appoint Jerry Guo, Gary Hall and Todd Keebaugh, and each of them singly (with full power to each of them to act alone), our true and lawful attorneys-in-fact and agents, with full power of substitution and resubstitution in each of them for him and in his name, place and stead, and in any and all capacities, to sign any and all amendments (including post-effective amendments) to this registration statement (and any other registration statement for the same offering that is to be effective upon filing pursuant to Rule 462(b) under the Securities Act of 1933), and to file the same, with all exhibits thereto and other documents in connection therewith, with the Securities and Exchange Commission, granting unto said attorneys-in-fact and agents, and each of them, full power and authority to do and perform each and every act and thing requisite or necessary to be done in and about the premises, as full to all intents and purposes as he might or could do in person, hereby ratifying and confirming all that said attorneys-in-fact and agents or any of them, or their or his substitute or substitutes, may lawfully do or cause to be done by virtue hereof.

Pursuant to the requirements of the Securities Act of 1933, this Registration Statement has been signed by the following persons in the capacities held on the dates indicated.

Signature	Title	Date
_____ Jerry Guo	President, Chief Executive Officer and Chairman (Principal Executive Officer)	, 2017
_____ Gary Hall	Chief Financial Officer (Principal Financial and Accounting Officer)	, 2017
_____ Lucy Xie	Senior Vice President of Operations and Director	, 2017
_____ Weidong Chen	Chief Technology Officer and Director	, 2017
_____ Bruce R. Evans	Director	, 2017
_____ Bill Styslinger	Director	, 2017

EXHIBIT INDEX

Some of the agreements included as exhibits to this registration statement contain representations and warranties by the parties to the applicable agreement. These representations and warranties were made solely for the benefit of the other parties to the applicable agreement and (1) were not intended to be treated as categorical statements of fact, but rather as a way of allocating the risk to one of the parties if those statements prove to be inaccurate; (2) may have been qualified in such agreement by disclosures that were made to the other party in connection with the negotiation of the applicable agreement; (3) may apply contract standards of "materiality" that are different from "materiality" under the applicable securities laws; and (4) were made only as of the date of the applicable agreement or such other date or dates as may be specified in the agreement.

The Registrant acknowledges that, notwithstanding the inclusion of the foregoing cautionary statements, it is responsible for considering whether additional specific disclosures of material information regarding contractual provisions are required to make the statements in this registration statement not misleading.

Exhibit Number	Description
1.1*	Form of Underwriting Agreement
3.1‡	Certificate of Incorporation of the Registrant
3.2‡	Bylaws of the Registrant
3.3*	Form of Restated Certificate of Incorporation of the Registrant (to be effective immediately prior to the closing of this offering)
3.4*	Form of Amended and Restated Bylaws of the Registrant (to be effective immediately prior to the closing of this offering)
4.1*	Specimen stock certificate evidencing shares of common stock
5.1*	Opinion of Wilmer Cutler Pickering Hale and Dorr LLP
10.1‡	Form of Indemnification Agreement for Jerry Guo, Lucy Xie, Weidong Chen and Bruce Evans
10.2‡	2003 Stock Incentive Plan, as amended
10.3‡	Form of Incentive Stock Option Agreement under 2003 Stock Incentive Plan
10.4‡	Form of Non-statutory Stock Option Agreement under 2003 Stock Incentive Plan
10.5‡	Form of Restricted Stock Agreement under 2003 Stock Incentive Plan
10.6‡	2011 Stock Incentive Plan, as amended
10.7‡	Form of Incentive Stock Option Agreement under 2011 Stock Incentive Plan
10.8‡	Form of Non-statutory Stock Option Agreement under 2011 Stock Incentive Plan
10.9‡	Form of Restricted Stock Agreement under 2011 Stock Incentive Plan
10.10‡	Form of Restricted Stock Unit Agreement under 2011 Stock Incentive Plan
10.11‡	Form of Stock Appreciation Rights Agreement under 2011 Stock Incentive Plan
10.12*	2017 Stock Incentive Plan
10.13*	Form of Incentive Stock Option Agreement under 2017 Stock Incentive Plan
10.14*	Form of Non-statutory Stock Option Agreement under 2017 Stock Incentive Plan
10.15‡	Offer Letter between the Registrant and Gary Hall, dated May 25, 2011
10.16‡	Offer Letter between the Registrant and Abraham Pucheril, dated August 18, 2012
10.17‡	Consulting Agreement between the Registrant and Bill Styslinger, dated March 5, 2012, as amended
10.18‡	Mortgage, Security Agreement and Financing Statement, dated July 1, 2015, between Casa Properties LLC and Middlesex Savings Bank

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Exhibit Number	Description
10.19‡	Registration Rights Agreement, dated April 26, 2010, between the Registrant and the investors party thereto
10.20‡	Credit Agreement, dated as of December 20, 2016, by and among the Registrant and JPMorgan Chase Bank, N.A., as agent, and the other agents, arrangers and lenders party thereto
10.21	Letter, dated as of February 1, 2017, from the Registrant to the lenders party to the Credit Agreement
10.22‡	Security Agreement, dated as of December 20, 2016, by and among the Registrant, each of the subsidiaries of the Registrant party thereto, and JPMorgan Chase Bank, N.A., as Collateral Agent
10.23†	Master Purchase Agreement, dated October 31, 2013, between Time Warner Cable Enterprises LLC and Casa Systems, Inc., as amended
21.1	List of Subsidiaries
23.1*	Consent of PricewaterhouseCoopers LLP, independent registered public accounting firm
23.2*	Consent of Wilmer Cutler Pickering Hale and Dorr LLP (included in Exhibit 5.1)
24.1*	Powers of Attorney (included on signature page)

‡ Previously filed.
* To be filed by amendment.
† Confidential treatment requested as to certain portions, which portions have been omitted and filed separately with the Securities and Exchange Commission.

Exhibit 10.21

100 Old River Road, Unit 100
Andover, MA 01810 USA
Phone: 978-688-6706 Fax: (978) 688-6584
Web: http://casa-systems.com

February 1, 2017

To the Lenders party to the Credit Agreement
referred to below
and JPMorgan Chase Bank, N.A.,
as Administrative Agent

Re: Casa Systems, Inc. – Credit Agreement

Ladies and Gentlemen:

Reference is made hereby to that certain Credit Agreement dated as of December 20, 2016 (as amended, restated, amended and restated, supplemented or otherwise modified from time to time, the "Credit Agreement") by and among Casa Systems, Inc., a Delaware corporation (the "Borrower"), JPMorgan Chase Bank, N.A., as administrative agent (in such capacity, together with its affiliates, including any successor thereto, the "Administrative Agent"), and each lender from time to time party thereto (collectively, the "Lenders" and individually, a "Lender"). Capitalized terms that are used but not otherwise defined herein shall have the respective meanings assigned thereto under the Credit Agreement.

In accordance with Section 7.06(r) of the Credit Agreement, the Borrower is entitled to pay the Dividend (up to $300,000,000) on or prior to February 3, 2017 (the "Initial Date"). Prior to the date hereof, the Borrower has paid $200,000,000 of the Dividend. Please be advised that that the Borrower has requested that the Administrative Agent consent to the extension of the Initial Date to April 15, 2017 (the "Extended Date"), as the Borrower has informed the Administrative Agent that it anticipates paying the remaining $100,000,000 of the Dividend on or prior to the Extended Date. Accordingly, pursuant to Section 7.06(r) of the Credit Agreement, the Administrative Agent has agreed to permit the payment of such amount on or prior to the Extended Date.

[Remainder of page intentionally left blank]

Very truly yours,

CASA SYSTEMS, INC., as the Borrower

By: /s/ Gary Hall
Name: Gary Hall
Title: CFO

Exhibit 10.23

Confidential Materials omitted and filed separately with the
Securities and Exchange Commission. Double asterisks denote omissions

EXECUTION COPY

C O N F I D E N T I A L

MASTER PURCHASE AGREEMENT

BETWEEN

TIME WARNER CABLE ENTERPRISES LLC

AND

CASA SYSTEMS, INC.

DATED: OCTOBER 31, 2013

MASTER PURCHASE AGREEMENT

This Master Purchase Agreement is entered into as of October 31, 2013 ("Effective Date"), by and between Time Warner Cable Enterprises LLC ("TWC"), and Casa Systems, Inc. ("Seller") (each a "Party," and together the "Parties").

RECITAL

TWC and its Affiliates (as defined below) desire to purchase and obtain from Seller, and Seller is willing to sell and provide, certain Cable Modem Termination System ("CMTS") equipment and other cable edge devices and related services, all as more specifically set forth in this Agreement.

AGREEMENT

In consideration of the agreements, representations, warranties and covenants contained in this Agreement, the Parties, intending to be legally bound, agree as follows:

1. DEFINITIONS AND RULES OF CONSTRUCTION

1.1 Definitions. The capitalized terms used in this Agreement shall have the following meanings:

"Acceptance" shall have the meaning set forth in Section 3.1.

"Affected Model" shall have the meaning set forth in Section 6.6.

"Affiliate" means any of the following: (a) Time Warner Cable Inc. ("TWCI"), Time Warner NY Cable LLC ("TWC NY"), Time Warner Entertainment-Advance/Newhouse Partnership ("TWEAN") or any of their respective successors in interest (collectively, and together with TWC, the "TWC Companies"); (b) BHN; (c) any other corporation, partnership, joint venture, trust, joint stock company or other entity as to which any one or more of TWC, TWCI, TWC NY, TWEAN or BHN owns or controls at least twenty-five percent (25%) of the voting securities of such entity; (d) any division of any TWC Company or BHN operating one or more cable systems in a particular geographic area; (e) any entity that is managed in whole or in significant part by any TWC Company or BHN or through managers designated by any TWC Company or BHN. TWC and BHN also shall be entitled to propose as Affiliates, for approval by Seller (which approval shall not be unreasonably withheld, provided that Seller's standard credit qualifications are met), other entities in which it or its Affiliates have ownership or management interests that would not otherwise meet this definition.

"Agreement" means this Master Purchase Agreement, including all of the Exhibits attached hereto.

"Alternative Device" shall have the meaning set forth in Section 6.6.

"AQL" shall have the meaning set forth in Sub-Section 7.5.1.

“AQL Acceptance” shall have the meaning set forth in Sub-Section 7.5.3.

“Article” means all of the text contained under a caption or reference heading preceded by a whole number (e.g., 10., 11., etc.) and contains all Sections preceded by such whole number (e.g., 10.1, 10.2 etc.).

“BHN” means Bright House Networks, LLC, a Delaware limited liability company. BHN is a TWC Affiliate, but is not a TWC Responsible Affiliate.

“BHN Responsible Affiliate” means those Affiliates whose business and affairs are managed by BHN, as opposed to TWC Responsible Affiliates.

“Business Day” means Monday through Friday, except for holidays observed by TWC and/or Seller.

“CableLabs” means Cable Television Laboratories, Inc., or its successor or replacement.

“Claim” shall have the meaning set forth in Section 14.1.

“Commercially Available” means available for purchase and deployment by Purchasers and has received approval for sale to TWC systems.

“Control” (including its correlative terms “Controlled by” and “under common Control with”) means the possession, direct or indirect, of the power to direct or cause the direction of the management and policies of an entity, whether through the ownership of voting securities, by contract, management agreement or otherwise.

“Coverage Period” shall have the meaning set forth in Section 8.13.

“Defect” or “Defective” means (a) any material defect in the design, materials or workmanship of the Equipment, (b) any failure of any Equipment to substantially perform in accordance with, or any adverse material deviation from, the Specifications, including any characteristic of such Equipment that results in a material breach of any of the representations and warranties with respect to the Equipment set forth in this Agreement, or (c) any failure of any Equipment to be in substantial compliance with DOCSIS and PacketCable standards, as further specified as follows:

“Critical Defects” means Defects that might reasonably be expected to endanger life or be a hazard to health, including Defects that might reasonably be expected to give an electrical shock, or Defects that might reasonably be expected to create a fire hazard.

“Major Defects” means Defects that cause the Equipment to be functionally inoperative, materially unusable, or unable to meet in all material respects Specifications relating to performance.

“Minor Defects” means Defects that do not reduce the reliability or usability of the Equipment.

“Delivery” shall have the meaning set forth in Section 7.1.

“DOCSIS” means the Data Over Cable Service Interface Specifications, as published from time to time by CableLabs.

“Download or Downloading” means the remote transfer of files, data or information from one device to another device.

“End of Life” shall have the meaning set forth in Section 3.3.

“Enhancements” means, collectively, Minor Enhancements and Major Enhancements.

“Equipment” means the CMTS devices and any other Software or equipment (including the equipment and Software described in Exhibit A – Equipment and Specifications) provided by Seller under this Agreement.

“Equipment Performance Data” shall have the meaning set forth in Section 8.15.

“Equivalent Price” means a price calculated at any point in time by adjusting (either upward or downward, as appropriate) the actual invoiced price of the Affected Models for differences between the Affected Model and the applicable Alternative Device with respect to the following sales terms: the duration of the warranty period; the scope of warranty services provided during the warranty period; the volume of equipment and software actually purchased or licensed; and any material differences in features and functionality of the equipment and software provided.

“Excessive Failure” shall have the meaning set forth in Sub-Section 8.7.1.

“Extended Warranty Contract” shall have the meaning set forth in Section 8.4

“Extended Warranty Period” shall have the meaning set forth in Section 8.4

“Extreme Failure” shall have the meaning set forth in Sub-Section 8.7.2.

“Failure” means a failure of an item of Equipment to perform in accordance with its Specifications as a result of a Defect.

“FCC” means the Federal Communications Commission or any successor thereto or replacement entity thereof.

“Field Failure” means a Failure of Equipment that has been deployed for commercial use, including any Surge Failure.

“FOB” means free-on-board, in accordance with Incoterms 2000.

“Force Majeure” means conditions or occurrences that are beyond the reasonable control of the Party experiencing such condition or occurrence, such as the following: acts of God or of the public enemy; severe weather conditions beyond those to which the Equipment may foreseeably be subject (which shall not include Surge Failures); earthquakes; fires; floods;

epidemics or quarantines; freight embargoes; reasonable delays in transportation; any future Law or change in current Law or other acts of a Governmental Authority; war; civil strife; insurrection; or riot.

“Governmental Authority” means (a) the United States of America, any state, commonwealth, territory, or possession thereof, and any political subdivision or quasi-governmental authority of any of the same, including courts, tribunals, departments, panels, commissions (including the FCC), boards, bureaus and agencies, in each case having jurisdiction over the applicable Party, and (b) any foreign (as to the United States of America) sovereign entity, including nations, states, republics, kingdoms, commonwealths, provinces, territories or possessions thereof, and any political subdivision or quasi-governmental authority of any of the same, including courts, tribunals, departments, panels, commissions, boards, bureaus and agencies, in each case having jurisdiction over the applicable Party.

“Indemnified Party” shall have the meaning set forth in Sub-Section 15.2.

“Indemnifying Party” shall have the meaning set forth in Sub-Section 15.2.

“Initial Term” shall have the meaning set forth in Section 20.1.

“Initial Warranty Period” shall have the meaning set forth in Section 8.3.

“IP Rights” means patents, copyrights, trademarks, trade secrets, mask works, know-how and other intellectual property or proprietary rights.

“Late Delivery Occurrence” shall have the meaning set forth in Section 5.5.

“Law” means any applicable law, statute, ordinance, code, rule, regulation, order, judgment, decree, standard, requirement or procedure enacted, adopted, applied, enforced or followed by any Governmental Authority.

“Lead Time Requirement” means, with respect to a requested shipment date listed by a Purchaser in a Purchase Order, a date that is at least [**] days after the date of a Purchaser’s Purchase Order.

“Liabilities” shall have the meaning set forth in Section 14.1.

“Major Enhancement” means any (a) new or significantly enhanced functionality compared to the previous issuance of Software; and/or (b) major improvements in the performance characteristics of Software above and beyond that which is defined in the Specifications therefor.

“Major Repair” means repairs that require the use of soldering equipment, including soldering replacement of such items as integrated circuits, resistors, capacitors, surface mounted technology devices and connectors.

“Minor Enhancement” means any (a) enhancements to existing features present in the previous issuance of Software; and/or (b) minor additions to or enhancements of functionality

compared to the previous issuance of Software and/or (c) the addition of features to meet the Specifications for Software; and/or (d) minor improvements in the performance characteristics of Software above and beyond that which is defined in the Specifications therefor. For the avoidance of doubt, the failure of the Software to contain features required by the Specifications for such Software shall constitute a Defect (unless such failure is immaterial).

"Minor Repair" means repairs or replacements that do not require the use of soldering equipment, including such repairs to the following items: circuit board assemblies, socketed integrated circuits, connectors, cosmetic parts, mechanical parts, and fuses.

"Non-Warranty Defect" shall have the meaning set forth in Sub-Section 8.6.

"PacketCable" means the PacketCable Specifications, as published from time to time by CableLabs.

"Person" means any individual or entity.

"Prices" or "Pricing" means the prices for Equipment and Services as set forth in this Agreement and on Exhibit B – Prices.

"Pricing Factors" shall have the meaning set forth in Section 6.5.

"Proprietary Information" shall have the meaning set forth in Section 22.1.

"Purchase Order" means a document issued by a Purchaser pursuant to Section 5.1, requesting that Seller sell and deliver Equipment and/or Services in accordance with this Agreement.

"Purchaser" and "Purchasers" means TWC and any Affiliates which issue any Purchase Order as permitted by this Agreement.

"Qualified" means an item of Equipment that complies with the version of DOCSIS or PacketCable, as applicable, specified in the Specifications and/or Documentation for such Product.

"Related Party" means any parent, affiliate, subsidiary, officer, or employee of TWC, a Purchaser, or Seller, as the case may be and as the context requires.

"Renewal Term" shall have the meaning set forth in Section 20.1.

"Replacement Grace Period" shall have the meaning set forth in Sub-Section 8.5.3.

"RMA" shall have the meaning set forth in Sub-Section 7.5.4.

"Section" means the text contained within an Article that is preceded by a reference to the Article number and paragraph number (e.g., 10.1, 10.2, etc.) and contains all Sub-Sections preceded by such Section number (e.g., 10.1.1, 10.1.2, etc.).

“Security” means the devices and mechanisms within the Equipment designed to protect Purchasers’ Systems and services from unauthorized access.

“Security Compromise” means the existence of a condition within the Equipment or Software that allows a defeat of Security, other than devices and mechanisms mandated by the version of DOCSIS or PacketCable under which Equipment was Qualified.

“Services” means the installation, training, support, warranty, maintenance, repair, and all other services to be provided by Seller to Purchasers under this Agreement.

“Software” means the software programs and firmware, including third-party software programs and firmware, to be provided by Seller pursuant to this Agreement (including the software described in Exhibit B – Equipment and Specifications), including all Minor Enhancements and Major Enhancements provided by Seller under this Agreement, and further including, in each case, all modifications, releases and enhancements thereto.

“Specifications” means (i) DOCSIS, (ii) PacketCable, and (iii) all electrical, functional, physical, component performance, system performance, compatibility, design characteristics, features, operational and technical criteria or other requirements of the Equipment (a) set forth on Exhibit A – Equipment and Specifications, including without limitation compliance with the industry standards and obtaining the industry certifications listed in Exhibit A – Equipment and Specifications, and (b) set forth as requirements in representations or warranties or applicable covenants in this Agreement. The term “Specifications” shall be automatically amended from time to time to reflect any changes thereto mutually agreed upon by Seller and TWC in writing in connection with any Equipment modification made pursuant to Section 3.2 of this Agreement.

“Subscriber” means any customer to whom a Purchaser has agreed or offered to provide services for the distribution or transmission of information or programming in digital format.

“Sub-Section” means the text contained within a sub-paragraph of a Section preceded by a reference to the Article number, followed by the paragraph number, followed by the sub-paragraph number (e.g., 10.1.1, 10.1.2, etc.).

“Support Services” shall have the meaning set forth in Article 10.

“Surge Failure” means a Failure of an item of Equipment due to a power surge or fluctuation (excluding direct lightning strikes) in an amount or magnitude below the surge limitations of the Equipment set forth in the Specifications.

“System” means the system owned or operated by a Purchaser through which the Purchaser provides services to Subscribers.

“System Data” shall have the meaning set forth in Section 8.15.

“Term” shall have the meaning set forth in Section 20.1.

“Traps” means any software routines or hardware components designed by Seller or a third-party software vendor to permit unauthorized access, to disable or erase software, hardware or data, or to perform any other such actions that will have the effect of materially impeding the normal and expected operation of the Software.

"TWC Related Entity" shall have the meaning set forth in Section 14.6.1.

"TWC Responsible Affiliate" means those TWC Affiliates whose business and affairs are managed by TWC, as opposed to BHN and BHN Responsible Affiliates.

"TWC Vendor" shall have the meaning set forth in Section 14.6.2.

"Virus" means a set of computer instructions that are designed to contaminate the Software, permit unauthorized access, consume computer resources, or modify, destroy, record or transmit data or programming without the intent or permission of the user.

"Warranty Period" shall mean, with respect to a particular item of Equipment, the period during which the Initial Warranty Period and/or an Extended Warranty Period is in effect.

1.2 Defined Terms. For all purposes of this Agreement, except as otherwise expressly provided or unless the context otherwise requires: (a) the terms defined herein include the plural as well as the singular and vice-versa; (b) words importing gender include all genders; (c) any reference to an "Exhibit", a "Schedule", an "Attachment", an "Article", a "Section" or a "Sub-Section" refers to an Exhibit, a Schedule, an Attachment, an Article, a Section or a Sub-Section, as the case may be, of this Agreement; (d) the Exhibits or Attachments hereto form part of this Agreement; (e) all references to this Agreement and the words "herein", "hereof", "hereto" and "hereunder" and other words of similar import refer to this Agreement as a whole and not to any particular Exhibit, Schedule, Attachment, Article, Section, Sub-Section or other subdivision; and (f) the words "including," "included" and "includes" means inclusion without limitation.

2. DELIVERABLES SCHEDULE

Seller, at Seller's sole cost and expense, shall deliver to TWC Equipment that complies with the Specifications, commencing as of the Effective Date or, if later, as of the delivery dates set forth in Exhibit A – Equipment and Specifications. Seller shall promptly correct all Defects discovered during the qualification process described in Section 3.1.

3. QUALIFICATION; MODIFICATIONS

3.1 Qualification of Equipment. Any model of Equipment that Seller desires to make available to Purchasers under this Agreement must be submitted to TWC for qualification pursuant to TWC's qualification process, as it may be amended from time to time and provided to Seller (the "TWC Qualification Process"). Seller shall not sell any model of Equipment to a Purchaser other than to TWC itself prior to the model successfully completing the TWC Qualification Process, which successful completion must be confirmed by TWC and shall be deemed "Acceptance" for purposes of this Agreement.

3.2 Modifications Required or Contemplated by Law. Seller shall provide TWC with notice of any pending or effective change in any Law that would result or has resulted in any Equipment previously delivered or any Equipment to be delivered under this Agreement to fail to

comply with any Law. Such notice shall be provided by Seller as soon as practicable, and in any event within not more than [**] days after Seller becomes aware of such change in Law. As soon as practicable, but in no event later than [**] days from Seller becoming aware of any such change in Law, Seller shall provide to TWC a written proposal setting forth (a) an analysis of changes required or contemplated by such Laws that may be made to Equipment that has not been shipped, and if required or contemplated by such Laws, that has been shipped, in order to cause the Equipment to so comply, (b) an itemization of the costs that would be incurred by Seller in connection with implementing the required or contemplated changes, and (c) the time required to effect such changes.

3.2.1 Costs and Procedures for Changes. Seller's costs and charges for effecting required or contemplated changes pursuant to Section 3.2 above shall be reasonable in relation to the effort and expense involved. TWC may, at its option, accept or reject Seller's proposal(s). If TWC accepts Seller's proposal, Seller shall effect the changes in the Equipment in accordance with the proposal, the Specifications for the Equipment shall be amended as appropriate and such modifications and changes to the Equipment shall be subject to all applicable provisions of this Agreement. If either TWC or Seller elects not to implement a change required by Law, then the other Party shall have the right to terminate this Agreement (either in its entirety or as to additional Equipment purchases only) by delivering written notice to the other Party no later than [**] days after receipt of Seller's proposal. Such termination shall be effective as of the later of (a) the date such written notice of termination is given, and (b) the date on which the change required by Law becomes effective.

3.2.2 Acceptance Testing of Modified Equipment. With respect to any modifications to the Equipment made by Seller pursuant to Section 3.2.1, the provisions of Section 3.1 shall apply to such Equipment as so modified.

3.3 End of Life. During the term of this Agreement, Seller may, at its sole discretion, develop improvements to the Equipment including those that are designed to mitigate obsolete components or improve manufacturability of the Equipment. So long as such improvements do not (a) effect any change in Specifications or the form, fit or functionality of the Equipment or cause the Equipment to fail to comply with Specifications, (b) constitute Enhancements to the Equipment which are covered by Support Services, or (c) cause any adverse effect on TWC's or any Purchaser's System operations or otherwise cause TWC or any Purchaser to incur any additional expense, Seller may cease to manufacture the then-current version of a model of the Equipment ("End of Life"), provided that Seller first gives TWC at least [**] months' prior written notice of its intent to End of Life the then-current version of the Equipment (except in such cases where the ability to provide such [**] months' prior written notice is not within Seller's control). Following an End of Life, Seller shall make the improved version of the Equipment available for purchase by Purchasers under the same terms and conditions that were applicable to the prior version of the Equipment, except that Seller may adjust the Pricing for the improved version of the Equipment. In such case, the increase in Pricing must be commercially reasonable and must reasonably reflect the value of the improved version of the Equipment. Notwithstanding anything herein to the contrary, Seller agrees that Seller shall not End of Life any item of Equipment prior to [**] years following the Effective Date of this Agreement or, in the case of Equipment which is added to Exhibit A – Equipment and Specifications after the Effective Date of this Agreement, prior to [**] years from the date such Equipment is added to

Exhibit A – Equipment and Specifications. In the event that Seller determines to End of Life a version of the Equipment, Seller shall continue to offer support and maintenance for such End of Life version, on the same terms and conditions set forth within this Agreement.

3.4 Lab Equipment. The lab equipment provided by Seller to TWC, currently located in [**], shall remain on loan with TWC solely for lab use and testing purposes, [**], until such time as TWC, in its sole discretion, chooses to terminate each such arrangement. Effective as of the Effective Date, (i) such Equipment shall be deemed to have been provided by Seller pursuant to this Agreement and shall be subject to the terms and conditions of this Agreement, including without limitation the indemnity set forth in Section 14.1, and (ii) that certain Evaluation Agreement between the Parties dated as of April 18, 2012 shall be terminated.

4. NO EXCLUSIVITY

Seller shall not have an exclusive privilege to sell or otherwise provide Purchasers equipment and services comparable to the Equipment and Services, and Purchasers may contract with other manufacturers and suppliers for the procurement of equipment and services comparable to the Equipment and Services. Similarly, Seller may contract and/or do business with other companies for the sale of Equipment and Services.

5. PURCHASE ORDERS

5.1 Forecast; Issuance of Purchase Orders. On a monthly basis, TWC will provide to Seller a non-binding rolling [**]-day forecast (each, a "Forecast"), which shall identify the Purchasers' Equipment requirements for each calendar month during the period of the Forecast, setting forth the Equipment model, quantity and expected configuration; provided, however, that TWC in its sole discretion may cause BHN to issue a separate forecast for Equipment requirements of BHN and the BHN Responsible Affiliates. Purchasers may from time to time issue Purchase Orders to Seller for Equipment and/or Services (except that a Purchase Order need not be issued for in-warranty repair Services).

5.2 Contents; No Substitutions. Purchase Orders shall include the following: the identity of the Purchaser; the identity of the Equipment or Service being purchased; the quantity of Equipment and/or Services to be purchased; the Price of the Equipment or Service being purchased; and the requested shipment date for ordered Equipment. Purchase Orders shall not be required to contain delivery destination or carrier instructions, but the delivery destination and carrier instructions shall be provided by the applicable Purchaser to Seller not later than [**] days prior to the requested shipment date. In no event may Seller ship a different model of Equipment to a Purchaser in substitution of the model actually ordered by such Purchaser without such Purchaser's prior written consent.

5.3 Effect of Agreement. The terms of this Agreement shall be deemed incorporated into and made a part of each Purchase Order and amendment thereto. Any terms appearing in any Purchase Orders, any acknowledgment or acceptance of a Purchase Order, or in any invoice, that differ from or are in addition to the terms of this Agreement shall be void.

5.4 Acknowledgment of Purchase Orders. Seller may reject a Purchase Order that complies with Section 5.2 of this Agreement only if (a) the requested Equipment shipment date

does not meet the Lead Time Requirement; (b) Seller determines that it is not likely to be able to ship the ordered Equipment in the quantities ordered by the requested shipment date under circumstances where Purchasers have requested Equipment shipments consisting of more than [**] populated chassis in a single calendar month (in which case Seller may reject a portion of such Purchase Order but only to the extent the quantities ordered for the calendar month exceed the greater of (1) [**] populated chassis, and (2) the corresponding quantities that were forecast by TWC in the first forecast that includes the applicable month; or (c) the Purchase Order is otherwise inconsistent with the terms of this Agreement. Seller shall accept or reject in writing all Purchase Orders within [**] Business Days of receipt of any Purchase Order or amendment thereto. Seller shall be deemed to have accepted Purchase Orders that it has not rejected in writing within such [**] Business Day period. Any rejection of a Purchase Order must set forth the reasons for such rejection in reasonable detail, and any failure of Seller to do so shall be deemed an acceptance of such Purchase Order by Seller hereunder. Any rejection of a Purchase Order under clause (a) or (b) above must offer an alternative shipment date to the applicable Purchaser. Seller shall provide TWC with a monthly summary of all Purchase Order acknowledgments and rejections issued to Purchasers. The Parties shall use reasonable efforts to develop and use an electronic data interchange for purposes of exchanging information in accordance with the preceding sentence. Seller shall meet all shipment commitments calling for delivery within [**] days after the expiration of this Agreement.

5.5 Cancellation of Purchase Orders By Purchaser. A Purchaser may terminate a Purchase Order issued by such Purchaser, in whole or in part, and without any liability to Seller for items not yet delivered, (a) at any time up to the date that is [**] days prior to the requested shipping date and (b) if, other than because of a Force Majeure event for which Seller's performance is excused under Section 18.1.1, Seller fails to ship the Equipment set forth in such Purchase Order within [**] days after the shipment date set forth in the applicable Purchase Order or any alternate shipment date that has been mutually agreed upon by Seller and such Purchaser subsequent to the submission of such Purchase Order (other than as a result of a Purchaser-requested delay) (a "Late Delivery Occurrence"). After termination of a Purchase Order pursuant to this Section 5.5, neither the individual Purchaser nor TWC shall be liable for the cost of Equipment ordered and not yet delivered by Seller under such terminated Purchase Order.

5.6 Deferred Shipment. Each Purchaser shall be entitled to defer shipment and delivery of any Equipment for a period of up to [**] days by notifying Seller no later than [**] days prior to the scheduled date of shipment, in which event Seller shall defer shipment and store such Equipment for such period at no cost to such Purchaser. Upon request from a Purchaser, Seller shall use commercially reasonable efforts to defer shipment and delivery of any Equipment for a period of up to an additional [**] days at no cost to such Purchaser, provided that Seller shall not be required to make such additional deferral to the extent Seller will incur material storage or other costs related to such deferral, unless Purchaser agrees to reimburse Seller for the amount of such costs.

5.7 Account Team. During the Term, Seller shall specify and provide an account team to assist TWC with general questions regarding the purchase and delivery of Equipment and with the administration of this Agreement and Purchase Orders placed hereunder. Seller shall notify TWC of any changes to the individuals specified and assigned to TWC's account team.

6. PRICES; SHIPPING; PAYMENT; PRICE ADJUSTMENTS

6.1 Prices. Except as otherwise provided in this Agreement, Prices for Equipment and Services during the Term shall be as set forth on Exhibit B – Prices. All purchases by TWC and all other Purchasers shall be aggregated for purposes of determining: (a) the level of volume discount that shall apply to any Equipment purchases, if applicable, and (b) any other requirements or incentives based upon the volume or amount of Equipment purchases, if any.

6.2 Taxes; Shipping and Other Charges.

6.2.1 All Prices for Equipment or Services are exclusive of any local, state or federal tax, levy, tariff, sales tax, or fees required by law or any regulatory authority or which are assessable against such Equipment or Services by any U.S. Government Authority, all of which shall be payable by Purchaser to the extent that Purchaser has a direct legal obligation to the tax authority for such tax. To the extent Seller is required to pay any such tax, Seller shall separately itemize such amounts on the invoice and Purchaser shall pay such amounts as provided herein. Purchaser shall timely provide resale certificates, direct pay permit or other exemption documentation to Seller that comply with the requirements of any applicable state taxation laws; provided, however, that if Purchaser fails to deliver such certificates, Seller's sole remedy shall be to invoice Purchaser for any applicable sales tax in accordance with the previous sentence. Such resale certificates, direct pay permits or other exemption documentation shall be issued in the legal name of the Purchaser to whom Seller has sold the Equipment covered thereby and shall include the correct states to which such Equipment will be shipped by Seller. Purchaser shall not have any obligation to pay any tax which is not directly imposed on Purchaser, including without limitation, income, franchise, property and gross receipts taxes imposed on Seller's net income, net worth, property or revenue. Without limiting the generality of the foregoing, Seller accepts any and all withholdings that Purchaser may be obligated to make, pursuant to Laws, from payments to Seller under this Agreement. In addition, Seller shall be responsible for any taxes, duties, fees, charges, import costs or other costs charged or assessed by any foreign (as to the United States) Governmental Authority or associated with importing the Equipment into the United States.

6.2.2 All Prices for Equipment are [**]. Prices include all charges for packaging and crating the Equipment for shipment. Seller shall be responsible for the cost of loading and shipment to the specified destination using standard ground freight and a carrier selected by Seller. Seller shall ship the Equipment in accordance with Purchaser's shipment instructions specified in each Purchase Order or otherwise provided to Seller. Seller shall at all times be responsible for obtaining any relevant export/import licenses and regulatory approvals for the sale or importation of Equipment into the United States.

6.3 Invoices; Partial Shipments. Seller may issue invoices for Equipment on or after the date of Delivery to a Purchaser. Either Party may request a partial shipment, which request may be approved or disapproved by the other Party in advance, and if such partial shipment is approved and made, Seller shall be permitted to invoice the Purchaser for the partial shipment. Any requests for a partial shipment by Purchaser that would defer shipment and delivery of any Equipment shall comply with Section 5.6. Invoices for Services may be issued on or after the completion of such Services, except for invoices for Extended Warranty Contracts, which shall be issued prior to the commencement of such Extended Warranty Contracts.

6.4 Payment. Purchasers shall pay the purchase Price for Equipment and Services ordered hereunder within [**] days after the date of Seller's invoice, which invoice shall not be issued by Seller prior to the date of Delivery of the particular Equipment or [**] days prior to the commencement of any Extended Warranty Contracts and purchases of Support Services, as applicable. Seller shall provide Purchasers with reasonable supporting documentation concerning any disputed invoices within [**] days after Purchaser provides notification of the dispute to Seller. Such Purchaser shall pay Seller for such invoice within [**] days following the resolution of any such dispute. Nothing in this Section shall be construed as a basis for withholding payment of any portion of an invoice that is not disputed in good faith. Payment of an invoice shall not be considered AQL Acceptance of Equipment.

6.5 [**].

6.6 Competitive Pricing. [**].

7. TITLE, ASSUMPTION OF RISK AND DELIVERY ERRORS

7.1 Title and Risk of Loss or Damage. Seller shall convey good title, free from any lien, claim or encumbrance, to all tangible hardware items of the Equipment shipped by Seller under this Agreement. "Delivery" shall occur upon delivery of the Equipment to the Purchaser. Title to tangible hardware of the Equipment shall pass at the time of Delivery. Any loss or damage to Equipment prior to Delivery shall be at Seller's risk. The Party discovering such loss or damage shall promptly notify the other Party.

7.2 Late Delivery.

7.2.1 Liquidated Damages. If a Late Delivery Occurrence (as defined in Section 5.5, taking into account any relevant grace period and carve-outs) occurs with respect to any Equipment ordered by a Purchaser pursuant to any Purchase Order that Seller has accepted, then Seller shall pay to the applicable Purchaser, as liquidated damages, for each such unit of Equipment, an amount equal to [**], as defined in the applicable Purchase Order, per week (or portion thereof on a pro-rata basis) of delay, but not to exceed aggregate liquidated damages equal to [**]. The provisions of this Section 7.2.1 shall only apply to the extent the Equipment included in the applicable Purchase Order was included in the first Forecast provided by TWC as set forth in Section 5.1 of this Agreement that includes the month in question. For example, assume that on [**] TWC provides a forecast that calls for the purchase of [**] units of Equipment during [**]. Assume further than on [**], TWC provides a forecast that increases the units of Equipment to be purchased during [**] to [**] units and that TWC places a Purchase Order for the purchase of [**] units of Equipment with a requested Delivery date in [**]. Should there be a Late Delivery Occurrence for the entirety of the Delivery to be made in [**], Seller would only be responsible for late delivery payments under this Section for the [**] units of Equipment that were specified in the first monthly Forecast that included [**]. This Section 7.2.1 shall not apply to quantities in excess of [**] units of Equipment per month during the first [**] days after the Effective Date.

7.2.2 Order of Delivery. For purposes of determining the amount of liquidated damages for late delivery to be made by Seller hereunder, all Equipment shall be deemed to be delivered in the order of their respective requested shipment dates as set forth in the Purchase Orders, regardless of the Purchaser to whom or the destination to which the Equipment is shipped. Accordingly, Equipment with the earliest requested shipment date as set forth in the Purchase Orders must be delivered (or will be deemed delivered for purposes of calculating liquidated damages for Late Delivery Occurrences) prior to Equipment with a later requested shipment date.

7.2.3 Termination. This Section sets forth the Purchasers' sole remedy with respect to Equipment that is the subject of a Late Delivery Occurrence but which are ultimately Delivered to and accepted by Purchasers. Notwithstanding the foregoing, nothing in this Section shall affect a Purchaser's right to terminate any Purchase Order pursuant to Section 5.5 if there is a Late Delivery Occurrence in which case Seller shall pay only the liquidated damages for the Late Delivery Occurrence which have accrued through the date of such termination. Each Purchaser shall have the right to pursue any other remedies available to it at law or in equity with respect to Equipment with a requested shipment date after the date of such termination.

7.3 Complete Units. Where this Agreement calls for shipment of units of an item of Equipment, it shall be deemed to mean complete Equipment units that are inclusive of all components. For example, Equipment purchased by Purchasers under this Agreement may not be operational unless Seller has also supplied certain other Equipment components. Failure by Seller to properly deliver on a timely basis all components necessary for the operation of the ordered Equipment (other than where such failure is the fault of TWC or Purchasers), shall be deemed to be a failure to deliver the ordered Equipment for purposes of this Article until such time as such Equipment and related components have been properly delivered. Such failure shall apply, for any Purchaser, only to that quantity of Equipment units as to which the failure to deliver necessary related components has occurred.

7.4 Quality Assurance. As soon as reasonably possible following the Effective Date, Seller shall establish and maintain a program of quality assurance procedures as required to produce Equipment with performance and reliability characteristics as good as or better than those specified in this Agreement. Such program shall be considered Proprietary Information under Section 22.1 hereof, subject to TWC's review, and shall include, with respect to Equipment:

(a) Periodic random testing of Equipment to monitor and ensure production quality. TWC may participate in such periodic testing for compliance with the Specifications.

(b) Test procedures and inspection methods aimed at maintaining low rates for the shipment of Defective Equipment.

(c) Records of all tests and inspections of the Equipment conducted by or at the request of Seller pursuant to this Section 7.4 and detailed records of the results of all such tests and inspections (e.g., any certifications obtained for the Equipment, and results of all parametric tests). Seller shall make its records of the results of tests and inspections available to TWC upon TWC's request.

(d) Procedures for qualifying Seller's vendors and/or subcontractors.

(e) Configuration control aimed at providing continuity in form, fit, and function of the Equipment, and traceability relative to changes in design, materials, and manufacturing processes.

(f) An Engineering Change Notice ("ECN") control system with (1) all ECNs for each item of Equipment subsequent to the first production of such Equipment with reasonably sufficient information to describe the nature of the change and (2) a matrix showing the compatibility or lack of compatibility of any item of Equipment with all other Equipment and with any third party hardware and software in the operating environment for the Equipment that exists immediately prior to the change.

(g) Electrostatic discharge and surge protection plans.

(h) Dry runs of repair processes and tracking procedures.

(i) A method for collecting and documenting Failure data and action taken to repair Equipment returned for repair, in or out of warranty, as a result of a Defect. Seller shall provide TWC with [**] written reports concerning such Failure, return and repair data and actions that Seller takes. TWC may conduct its own tests from time to time, and if TWC determines that there are variances from the Specifications, Seller shall perform verification tests to confirm TWC's test results.

(j) Methods for bench testing Equipment returned for repair and classification into failure categories.

(k) Seller's key staffing and facilities during design, development and initial production to insure program continuity and quality.

7.5 Inspection and Acceptance of Equipment.

7.5.1 Development of AQL Testing Procedures. Within a reasonable time after execution of this Agreement, but in any event prior to commencement of volume manufacture of any item of Equipment, Seller shall (a) develop a list of test equipment and standard test procedures that Seller shall use for acceptance quality level ("AQL") testing and (b) upon request, supply such list to TWC.

7.5.2 Factory Testing by Seller. Seller shall conduct AQL testing on each shipment of Equipment before delivery to a Purchaser, and may conduct such testing upon representative samples to determine whether any Equipment is Defective. Seller shall replace, prior to shipment, each item of Equipment that fails AQL testing. Seller shall keep, for a period of [**] following the conduct of the applicable AQL test, and make available to each Purchaser upon such Purchaser's request, a complete record of the AQL tests performed and a detailed record of the results thereof. A representative of each Purchaser may, upon such Purchaser's

request and expense, witness Seller's AQL tests, but a Purchasers' witnessing of, or failure to witness, such tests shall not be deemed to be either acceptance of, or grounds for refusal to accept, any item of Equipment.

7.5.3 Purchaser AQL Testing. Each Purchaser may perform its own AQL testing upon Equipment delivered to such Purchaser, and shall advise Seller of Defects upon completion of such AQL testing. "AQL Acceptance" of Equipment shall take place on the earlier of (1) a Purchaser's acceptance of such Equipment in accordance with this Sub-Section or (2) a Purchaser's failure to reject such Equipment in accordance with this Sub-Section within [**] days after Purchaser's receipt thereof. Equipment that is returned to Seller shall be exempt from the provisions of Sub-Section 7.2.1 so long as Seller ships replacement Equipment to Purchaser within the time frame required by Sub-Section 7.5.4.

7.5.4 Return of Defective Equipment. Purchaser's return of Defective Equipment shall be directed to the location in the continental United States designated by Seller. Unless Seller either determines (which determination is supported to TWC's reasonable satisfaction) that such Equipment is not Defective Equipment or repairs such Defective Equipment in place such that such Equipment is no longer Defective Equipment, Seller shall provide Purchaser with a return materials authorization ("RMA") prior to the return of such Defective Equipment. Following receipt of the Defective Equipment by Seller, Seller shall repair or replace and ship Equipment to Purchaser within [**] Business Days. Unless Seller requests shipment by a designated carrier and pays such carrier directly, inbound shipping charges shall be prepaid by Purchaser and shall be reimbursed by Seller. Seller shall be responsible for outbound shipping charges.

7.6 Safety Stock. Seller, at its sole expense and risk, shall maintain a minimum inventory of each model of Equipment offered by Seller pursuant to this Agreement in stock and available for shipment to Purchasers equal to the Monthly Inventory Quantity. The term "Monthly Inventory Quantity" means, with respect to each model of Equipment purchased by Purchaser pursuant to this Agreement, the greater of [**].

8. WARRANTIES

8.1 Title. Seller, for itself and its subcontractors, hereby represents and warrants to Purchasers under this Agreement as follows:

(a) Seller has the full right to fulfill its obligations and grant licenses and rights granted herein.

(b) To Seller's knowledge as of the Effective Date, the Equipment, and a Purchaser's normal use and operation thereof, and the Services do not infringe any third party's IP Rights.

(c) To Seller's knowledge as of the Effective Date, there are no claims or threatened claims asserting that the Equipment, or a Purchaser's use thereof, or Services infringe or violate any third party's IP Rights.

(d) As of the Effective Date, Seller is not aware, to its knowledge, of any facts upon which a colorable Claim for infringement of a third party's IP Rights relating to the Equipment could be based.

(e) Seller has not previously granted and shall not grant any rights in the Equipment to any third party that conflict with the rights granted herein to a Purchaser.

8.2 Performance Warranties. Seller hereby represents, warrants and covenants to Purchasers under this Agreement that:

(a) All Equipment shall: (1) conform to and function in conformance with the Specifications therefor; (2) be free from Defects in materials and workmanship, and (3) be Qualified at the time of Delivery to Purchasers. All Equipment shipped in fulfillment of a Purchase Order placed by a Purchaser shall be new, unless otherwise requested by Purchaser.

(b) All Services shall be performed in a good and workmanlike manner, in accordance with commercially reasonable standards, and in conformance with the Specifications therefor, if any.

8.3 Initial Warranty Period. The warranties set forth in Sub-Sections 8.2(a) and (b) shall apply for the period beginning on the date of Delivery of the Equipment, or completion and acceptance of Services, as the case may be, and shall extend for a period of [**] months thereafter (the "Initial Warranty Period"); provided, however, that the Initial Warranty Period for any repaired or replacement Equipment shall commence on the date of receipt of such Equipment and shall end upon the expiration of the remaining Initial Warranty Period for the Equipment replaced thereby.

8.4 Extended Warranty Contract. Purchasers may purchase an extended warranty contract from Seller or Seller's authorized third party provider ("Extended Warranty Contract") which shall extend the warranty period for the hardware portion of an item of Equipment for a period of [**] (the "Extended Warranty Period") by issuing a Purchase Order to Seller or, at Seller's option, an authorized third party provider designated by Seller in writing, prior to the expiration of the Initial Warranty Period or the Extended Warranty Period then in effect. The Price of the Extended Warranty Contract shall be as set forth in Exhibit B – Prices. Notwithstanding anything herein to the contrary, Seller shall remain ultimately responsible to the Purchasers for the performance of all obligations that are to be performed for the benefit of Purchasers during the Warranty Period, including without limitation the payment of any liquidated damages pursuant to this Article 8, notwithstanding the fact that warranty services are provided by, or that the Extended Warranty Contract has been issued by, Seller's authorized third party provider. Notwithstanding anything herein to the contrary, the Extended Warranty Period shall apply only with respect to the hardware portion of the Equipment to which the Extended Warranty Contract applies, and not to any Software within such Equipment. The Software within the Equipment shall be eligible for coverage under Support Services as described in Section 10.2. If a Purchaser wishes to purchase an Extended Warranty Contract for a particular item of Equipment, the Purchaser must also arrange for the Software within such item of Equipment to be covered by Support Services during the Extended Warranty Period. For clarity, a Purchaser need not purchase an Extended Warranty Contract for a particular item of Equipment

in order for the Software within such Equipment to be eligible for and receive coverage under the Support Services. Notwithstanding anything herein to the contrary, Seller may decline to offer an Extended Warranty Period and/or Support Services with respect to any model of Equipment [**] years after such model of Equipment has reached End of Life; provided, however, that Seller shall honor the remaining term of any Extended Warranty Periods and Support Services agreements that are in effect as of the date that is [**] years after the End of Life for such model becomes effective.

8.5 Warranty Repair or Replacement.

8.5.1 Repair and Replacement. Subject to Section 8.6, Purchasers may, after notifying Seller orally or in writing (which may include by e-mail) of a Defect within the Warranty Period and, unless Seller either determines (which determination is supported to TWC's reasonable satisfaction) that such Defect does not exist or repairs such Defect in place, return to Seller, with a valid RMA which shall be provided by Seller in writing (which may include by e-mail), Equipment not conforming to the warranties set forth in this Article. Such written notice shall if reasonably possible specify the Defect with reasonable particularity so as to enable Seller to perform troubleshooting and inspection to identify the cause of the Defect. In the case of a defective module, card or component within an item of Equipment, Purchasers may (and upon Seller's request shall) return only the defective module, card or component, which module, card or component shall be treated in the same manner as the Equipment for purposes of this Article 8. Seller shall, at Seller's expense, either repair, or at Seller's option, replace, the returned Defective Equipment with Equipment that complies with the Specifications. Seller shall use commercially reasonable efforts to deliver such repaired or replacement Equipment to the applicable Purchaser within [**] Business Days after the Defective item arrives at Seller's (or its designated third party servicer's) repair facility located in the continental United States. Unless Seller requests shipment by a designated carrier and pays such carrier directly, [**]. Seller shall be responsible for outbound shipping charges. Title to returned items that are replaced shall pass to Seller upon Seller's receipt, and title to replacement items shall pass to Purchasers upon Purchasers' receipt. Seller shall provide TWC, on a [**] basis, with data on repairs and replacements conducted by Seller on Equipment purchased under this Agreement. In addition, Seller shall establish a process to identify and report to Purchasers items of Equipment that are returned more than [**] times for Defects within the Warranty Period. Replacement Equipment provided to Purchasers hereunder may be new Equipment or repaired or refurbished Equipment with performance equivalent to new Equipment; provided, however, no Equipment provided by Seller to Purchasers hereunder shall have been returned to Seller more than [**] times for Defects of any nature.

8.5.2 Services. Purchasers shall have the right to give notice to Seller within the Warranty Period of any Services not conforming to the warranties set forth in this Article and to require that Seller, at Seller's expense, take such actions as are required to cause such Services to conform. Seller shall take such actions and bring the Services into conformity with the warranties set forth in this Article within [**] days of receipt of Purchaser's notice of nonconformity.

8.5.3 Liquidated Damages. If Seller fails to repair or replace a module, card, component or item of Equipment, as required by Sub-Section 8.5.1 within the time period

specified therein plus an additional [**] Business Days' grace period (the "Replacement Grace Period"), Seller shall pay to the Purchaser that returned such module, card, component or Equipment for repair or replacement (i) [**] of such module, card, component or Equipment, plus, if applicable, (ii) [**] of any other module, card or component of the unit of Equipment from which the defective module, card, component was removed, if such other module, card or other component is unable to function in accordance with its Specifications due to the removal of the defective module, card or component (collectively, the modules, cards or components or the unit of Equipment referenced in clauses (i) and (ii) are referred to hereinafter as the "Non-Functioning Equipment"), as liquidated damages, for each day after the Replacement Grace Period through and including the date on which Purchaser receives the repaired or replacement module, card, component or Equipment, but not to exceed aggregate liquidated damages equal to [**] of the Non-Functioning Equipment with respect to any single return of any single module, card, component or item of Equipment. Payments to be made pursuant to this Sub-Section shall be the sole and exclusive remedy of Purchasers with respect to Seller's late repair or replacement of returned module, card, component or Equipment. Notwithstanding the foregoing, nothing in this Sub-Section shall affect a Purchaser's right to terminate this Agreement pursuant to Section 20.2.1, and TWC and each Purchaser shall retain the right to pursue any other rights and remedies available under this Agreement or by operation of Law with respect to such termination.

8.5.4 Multiple Returns. Other than instances where "no failure" is found by Seller, if any module, card, component or item of Equipment is returned to Seller three times for Defects (whether or not the same or different Defects) within the Warranty Period, Seller shall not have the option of repairing and returning such item of Equipment to such Purchaser (as provided under Section 8.5.1) and, instead, must provide Purchaser with replacement Equipment that complies with the Specifications and take title to the returned item.

8.6 Non-Warranty Defects. The warranties set forth in this Article shall not apply where (a) any Defect results from misuse, negligence, accident, unauthorized modification, installation other than in accordance with written guidelines to be provided by Seller, improper operation, maintenance, repair, transport, handling, storage or other similar occurrence (in each case after the passing of title to the applicable Purchaser and in each case by a party other than Seller or its authorized agents), (b) the original identification markings on the Equipment have been defaced, altered, or removed by a party other than Seller or its authorized agents, (c) there is physical damage or failure due to abuse, tampering, accident, exposure to the elements or other treatment beyond the reasonable limits of normal use for the Equipment, (d) improper testing or installation of the Equipment (in each case by a party other than Seller or its authorized agents), (e) a Force Majeure Event, or (f) any software downloaded onto the Equipment (other than any Software supplied or approved by Seller) (any of the foregoing, a "Non-Warranty Defect"). If any Equipment returned by a Purchaser for repair or replacement contains a Non-Warranty Defect, then Seller shall contact Purchaser to obtain Purchaser's direction either for return of the Equipment without repair or for repair of the Equipment at the rates specified in Exhibit B – Prices. The Purchaser shall bear the expense and risk of returning such Equipment units to itself. Seller shall use the same method of shipment for such Equipment units as was used by the Purchaser to initially deliver the units to Seller.

8.7 Additional Remedy for Excessive Failures and Extreme Failures.

8.7.1 Additional Remedy for Excessive Failures. If, for any Purchaser, during any calendar year, the Field Failure rate for any single model or item of any module, card, component or Equipment that is within the Warranty Period at the time of the Field Failure exceeds [**] but is less than or equal to [**] (an "Excessive Failure"), then Seller shall pay such Purchaser, as liquidated damages, an amount equal to (i) [**] of any such unit of such module, card, component or Equipment that experienced a Field Failure in such calendar year, plus, if applicable, (ii) [**] of any other module, card or component of the unit of Equipment from which the defective module, card or component was removed, if such other module, card or component is unable to function in accordance with its Specifications due to the removal of the defective module, card or component. After receipt of notice from TWC or the applicable Purchaser requesting payment, Seller shall calculate the amount of any such payments following the conclusion of each calendar year and pay to the applicable Purchasers such amounts within [**] days thereafter.

8.7.2 Additional Remedy for Extreme Failures. If, for any Purchaser, during any calendar year, the Field Failure rate for any single model or item of any module, card, component or Equipment that is within the Warranty Period at the time of the Field Failure exceeds [**] (an "Extreme Failure"), then Seller shall pay such Purchaser, as liquidated damages, an amount equal to (i) [**] of any such unit of such module, card, component or Equipment that experienced a Field Failure in such calendar year, plus, if applicable, (ii) [**] of any other module, card or component of the unit of Equipment from which the defective module, card or component was removed, if such module, card or other component is unable to function in accordance with its Specifications due to the removal of the defective module, card or component. For clarity, if, for any Purchaser, during any calendar year, the Field Failure rate for any model or item of installed Equipment that is still in the Initial Warranty Period exceeds [**], the Purchaser shall be entitled to the remedy set forth under this Section 8.7.2, but the Purchaser shall not also be entitled to the remedy under Section 8.7.1. After receipt of notice from TWC or the applicable Purchaser requesting payment, Seller shall calculate the amount of any such payments following the conclusion of each calendar year and pay to the applicable Purchasers such amounts within [**] days thereafter.

8.7.3 Minimum Deployment. Notwithstanding anything herein to the contrary, this Section 8.7 shall not take effect for a given module, card, component or Equipment until such time as TWC and the Purchasers have installed and in placed in operation not less than [**] separate cards (including channel and all other cards within the Equipment).

8.7.4 Remedies. Payments to be made pursuant to this Section 8.7 shall be the sole and exclusive remedy of Purchasers with respect to Excessive Failures and Extreme Failures. Notwithstanding the foregoing, nothing in this Sub-Section shall affect a Purchaser's right (i) to require Seller to timely repair or replace Defective Equipment, including Defective Equipment that is the subject of an Excessive Failure or Extreme Failure, in accordance with Section 8.5 and to otherwise comply with the terms and conditions of this Agreement and Exhibit E – Support Services Addendum that apply with respect to the Defect, and/or (ii) to terminate this Agreement pursuant to Section 20.2.1 if there has been a material breach, and TWC and each Purchaser shall retain the right to pursue any other rights and remedies available under this Agreement or by operation of Law with respect to such termination.

8.8 Calculation of Failure Rates. For purposes of determining the Failure rates as required pursuant to this Article, the number of units of the modules, cards, components or Equipment within the Warranty Period during the period under consideration shall be the average of the number of such units of the modules, cards, components or Equipment as of the first day of each month in the applicable calendar year.

8.9 Adjustments for Failure Conditions. If there is a Failure or other Failure condition requiring remedy as set forth in Section 8.7, then in addition to any other remedies set forth herein, Seller shall ship to the affected Purchaser, at such Purchaser's request, spare Equipment (or modules, cards or components in the case of Failures of modules, cards or components) equal to an amount requested by such Purchaser, not to exceed [**]% of the quantity shipped to the Purchaser (both separately in the case of modules, cards or components and within units of Equipment) in the previous [**] months. After Seller remedies any such Failure conditions, Seller shall invoice the applicable Purchaser for the spare units, and the spare quantities invoiced shall either be returned unused by the applicable Purchaser for credit against such invoice or retained and purchased by Purchaser.

8.10 Advance Replacement.

8.10.1 Advance Replacement Program. Upon request and purchase by Purchaser, Seller shall establish and maintain for Purchasers an advance replacement program for Defective Equipment pursuant to which Seller shall, within [**] hours of receipt of a Purchaser's notification of a Defective module, card, component or Equipment in accordance with this Agreement, ship, at Seller's sole expense using next day delivery, replacement module, card, component or Equipment for the Defective Equipment to Purchaser. For any Defective Equipment that is modular in nature, Seller shall have the right to replace defective modules, cards or components in the Equipment as appropriate, rather than replace the entire assembly of the Defective Equipment. Such program shall apply on a Purchaser-by-Purchaser and on a unit-by-unit basis, as elected and purchased [**] by TWC or the applicable Purchaser, and the cost of such program shall be as set forth on Exhibit B – Prices.

8.10.2 Return Procedures. Unless Seller either determines (which determination is supported to TWC's reasonable satisfaction) that such Defect does not exist or repairs such Defect in place, Seller shall provide Purchaser with an RMA for a module, card, component or Equipment to be replaced under the advance replacement program. Purchaser shall be invoiced for the Price of the replacement Equipment, module, card or component if the Defective Equipment, module, card component is not shipped to Seller within [**] days of receipt of the replacement module, card, component or Equipment. Unless Seller requests shipment by a designated carrier and pays such carrier directly, inbound shipping charges shall be prepaid by Purchaser and shall be reimbursed by Seller. Seller shall be responsible for outbound shipping charges. Title to returned module, card, component or Equipment shall pass to Seller upon Seller's receipt, and title to replacement module, card, component or Equipment shall pass to Purchaser upon Purchaser's receipt. Replacement module, card, component or Equipment, provided to Purchasers hereunder may be new or refurbished module, card, component or Equipment, with performance equivalent to new module, card, component or Equipment,; provided, however, no module, card, component or Equipment, provided by Seller to Purchasers hereunder shall have been returned to Seller more than [**] times for Defects of any nature.

8.11 Non-Warranty Repairs and Maintenance, Technical Assistance and Spare Parts. During the Term of this Agreement, and (a) for [**] years after the last manufacture of Equipment, or (b) until the expiration of the last Warranty Period which is in effect hereunder, whichever occurs last, Seller shall make available to each Purchaser of Equipment that has not materially defaulted in performance of its obligations under this Section the following:

8.11.1 Repair Information and Training. [**], Seller shall provide each Purchaser with all information reasonably necessary for in-house repair of Equipment. Each such Purchaser must sign a nondisclosure and confidentiality agreement containing standard and customary provisions with respect to the disclosure and use of such information prior to the receipt of such information. During 2013 and 2014, Seller shall offer an aggregate of up to a total of [**] days of training classes at sites to be determined by TWC to provide training in troubleshooting and repair of Equipment on dates agreed upon by the Parties. Such training shall be provided [**]. Upon the request of any Purchaser, Seller shall offer additional training classes pursuant to Seller's standard terms and conditions.

8.11.2 Provision of Spare Parts. At a price to be agreed upon by the Parties at the time of supply (which price shall in all circumstances be commercially reasonable and reflective of charges made within the industry for the provision of comparable materials), Seller shall make available all spare parts, tools, accessories, and replacements thereof that are reasonably necessary for repair of Equipment. All spare parts and replacements shipped by Seller shall perform according to the requirements of Specifications.

8.11.3 Non-Warranty Repairs. If requested by a Purchaser, Seller shall repair or replace defective or damaged Equipment (or modules, cards or components in the case of defective or damaged modules, cards or components) not under warranty at commercially reasonable charges that are reflective of charges made within the industry for the provision of comparable services; provided, however, that such Equipment, module, card or component is in a condition reasonably capable of repair (e.g., not disassembled or otherwise destroyed beyond reasonable repair).

8.11.4 Discontinuation of Services. Seller may, after the expiration of the period described in Section 8.11, discontinue the Services set forth in Section 8.11, in whole or in part; provided that:

(a) Seller notifies TWC [**] in advance of Seller's intent to discontinue such Services.

(b) Seller provides Purchasers a reasonable opportunity to purchase sufficient quantities of spare parts that are unique or proprietary to Seller and which TWC reasonably deems necessary to maintain and support Equipment. Seller promptly shall notify Purchasers if Seller or its suppliers intend to discontinue components necessary for manufacture of spare parts, and thereafter Seller shall provide Purchasers with no less than [**] during which time Purchasers shall be entitled to purchase such spare parts from Seller.

(c) Seller gives Purchasers an opportunity to purchase, from time to time, any special or custom test equipment needed for maintenance or repair of the Equipment, at Seller's current prices for such equipment, subject to availability.

8.12 CableLabs Specifications. Seller shall make commercially reasonable efforts to provide Equipment that complies in all material respects with DOCSIS and PacketCable standards. If at any time Seller fails to cause Products to comply with then-existing DOCSIS or PacketCable standards, then TWC may cancel all existing Purchase Orders and refuse to accept further Delivery of Products.

8.13 Technical Support. Seller shall make available to each Purchaser the opportunity to purchase for a fee Extended Warranty Contracts as set forth in Section 8.4 and Support Services as set forth in Exhibit E – Support Services Addendum. The "Coverage Period" for each item of Equipment is the period the Equipment is within the Warranty Period and such further period as a Purchaser has purchased Support Services. Seller shall specify and provide a support team for TWC during the Coverage Period, that includes at a minimum [**]. Seller shall notify TWC of any changes to the individuals specified and assigned to TWC's support team.

8.14 Monthly Reports. During the Coverage Period, Seller shall provide TWC with monthly reports in a format and containing such information relating to the Equipment submitted for repair or replacement as TWC shall reasonably specify.

8.15 System Data. Seller shall not, either during or after the Term, through access it may have to a Purchaser's System or through the Equipment, access, gather and/or retain any data that relates to a Purchaser's System or Subscribers, including personally identifiable Subscriber information or any other Subscriber data, collected by, generated by or stored in or through any item of Equipment ("System Data") and shall not take any action, or allow any third party to take any action, that would enable a third party to access, gather, or retain any such System Data for any purpose; provided, however, that the foregoing is not intended to prohibit Seller from gathering and retaining data relating to the frequency and causes of Failures of the Equipment for purposes of enabling Seller to comply with its warranty obligations under this Agreement and for purposes of determining future desirable modifications to the Equipment to include on Seller's product roadmap for the Equipment (collectively, the "Equipment Performance Data"). Seller acknowledges that all System Data (excluding the Equipment Performance Data) is the Proprietary Information of TWC or the applicable Purchaser and that TWC or the applicable Purchaser is the exclusive owner thereof.

8.16 Security Compromise. During the term of this Agreement, and for a period of [**] years thereafter (or if earlier, until [**] years after End of Life with respect to any particular model of the Equipment), if, while the affected Equipment is within the Initial Warranty Period or the affected Software is under Support Services and Purchaser is using a supported version of Software, a Security Compromise occurs that permits the unauthorized access to a Purchaser's System, then the Parties jointly shall develop a counter-measures program to remedy such Security Compromise, which program shall be implemented at Seller's sole expense. Notwithstanding the foregoing, to the extent a Security Compromise arises out of the acts or omissions of a Purchaser or any of Purchaser's employees, consultants, agents and/or subcontractors or any Purchaser's failure to implement any security patch available from Seller,

the above-referenced counter-measure program shall be implemented at Purchaser's sole expense, and further, Seller shall be reasonably compensated on a time and materials basis for its services in developing the counter-measures program.

8.17 Limitation of Warranties by Seller. **EXCEPT FOR THE EXPRESS WARRANTIES SET FORTH IN ARTICLE 8 OF THIS AGREEMENT, SELLER MAKES NO OTHER WARRANTIES REGARDING THE OPERATION OR PERFORMANCE OF THE EQUIPMENT, INCLUDING ANY IMPLIED WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE OR NONINFRINGEMENT.**

9. TRAINING

9.1 Initial Equipment Training. During 2013 and 2014, Seller shall provide a total of [**] days of on-site, live training or such other method of training (web-based, remote, etc.) as mutually agreed by the Parties to train Purchasers' installation, operational and support personnel. Such [**] days of training shall be provided [**] to the Purchasers and will include CMTS admin, CLI, Video QAM and/or such other information and matters mutually agreed by the Parties. Upon receipt of TWC's training request, Seller and TWC will mutually agree on the schedule for each such training session. Seller shall use commercially reasonable efforts to meet TWC's request with respect to the scheduling of such training. Upon request from Seller, TWC will provide an estimate of the number of personnel to be trained by location and by function (engineering, operations, NOC, etc.). The [**] days of [**] training will terminate upon the completion of the [**] day of training or on December 31, 2014, whichever occurs first. Additional training sessions shall be provided pursuant to Section 9.2.

9.2 Additional Equipment Training. Seller shall provide additional training sessions as may be requested by a Purchaser from time to time at such Purchaser's expense at the rates set forth on Exhibit B – Prices.

9.3 Training Materials. Seller shall provide a reasonable number of copies of all training materials used by Seller, and Purchasers shall have the right to copy and use all such training materials supplied by Seller solely for the internal use only by such Purchaser and for the training of additional Purchaser personnel. Such material shall be deemed confidential information of the Seller.

10. SUPPORT SERVICES

Upon TWC's request, Seller shall make available for purchase and provide TWC and/or the Purchasers with and perform the support services for the Software as described in and in accordance with Exhibit E – Support Services Addendum (the "Support Services"). Seller shall continue to provide the Support Services so long as the Purchaser continues to pay the undisputed fees specified in this Agreement, as set forth in Exhibit B – Prices, and Seller may suspend Support Services if the Purchaser fails to pay such undisputed fees, provided that Seller must first provide the Purchaser written notice of such failure and the intended suspension pursuant to this Section and the Purchaser must have failed to cure such failure within [**] days after the receipt of such notice.

11. OWNERSHIP OF INTELLECTUAL PROPERTY RIGHTS

Each Party shall retain ownership of all of its pre-existing IP Rights, and each Party shall own all IP Rights with respect to any technology developed exclusively by such Party and included in any Specification, Equipment or other materials provided to the other hereunder. Subject to any rights or licenses granted pursuant to this Agreement, all of such Proprietary Information shall be received, held and used in accordance with the provisions of Article 22.

12. SOFTWARE

12.1 Software License. Seller hereby grants to each Purchaser a limited, world-wide, non-exclusive, irrevocable (except as set forth in Section 12.2), royalty-free license for the life of the Equipment, under all of its applicable IP Rights only for use by Purchasers and Subscribers (in accordance with Purchaser's standard terms and conditions that are consistent with the terms and conditions contained in this Agreement), the Software that is provided to such Purchaser hereunder, including without limitation any modifications, revisions or enhancements provided to such Purchaser. Such license shall be limited to the use of the Software by Purchasers only in connection with the use of the Equipment. Purchasers may transfer Software as permitted pursuant to Section 26.4 or in connection with a transfer of the Equipment hardware to any subsequent third party purchaser of such Equipment who acquires such Equipment in connection with either (i) a purchase or other acquisition of all or any portion of a Purchaser's System in which the Equipment has been deployed (whether by purchase or conveyance of assets or stock, merger, consolidation or other business reorganization), or (ii) a disposition of surplus Equipment that was originally purchased for deployment and not for resale by the Purchaser, provided that such third party purchaser agrees in a writing to be bound by the terms of this Agreement regarding ownership, use, and restrictions on use, of the Software; provided further that, before a Purchaser may make such a disposition, it shall first offer Seller the opportunity to repurchase the Equipment upon the same terms to be offered to such third party and Seller shall have [**] Business Days to accept such offer. Each Purchaser may make a reasonable number of copies of the Software and use such copies for Downloading Software modifications, releases and enhancements and for backup and archival purposes. No other license agreement for the same subject matter, executed by a Purchaser contemporaneously with, or purporting to become effective upon opening the delivery wrapper, shall alter, modify or amend the terms of the licenses granted pursuant to this Section. Purchasers may, at any time, terminate a Software license upon [**] days prior notice to Seller. Upon expiration or termination of a Software license, Purchaser shall return to Seller or destroy all copies of the Software for which such license has been terminated.

12.2 Title to Software; Restrictions. Except as set forth in this Agreement, Seller and/or Seller's licensors shall retain all rights and title in the Software. Except as expressly permitted by this Agreement, the Purchasers may not (a) modify, alter, adapt, or create derivative works based on the Software, nor reverse engineer, decompile, translate, disassemble, or otherwise attempt to recover the source code of the Software, (b) use the Software to develop a product that is competitive with the Equipment or the business of Seller, or (c) disclose the results of any performance tests or qualitative analysis on the Software to any third party without the prior written consent of Seller. In the event of any breach by Purchasers, which is incapable of cure, or if capable of cure has not been cured within [**] days after written notice from Seller, Seller may immediately terminate the license granted pursuant to Section 12.1 that is the subject of such breach.

12.3 Software Traps. Seller represents, warrants and covenants that, to Seller's knowledge, no portion of the Software as delivered shall contain any Virus or Traps. Prior to the shipment of any Software to a Purchaser, (a) Seller shall use commercially reasonable efforts to detect and screen out any Virus through the use of one or more current virus detection programs, and (b) if applicable, Seller shall make reasonable due inquiry of any third party software vendor to confirm that the Software as delivered does not contain any Traps. IF SELLER FAILS TO USE COMMERCIALLY REASONABLE EFFORTS TO DETECT A VIRUS OR IF SELLER FAILS TO PROVIDE PROMPT NOTICE TO ANY PURCHASER OF ANY SUCH TRAPS KNOWN TO OR DETECTED BY SELLER, AND SUCH FAILURE RESULTS IN A FAILURE OF OPERATIONS CAUSED BY SUCH VIRUS OR TRAPS, THEN SELLER SHALL BE LIABLE FOR ALL DAMAGES, WHETHER DIRECT, INDIRECT, CONSEQUENTIAL, INCIDENTAL OR SPECIAL DAMAGES, INCLUDING LOST INCOME OR LOST REVENUE RESULTING FROM SUCH FAILURE OF OPERATION CAUSED BY SUCH VIRUS OR TRAPS.

12.4 Interface Information. From time to time at the request of TWC, Seller shall promptly disclose to TWC (subject to Seller's confidentiality obligations to third parties and TWC's confidentiality obligations under this Agreement) all Equipment external interface specifications, APIs, protocols and other tangible interface information not defined or otherwise provided by TWC that TWC or a third party manufacturer would reasonably require to have TWC's head-end and other System equipment conform to such interfaces for the sole purpose of being interoperable with the Equipment ("Interface Information"). All Interface Information shall sufficiently describe the details of the external interfaces not defined or otherwise provided by TWC to the Equipment in order to allow TWC and its third party manufacturer to understand such interfaces for the sole purpose of being interoperable with the Equipment. Seller hereby grants to the Purchasers a world-wide, non-exclusive, perpetual, irrevocable (except for a material breach of this Agreement), non-transferable (except as permitted under Section 27.5), royalty-free, fully paid-up license, under any of Seller's IP Rights embodied in the Interface Information, if any, that are necessary to access, copy, disclose, modify and create derivative works directly from such Interface Information for the sole purpose of maintaining interoperability of TWC's head-end and other System equipment with the Equipment in order to use the Equipment. During the Term, upon TWC's request, Seller shall provide technical support and consultation to assist TWC in understanding and applying the Interface Information. Such technical support and consultation shall be provided at Seller's then-current, standard consulting rates. Except for the express licenses granted in this Agreement, there are no other rights or licenses to any IP Rights conveyed under this Agreement by reason of implication, estoppel or otherwise.

13. TRADE NAMES AND TRADEMARKS

13.1 Branding of Equipment. Seller's brand name may appear on each item of Equipment. Once placed on an item of Equipment, Purchasers shall not remove Seller's trademarks or product identification, if any, from an item of Equipment without Seller's prior consent.

13.2 Rights in Trademarks. TWC and all Purchasers shall not in any manner represent that any of them has any rights in or to Seller's trade name and trademark. Seller shall not in any manner represent that it has any rights in or to the trade name and trademark "Time Warner Cable" or any other trade name or trademark used by TWC or any Purchaser to identify such Purchaser's business operations or services. Neither Party shall register or attempt to register any such trade names or trademarks of the other Party under any Law, and shall not at any time do or cause to be done any act or thing impairing the distinctiveness of such trade names or trademarks or any part of the other Party's interest therein whether or not they are registered.

13.3 Use of Seller Trademark. Purchasers may use Seller's trademark "Casa Systems" in the context of describing the Equipment to be provided to Purchasers under this Agreement in accordance with the written trademark guidelines provide by Seller.

14. IP RIGHTS INDEMNIFICATION

14.1 Indemnification by Seller. If any claim, suit, action or proceeding (a "Claim") is brought by a third party against TWC, any Purchaser or any of their Related Parties on the basis of an allegation that the Equipment (including Software), or the use, manufacture, import, service, support, sale or distribution thereof, or the provision or receipt of Services infringes or violates an IP Right of such third party enforceable in the United States, Seller shall: (a) at Seller's expense, defend or, subject to TWC's consent, which shall not be unreasonably withheld, settle such Claim, and (b) pay any and all any judgments, assessments, deficiencies, settlement amounts, fines, expenses (including court costs and reasonable attorneys' fees) (collectively, "Liabilities") awarded against TWC, the Purchaser or any Related Parties to the extent relating to or arising out of such Claim.

14.2 Procedures. In the event of a Claim, TWC or Purchaser, as Indemnified Party, and Seller, as Indemnifying Party, shall follow the procedures set forth in Section 15.2.

14.3 Infringing Equipment. If any Equipment provided by Seller under this Agreement becomes, or in Seller's reasonable opinion is likely to become, the subject of a Claim under this Article, or if as a result of such Claim, or the settlement thereof, the production, use, license, sale, marketing or transfer of the Equipment is prohibited or enjoined, Seller may, at its sole expense, at its option, do one or more of the following: (a) obtain for Purchasers the right to use the infringing Equipment without any additional cost to Purchasers, (b) modify the infringing Equipment so that it becomes non-infringing, while remaining in compliance with the Specifications in all material respects, subject to TWC's technical approval, or (c) replace the Equipment with a non-infringing product that performs substantially the same functions in substantially the same manner, while remaining in compliance with the Specifications in all respects so as to permit the installation and use of such Equipment in Purchaser's Systems utilizing the Equipment. If none of the remedies set forth in clauses (a), (b) or (c) are reasonably practicable, then Seller shall have the right, at Seller's sole discretion, to remove such Equipment from this Agreement and require Purchasers to return such Equipment to Seller, and in such event Seller shall refund to such Purchasers the original purchase price paid to Seller for such Equipment, less depreciation based on an [**] straight-line assumed useful life, plus the unearned portion of the fee for any Extended Warranty Contract and of any fee for Support Services that has been paid in advance. The liability of Seller with respect to any and all claims of infringement or violation of any intellectual property rights in connection with the Equipment and Services shall be limited to the specific undertakings contained in this Article 14.

14.4 Combinations and Modifications. Notwithstanding any other provision of this Article, Seller shall have no liability for any infringement arising from (a) use of the Equipment in combination with other items, unless (i) such combination is described in or reasonably contemplated by the Specifications, (ii) Seller sold, made, provided, or recommended them all as a combination, or (iii) the combination is consistent with the use of the Equipment for its intended purpose and in a manner consistent with the Specifications and this Agreement, or (b) modification of the Equipment after Delivery, unless Seller or an authorized agent of Seller made or specifically recommended or approved the modification, or the modification constitutes normal repair, replacement or implementation of Seller-provided options, enhancements or repair instructions for the Equipment.

14.5 Termination Right. Notwithstanding any other provision of this Agreement to the contrary, if the use of any Equipment infringes or violates an IP Right of a third party, and the removal of such infringing item would cause the Equipment to fail of its essential purpose, then TWC shall have the right to terminate this Agreement upon [**] days prior notice to Seller, during which [**]-day period Seller shall have the right to exercise any of the actions set forth in clauses (a), (b) and (c) of Section 14.3, in which case TWC shall not have the right to terminate this Agreement. Upon termination pursuant to the foregoing sentence, in addition to all other rights and remedies available at law or in equity, (a) Purchasers shall be entitled to cancel outstanding Purchase Orders without any further liability to Seller, and (b) each Purchaser shall have the right, at such Purchaser's option, to return the affected Equipment to Seller and Seller shall refund to such Purchaser the original purchase price paid to Seller for such Equipment, less any depreciation based on an [**] straight-line assumed useful life, plus the unearned portion of the fee for any Extended Warranty Contract and of any fee for Support Services that has been paid in advance.

14.6 Covenant Not to Sue or Take Adverse Action.

14.6.1 Seller covenants and agrees (on behalf of itself and its parents, affiliates and subsidiaries) not to bring any Claim against TWC, any TWC Affiliate or a Purchaser (collectively, the "TWC Related Entities" and each, a "TWC Related Entity") alleging infringement of any IP Rights (other than trademark rights) owned or controlled by Seller or any of its parents, affiliates, or subsidiaries with respect to the deployment (solely for the use of the TWC Related Entities and their respective Subscribers), use or acquisition of products (including without limitation hardware, software, equipment, systems and solutions) by TWC or any TWC Related Entity (i) prior to the Effective Date, (ii) during the Term of this Agreement, or (iii) during the [**] period after the expiration or termination of this Agreement.

14.6.2 Nothing herein shall limit or restrict Seller's or its affiliates' ability or right to assert any claim of infringement, to seek damages, or to enjoin TWC's or its TWC Related Entities' vendors, for infringement or misappropriation of Seller's or its affiliates', as the case may be, patents or other intellectual property rights; provided, however that, during the period during which Section 14.6.1 is in effect, and for a reasonable period of time, which shall be up to [**] months, as determined by TWC in its sole discretion, after Seller or its affiliates

secures the first of either a final, non-appealable judgment or a final, non-appealable injunction (including without limitation an administrative remedy such as an exclusion order and/or cease and desist order) against a vendor of TWC or its TWC Related Entities, Seller and its affiliates shall, to the full extent of their authority, permit TWC or the TWC Related Entities the opportunity to transition their ongoing supply of the product(s) and/or service(s) that are subject to such judgment or injunction to non-infringing products and services, which transition shall include without limitation the ability to continue to acquire product(s) and/or service(s) from such vendor during such transition period without interference from Seller or its affiliates, and provided further that Seller (on behalf of itself and its parents, affiliates and subsidiaries) shall waive and forever release all claims against any such vendor for damages and/or license fees owed to Seller and its affiliates by such vendor with respect to the provision of products (including without limitation hardware, software, equipment, systems and solutions) to TWC or any TWC Related Entity during the period during which Section 14.6.1 is in effect and through and including such transition period.

14.7 Limitations to Covenant Not to Sue or Take Adverse Action. The waiver and covenant set forth in Section 14.6.1 shall not be applicable:

14.7.1 if, and only to the extent that, TWC or a Purchaser has breached its obligations under Article 22 of this Agreement and such breach, directly or indirectly, results in an infringement of the IP Rights of Seller or any of its Related Parties; or

14.7.2 to any IP Rights developed or acquired by Seller more than [**] after termination or expiration of this Agreement or, if later, the last Warranty Period hereunder; or

14.7.3 to any patent, copyright, trademark or trade secret (other than the Seller Covenant IP, as defined below) owned, controlled or assertable by any third party that through a Change of Control acquires control, directly or indirectly, of Seller after the Effective Date; provided, however, that the covenants in Section 14.6 shall nonetheless run with any assignment or other transfer to such third party or its affiliates of any patent, copyright, trademark or trade secret, and any patent, copyright, or trademark issuing on an application, owned, controlled or assertable by Seller or its affiliates before such Change of Control (collectively, for the purposes of this Section 14.7, "Seller Covenant IP") and shall bind such acquiring entity and its affiliates with respect to such Seller Covenant IP after such Change of Control.

14.8 Divestiture of IP Rights Subject to License. If Seller divests any right, title or interest in or to any IP Rights covered by Section 14.6 and not related to the divestiture of an on-going business to any person or entity (an "IP Rights Divestiture"), then (i) Seller automatically shall be deemed to have granted to TWC and the TWC Related Entities an irrevocable, non-exclusive, royalty-free, fully paid-up, worldwide license to use such IP Rights in connection with their businesses and operations (but not for the purpose of selling products or services to third parties, where such products or services compete with the Equipment or Services hereunder) for so long as the covenants in Section 14.6 remain in effect, and (ii) Seller shall make such IP Rights Divestiture expressly subject to the covenants in Section 14.6 and the license granted in clause (i) above.

14.9 Patent Pools. TWC shall not, and shall cause its TWC Related Entities not to, seek any reduction in fees (or refund of previously paid fees) with respect to IP Rights that are included in an open (i.e., open to potential licensees) patent licensing consortium or pool by reason of the licenses granted under this Agreement.

15. GENERAL INDEMNIFICATION

15.1 Indemnification by Seller. Seller shall defend, indemnify and hold harmless Purchasers and their Related Parties from and against any Claims (other than Claims related to IP Rights, which are governed by Section 14 hereof), and pay any Liabilities awarded against the Purchaser or any Related Parties to the extent relating to or arising out of such Claims, arising out of:

15.1.1 Any negligent act or omission or willful misconduct of Seller or its Related Parties in connection with the performance or non-performance of their obligations hereunder or any breach of any of Seller's representations, warranties, covenants or terms of, or defaults under, this Agreement.

15.1.2 Any Claim by third parties against the Purchasers or any of their Related Parties arising out of:

(a) Seller's relationships with its employees, suppliers, subcontractors, agents, and consultants in the course of its performance under this Agreement;

(b) Seller's design, development, manufacture, testing, production, and storage of the Equipment being provided to Purchasers under this Agreement, including any Security Compromise with respect to any Equipment that results in a Claim against TWC or any other Purchaser by any third party content provider;

(c) Seller's negligent performance of any Services hereunder; or

(d) Damages caused by Defective or unreasonably dangerous Equipment solely caused by Seller.

Nothing in this Section shall be construed to diminish or otherwise limit Seller's obligation to indemnify TWC and Purchasers with respect to a Claim for which TWC and Purchasers are entitled to indemnification pursuant to Article 14.

15.2 Procedure. In the event of a Claim by a third party, with respect to which a Party is entitled to indemnification hereunder, the Party seeking indemnification ("Indemnified Party") shall promptly notify the other Party ("Indemnifying Party") after receipt of notice of such Claim; provided that a delay in or failure by Indemnified Party to provide such notice shall not relieve Indemnifying Party of its obligations under this Article or Article 14, except to the extent that such delay or failure materially prejudices Indemnifying Party's ability to defend such Claim. The Indemnifying Party, at its sole expense, shall promptly assume the defense of such Claim using counsel of its own choosing and reasonably satisfactory to the Indemnified Party and the Indemnified Party shall reasonably cooperate with the Indemnifying Party in the defense of such Claim, including the settlement (subject to the requirements below with respect to

settlement) of the matter on the basis stipulated by the Indemnifying Party (with the Indemnifying Party being responsible for all costs and expenses of such defense and settlement, including the reimbursement of Indemnified Party's reasonable out-of-pocket costs or expenses incurred in providing information and assistance in connection therewith); provided, however, that if a conflict of interest exists vis-a-vis the interests of the Indemnifying Party and the Indemnified Party, or the Indemnifying Party fails to diligently defend the Indemnified Party, the Indemnified Party shall be entitled to defend the Claim with counsel of its own choosing at the expense of, for the account of and at the risk of the Indemnifying Party; provided, however, that the Indemnifying Party shall only be responsible for the expense of a single counsel regardless of the number of Indemnitees. The Indemnified Party shall engage counsel reasonably acceptable to the Indemnifying Party, take reasonable steps to monitor and control the fees and costs of counsel so chosen, and keep the Indemnifying Party reasonably informed of the status of such defense, including any settlement proposals by the claimant. In addition, the Indemnified Party may participate, in its sole discretion, in any Claim under this Article or Article 14 using its own counsel at its own expense. The Indemnifying Party shall not settle any such Claim without first obtaining the Indemnified Party's prior written consent where the settlement of such Claim results in any admission of guilt or liability on the part of the Indemnified Party, imposes any obligation or liability on the Indemnified Party, or has a judicially binding effect on the Indemnified Party (other than monetary liability for which the Indemnified Party is indemnified by the Indemnifying Party), such consent not to be unreasonably withheld.

16. INSURANCE

Seller shall at all times during the Term, at its sole expense, maintain the insurance coverage and otherwise comply with the requirements set forth in Exhibit D – Insurance Requirements.

17. LIMITATION OF LIABILITY

17.1 Limitation on Indirect Damages. EXCEPT (i) AS OTHERWISE SET FORTH IN THOSE SECTIONS OF THIS AGREEMENT CALLING FOR THE PAYMENT OF LIQUIDATED DAMAGES, (ii) AS SET FORTH IN SECTION 12.3, AND (iii) WITH RESPECT TO SELLER'S OBLIGATIONS TO DEFEND, INDEMNIFY AND HOLD HARMLESS TWC AND THE PURCHASERS WITH RESPECT TO THIRD PARTY CLAIMS IN ACCORDANCE WITH ARTICLES 14 AND 15, AND (iv) FOR A PARTY'S GROSSLY NEGLIGENT OR INTENTIONAL BREACH OF ARTICLE 22, SELLER SHALL NOT BE LIABLE TO TWC AND PURCHASERS, AND TWC AND PURCHASERS SHALL NOT BE LIABLE TO SELLER, FOR ANY AMOUNTS REPRESENTING THEIR RESPECTIVE LOSS OF PROFITS, LOSS OF BUSINESS, INDIRECT, SPECIAL, INCIDENTAL, EXEMPLARY, CONSEQUENTIAL, OR PUNITIVE DAMAGES, (EVEN IF PREVIOUSLY APPRISED OF THE POSSIBILITY THEREOF) ARISING FROM THE PERFORMANCE OR NONPERFORMANCE OF THIS AGREEMENT OR ANY ACTS OR OMISSIONS ASSOCIATED THEREWITH OR RELATED TO THE USE OF ANY EQUIPMENT OR SERVICES FURNISHED HEREUNDER, WHETHER THE BASIS OF THE LIABILITY IS BREACH OF CONTRACT, TORT (INCLUDING NEGLIGENCE AND STRICT LIABILITY), STATUTES, OR ANY OTHER LEGAL THEORY.

17.2 Limitation on Damages. EXCEPT (i) AS OTHERWISE SET FORTH IN THOSE SECTIONS OF THIS AGREEMENT CALLING FOR THE PAYMENT OF LIQUIDATED DAMAGES, (ii) AS SET FORTH IN SECTION 12.3, (iii) WITH RESPECT TO SELLER'S OBLIGATIONS TO DEFEND, INDEMNIFY AND HOLD HARMLESS TWC AND THE PURCHASERS WITH RESPECT TO THIRD PARTY CLAIMS IN ACCORDANCE WITH ARTICLES 14 AND 15, AND (iv) PAYMENT OBLIGATIONS UNDER SECTION 6.4, THE MAXIMUM CUMULATIVE LIABILITY OF SELLER, ON THE ONE HAND, AND TWC AND THE TWC AFFILIATES IN THE AGGREGATE, ON THE OTHER HAND, WITH RESPECT TO ANY SINGLE CLAIM THAT ARISES OUT OF THE SAME EVENT OR SERIES OF RELATED EVENTS ARISING OUT OF OR RELATING TO THIS AGREEMENT, WHETHER BASED UPON WARRANTY, CONTRACT, TORT, OR OTHERWISE, SHALL NOT EXCEED AN AMOUNT EQUAL TO THE GREATER OF (A) ALL AMOUNTS PAID OR PAYABLE BY TWC AND ALL TWC AFFILIATES IN THE AGGREGATE UNDER THIS AGREEMENT DURING THE [**] MONTH PERIOD IMMEDIATELY PRECEDING THE DATE ON WHICH SUCH EVENT OR THE FIRST EVENT IN THE SERIES OF RELATED EVENTS OCCURRED, (OR, IF SUCH EVENT OCCURS (1) DURING THE FIRST YEAR FOLLOWING THE EFFECTIVE DATE, THEN DURING THE [**] MONTH PERIOD IMMEDIATELY FOLLOWING THE EFFECTIVE DATE, OR (2) FOLLOWING THE TERMINATION OF THIS AGREEMENT, THEN DURING THE FINAL [**] MONTH PERIOD IN WHICH THIS AGREEMENT IS IN EFFECT), OR (B) FIVE MILLION DOLLARS ($5,000,000).

17.3 Several Liability of TWC and BHN. TWC and each Affiliate are entitled to purchase Equipment and/or Services in accordance with this Agreement. TWC shall be responsible (subject to the limitations of liability set forth in this Agreement) for the acts or omissions of TWC and each of the TWC Responsible Affiliates as if such acts or omissions were the acts or omissions of TWC. Similarly, BHN shall be responsible (subject to the limitations of liability set forth in this Agreement) for the acts or omissions of BHN and each of the BHN Responsible Affiliates as if such acts or omissions were the acts or omissions of BHN. To the extent that a single legal entity owns operating assets, some of which are managed by TWC and some of which are managed by BHN, the obligations under this Agreement associated with the assets managed by TWC shall be the responsibility of TWC and the operations associated with such assets shall be considered to be the operations of a TWC Responsible Affiliate, and the obligations under this Agreement associated with the assets managed by BHN shall be the responsibility of BHN and the operations associated with such assets shall be considered to be the operations of a BHN Responsible Affiliate. Upon request, TWC, BHN, the TWC Responsible Affiliates and the BHN Responsible Affiliates shall inform Seller as to which TWC Affiliates and assets are owned or managed by TWC and which are owned or managed by BHN. Seller agrees that neither TWC nor any TWC Responsible Affiliate shall be liable for the obligations of BHN or the BHN Responsible Affiliates under this Agreement. Instead, for example, if BHN or a BHN Responsible Affiliate elects to purchase Equipment and/or Services hereunder, and notwithstanding any other provision of this Agreement, Seller shall look only to BHN and such BHN Responsible Affiliate for payment of amounts owed by BHN and BHN Responsible Affiliate under this Agreement and for performance of any other obligations relating to BHN and such BHN Responsible Affiliate under this Agreement. Similarly, Seller agrees that neither BHN nor any BHN Responsible Affiliate shall be liable for the obligations of TWC or the TWC Responsible Affiliates under this Agreement. Instead, for example, if TWC or a TWC

Responsible Affiliate elects to purchase Equipment and/or Services hereunder, and notwithstanding any other provision of this Agreement, Seller shall look only to TWC and such TWC Responsible Affiliate for payment of amounts owed by TWC and such TWC Responsible Affiliate under this Agreement and for performance of any other obligations relating to TWC and such TWC Responsible Affiliate under this Agreement. Notwithstanding the foregoing, neither BHN nor any BHN Responsible Affiliate shall be eligible to purchase Equipment and/or Services under this Agreement, unless and until BHN agrees to the terms of this Agreement in writing by executing an addendum in the form attached hereto as Exhibit C – Affiliate Addendum.

18. FORCE MAJEURE; DISASTER RECOVERY

18.1 Force Majeure. If the performance of this Agreement is delayed or prevented (other than the performance of payment obligations) by reason of Force Majeure, then the provisions of this Article shall apply:

18.1.1 Performance Excused. The Party whose performance is delayed or prevented shall promptly notify the other Party of the event and, except as set forth in Section 18.2, shall be excused from performance to the extent delayed or prevented if (a) such delay or failure arises from any cause or causes beyond the reasonable control of such Party, (b) such Party is without fault in causing such delay or failure, and (c) such delay or failure could not have been prevented by reasonable precautions and cannot reasonably be circumvented by such Party through the use of alternate sources, workaround plans or other means; provided, however, that the Party whose performance is excused shall take reasonable steps to avoid or remove such causes of nonperformance and shall continue to perform whenever and to the extent reasonably possible and provided further that any time for performance set forth in this Agreement shall be extended for a period equal to the period of such delay.

18.1.2 Partial Termination. If it appears that a time for delivery or performance scheduled pursuant to this Agreement shall be extended for more than 60 days, the Party receiving notice under Section 18.1.1 shall have the right to terminate, by notice to the other Party, any portion of this Agreement or of a Purchase Order covering the delayed performance and the obligations and liabilities of the Parties with respect to such portion of the Agreement or Purchase Order shall thereupon terminate, except to the extent that such obligations or rights are intended to survive pursuant to this Agreement.

18.1.3 Complete Termination. If it appears that a time for delivery or performance scheduled pursuant to this Agreement will be extended for more than six months, either Party shall have the right to terminate, by notice to the other Party, this Agreement. Upon termination pursuant to the foregoing sentence, Purchasers shall be entitled to cancel outstanding Purchase Orders without any further liability to Seller with respect thereto, and Seller shall be relieved of all delivery obligations with respect to such cancelled Purchase Orders.

18.2 Disaster Recovery

18.2.1 Seller shall maintain a business continuity/disaster recovery plan ("Disaster Recovery Plan"). Seller shall comply in all material respects with the Disaster Recovery Plan in

the event of a business disaster, including without limitation a Force Majeure event with respect to Seller and/or any of its subcontractors or suppliers covered by the Disaster Recovery Plan. Any performance failure or delay of Seller that is the result of Seller failing to comply (or to cause its subcontractors or suppliers to comply) with the Disaster Recovery Plan (including any failure of Seller to resume or restore, or cause to be resumed or restored, certain business activities by any target timeframe set forth in the Disaster Recovery Plan) shall in no event be excused under Section 18.1 of this Agreement.

18.2.2 Seller shall use commercially reasonable efforts to test appropriate components of the Disaster Recovery Plan at least once every [**] to validate that the Disaster Recovery Plan is operational and effective. Seller shall maintain such records as are reasonably required to document the results of each such test and shall use commercially reasonable efforts to correct any problems identified during each such test. Upon request, Seller shall certify to TWC that the [**] testing has been conducted, which certification shall specify the date or dates upon which such testing was performed, shall provide a summary of the test results with TWC, and shall consider any resulting input from TWC regarding potential improvements. Upon request, Seller shall also confirm to TWC that the Disaster Recovery Plan is current with respect to information that might change over time, such as facilities and addresses, team members and contact information, etc.

18.2.3 Seller shall use commercially reasonable efforts to promptly notify TWC of each disaster that triggers activity under the Disaster Recovery Plan that materially impacts Seller's ability to timely deliver the Equipment or timely perform the Services. Seller shall also provide such assistance as is reasonably requested by TWC to provide reasonable assurances to customers and potential customers of TWC and the Purchasers with respect to the continued delivery of the Equipment and Services provided under this Agreement following a disaster event that impacts the Equipment and Services, including with respect to the Disaster Recovery Plan, Seller's business continuity and disaster recovery ability.

18.2.4 Seller's Disaster Recovery Plan shall be reasonably calculated to provide for the full restoration of all warranty Services and Support Services under this Agreement, which plans and procedures may include the use of a third party contractor. Such restoration shall be made within [**] business days of the occurrence of a Force Majeure event.

19. COMPLIANCE WITH LAWS

19.1 General. Seller shall comply with all Laws in effect at the time of manufacture and Delivery of any Equipment provided hereunder (including procurement of required permits, licenses or certificates), including in connection with its design, manufacturing and Delivery of the Equipment.

19.2 Permits and Licenses. Seller shall obtain and maintain at its own expense all permits and licenses, other than permits or licenses required in connection with the ownership or operation of a Purchaser's facility, required by Law with respect to the Equipment and shall give all notices, pay all fees and comply with all Laws relating to its performance obligations specified herein. Seller shall secure all necessary permissions, approvals, licenses or consents, and pay all amounts due in connection therewith, for any rights not owned and controlled by

Seller necessary for Seller to provide, and for TWC and the Purchasers to use and receive, any Equipment and/or Services. Except as specifically detailed in Exhibit B – Prices, Seller and TWC have agreed that Seller will be financially responsible for all such permissions, approvals, licenses and consents, whether such permissions, approvals, licenses or consents are known or in existence as of the Effective Date or become know or come into existence at any time thereafter.

19.3 Export Control. The Parties shall adhere to the U.S. Export Administration Laws and shall not export or re-export any Confidential Information, technical data, equipment, products, or software received from the other Party, or any direct product of such Confidential Information, technical data, equipment, products, or software, to any person or company who is a legal resident of or is controlled by a legal resident of any proscribed country listed in Section 779.4(f) of the U.S. Export Administration Regulations (as the same may be amended from time to time) or any similar or successor provision, unless properly authorized by the appropriate U.S. Governmental Authority. Seller shall adhere to all applicable international export and U.S. import Laws in Seller's performance of this Agreement.

19.4 Plant and Work Rules. Seller's employees, while on the premises of any Purchaser, shall comply with all plant and work rules and regulations of Purchaser, provided that such rules and regulations have been provided to Seller sufficiently in advance by Purchaser so as to reasonably permit such compliance, including where required by Law, submission of satisfactory clearance from the U.S. Department of Defense and other Governmental Authorities.

19.5 Fair Labor Standards Act. Seller agrees to comply with the requirements of the Fair Labor Standards Act of 1938, as amended, in producing the Equipment to be furnished hereunder. All invoices shall contain substantially the following assurance: "Seller hereby certifies that these goods were purchased in compliance with all applicable requirements of Sections 6, 7, and 12 of the Fair Labor Standards Act of 1938, as amended, and of regulations and orders of the United States Department of Labor issued under Section 14 thereof."

19.6 M/WBE Participation. It is the policy of TWC to encourage suppliers to subcontract with certified minority and women-owned business enterprises ("M/WBEs") for products and services rendered to the extent such M/WBEs are available and qualified to perform such subcontracts. TWC shall require certification by city, state, or federal agencies; the National Minority Supplier Development Council and its affiliates; the Women's Enterprise Business National Council; or other generally recognized certifying agencies from all firms claiming to be an M/WBE if and to the extent that Seller subcontracts the performance of any of its obligations under this Agreement to M/WBEs.

19.7 Application to Subcontractors. All provisions of this Article also shall apply to all subcontractors, and substantially similar terms shall be stated in all contracts between Seller and its subcontractors. Seller shall not permit any subcontractor to commence any Services relating to this Agreement until the subcontractor delivers to Seller or TWC evidence of insurance in the amounts and on the terms provided in this Agreement. The foregoing shall in no way diminish Seller's obligation to obtain TWC's prior written consent prior to subcontracting any Services hereunder.

20. TERM AND TERMINATION

20.1 Term. The initial term of this Agreement shall commence upon the Effective Date and expire on the third (3rd) anniversary of the Effective Date ("Initial Term"). Following the Initial Term, the Term of this Agreement shall automatically renew for successive one year periods (each, a "Renewal Term" and the Renewal Term(s), if any, together with the Initial Term, shall be referred to herein as the "Term") unless at least ninety (90) days prior to the date of any such renewal, TWC, in its sole discretion, notifies Seller in writing of its decision not to renew this Agreement. Following the Initial Term and the first two Renewal Terms, the Term of this Agreement shall automatically renew, for successive one year periods (also a "Renewal Term"), unless at least ninety (90) days prior to the date of any such renewal, either party notifies the other in writing of its decision not to renew this Agreement. Seller shall give TWC written notice of the expiration of the Initial Term or any Renewal Term then in effect, as the case may be, not less one hundred and twenty (120) days prior to such expiration.

20.2 Termination of Agreement. In addition to a Party's rights to terminate this Agreement or a Purchase Order as set forth elsewhere in this Agreement, this Agreement and any outstanding Purchase Orders may be terminated upon any of the following events effective upon notice from the terminating Party:

20.2.1 Termination by Either Party. Either Party may terminate this Agreement:

(a) If the other Party makes an assignment for the benefit of creditors.

(b) If voluntary or involuntary proceedings are instituted by or against the other Party under any federal, state, or other bankruptcy or insolvency Laws, and, in the case of proceedings commenced against such other Party, such proceedings are not terminated within 60 days, or a receiver is appointed for such other Party.

(c) If the other Party ceases to function as a going concern, subject to a permitted assignment in accordance with this Agreement.

(d) If the other Party fails to perform any other material provision of this Agreement and does not cure such failure within a period of [**] days after receipt of notice from the non-breaching Party reasonably specifying such failure and stating such non-breaching Party's intention to terminate this Agreement if such failure is not cured. This clause (d) shall not be applicable with respect to breaches committed by a Purchaser that is an Affiliate and, instead, the provisions of Section 20.2.2 shall apply.

20.2.2 Termination by Seller with Respect to a Purchaser that is an Affiliate. Seller may terminate this Agreement with respect to any Purchaser that is an Affiliate only if such Purchaser fails to perform any material provision of this Agreement and does not cure such failure within a period of [**] days after receipt of notice from Seller reasonably specifying such failure and stating its intention to terminate this Agreement with respect to such Purchaser if such failure is not cured. Such termination shall apply only with respect to the Affiliate that is in breach.

20.3 Effect of Termination. Termination of this Agreement shall not affect any Purchaser's right to use the Equipment purchased and paid for hereunder, including without limitation any Software therein, except as provided in Section 12.2.

21. OTHER REPRESENTATIONS AND WARRANTIES

21.1 By TWC. TWC represents and warrants to Seller as follows:

21.1.1 Valid Corporation. TWC is a limited liability company, duly organized, validly existing and in good standing under the Laws of the State of Delaware and has full power and authority as a limited liability company to own and lease its properties and assets and to carry on its business as now being conducted.

21.1.2 Power and Authority. TWC has taken all necessary action required by Law, by TWC's organizational documents, or otherwise to authorize the execution and performance of this Agreement, and the transactions required hereby, and this Agreement is a valid and binding obligation of TWC, enforceable in accordance with its terms, except as may be limited by applicable bankruptcy, insolvency or similar Laws affecting creditors' rights generally or the availability of equitable remedies.

21.1.3 No Violation of Other Agreements. The execution, delivery, and performance of this Agreement does not and will not violate any provision of TWC's organizational documents, any provision of any agreement or commitment to which TWC is a party or which is applicable to TWC, or to its knowledge violate any Law applicable to TWC.

21.1.4 No Consent Required. No consent, order, permit, or other authorization, approval, or similar action is required from any party, court, Governmental Authority, or agency for TWC to enter into and perform its obligations under this Agreement or the transactions contemplated herein.

21.2 By Seller. Seller represents and warrants to TWC as follows:

21.2.1 Valid Corporation. Seller is a corporation duly organized, validly existing, and in good standing under the Laws of the State of Delaware and has full corporate power and authority to own and lease its properties and assets and to carry on its business as now being conducted.

21.2.2 Power and Authority. Seller has full corporate power and authority to carry out the transactions described in this Agreement. Seller has taken all necessary action required by Law, its Certificate or Articles of Incorporation, its Bylaws, or otherwise to authorize the execution and performance of this Agreement, and the transactions required hereby, and this Agreement is a valid and binding obligation of Seller, enforceable in accordance with its terms, except as may be limited by applicable bankruptcy, insolvency or similar Laws affecting creditors' rights generally or the availability of equitable remedies.

21.2.3 No Violation of Other Agreements. The execution, delivery, and performance of this Agreement does not and will not violate any provision of the Certificate or Articles of Incorporation or Bylaws of Seller, any provision of any agreement or commitment to which Seller is a party or which is applicable to Seller, or to its knowledge violate any Law applicable to Seller.

21.2.4 No Consent Required. No consent, order, permit, or other authorization, approval, or similar action is required from any party, court, Governmental Authority, or agency for Seller to enter into and perform its obligations under this Agreement or the transactions contemplated herein.

22. CONFIDENTIALITY AND MEDIA RELEASES

22.1 Proprietary Information. Seller, on the one hand, and TWC and each other Purchaser, on the other hand (but severally as to TWC and each other Purchaser) (each, a "party") for purposes of this Article), agree that any information or data (including information or data received by the disclosing party from a third party and as to which the disclosing party has confidentiality obligations) (a) fixed in a tangible medium and furnished by one to the other under this Agreement and marked as the confidential or proprietary information of the disclosing party, including information relating to the Equipment and Services; (b) otherwise provided or disclosed orally and stated to be confidential or proprietary at the time the information is provided or in a writing which is provided within [**] days thereafter which generally describes such information; (c) relating to the quantity of Equipment ordered by any Purchaser(s) hereunder; (d) relating to the terms and conditions of this Agreement; or (e) relating to any current, former or prospective Subscriber, is, in each case, confidential or proprietary information of the disclosing party (collectively, the "Proprietary Information"), and shall be the subject of no less than reasonable efforts to maintain its secrecy and shall not be used for any purpose other than the purposes of this Agreement or disclosed to anyone other than to the recipient's employees or agents or consultants rendering services related to the subject matter of this Agreement who have entered into an agreement with the receiving party, or are otherwise bound, to hold proprietary information of such nature in trust and confidence under standards at least as rigorous as those provided in this Agreement and who need to use the Proprietary Information for the purposes of this Agreement.

22.2 Exceptions Required by Law. Notwithstanding the provisions of Section 22.1, a party receiving Proprietary Information may disclose such Proprietary Information (a) pursuant to an order or judgment of any court or governmental body, or (b) pursuant to any Law, provided that the disclosing party in the case of either subparagraph (a) or (b) above, gives reasonable notice to the other party in advance of such disclosure, if not prohibited by law, and seeks confidential treatment of such information from the entity to which the disclosure is made and discloses only that information which is legally required to be disclosed.

22.3 Other Exceptions. The restrictions and obligations in Section 22.1 shall not apply with respect to any Proprietary Information, other than personally identifiable information relating to a Subscriber, that the receiving party can demonstrate with written evidence: (a) is or becomes generally available to the public through any means other than a breach by the receiving party of its obligations under this Agreement; (b) is disclosed to the receiving party without an obligation of confidentiality by a third party who has the right to make such disclosure; (c) is developed independently by the receiving party; (d) was rightfully in possession of the receiving party without obligations of confidentiality prior to receipt under this

Agreement; or (e) is required to be disclosed to enforce rights under this Agreement. In addition, either party may disclose the terms of this Agreement to bona fide potential or actual: advisors, consultants, investors, acquirers, lenders, investment bankers or other financial partners in connection with financing or business combination activity, provided that the person or entity to whom the disclosure is made has entered into an agreement with the party making such disclosure, or is otherwise bound, to hold proprietary information of such nature in trust and confidence under standards at least as rigorous as those provided in this Agreement.

22.4 Remedies. Each of the parties acknowledges and agrees that any breach or threatened breach of the obligations set forth in this Article 22 may result in the substantial likelihood of irreparable harm and injury to the owner of the Proprietary Information for which monetary damages alone would be an inadequate remedy, and which damages are difficult to accurately measure, and further agrees that the disclosing party shall have the right to seek injunctive relief upon any violation or threatened violation of the terms of this Agreement, in addition to all other rights and remedies available at law or in equity.

22.5 Return of Proprietary Information. Upon the termination, cancellation or expiration of this Agreement for any reason or upon the reasonable request of the disclosing party, all Proprietary Information, together with any copies that may be authorized herein, shall be returned to the disclosing party or, if requested by the disclosing party, certified destroyed by the receiving party; provided, however, that this Section shall not apply with respect to Proprietary Information which is needed in connection with the use and support of the Equipment.

22.6 Gathering of Statistical and Other Information. TWC shall determine in TWC's sole discretion the scope and method for gathering statistical information, if any, to be collected in connection with the use of the Equipment.

22.7 Publicity and Certain Communications. Subject to Sections 22.2 and 22.3, unless and only to the extent specifically authorized in writing by the other party, which authorization must address both the form and content of any communication, neither Seller nor TWC shall directly or indirectly, initiate or have, and shall not authorize any of its employees or agents to initiate or have, any oral or written communication (whether in the form of news releases, advertising or solicitation materials, or blog or social media postings) with or directed to any person other than the employees or contractors of the parties hereto who have responsibility for the administration or performance of this Agreement (including without limitation the press, the public, Subscribers, the trade, and governmental and quasi-governmental agencies, authorities and instrumentalities) (i) that concerns (a) this Agreement or the negotiation (or other transactions in contemplation of), termination, renewal, non-renewal or expiration of this Agreement or any other prior, then current, or proposed agreement, arrangement or understanding with the other party relating to the distribution of the Equipment, (b) any modification or amendment hereof or thereof, or (c) the provision of the Equipment to TWC; or (ii) that would or could adversely affect relations between the other party, on the one hand, and the other party's customers (including, in the case of TWC, Subscribers) or such agencies, authorities or instrumentalities, on the other hand.

22.8 Residuals. Each of the Parties shall be free to use for any purpose the Residuals (as defined herein) resulting from access to or work with the other Party's Proprietary Information, provided that such party shall maintain the confidentiality of the Proprietary Information as provided herein. The term "Residuals" means information that is in non-tangible form that is unintentionally retained by persons who have had access to the Proprietary Information in the ordinary course of business and in good faith, including ideas, concepts, know-how or techniques contained therein. The parties shall not have any obligation to limit or restrict the assignment of such persons or to pay royalties for any work resulting from the use of Residuals. To the extent any Residuals constitute a trade secret, the owner of the Proprietary Information from which such Residuals are derived hereby grants the party wishing to use the Residual a non-exclusive, royalty-free, perpetual license to such trade secrets to make such use, without notice or accounting, subject, however, to the requirements for maintaining the confidentiality of the underlying Proprietary Information. Nothing in this Section shall be deemed to grant to the other party a license under a party's patent, copyright or trademark rights, nor shall this Section apply to any information learned through reverse engineering, disassembling or decompiling of the Equipment or Software.

23. DOCUMENTATION AND NEW GENERATION EQUIPMENT

23.1 Documentation. Seller shall provide documentation for the Equipment which is compliant with Specifications and the reasonable standards of Seller's industry with respect to content, size, legibility and reproducibility.

23.2 New Generation Equipment. During the term of this Agreement, Seller may use commercially reasonable efforts to develop improved versions of the Equipment (each an "Improvement"). Promptly after Seller develops an Improvement, Seller shall deliver a written notice to TWC notifying TWC of the development of the Improvement and offering to sell to TWC the Equipment with such Improvement upon terms and conditions as may be agreed upon by Seller and TWC. Regardless of whether TWC accepts or rejects any such Seller proposal, TWC shall have the right to purchase the initial Equipment or any subsequent Equipment with an Improvement previously accepted by TWC on the terms and conditions applicable to purchases of the Equipment under this Agreement (including without limitation Section 6.5).

24. SYSTEM LICENSE

To the extent that Seller owns any IP Rights, whether currently existing or hereafter acquired (or is the licensee of any such IP Rights with a right to sublicense such IP Rights without payment of any additional fee or other consideration to the licensor or any third party), and, in either event, such IP Rights are necessary to enable a Subscriber to receive the telecommunication, entertainment, information, programming, applications, data or other services provided by a Purchaser's System only by directly and fully utilizing the functions and features of the Equipment as identified in the Specifications and as provided by Seller to Purchaser when used in the Purchaser's System, Seller hereby grants to each Purchaser a non-exclusive, irrevocable (except for a material breach of this Agreement), perpetual, worldwide, fully-transferable (but only to the extent that the Equipment as delivered by Seller is transferred), royalty-free license to use such IP Rights in connection with the Equipment to receive such telecommunication, entertainment, information, programming, applications, data or other

services provided by a Purchaser's System to its Subscribers. For purposes of clarity, the foregoing license grant shall not apply to any Enhancement for which Seller is entitled to charge a fee pursuant to the terms of this Agreement.

25. LIQUIDATED DAMAGES

TWC and Seller acknowledge that it is impractical and extremely difficult to determine the actual damages or lost revenues that may proximately result from a Party's failure to perform certain obligations under this Agreement. Accordingly, any amounts payable to TWC, Seller or a Purchaser as "liquidated damages" under this Agreement are (a) liquidated damages, and not a penalty, and (b) reasonable and not disproportionate to the presumed damages to TWC, Seller or such Purchaser, as the case may be, in lost revenues or otherwise from a failure by the other to comply with the applicable provisions of this Agreement. Unless specified otherwise in this Agreement, all payments of liquidated damages shall be made in cash, by check or by wire transfer no later than [**] days after receipt of notice from the Party requesting payment.

26. NOTICES

All notices or other communications required under this Agreement shall be in writing, addressed to the applicable Party in accordance with the contact information set forth below or as subsequently changed by a notice provided in compliance with this Section 26, and shall be deemed given: (A) one business day after deposit with an overnight courier, when sent by overnight courier; (B) five days after deposit with the U.S. Postal Service when sent by registered or certified mail, postage prepaid, return receipt requested; or (C) upon actual receipt by the addressee when sent by any other method.

To TWC:	Time Warner Cable Enterprises LLC 60 Columbus Circle New York, New York 10023 Attn: Chief Technology Officer
Copy To:	Time Warner Cable Enterprises LLC 60 Columbus Circle New York, New York 10023 Attn: General Counsel, Legal Department
To Seller:	Casa Systems, Inc. 100 Old River Road Andover, MA 01810 Attn: Legal Department
Copy To:	Casa Systems, Inc. 100 Old River Road Andover, MA 01810 Attn: Jerry Guo

or to such substitute addresses and persons as either party may designate to the other from time to time by written notice in accordance with this Section.

27. GENERAL

27.1 English Language. All documentation, manuals, notices, reports, and correspondence under this Agreement shall be submitted and maintained in the English language and all dollar amounts are in United States Dollars.

27.2 Financial Information. [**].

27.3 Subcontractors. Prior to subcontracting any of its obligations hereunder for the support of Equipment, Seller shall (a) provide to TWC the full legal name, address, contact person, telephone number and facsimile number of such Party, and (b) obtain TWC's consent prior to such subcontracting, which consent shall not be unreasonably withheld or delayed. Such requirement shall not apply to purchases of incidental, standard commercial supplies or raw materials. Seller shall remain solely responsible for the performance of all of its obligations hereunder, notwithstanding the approval by TWC of any subcontractor hereunder.

27.4 Relationship of the Parties. The relationship of Seller and its successors in interest, on the one hand, and TWC, Purchasers and their respective successors in interest, on the other hand, is that of independent contractors, and not one of principal and agent, joint venture or partnership. Neither Seller, on the one hand, nor TWC and Purchasers, on the other hand, shall have any authority to create or assume, in the name or on behalf of the other Party, any obligation, express or implied, nor to act or purport to act as the agent or the legally empowered representative of the other Party for any purpose whatsoever.

27.5 Assignment; Binding Effect. This Agreement shall be binding on and inure to the benefit of the Parties and their respective successors and assigns, but no Party shall have the power to assign this Agreement or any rights or obligations hereunder or under any Purchase Order (including by operation of law or by virtue of a "Change of Control," which for purposes of this Section 27.5 shall be deemed to be an assignment) without the prior written consent of the other Party hereto. Notwithstanding the foregoing, either Party may, without the consent of the other Party, assign its rights and obligations under this Agreement or a Purchase Order to (a) any entity that currently controls, is controlled by or is under common control with such Party (for purposes of this Section only, an "Affiliate") and (b) any successor entity in the event of such Party's transfer of all or substantially all of its assets or stock, merger, spin-off, consolidation, reorganization or other business combination; provided, however, that in any of the foregoing events, to the extent the assignor has incurred obligations prior to the date of such assignment, the assignor shall not be relieved of any of such obligations hereunder except to the extent performed or satisfied by the assignee; and further provided, however, that in no event may Seller assign this Agreement to any "TWC Competitor", as defined herein, without TWC's prior written consent to be granted in TWC's sole discretion. Additionally, notwithstanding the foregoing: (i) the benefits of the performance warranties provided under Article 8 and the indemnities under Article 14 may be enforced by a subsequent owner of the Equipment; and (ii) any Purchaser may assign the benefits of this Agreement which relate to any Equipment previously purchased by such Purchaser or subject to an outstanding Purchase Order submitted

by such Purchaser in connection with a transfer of such Equipment to (A) an Affiliate, or (B) any entity that purchases or otherwise acquires a Purchaser's System (whether by purchase or conveyance of assets or stock, merger, consolidation or other business reorganization) in which the Equipment has been deployed. The purchaser of, or successor to, a Purchaser's business or assets described in the foregoing clause (ii) shall be entitled to buy Equipment for a period of twelve months after the consummation of such transaction on terms and conditions substantially similar to those set forth in this Agreement. In the case of any assignment which is made in accordance with the terms and conditions of this Section, including without limitation an assignment made in connection with a Change in Control, the assigning party shall cause the assignee to accept in writing the assignment and the terms and conditions of this Agreement. "Change in Control" with respect to any Party means the acquisition (whether by purchase or conveyance of assets or stock, merger, consolidation or other business reorganization) by any person or group, whether in one transaction or in a series of related transactions, and whether directly or indirectly, (I) of the power to vote or control the vote of shares or interests in such Party having fifty percent (50%) or more of the total number of votes that may be cast for the election of directors or of such other governing or managing body of such Party, or (II) of fifty percent (50%) or more in fair market value of such Party's assets. "TWC Competitor" means any person or entity, and any person or entity that controls, is controlled by, or is under common control with any other person or entity, that offers (1) any direct broadcast satellite services, (2) any wireline video, television, data or voice services to subscribers, or (3) any wireless video, television, data or voice services to subscribers, in each case in any area where any TWC Related Party holds a cable franchise or otherwise has the right to provide any such services or any similar services. Any purported assignment in violation of this Agreement shall be null and void.

27.6 Severability. If any provision of this Agreement is declared or found to be illegal, unenforceable, or void by a court of law, the Parties shall negotiate in good faith to agree upon a substitute provision that is legal and enforceable and is as nearly as possible consistent with the intentions underlying the original provision. If the remainder of this Agreement is not materially affected by such declaration or finding and is capable of substantial performance, then the remainder shall be enforced to the extent permitted by Law.

27.7 Waivers. No delay or omission by either Party to exercise any right or power will impair any such right or power or be construed to be a waiver thereof. A waiver by any Party of any of the covenants, conditions, or contracts to be performed by the other or any breach thereof shall not be construed to be a waiver of any succeeding breach thereof or of any other covenant, condition, or contract herein contained. No change, waiver, or discharge hereof shall be valid unless in writing and signed by an authorized representative of the Party against which such change, waiver, or discharge is sought to be enforced.

27.8 Remedies. Except as expressly provided otherwise in this Agreement, in addition to any remedies provided in this Agreement, the Parties shall have all remedies provided at law or in equity. The rights and remedies provided in this Agreement or otherwise under Law shall be cumulative and the exercise of any particular right or remedy shall not preclude the exercise of any other rights or remedies in addition to, or as an alternative of, such right or remedy, except as expressly provided otherwise in this Agreement.

27.9 No Third-Party Beneficiaries. Nothing in this Agreement, expressed or implied, is intended or shall be construed to confer upon any entity, other than Seller and Purchasers, and their respective successors and permitted assigns, any remedy or claim by reason of this Agreement, and any such remedies or claims shall be for the exclusive benefit of Seller and Purchasers. References in this Agreement to "TWC" only shall not include any other Purchaser. Each Purchaser hereunder other than TWC shall be provided a copy of this Agreement; provided, however, that TWC or BHN, as the case may be, shall ensure that this Agreement is treated as Proprietary Information and shall be responsible for any unauthorized disclosure of this Agreement and/or its contents by such Purchasers.

27.10 Applicable Law; Venue; Jury Waiver. The interpretation, validity and enforcement of this Agreement, and all legal actions brought under or in connection with the subject matter of this Agreement, shall be governed by the law of the State of New York (except that any conflicts-of-law principles of such state that would result in the application of the law of another jurisdiction shall be disregarded). Any legal action brought under or in connection with the subject matter of this Agreement shall be brought only in the United States District Court for the Southern District of New York or, if such court would not have jurisdiction over the matter, then only in a New York State court sitting in the Borough of Manhattan, City of New York. Each Party submits to the exclusive jurisdiction of these courts and agrees not to commence any legal action under or in connection with the subject matter of this Agreement in any other court or forum. Each Party waives any objection to the laying of the venue of any legal action brought under or in connection with the subject matter of this Agreement in the Federal or state courts sitting in the Borough of Manhattan, City of New York, and agrees not to plead or claim in such courts that any such action has been brought in an inconvenient forum. IT IS MUTUALLY AGREED BY AND BETWEEN THE PARTIES THAT THEY EACH WAIVE TRIAL BY JURY IN ANY ACTION, PROCEEDING, OR COUNTERCLAIM BROUGHT BY EITHER OF THEM AGAINST THE OTHER PARTY ON ANY MATTER WHATSOEVER ARISING OUT OF OR IN ANY WAY CONNECTED WITH THIS AGREEMENT.

27.11 Time is of the Essence. Time of performance is of the essence in this Agreement and a substantial and material term hereof.

27.12 Expenses. Each of the Parties shall pay its own costs and expenses associated with the execution and performance of this Agreement.

27.13 Survival. The rights and obligations of the Parties set forth in Articles 1, 4, 8, 10, 11, 12, 13, 14, 15, 17, 19, 21, 22, 24, 25, 26 and 27 and Sections 3.4, 6.1, 6.2, 6.4, 7.1, 7.2.3, 9.3, 18.1.1 and 20.3 shall survive the expiration or termination of this Agreement for any reason.

27.14 Exhibits. All references herein to Exhibits are to the Exhibits attached hereto, which shall be incorporated in and constitute a part of this Agreement by such reference. If there is any conflict between the terms of this Agreement and the terms of any Exhibit, the terms of this Agreement shall control. The following is a list of Exhibits to this Agreement:

Exhibit A – Equipment and Specifications

Exhibit B – Prices

Exhibit C – Affiliate Addendum

Exhibit D – Insurance Requirements

Exhibit E – Support Services Addendum

27.15 Entire Agreement. This Agreement, including any Exhibits and documents referred to in this Agreement or attached hereto and each Purchase Order conforming to this Agreement, constitutes the entire and exclusive statement of this Agreement with respect to its subject matter and supersedes any and all oral or written representations, understandings, or agreements relating thereto. Any other terms or conditions included in any quotes, Purchase Orders, acknowledgments, bills of lading, or other documents utilized or exchanged by the Parties shall not be binding unless and only to the extent that a written agreement signed by authorized representatives of the Parties after the Effective Date expresses the intent of the signing Parties to be bound thereby. This Agreement may be modified, supplemented or changed only by an agreement in writing which makes specific reference to this Agreement and which is signed by both the Parties.

27.16 Performance by Affiliates. TWC, at its option, may exercise any of its rights or remedies under this Agreement, and/or perform any of its duties or obligations hereunder, by itself or through any TWC Affiliate in conformity with the terms and conditions of this Agreement.

27.17 Captions. The captions and headings contained herein are for purposes of convenience only and are not a part of this Agreement.

27.18 Construction. This Agreement and the Exhibits hereto have been drafted jointly by the Parties and in the event of any ambiguities in the language hereof, there shall be no inference drawn in favor of or against either Party.

27.19 Counterparts. This Agreement may be executed in any number of counterparts, each of which shall be deemed an original, but all of which shall constitute one and the same instrument.

[SIGNATURE PAGE FOLLOWS]

The Parties hereto have executed this Agreement as of the Effective Date.

Seller:

CASA SYSTEMS, INC.

By: /s/Gary Hall

Name: Gary Hall

Title: Chief Financial Officer

Date: November 6, 2013

TWC:

TIME WARNER CABLE ENTERPRISES LLC

By: /s/Mike Lajoie

Name: Mike Lajoie

Title: Executive Vice President

Date: October 31, 2013

EXHIBIT A
TO
MASTER PURCHASE AGREEMENT
BETWEEN
TIME WARNER CABLE ENTERPRISES LLC
AND
CASA SYSTEMS INC.

Equipment and Specifications

Data Sheet
March 2010

LINEAGE POWER

Compact Power Line Shelves

Model: J85480S1, L1 – L14

The 1U (1.75") high CPL family of shelves mount in 19-inch wide frames and provide up to 11kW of 48V output power per shelf. There are three or four slots for rectifiers, converters (PEMs). L1 accepts the CP843A full featured Pulsar controller for applications requiring plant control.

- Only 16.81" wide fits inside equipment that is designed into a 19" rack
- Two DC Outputs may be common or split. Each output bus is rated for 100A with two-hole lug landings for 2 AWG wire.
- Either IEC-320 or AMP Mate_N_Lok AC inputs
- Analog, RS485 or dual/redundant I^2C communications.
- Adjustable mounting ears for flush or set back positions.
- Stackable up to 8 high with 32 paralleled power supplies.
- Optional CP843A controller w/display & interactive panel

Rectifier Shelves (AC Input, DC Output)								
						Communications Features		
List	Max Power	# AC Inputs	AC Input Plug	DC Output Bus	Max Rectifier Size	Shelf Controller	Protocol	Ordering Codes
1	8kW	4	IEC-320, C13	Common	CP2000	CP843A	Analog, I^2C RS485	CC109143723
4	8kW		IEC-320, C13	Common		No		108994538
6	8kW		AMP Mate_N_Lok	Common				CC109104378
7	11kW		AMP Mate_N_Lok	Split	CP2725		Analog, I^2C	CC109121902
9	8kW		IEC-320, C13	Split	CP2000		Analog, I^2C	CC109137072
PEM Shelves (DC Input, DC Output)								
						Communications Features		
List	Capacity	# DC Inputs	DC Input Plug	DC Output Bus	Max PEM Size	Controller	Protocol	Ordering Codes
14	8kW	2	AMP Power-Blade	Split	CP2000	No	Analog, I^2C	CC109124764

Notes:
List 1 shelf allows side access to CP843A Pulsar Controller Outputs.
L7, L9: Split Bus Shelves cannot be paralleled. L1, L4, L6: Up to eight shelves may be paralleled.

Consult the factory for product availability

Casa Systems power rectifier unit provides the surge protection to the Equipment. The maximum surge absorption of the Casa Systems power rectifier is: AC power lines – +/-1.0kV Differential and +/-2.0kV Common mode.

Casa Systems C100G CCAP Technical Specifications

System

2x600 Gbps switching capacity
MPEG switching from any port to any port
12 DOCSIS module slots per system
1~11 Downstream modules per system
1~11 Upstream modules per system

DOCSIS Features

Full DOCSIS 3.0 compliant
Full EuroDOCSIS 3.0
DOCSIS 3.0 downstream channel bonding up to 64 channels
DOCSIS 3.0 upstream channel bonding up to 64 channels
DOCSIS 3.0 AES encryption/decryption
DOCSIS 3.0 IPv6
DOCSIS 3.0 Multicast
Complete DOCSIS/EuroDOCSIS 1.1 features
DOCSIS/EuroDOCSIS 2.0 A-TDMA (standard)
PacketCable 1.5 compliant
PacketCable MultiMedia (PCMM) 1.0
DSG
L2VPN

IP Features

OSPFv2
IS-IS (IPv4 & IPv6)
RIPv2
BGP (IPv4 & IPv6)
PIM-SM
ICMP snooping
ICMP v2 and v3
Static IP routing
DHCP Relay and option 82
DHCPv6
DHCP prefix delegation
Multiple DHCP servers
Proxy ARP
IP subnet bundling
Multiple default routes
Access Control Lists
MPLS

Management

RS232 serial port (RJ45)
10/100BASE-T management port
Command line interface (CLI)
Telnet
SSH
SNMPv1, v2 & v3
Standard DOCSIS & IETF MIBs
IPDR
Casa Systems Enterprise MIBs
Event logging through Syslog
Electronic mail notification
Resource usage reporting
TACACS+ and RADIUS

DOCSIS QAM Module (DQM)

DS8X4	32 channels, 4 channels/port
DS8X8	64 channels, 8 channels/port
DS8X96	1024 channels
	128 channels/port
QAM modulation	Annex A or B
QAM constellations	64, 128 & 256 QAM
Data rates (DOCSIS)	27 Mbps @ 64 QAM
	38 Mbps @ 256 QAM
Data rates	36 Mbps @ 64 QAM
(EuroDOCSIS)	51 Mbps @ 256 QAM
Frequency range (center)	48 to 1000 MHz
Frequency step size	5 kHz
Channel width	6 to 8 MHz (tunable)
Maximum output/ch	60 dBmV @ 1-ch/port
	56 dBmV @ 2-ch/port
	52 dBmV @ 4-ch/port
	49 dBmV @ 8-ch/port
Output step size	0.1 dB
Output accuracy	± 5ppm
Return loss	50 ~ 870 MHz, 14 dB
	870 ~ 1002 MHz 10 dB

Casa Systems C100G CCAP Technical Specifications

DOCSIS Control and Upstream Module (DCU)

US16X2	32 channels, 2 channels/port 5–65Mhz
US16X4	64 channels, 4 channels/port 5–65Mhz
US16X8	128 channels, 8 channels/port 5–100Mhz
Modulation	QPSK, 8, 16, 32 & 64 QAM
Data rate/channel	0.32 - 30.72 Mbps
Input range	-4 to 26 dBmV

Switch and Management Modules (SMM)

SMM2X10G

- Two 10 GigE interfaces
- Eight GigE interfaces
- GigE copper or fiber SFP
- Full line-rate support

SMM8X10G

- Eight 10 GigE interfaces
- Two GigE interfaces
- GigE copper or fiber SFP
- Full line-rate support

RF I/O Downstream Module (RFD)

Number of ports module	8 ports per module
Connector	F-type, 75 Ω

RF I/O Upstream Module (RFU)

Number of ports module	16 ports per
Connector	F-type, 75 Ω

Additional Features

Dynamic upstream & downstream load balancing

Spectrum Management

Software-defined MAC domains

Software channel licensing

Ingress cancellation filtering

Mechanical

Form factor	13RU
Height	21 in. / 533 mm
Width	19 in. / 482 mm
Depth	16 in. / 406 mm
Weight	120 lbs (fully loaded)
Mounting high	19 inch, 13 rack unit
Front panel LED	Power & alarm

Environmental

Operating temperature	0° to 50° C
Storage temperature	-40° to 70° C
Operating humidity	5% to 95%, non-cond.
Power requirements (DC)	-40.5 to -60 V (dual)
Power consumption	< 3600 W (nominal)

Regulatory Compliance

Designed to NEBS level 3 requirements

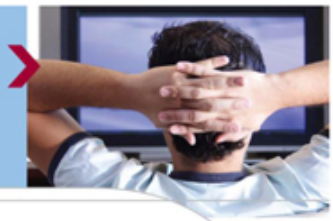
casa systems

Casa Systems, Inc.
100 Old River Road
Suite 100
Andover, MA 01810

Tel: 978.688.6706
Fax: 978.688.6584

info@casa-systems.com
www.casa-systems.com

Casa Systems Downstream DS8X96 CCAP Module



Feature Highlights

Converged Cable Access Platform (CCAP) Functionality
DS8X96 provides the scale and software functionality required to deliver Full CCAP functionality to its C10G CMTS platform by enabling MSOs to immediately deploy DOCSIS, IPTV and digital video over a single RF port and greatly increasing channel density over existing CMTS modules on the market

Superior Channel Density
Industry leading 96 channels per port including 32 unique channels per port of narrowcast and 64 channels of broadcast for a total of 768 channels per module

Channel Bonding
Delivers 256 variable size DOCSIS channels that can be used for bonding

Cost Effectiveness
Industries lowest cost per DOCSIS 3.0 channel for this class of product, delivering an economical solution for high bandwidth multimedia applications

Overview

Casa Systems' downstream DS8x96 module delivers unprecedented density and performance. The DS8x96 module delivers an industry leading 96 channels per port including 32 unique channels per port of narrowcast and 64 channels of broadcast for a total of 768 channels per module. Designed to be deployed today in the carrier class C10G Cable Modem Termination System (CMTS) platform, the DS8x96 module delivers up to eleven primary DS8x96 modules and one protection module, yielding a total combination of over 8000 narrowcast and broadcast channels supported in the downstream direction.

The DS8x96 DOCSIS module is a complete DOCSIS downstream unit that includes DOCSIS packet processing, QoS, DOCSIS downstream MAC, PHY, and RF upconversion. Each downstream QAM channel can be configured to support DOCSIS or MPEG/DVB-C video.

casa systems

Casa Systems Downstream DS8X96 CCAP Module

DS8x96 QAM Module

Number of Channels channels/port	768 channels, 96
QAM modulation	Annex A, B or C
QAM constellations	64, 128, & 256 QAM
Data rates (DOCSIS)	27 Mbps @ 64 QAM 38 Mbps @ 256 QAM
Data rates (EuroDOCSIS)	36 Mbps @ 64 QAM 51 Mbps @ 256 QAM
Frequency range (center)	48 to 1000 MHz
Frequency step size	1 Hz
Channel width	6 to 8 MHz (tunable)
Maximum output power (sum total of all channels)	60 dBmV @ 1 ch/port 59 dBmV @ 2 ch/port 58 dBmV @ 4+ ch/ port
Output step size	0.1 dB
Output accuracy	± 5ppm
Return loss	50 – 870 MHz, 14 dB 870 – 1002 MHz 10 dB
Modulation error rate	43 dB (equalized)
Wideband noise	-73 dBc

Channel Bonding

The DS8x96 has 256 variable size DOCSIS channels that can be used for bonding. These bonded channels can be grouped together, delivering numerous channel configurations and maximum flexibility.

Converged Cable Access Platform (CCAP) Functionality

The CCAP specification calls for improved density and increased functionality and the DS8x96 delivers. The DS8x96 module brings Full CCAP functionality to its C10G CMTS platform by enabling MSOs to immediately deploy DOCSIS, IPTV and digital video over a single RF port and greatly increasing channel density over existing CMTS modules on the market.

Investment Protection

For those MSO's who aren't ready to deploy CCAP right now, the DS8x96 module still delivers superior channel density at a lower cost than its competitors.

When ready, existing C10G customers can seamlessly migrate to CCAP by adding the DS8x96 module without changing any other hardware on the platform. This protects their initial investment in Casa Systems while providing additional capex and opex savings moving forward.

casa systems

Casa Systems, Inc.
100 Old River Road
Suite 100
Andover, MA 01810

Tel: 978.688.6706
Fax: 978.688.6584

info@casa-systems.com
www.casa-systems.com

EXHIBIT B
TO
MASTER PURCHASE AGREEMENT
BETWEEN
TIME WARNER CABLE ENTERPRISES LLC
AND
CASA SYSTEMS INC.

Exhibit B — Prices

Pricing Addendum to Master Purchase Agreement

Pricing Summary

Overview

This **Exhibit B – Prices** is entered into in connection with the Master Purchase Agreement (the "Purchase Agreement") to which it is attached. Capitalized terms used but not otherwise defined in this Exhibit shall have the meanings given them in the Purchase Agreement into which this Exhibit is incorporated by reference. This Exhibit addresses pricing for Equipment and Services.

Pricing Terms Summary

The CASA C100G CMTS is a chassis based solution that houses plug-in modules. The plug-in modules are used to scale downstream and upstream capacity of the C100G. Pricing is set forth in Attachment A – Summary Pricing Table.

C100G COMPONENTS

- C100G Chassis – includes metal frame, fan tray, power supplies, and RF Redundancy kit
- 8x96 Downstream Module ("DS") – has 8 physical RF ports. Each physical RF port is capable of supporting 32 unique channels per port and a shared pool of 64 channels or as an option, each of the 8 ports can support up to 40 unique channels with no shared pool of additional channels.
- 16x4 Upstream Module ("US") – this card has 16 physical RF ports. Each physical RF port can support up to 4 channels per port for a total of 64 upstream channels.
- 8x10G Systems Management Module ("SMM"). The SMM has (8) 10G Ethernet ports and (2) 1GB Ethernet ports. The TWC configuration provides for dual SMM units which provide automatic redundancy switchover in the event of a unit failure.
- SFP – a module that plugs into the SMM ports for interfacing in the external routing network.
- AC Rectifier – provides for AC Power connection to the C100G

Downstream Channel Pricing Methodology

[**].

Upstream Channel Pricing Methodology

The 16x4 upstream modules are capable of supporting 4 channels per port. The 16x4 US module has 16 ports. The maximum capacity of the 16x4 US card is 64 channels.

Video QAM Licensing

Video QAM channels are $[**] per channel. The minimum purchase quantity is [**] QAM channels or $[**].

Video QAM replication (non-unique channel duplication on the 8x96 DS module) are [**].

Warranty, Support Services, Extended Warranty and Advance Replacement

Hardware and Software warranty as described in the Purchase Agreement is included in the Equipment Price for a period of [**] months beginning on the date of Delivery of the Equipment. For clarification, this includes 24/7/365 technical assistance, the Equipment warranty and Support Services for Software.

After the Initial Warranty Period, Support Services (including technical assistance) for the Software portion of the Equipment is available as elected by the Purchaser at a fee equal to [**]% of the original purchase Price of the Equipment supported.

After the Initial Warranty Period, an Extended Warranty Contract for the hardware portion of the Equipment is available as elected by the Purchaser at a fee equal to [**]% of the original purchase Price of the Equipment covered. As elected by Purchaser, Extended Warranty Contracts are required to be purchased on a continuous basis (i.e. no gaps in Extended Warranty coverage) upon conclusion of the Initial Warranty Period.

At any time during which (i) the Equipment to be covered is within the Initial Warranty Period, or (ii) Purchaser has purchased an Extended Warranty Period, as elected by the Purchaser, with respect to the Equipment to be covered, an advance replacement program ([**] return) as described in Section 8.10 of the Purchase Agreement is available at a fee equal to [**]% of the original purchase Price of the Equipment covered.

Fees applicable to the repair or replacement of Equipment that is either out of warranty or that has suffered a Non-Warranty Defect shall be as set forth in Attachment B – Non-Warranty Prices.

Training

If additional on-site training is required beyond what is stated in the Purchase Agreement, the cost is $[**] per day, plus out-of-pocket expenses, if applicable. Expenses must be in writing and pre-approved by Purchaser.

Attachment A – Summary Pricing Table

Casa Systems, Inc.
100 Old River Road
Andover, MA 01810
978-688-6706

Part Number	Description	TWC Unit Price (USD)
[**]	[**]	[**]
[**]	[**]	[**]
[**]	[**]	[**]
[**]	[**]	[**]
[**]	[**]	[**]
[**]	[**]	[**]
[**]	[**]	[**]
[**]	[**]	[**]
	[**]	

Attachment B – Non-Warranty Prices

casa systems

100 Old River Road, Unit 100
Andover, MA 01810 USA
Phone: 978-688-6706 Fax: (978) 688-6584
Web: http://casa-systems.com

Time & Material Support Fees:

Part Number	Service Provided	Price
[**]	[**]	[**]
[**]	[**]	[**]
[**]	[**]	[**]
[**]	[**]	[**]

9/17/13

EXHIBIT C
TO
MASTER PURCHASE AGREEMENT
BETWEEN
TIME WARNER CABLE ENTERPRISES LLC
AND
CASA SYSTEMS INC.

Affiliate Addendum

1. **Agreement Reference**. Reference is hereby made to that certain Master Purchase Agreement by and between Time Warner Cable Enterprises LLC ("**TWC**") and Casa Systems, Inc. ("**Seller**"), effective as of _____, 2013 (as amended from time to time by TWC and Seller, the "**Agreement**").

2. **Acceptance of Agreement**. Bright House Networks, LLC ("**BHN**") hereby agrees, for the benefit of Seller, to be bound by the terms and conditions of the Agreement, which are hereby incorporated by reference into this Addendum. BHN hereby makes the same representations and warranties to Seller as TWC makes to Seller pursuant to Section 21.1, subject to the following modifications:

[[Insert changes as required to reflect BHN's form of entity and state of organization.]]

Executed as of the __ day of _____, 20__.

BRIGHT HOUSE NETWORKS, LLC

By: _____
Name: _____
Title: _____

9/17/13

EXHIBIT D
TO
MASTER PURCHASE AGREEMENT
BETWEEN
TIME WARNER CABLE ENTERPRISES LLC
AND
CASA SYSTEMS INC.

Insurance Requirements

Seller shall at all times during the term of this Agreement, at its sole expense, maintain the minimum insurance coverages and limits listed below. The following required minimum coverages and limits may be met by a combination of the primary policy with a follow-form Excess Umbrella Liability Policy.

1. Commercial General Liability Coverage

Coverages: Premises & Operations, Broad Form or Blanket Contractual Liability, Independent Contractors Liability, Products/Completed Operations, Personal Injury and Broad Form Property Damage

Minimum Limits:

Each Occurrence (BI/PD)	$[**]
General Aggregate	$[**]
Products/Completed Operations	$[**]
Medical Expenses (any one person)	$[**]

- TWC must be named as an **Additional Insured** – Use ISO Endorsement CG 2010 or CG 2026 (or equivalent) for *ongoing operations*
- Seller shall maintain *completed operations* coverage for a minimum of [**] years following the completion and acceptance of the work performed by Seller.

2. Business Automobile Liability Coverage

Coverages: Auto Coverage for *non*-owned and hired cars only. Blanket Contractual Coverage.

Minimum Limits:

Each Accident	$[**]	*Combined single limit for bodily*
General Aggregate	$[**]	*injury & property damage*

3. Workers' Compensation Insurance

Coverages and Minimum Limits:

Part I	Workers' Compensation	Statutory Limits
Part II	Employer's Liability	
	Bodily Injury by Accident	$[**]
	Bodily Injury by Disease (Each Employee)	$[**]
	Disease Policy Limit	$[**]

4. Umbrella/Excess Liability Policy (Follow-Form)

Per Occurrence	Amount must be such that when added to primary policy coverage, limits are equal to: $[**]
General Aggregate	$[**]

5. Errors and Omissions (E&O) Insurance

Coverages: Must include cyber liability coverage Minimum Limits:

Professional E&O	$[**]

6. Insurance – General Conditions

a) The certificate holder shall be:

Time Warner Cable Enterprises LLC, its subsidiaries and affiliated companies
7815 Crescent Executive Drive, Charlotte, NC 28217
Attn: Contracts Administrator

b) The certificate must be provided on the industry standard "ACORD" form (or equivalent) upon contract execution and within [**] days of policy renewal.

c) Insurance carriers must have an A.M. Best rating of *at least A-*.

d) The Seller will name "Time Warner Cable Inc., its subsidiaries, affiliated companies, directors, officers, employees and agents" as an Additional Insured on the general liability policy by policy endorsement.

To meet this obligation, the Seller must provide TWC with:

- Certificate of Insurance in accordance with the insurance provisions of the contract and these insurance requirements. The following shall be included in the "Description of Operations" section of the certificate:

  TIME WARNER CABLE INC., ITS SUBSIDIARIES, AFFILIATED COMPANIES, DIRECTORS, OFFICERS, EMPLOYEES AND AGENTS ARE NAMED AS ADDITIONAL INSURED AS THEIR INTEREST MAY APPEAR (ATIMA).

- Additional Insured Endorsement for *ongoing operations* ISO CG 2010, CG 2026 or equivalent.

e) The general liability insurance policy will contain a statement that said policy is *primary* coverage to Time Warner Cable Inc., its subsidiaries, affiliated companies, directors, officers, employees and agents; and that any coverage maintained by Time Warner Cable Inc. is *excess* and *non-contributory* for claims or losses resulting from the negligence of the Seller.

f) The Workers' Compensation policy shall include a waiver of subrogation in favor of Time Warner Cable Inc., its subsidiaries, affiliated companies, directors, officers, employees and agents for claims or losses resulting from the Seller's negligence.

g) The Seller will endeavor to provide TWC at least [**] days prior written notice of any policy cancellation or modification to any policies which reduce such policy coverage and/or limits below the limits set forth in this Exhibit.

h) The cost of any deductible amounts or self-insured retentions contained in any of the insurance policies is to be borne by the Seller without any increase or adjustment to the applicable contract amount.

i) The minimum limits of insurance coverage required by these insurance provisions will in no way limit or diminish the Seller's liability.

j) All of the above conditions will also apply to any subcontracted operations.

EXHIBIT E
TO
MASTER PURCHASE AGREEMENT
BETWEEN
TIME WARNER CABLE ENTERPRISES LLC
AND
CASA SYSTEMS INC.

Support Services Addendum

1. Scope

This **Exhibit E – Support Services Addendum** is entered into in connection with the Master Purchase Agreement (the "Purchase Agreement") to which it is attached. Seller agrees to provide Support Services to TWC and the Purchasers during the Initial Warranty Period and during the Period for which TWC or the Purchasers have purchased Support Services for the Software on the terms and conditions set forth below.

Capitalized terms used but not otherwise defined in this Exhibit shall have the meanings given them in the Purchase Agreement into which this Exhibit is incorporated by reference. Seller shall be liable for all Support Services performed by its subcontractors or agents in the same manner as if Seller had performed the Support Services itself.

2. Technical Support

Support Services include:

2.1 7x24 Call Center Service

Seller will provide twenty-four-hours-a-day, seven days a week, year-round support through Seller Call Centers. Purchasers may contact the Call Center either by phone or by email, provided that Purchasers shall always have the option to contact the Call Center by phone should they choose to do so.

Email: support@casa-systems.com
Telephone (USA): +1.978.699.3045

The Call Center objective is to identify the cause of a defect, problem and/or disturbance with respect to the Equipment and to provide the Purchaser with instructions on how to restore the Equipment back to normal operational condition as soon as practically possible. The defect, problem or disturbance causing the issue may not necessarily be remedied during the initial response.

Relevant data regarding the defect, problem or disturbance reported shall be

provided by the Purchaser upon request from Seller and may also be gathered by Seller through remote connection to the affected Equipment. This data will be recorded in the form of a “Case”. When all relevant data is gathered, Seller will respond with a Trouble Report Acknowledgement and inform the Purchaser of the Case number.

The Call Center service can also be used to answer non-urgent routine questions and queries related to Equipment operation and/or maintenance. Non-urgent questions and queries shall be addressed on a priority basis and will be quickly and competently answered.

All inquiries will result in a Case being opened and the Case will remain open until the issue or question has been fully resolved or answered to the Purchaser’s satisfaction.

2.2 Technical Support System

Seller shall provide a Purchaser accessible Technical Support System from which the Purchaser can download the latest software and technical documentation and open Cases to request problem resolution assistance. Note that a Purchaser can only download and install Seller software provided pursuant to this Exhibit to Equipment that is within the Initial Warranty Period or for which the Purchaser has purchased Support Services.

Seller shall provide a log-in and password to the Seller FTP server and instructions on how to use it. To request log-in access to the Seller Technical Support System, Purchasers may send an email to support@casa-systems.com requesting log-in access to the Seller FTP server and including the email addresses of all technical team contacts authorized to open Cases with Seller.

The ticketing system uses the email address to automatically identify Purchaser and ensure that Purchaser receives the Support Services to which it is entitled. If an unauthorized person sends an email to Seller, Purchaser’s account information will not be automatically identified by Seller’s technical support team, which may result in a delayed or no response from Seller. Additional technical contacts can be added at any time by sending an email to support@casa-systems.com.

2.3 Problem Resolution Process

Seller provides a comprehensive, organized effort to resolve all Purchaser Equipment related issues including:

- Utilization of remote access to the Purchaser Equipment for problem isolation and solution creation,
- Use of a problem replication lab with all the necessary equipment,

- Researching the problem and delivering tested solutions to Purchaser,
- Consultation with the Purchaser regarding a solution implementation plan,
- Repair or replacement of defective hardware per the Purchase Agreement, and
- Providing a tested fix or workaround solution for Software issues.

3. Exclusions

3.1 Subject to Section 8.6 of the Purchase Agreement, the Support Services do not cover Equipment and Software with respect to Non-Warranty Defects.

3.2 Seller shall, at Purchaser's request, assist Purchaser in identifying and solving any Non-Warranty Defects. Subject to Section 8.6 of the Purchase Agreement, Seller's work in relation to any Non-Warranty Defects shall be regarded as a professional services engagement and will be invoiced to Purchaser separately.

3.3 If requested by a Purchaser, out of warranty hardware shall be repaired in accordance with Section 8.11.3 of the Purchase Agreement. Purchaser will receive an invoice for repair work in accordance with the Purchase Agreement, and Purchaser will be responsible for all shipping charges.

4. Service Response Commitments

4.1 In order for Seller to commit to and achieve the service response times set forth herein, Purchaser is required to provide Seller with remote access to the Equipment related to the Case and/or assist Seller in obtaining relevant information related to the Case. Through the Problem Resolution process, Seller will provide professional and workmanlike solutions on how to eliminate Severity Level 1, Severity Level 2 and Severity Level 3 defects (as defined herein) in the Equipment and restore the Equipment to normal operational condition by implementing a temporary solution, if relevant, and then a permanent solution, if necessary.

4.2 Seller agrees to respond to technical problems within the timeframes described in Table 1, depending on the Severity Level of the problem. The Permanent Fix times do not apply to hardware repair or replacement. For faster fix times due to hardware defects, Seller recommends that the Purchaser maintain on-site spares.

For Severity Level 1 problem reports, Seller shall, within a maximum time period of [**], contact the Purchaser by email or phone in order to request all information related to the defect, problem and/or disturbance. During the subsequent response time, Seller will request information from the Purchaser and access the Equipment to gather data necessary in order for Seller to find a temporary or permanent solution and provide the Purchaser with instructions enabling the Purchaser to restore the Equipment back to normal operational condition as soon as practically possible.

For Severity Level 1 problems, instructions enabling Purchaser to restore the Equipment back to normal operational condition shall be given to Purchaser within [**].

If a temporary solution is provided in order to restore the Equipment to normal operational condition, Seller shall subsequently provide a permanent solution within the response times specified In Table 1.

Table 1. Service Response Commitments

SEVERITY LEVEL	SERVICE WINDOW	RESPONSE	TEMPORARY FIX	PERMANENT FIX
1	[**]	[**]	[**]	[**]
2	[**]	[**]	[**]	[**]
3	[**]	[**]	[**]	[**]
4	[**]	[**]	[**]	[**]

Actual restoration time for diagnosed hardware defects will depend on the availability of spares. Seller recommends that the Purchaser establish spares availability to meet restoration time commitments.

The above stated time periods are not additive. The beginning of each time interval for both the Response and for the Temporary or Permanent Fix as stated above is the time that the Purchaser has contacted Seller to report the Error or make the inquiry. The “Service Window” is the time period during which Seller will work to remedy the defect, problem or disturbance.

4.3 Seller shall provide, to each Purchaser whose access to the Software has been subject to a Severity Level 1 problem, service level [**] against Support Services fees or other amounts to be paid by TWC or the Purchasers if Seller has failed to respond to a request for support for a Severity Level 1 problem after the periods specified in Section 4.2 above. For the first [**] after the designated response time, the amount [**] shall be $[**] for each [**] interval, or portion thereof, during which Seller fails to respond. For the [**] after the designated response time, and for each [**] thereafter, the amount [**] shall be $[**] per [**], or portion thereof, during which Seller fails to respond. For example, if Purchaser reports a Severity Level 1 problem at [**], and Seller fails to respond until [**], the Purchaser shall be entitled to a [**] equal to $[**]. If Purchaser reports a Severity Level 1 problem at [**], and Seller fails to respond until [**], the amount of [**] shall be $[**].

4.4 Seller shall provide to each Purchaser whose access to the Software has been subject to a Severity Level 1 problem, a [**] against Support Services fees or other amounts to be paid by TWC or the Purchasers if Seller fails to provide a Temporary or Permanent Fix for that Severity Level 1 problem within the applicable resolution time set forth in the table in Section 4.2 above. Such [**] shall be equal to [**] percent ([**]%) of the monthly Support Services fees under the Purchase Agreement for the month in which the Severity Level 1 problem was first properly reported to Seller for each [**], or portion thereof, by which the Temporary or Permanent Fix times are missed for such Severity Level 1 problem, provided, however, [**] shall be based upon the Support Services fees then paid or payable under the Purchase Agreement for such month plus an amount equal to the Support Services fees that would have been paid for the Software that is within the Initial Warranty Period had such Software not been within the Initial Warranty Period and been covered by Support Services. For example, if a Severity Level 1 problem is reported by Purchaser at [**] and persists without a Temporary or Permanent Fix for [**] after the Severity Level 1 problem is first reported by Purchaser, and if the monthly Support Services fees under the Purchase Agreement for all Purchasers for the month of [**] (including fees that would have been paid with respect to Software within the Initial Warranty Period) are $[**], the Purchaser shall be entitled to [**] equal to $[**].

4.5 [**] the foregoing Sections 4.3 and 4.4 shall be applied to the next invoice for fees or other amounts to be paid by TWC or any Purchaser. The amount of any [**] shall be paid in cash to TWC only upon termination of Purchasers' use of the Software in the event that [**] have not been used prior to such termination. The Parties agree that (i) it would be impractical and extremely difficult to fix the actual damages to Purchaser that may proximately result from the failure of Seller to timely perform the obligations set forth in Section 4.2 and to which the [**] relate, (ii) such [**] and not a penalty, (iii) such [**] constitute a reasonable remedy that is not disproportionate to the presumed damage caused by the failure of Seller to timely perform the obligations set forth in such Section 4.2. If Seller is liable for [**] as described in Sections 4.3 and 4.4 above in any two out of three consecutive months, then TWC may terminate the Agreement upon written notice

to Seller. Such termination right, along with the [**] to TWC as described in this Section 4, shall be Purchaser's sole and exclusive remedy with respect to a breach by Seller of the specific response time and resolution time obligations set forth in Section 4.2. Notwithstanding the foregoing, nothing in this Section shall affect TWC or any Purchaser's right to pursue any other remedies available to it at law or in equity with respect to any act or omission of Seller that constitutes a material breach of any other provision of this Exhibit E or the Agreement, even though such act or omission also constitutes a breach by Seller of the specific response time and resolution time obligations set forth in Section 4.2 of this Exhibit E.

5. Definition of Severity Levels

Each trouble report shall include the following information: (a) the name and telephone number of the person making the report, and (b) the Severity Level of the reported defect, problem or disturbance, which shall be assigned by the Purchaser in good faith. Problems fall into one of four categories:

5.1 Severity Level 1 (Critical service impact)

Definition: an emergency or very serious defect, problem and/or disturbance in the Equipment causing the Equipment to become inoperative or severely disturbed or frequently interrupted or causing a severe performance degradation, service degradation or loss of capability in the Equipment.

1. >[**]% of the Equipment deployed by a Purchaser in a single market area is down (modems offline or data services out), or there is a significant loss of utility of a material function of the Equipment experienced by at least [**]% of the Subscribers then serviced by the Equipment within a single market area.
2. Equipment is not accessible through CLI or SNMP.

For the purpose of this Agreement, Severity Level 1 defects, problems and/or disturbances shall include, but not be limited to, the following:

- Complete Node Failure – The Equipment does not handle any traffic and a manual intervention is needed to restore the system,
- Equipment crashes repeatedly or hangs,
- A major disturbance in the Equipment's functionality resulting in a capacity decrease of more than [**]% of the functionality of the node,
- Critical functionality not available,
- Major fault or disturbance affecting a specific area of functionality, but not the whole system/node, and/or
- Major problems or disturbances that require immediate action, such as restarts.

5.2 Severity Level 2 (Major service impact)

Definition: a serious defect, problem and/or disturbance in the Equipment deployed by a Purchaser in a single market area which is causing such Equipment to become disturbed or frequently interrupted or is causing a performance degradation, service degradation or loss of capability in relation to such Equipment but which does not qualify as a Severity Level 1 problem. Such serious defect could also result in operation and maintenance affecting faults that prohibits proper operation or maintenance or results in a lower level of Equipment performance that may result in Purchaser complaints or significantly increased workload on Purchaser's maintenance staff.

1. Part of the Equipment deployed by a Purchaser in a single market area does not function fully, resulting in full or partial loss of services,
2. Services are still available but Purchaser experiences major degradation of services, and/or
3. Faults affecting launch of new services.

For the purpose of this Agreement, Severity Level 2 defects, problems and/or disturbances shall include, but not be limited to, the following:

- Degraded performance,
- Incorrect behavior of functions, and/or
- Lack of ability to add new Purchasers/services.

5.3 Severity Level 3 (Minor impact)

Definition: a minor defect, problem and/or disturbance in the Equipment not significantly affecting Subscriber service delivery or the performance, service, operation and maintenance of the Equipment and which does not qualify as a Severity Level 2 problem, but, however, resulting in a deviation from the Equipment specified functionality.

- Services are mostly available but may experience minor degradation,
- Defects cause inconvenience but not major service disruption,
- Minor failure of functions,
- Command syntax issues, and/or
- Non-Subscriber (service) affecting defects, problems and/or disturbances.

5.4 Severity Level 4 (Informational)

Definition: informational requests or minor documentation errors not affecting operation and maintenance of the Equipment, such as:

- Configuration questions and problems,

- Feature request,
- Enhancement request, and/or
- Technical questions.

6. Responsibilities of Seller

Seller shall:

- collaborate with Purchaser in a spirit of trust and co-operation,
- ensures that its staff will comply with any and all regulations and requirements made known to Seller concerning the conduct of its personnel at Purchaser's premises,
- have access to suitable test plans and associated equipment in order to provide the services defined in this agreement,
- maintain knowledge of the hardware, software, and documentation applicable to or used in the Purchaser's System,
- cause as limited interference as reasonably possible to the Equipment and Purchaser's existing System and the operation thereof when performing any Support Services,
- inform Purchaser in advance whenever the performance of Support Services may or is likely to cause such interference in the Equipment or Purchaser's existing System or the operation thereof,
- inform Purchaser without undue delay in the event Seller is of the opinion that Purchaser has failed to fulfill any of Purchaser's obligations under the Purchase Agreement or this Exhibit,
- comply with Section 9 of this Exhibit whenever Seller makes remote access to the Equipment or any other hardware or software within Purchaser's System, and
- respect the confidentiality and privacy of the Purchaser's information.

7. Responsibilities of Purchaser

Purchaser shall:

- agree to install and carry out the recommended operation and maintenance of the Equipment according to service guidelines provided by Seller,
- keep an operational logbook and record of faults in accordance with reasonable instructions provided by Seller,
- agree to provide Seller with named points of contact that are authorized to request support from Seller,
- agree to provide Seller Technical Support with remote access to the Equipment for troubleshooting purposes when needed,
- agree to provide Seller with accurate statistical information regarding the performance of the Equipment upon reasonable request,

- ensure that Purchaser's maintenance staff is sufficient in number and have an adequate level of competence in order to carry out Purchaser's obligations and for the purpose of liaison with Seller, to include commercially reasonable on-site support and test equipment to troubleshoot problems,
- agree to characterize the Severity Level of problems in good faith and as accurately as possible,
- agree to provide Seller with the following information when requesting support:
  - Serial number of affected unit (chassis serial number),
  - Contact Name,
  - Severity Level of the problem,
  - Symptoms and description of the problem,
  - Hardware and software revision levels, as appropriate, and
  - Detailed information as reasonably requested by Seller Technical Support, such as data obtained by querying the system (e.g. 'show tech'),
- agree to return all defective parts in a timely manner to Seller per the returned material authorization process, and
- agree to accept temporary fixes and workarounds that resolve problems until permanent solutions are available, provided that such temporary fixes and workarounds do not impose unreasonable additional expense or burden upon the Purchaser.

Whenever a Purchaser is responsible for providing information to Seller in order to support Seller's provision of Support Services under this Exhibit, Purchaser shall only be required to provide such information as is in Purchaser's possession and control and as is reasonably available to Purchaser without unreasonable effort or expense.

8. Enhancements.

8.1 During such period as a Purchaser is receiving Support Services, and in addition to providing resolutions to defects, problems and/or disturbances reported by a Purchaser, Seller promptly shall notify TWC of all Minor Enhancements available from or through Seller at the same time as such Minor Enhancements are generally made available by Seller to its other customers. Such notice shall reasonably detail any defects, problems and/or disturbances that the Minor Enhancement corrects, as well as all new features or functionality contained in the Minor Enhancement. All Minor Enhancements shall be developed by Seller and made available to the Purchasers [**], provided that the affected Software is either within the Initial Warranty Period or covered by Support Services. Upon delivery, each Minor Enhancement shall be considered part of the "Software" under the Purchase Agreement and this Exhibit. Nothing in this Section shall be construed to require Seller to develop Minor Enhancements or new features at the request of TWC, other than as necessary to provide a resolution to a defect, problem or disturbance, and Seller is not obligated to deliver any specific number

of Minor Enhancements. TWC may obtain a list of available Minor Enhancements from Seller at any time upon request. Seller shall deliver each Minor Enhancement to TWC prior to deployment to any Purchaser and within a reasonable amount of time after the Minor Enhancement is made available to other Seller customers.

8.2 During such period as a Purchaser is receiving Support Services, Seller also shall promptly notify TWC of all Major Enhancements available from or through Seller at the same time as such Major Enhancements are generally made available by Seller to its other customers. Such notice shall reasonably detail any new features or functionality contained in the Major Enhancements. All Major Enhancements shall be developed by Seller and made available to the Purchasers [**], provided that the affected Software is either within the Initial Warranty Period or covered by Support Services. Upon delivery, any Major Enhancement shall be considered part of the "Software" under the Purchase Agreement and this Exhibit. Nothing in this Section shall be construed to (i) require Seller to develop Major Enhancements or new features at the request of TWC, (ii) prevent Seller from declining to develop a Major Enhancement or new feature unless TWC and Seller agree with respect to a separate charge for the development and/or license of such Major Enhancement, or (iii) require a Purchaser to accept or install a particular Major Enhancement (in which case if the Purchaser declines to accept or install a particular Major Enhancement, Seller shall support the current version of the Software used by the Purchaser). Seller shall deliver each Major Enhancement to TWC prior to deployment to any Purchaser and at the same time as the Major Enhancement is made available to other Seller customers.

8.3 TWC may test each Minor Enhancement and Major Enhancement for a reasonable period of time not to exceed [**] days after receipt thereof to confirm that such Minor Enhancement or Major Enhancement does not contain any defects, problems or disturbances. During the testing process, Seller shall, if requested by TWC, provide TWC reasonable access to Seller personnel who can respond to questions regarding testing and acceptance or rejection of the Minor Enhancement or Major Enhancement. If such testing reveals that an Minor Enhancement or Major Enhancement contains a defect, problem or disturbance, Seller shall promptly correct such issue and/or replace such Minor Enhancement or Major Enhancement with a corrected version. If Seller is not able to correct any such issue, a Purchaser will have the right not to deploy the Minor Enhancement or Major Enhancement (in which case Seller shall support the current version of the Software used by the Purchaser).

8.4 Provided that the affected Software is either within the Initial Warranty Period or covered by Support Services, Seller shall support each Minor Enhancement and Major Enhancement for a minimum period of [**] after release thereof to any Purchaser, and Seller shall in any event support the last [**] Major Versions (as defined herein) that have been released to any Purchaser. For purposes of this Exhibit, "Major Version" shall mean a version of the Software where there is a change in the X component of the X.YY.ZZ release number. All version numbers

shall be reasonably determined by Seller in accordance with normal industry practice. All Minor Enhancements and Major Enhancements shall (i) be fully compatible with the prior release of the Software, such that any and all software and equipment that is interoperable with the prior release shall be interoperable to the same extent with the then-current Minor Enhancement or Major Enhancement without the Purchaser having to make material expenditures for new equipment or other ancillary items and subject only to reasonable requirements agreed upon by TWC and Seller, and (ii) not cause any material diminution in functionality or performance of the Equipment or material non-compliance with the Specifications.

8.5 Seller shall make available to each Purchaser any and all changes and additions to, or reissues of, applicable documentation originally provided with the Software, as necessary to keep the documentation reasonably current with the latest release of the Software, [**]. Seller shall make available to each Purchaser, upon request, documentation for each Minor Enhancement or Major Enhancement describing each defect, problem and/or disturbance addressed by such Minor Enhancement or Major Enhancement and its solution, access to new files containing the solution, and a description of a test procedure to confirm the solution.

8.6 Seller shall not introduce any Minor Enhancement or Major Enhancement or any other revisions, modifications or alterations in any other form to the Software to TWC or any Purchaser unless and until Seller has delivered such Minor Enhancement or Major Enhancement or such other revisions, modifications or alterations to TWC for testing pursuant to Section 8.3 and such Minor Enhancement or Major Enhancement or such other revisions, modifications or alterations have been accepted by TWC.

9. Remote Access.

To the extent that Seller is authorized to gain remote access to a Purchaser's Equipment or System for purposes of performing its obligations hereunder, Seller shall ensure that (a) such access is restricted to authorized employees and contractors; (b) it provides TWC with a list of all such authorized employees and contractors upon TWC's request; (c) such remote access is used solely for purposes of fulfilling Seller's obligations under this Exhibit; (d) such remote access is obtained through a secure connection, which Purchaser shall cooperate with Seller in obtaining; (e) Seller uses such remote access capability only to access Equipment or other products that are directly involved in Seller's performance of its obligations hereunder and does not access any other Purchaser or third party systems, databases, equipment or software; (f) Seller shall comply with all applicable policies, standards and or requirements, as provided by TWC or Purchaser to Seller from time to time, provided that such rules and regulations have been provided to Seller sufficiently in advance so as to reasonably permit such compliance; and (g) Seller shall not utilize such remote access to gain access to any System Data. Upon TWC's request, Seller will provide periodic security audits of its access of Purchasers' Equipment and Systems and methods and will change authentication elements to such access to the Equipment and Systems periodically to maintain the integrity and security of Seller's access.

10. Term and Renewal of Support Services.

10.1 Seller agrees to provide, or have provided on its behalf, Support Services to the Purchasers (a) [**] for all Software that remains within the Initial Warranty Period, and (b) in return for the Support Services fees as set forth in Exhibit B – Prices for such additional Software as Purchaser has elected to purchase Support Services in accordance with the terms and conditions of the Purchase Agreement. To exercise an election to purchase Support Services, TWC and/or the applicable Purchaser shall issue a Purchase Order to Seller, which Purchase Order shall designate the Software to be supported.

10.2 Notwithstanding anything herein to the contrary, each Purchaser shall be entitled to purchase and Seller shall offer to provide Support Services to such Purchaser (i) during the term of the Purchase Agreement and for a period of [**] years thereafter (or if earlier, until [**] years after End of Life with respect to any particular model of Equipment), and (ii) during any further period during which Seller provides support services to users of the Software generally (the period described in clauses (i) and (ii) being hereinafter referred to as the "Support Window"), provided that (a) such Purchaser's license for the Software remains in effect, (b) such Purchaser has either kept current and continuously purchased Support Services for the Software, or such Purchaser is willing to pay any reinstatement fee specified herein. Seller shall provide Purchasers with written notice if at any time Seller wishes to generally discontinue providing Support Services to users of the Software; provided, however, that Seller shall not discontinue the provision of Support Services to any Purchaser for any Software prior to the expiration of the Support Window. Upon written request from a Purchaser, which request must be made within [**] days following the receipt of Seller's notice of proposed discontinuance, Seller will continue to offer to provide Support Services to such Purchaser for the period specified by such Purchaser in its request, not to exceed [**] months from the end of the Support Services term then in effect. A general discontinuance of support services to users of the Software does not include Seller's cessation of support for a particular release or version of the Software, if Seller continues to provide support services for a subsequent release or version of the Software. Should a Purchaser discontinue Support Services for any period of time and at a later date desire to reinstate the Support Services, such Purchaser must first make a payment to Seller in an amount equal to the payments that would have been made if such Purchaser had not had an interruption in Support Services.

11. Other Services

In addition to the Support Services specified in this Exhibit, Seller may, upon TWC's request and Seller's written agreement, provide TWC with additional technical support as professional services on a fee-for-service basis in accordance with Seller's

then-current standard fees for such services. The actual professional services to be provided and the schedule for performance of such professional services shall be mutually agreed upon by the Parties in writing, and the fee shall be reasonable under the circumstances, taking into consideration the services to be performed and the rates or fees charged by comparable vendors for the provision of comparable services.

FIRST AMENDMENT TO
MASTER PURCHASE AGREEMENT

This First Amendment to the Master Purchase Agreement (the "First Amendment") is effective as of January 1, 2014 (the "Amendment Date") by and between **Time Warner Cable Enterprises LLC** ("TWC") and **Casa Systems, Inc.** ("Seller"). TWC and Seller may each be referred to herein individually as a "Party" and collectively as the "Parties." Capitalized terms used in this First Amendment and not otherwise defined herein shall have the meanings set forth in the Agreement.

INTRODUCTION

1. TWC and Seller are parties to that certain Master Purchase Agreement, dated October 31, 2013 (the "Agreement").

2. Seller has provided a quote, dated January 6, 2014, for equipment and services in response to TWC's Request for Proposal (the "RFP Quote") for the [**] service groups for TWC's New York City CCAP project (the "NYC Project") as set forth in Exhibit 1. In addition, TWC may purchase an additional [**] systems for the [**] markets (the "Expansion Order").

3. The RFP Quote and the Expansion Order include certain equipment in configurations not currently included as Equipment under the Agreement ("Additional Equipment") and/or lower pricing for certain Equipment that is currently included under the Agreement (the "Price Reduction").

4. Based on the RFP Quote, TWC expects to issue Purchase Orders for the NYC Project aggregating approximately [**] dollars ($[**]) on or about February 5, 2014. TWC is further considering the purchase of approximately an additional [**] systems for the [**] markets on or before June 30, 2014.

5. Based on the foregoing premises, the Parties wish to amend Attachment A to Exhibit B to the Agreement to include the Additional Equipment and Price Reduction as set forth herein.

NOW, THEREFORE, in consideration of the covenants and agreements contained herein, and for other valuable consideration, the receipt and adequacy of which are hereby acknowledged, TWC and Seller agree as follows:

1. Conditional Amendment to Attachment A to Exhibit B of the Agreement. Effective as of the Amendment Date, and subject to the terms and conditions set forth in Section 2 of this First Amendment, Attachment A to Exhibit B of the Agreement is amended and restated in its entirety to read as set forth in Appendix A to this First Amendment. Should there be any conflict between the terms and conditions in Exhibit B of the Agreement and Appendix A to this First Amendment, the terms and conditions of Appendix A to this First Amendment shall control to resolve such conflict. The Equipment and Software listed in Appendix A to this First Amendment shall be included within the term "Equipment" for all purposes of the Agreement. The Parties acknowledge and agree that the delivery dates for Equipment ordered pursuant to Purchase Orders placed by TWC and/or the Purchasers for the NYC Project and for any Expansion Order shall be established by mutual agreement of the Parties. The Parties shall

participate in a weekly status call to discuss the status of deliveries to be made pursuant to such Purchase Orders until such time as all deliveries called for under such Purchase Orders have been made. The Parties further acknowledge and agree that Section 5.5(a) of the Agreement shall not apply with respect to Purchase Orders placed by TWC and/or the Purchasers for the NYC Project or for any Expansion Order, and thus TWC and the Purchasers shall not be entitled to terminate any such Purchase Orders without cause in accordance with the provisions of Section 5.5(a). For clarity, nothing in this Section shall affect in any way TWC and the Purchasers' right to terminate Purchase Orders pursuant to Section 5.5(b) or Section 20.2 or any other provision of the Agreement.

2. Failure to Timely Place Purchase Orders for NYC Project. The Parties acknowledge and agree that (i) Seller's RFP Quote for the NYC Project is based upon service group and related information obtained from TWC, and (ii) the assumed number of systems and system configurations for the NYC Project may change after site assessments are completed by TWC and Seller. Notwithstanding anything herein to the contrary, this First Amendment is explicitly made conditional upon TWC and the Purchasers issuing Purchase Orders for the NYC Project totaling an aggregate of approximately [**] dollars ($[**]) (the term "approximately" meaning for purposes of this Section 2 that the aggregate amount of the Purchase Orders shall be not less than [**]% of the specified amount). Such Purchase Orders must be placed on or about February 1, 2014, but in no event later than February 15, 2014 (the "Purchase Order Deadline"). If TWC and the Purchasers fail to place such Purchase Orders, then this First Amendment shall be considered to be void and without any effect, and the Pricing set forth in Attachment A to Exhibit B of the Agreement as in effect prior to this First Amendment shall remain in effect. However, the pricing set forth in Appendix A to this First Amendment shall apply to the Purchase Orders placed on or after the Amendment Date and prior to the Purchase Order Deadline.

3. Future Pricing and Expansion Order. Provided that TWC and the Purchasers have placed the Purchase Orders specified in Section 2 above on or before the Purchase Order Deadline, the Pricing set forth in Appendix A to this First Amendment shall apply to all Purchase Orders for Equipment placed on or after the Amendment Date, including without limitation any Expansion Order.

4. Installation Services. Seller wishes to provide installation Services for the installation of the Equipment purchased by TWC and the Purchasers in connection with the NYC Project. It is Seller's intent to work with a third party vendor that specializes in such work and has performed such work for TWC in NYC. Seller intends to work closely with the TWC team in NYC to make sure that Seller's installation Services partner is acceptable to TWC. In order to provide the installation Services, Seller will need to perform hub site assessments and develop a detailed Statement of Work ("SOW") covering each hub site. Seller will use commercially reasonable efforts to develop such SOWs and provide a [**] price that is competitive with the price charged for substantially similar installation services by third parties under similar circumstances. The terms of the SOWs will be negotiated in good faith by Seller and will be subject to mutual agreement of the Parties. Seller will provide TWC and the Purchasers a [**] off the final, mutually agreed price for the NYC installation Services.

5. Effect on Agreement. Except as specifically amended by this First Amendment, all terms and conditions of the Agreement are unamended and will remain in full force and effect.

6. Counterparts. This First Amendment may be executed in more than one counterpart, each of which shall be deemed to be an original and all of which together shall be deemed a single document. Signatures delivered by facsimile shall have the same force and effect as original signatures.

7. Governing Law. This First Amendment shall be subject to and governed by the laws of the State of New York, other than such laws, rules, regulations and case law that would result in the application of the laws of a jurisdiction other than the State of New York.

The Parties have executed this First Amendment as of the date first written above.

CASA SYSTEMS, INC.

By: /s/ Gary Hall

Name: Gary Hall

Title: CFO

Date: February 28, 2014

TIME WARNER CABLE ENTERPRISES LLC

By: /s/ Henry Hryckiewicz

Name: Henry Hryckiewicz

Title: Senior Vice President

Date: February 24, 2014

Attachment A – Summary Pricing Table

Part Number	Description	TWC Unit Price (USD)
[**]	[**]	$ [**]
	[**]	
[**]	[**]	$ [**]
	[**]	
[**]	[**]	$ [**]
	[**]	
[**]	[**]	$ [**]
	[**]	
[**]	[**]	$ [**]
	[**]	
[**]	[**]	$ [**]
	[**]	
[**]	[**]	$ [**]
	[**]	
[**]	[**]	$ [**]
	[**]	
[**]	[**]	$ [**]
	[**]	
[**]	[**]	$ [**]

Part Number	Description	TWC Unit Price (USD)
	[**]	
[**]	**[**]**	**$ [**]**
	[**]	
[**]	**[**]**	**$ [**]**
	[**]	
	[**]	

[**]

SECOND AMENDMENT TO
MASTER PURCHASE AGREEMENT

This **Second Amendment to the Master Purchase Agreement** (this "Second Amendment") is entered into as of December 18, 2014, but effective for all purposes as of October 1, 2014 (the "Second Amendment Date") by and between **Time Warner Cable Enterprises LLC** ("TWC") and **Casa Systems, Inc.** ("Seller"). TWC and Seller may each be referred to herein individually as a "Party" and collectively as the "Parties."

INTRODUCTION

(a) TWC and Seller are parties to that certain Master Purchase Agreement, dated October 31, 2013, as amended effective as of January 1, 2014 (the "Agreement"). Capitalized terms used in this Second Amendment and not otherwise defined herein shall have the meanings set forth in the Agreement.

(b) TWC is considering the purchase of equipment for an estimated [**] service groups for TWC's Maxx Phase II project (the "Maxx Project") and for an estimated [**] service groups for TWC's BAU markets (the "BAU Project" and, together with the Maxx Project, the "Projects") through March 31, 2015.

(c) Seller has offered the following incentives to TWC in connection with the Projects: (i) a [**] for Equipment ordered on or after the Second Amendment Date through March 31, 2015, and (ii) provided that TWC and the Purchasers place Purchase Orders for the purchase of an aggregate of not less than $[**] of Equipment for the Projects through March 31, 2015 (with such amount being determined prior to application of [**] described in clause (i) of this Paragraph C), [**] 16x8 upstream card with 64 channels in exchange for [**] 16x4 upstream card with 64 channels previously purchased by TWC or a Purchaser, for up to [**] 16x8 upstream cards with 64 channels (the "[**]" and collectively, the "Incentives").

(d) The Parties now wish to amend the Agreement to add certain equipment not currently included as Equipment under the Agreement ("Additional Equipment"). Seller is further willing to fulfill Purchase Orders for the Projects and to provide TWC and the Purchasers with the Incentives, as set forth herein.

NOW, THEREFORE, in consideration of the covenants and agreements contained herein, and for other good and valuable consideration, the receipt and adequacy of which are hereby acknowledged, TWC and Seller agree as follows:

- **Pricing; Additional Equipment.** The Parties acknowledge and agree that Pricing for Equipment to be purchased under the Agreement was amended pursuant to a conditional amendment to Attachment A to Exhibit B of the Agreement adopted pursuant to that certain First Amendment to Master Purchase Agreement dated effective as of January 1, 2014 (the "First Amendment"). The Parties further acknowledge and agree that the conditions referenced in the First Amendment were satisfied by TWC, and the Pricing set forth in the First Amendment is no longer conditional and remains in full force and effect, as amended pursuant to this Second

Amendment. Effective as of the Second Amendment Date, Attachment A to Exhibit B of the Agreement is amended to add the Additional Equipment set forth in Appendix A to this Second Amendment. The Equipment listed in Appendix A shall be included within the term "Equipment" for all purposes of the Agreement.

- **Purchase Orders for the Projects.** The Parties acknowledge and agree that the delivery dates for Equipment ordered pursuant to Purchase Orders placed by TWC and/or the Purchasers for the Projects shall be established by mutual agreement of the Parties. The Parties shall participate in a weekly status call to discuss the status of deliveries to be made pursuant to such Purchase Orders until such time as all deliveries called for under such Purchase Orders have been made.

- **Incentives.**

  - In calculating Pricing for Purchase Orders for the Projects placed during the period commencing on the Second Amendment Date and continuing through and including March 31, 2015, the Parties shall apply the [**] described in Paragraph C.(i) above to the Price of the Equipment ordered pursuant to the Purchase Order for the Projects.

  - Provided that TWC and the Purchasers place Purchase Orders for the purchase of an aggregate of not less than $[**] of Equipment for the Projects through March 31, 2015 (with such amount being determined prior to application of the discount described in Paragraph C.(i) above), Seller shall execute delivery of the [**] shall be based on a process and shipment dates, which shall not be later than September 30, 2015, mutually agreed by the Parties.

  - Seller acknowledges that TWC has made no commitment to purchase any volume of Equipment. Similarly, TWC has not committed to any fixed number of service groups that will participate in the Projects. Seller shall not have an exclusive privilege to sell to or otherwise provide TWC or the Purchasers with, and TWC and the Purchasers may contract with other manufacturers and suppliers for the procurement of, products and services similar to the Equipment and Services.

- **DOCSIS 3.1 Compliance.**

  - Seller shall develop and make available to TWC and the Purchasers software for the 8x96 line cards and FaTDMA software for the 16x8 line cards (such cards, collectively, the "DOCSIS 3.1 Cards") that will be interoperable with DOCSIS 3.1-compliant cable modems (the "DOCSIS 3**.1** Support") no later than September 30, 2015. In order to meet the requirements set forth in the preceding sentence, Seller shall provide TWC and the Purchasers, without additional charge, an Update to the Software. Such Update shall be provided by Seller in a form that may be installed by remote Download into the DOCSIS 3.1 Cards,

should a Purchaser so choose. Further, once such Update has been Accepted as provided in Section 4(b) below, TWC and Purchaser may request and upon such request Seller shall cause the specified DOCSIS 3.1 Cards, as applicable, delivered on or after the date of such Acceptance to include such Update in the unit as delivered. The DOCSIS 3.1 Support described in this Section 4(a) shall be a part of and shall be included within the Specifications for the DOCSIS 3.1 Cards as of the earlier of (i) the date the Software that Seller has updated to provide the DOCSIS 3.1 Support has been Accepted by TWC as provided in Section 4(b) below (subject, if applicable, to any DOCSIS 3.1 Support waived pursuant to clause (2) thereof), and (ii) the date on which Seller makes DOCSIS 3.1 Cards with DOCSIS 3.1 Support commercially available.

- Seller shall provide TWC a version of the Software that Seller has updated to provide the DOCSIS 3.1 Support for testing purposes no later than September 30, 2015. TWC may test such Software for a reasonable period of time not to exceed [**] days after receipt thereof to confirm that such Software complies in all material respects with the Specifications therefor, including without limitation the requirements of Section 4(a) above, and does not contain any material defects or problems. During the testing process, Seller shall, if requested by TWC, provide TWC reasonable access to Seller personnel who can respond to questions regarding testing and acceptance or rejection of such Software. If TWC determines that such Software complies in all material respects with the Specifications therefor, including without limitation the requirements of Section 4(a) above, and does not contain any material defects or problems, TWC shall accept such Software that provides the DOCSIS 3.1 Support ("Accept" or "Acceptance"). If such testing reveals that such Software fails to comply in all material respects with the Specifications, or does contain material defects or problems, TWC shall notify Seller and Seller shall promptly correct such issue and/or replace such Software with a corrected version that provides the DOCSIS 3.1 Support. TWC shall then have an additional period of up to [**] days to retest such Software. If the defects or problems still have not been remedied, or there are new defects or problems, then TWC may at its option and by written notice to Seller no later than [**] days after completion of such retest either, in its sole discretion: (1) again reject such Software and repeat the procedure set forth in this Section; or (2) waive the deficiency, with any such waiver being set forth in writing and constituting Acceptance. If TWC elected the option set forth in clause (1) on at least one prior occasion (thus providing Seller the opportunity to cure any deficiencies), and Seller has not provided Software with DOCSIS 3.1 Support on or before December 31, 2015, (i) TWC and the Purchasers may cancel any or all Purchase Orders then outstanding for the purchase of Equipment, provided that such Purchase Orders were issued subsequent to the Second Amendment Date, and (ii) Seller shall [**] (including without limitation any purchase Price that is paid after December 31, 2015) to Seiler for all Equipment ordered by TWC or the Purchasers for the Projects through

March 31, 2015 and subsequent to the Second Amendment Date, [**]shall be paid within [**] days after TWC's written notice of its election of the remedy set forth in this sentence (or if the purchase Price is paid after such date, within [**] days after payment of such purchase Price). The remedies set forth above shall be TWC and the Purchasers' sole and exclusive remedies with respect to Seller's failure to provide the DOCSIS 3.1 Support. Notwithstanding the foregoing, nothing in this Section shall relieve Seller from its obligations as set forth in the Agreement regarding compliance with the Specifications, including without limitation Seller's obligation to use commercially reasonable efforts to provide the DOCSIS 3.1 Support with respect to DOCSIS 3.1 Cards purchased by TWC and the Purchasers on and after the Second Amendment Date for the Projects.

- TWC and Seller acknowledge that it is impractical and extremely difficult to determine the actual damages or lost revenues that may proximately result from Seller's failure to perform its obligations under this Section 4. [**], and (ii) reasonable and not disproportionate to the presumed damages to TWC and/or the Purchasers, as the case may be, in lost revenues or otherwise from a failure by the other to comply with the applicable provisions of this Amendment.

- **Expiration of Discount.** Section 3(a) of this Second Amendment shall expire on March 31, 2015, except that any discount with respect to any Purchase Order for the Projects placed on or before such date shall survive. For clarity, Section 3(b) shall not expire and shall continue in effect in accordance with its terms.

- **Effect on Agreement.** Except as specifically amended by this Second Amendment, the Agreement will remain in full force and effect and is hereby ratified and confirmed.

- **Counterparts.** This Second Amendment may be executed in more than one counterpart, each of which shall be deemed to be an original and all of which together shall be deemed a single document. Signatures delivered by facsimile shall have the same force and effect as original signatures.

- **Governing Law.** This Second Amendment shall be subject to and governed by the laws of the State of New York, other than such laws, rules, regulations and case law that would result in the application of the laws of a jurisdiction other than the State of New York.

[Signature page follows]

The Parties have executed this Second Amendment to be effective on the Second Amendment Date.

CASA SYSTEMS. INC.

By: /s/ Gary Hall

Name: Gary Hall

Title: CFO

Date: December 22, 2014

TIME WARNER CABLE ENTERPRISES LLC

By: /s/ Dinni Jain

Name: Dinni Jain

Title: Chief Operating Officer

Date: December 18, 2014

Appendix A: Amendment to Attachment A to Exhibit B

Part Number	Description	TWC Unit Price (USD)
[**]	[**]	[**]

THIRD AMENDMENT TO
MASTER PURCHASE AGREEMENT

This **Third Amendment to the Master Purchase Agreement** (this "Third Amendment") is entered into effective as of October 1, 2015 (the "Third Amendment Date") by and between **Time Warner Cable Enterprises LLC** ("TWC") and **Casa Systems, Inc.** ("Seller").

RECITAL

TWC and Seller are parties to that certain Master Purchase Agreement dated October 31, 2013, as amended (the "Agreement"). The Parties desire to further amend the Agreement as set forth herein. Capitalized terms used in this Third Amendment and not otherwise defined herein shall have the meanings set forth in the Agreement.

AGREEMENT

In consideration of the Recital, which is incorporated into this Third Amendment, and the covenants, agreements and other consideration set forth in this Third Amendment, and other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, the Parties, intending to be legally bound, agree as follows:

1. Potential New Market Project. TWC is considering the purchase of Equipment for TWC regions that do not currently use Seller's Equipment, including [**] for an estimated [**] active service groups in the [**] regions (the "New Market Project"). Seller hereby agrees to provide the following incentives to Purchasers in connection with the New Market Project:

(A) [**], ordered on or before December 31, 2016. This incentive shall be provided via [**] for the applicable units of part number [**] ordered by TWC.

(B) A [**]% discount off the Prices for Equipment ordered on or after the Third Amendment Date through December 31, 2016. In calculating Pricing for Purchase Orders placed during the period commencing on the Third Amendment Date and continuing through and including December 31, 2016, the Parties shall apply this [**]% discount to the Price of the Equipment ordered pursuant to the applicable Purchase Order for the New Market Project.

(C) When a Purchaser orders either part number [**] or part number [**] or any other 8x96 or 8x192 card with at least 16 channels per port, [**] shall be completed by no later than December 31, 2016, subject to Section 4 below.

2. Potential Existing Market Project. TWC also is considering the purchase of [**] chassis for an estimated [**] active service groups in TWC regions that currently use Seller's Equipment (the "Existing Market Project" and, together with the New Market Project, the "Projects"). Seller hereby agrees when a Purchaser orders either part number [**] or part number [**] or any other 8x96 or 8x192 card with at least 16 channels per port, [**] shall be completed by no later than December 31, 2016, subject to Section 4 below.

3. [**].

4. Return of Equipment. With respect to the Projects [**], TWC shall cause Purchasers to return to Seller [**], as applicable, appropriately packaged and in operational condition, within [**] days following Purchaser's receipt of the corresponding [**], respectively, even if such [**]-day return period extends beyond December 31, 2016.

5. Pricing; Additional Equipment. The Parties further wish to amend the Agreement to add certain equipment not currently included as Equipment under the Agreement (the "Additional Equipment"). Accordingly, effective as of the Third Amendment Date, *Attachment A* to *Exhibit B* of the Agreement is deleted and replaced in its entirety by *Appendix A* to this Third Amendment, which includes the price reductions set forth in this Third Amendment and adds the Additional Equipment.

6. No Equipment Purchase or Volume Commitment. Seller acknowledges that TWC has made no commitment to purchase any volume of Equipment. Similarly, TWC has not committed to any fixed number of service groups that will participate in the Projects. Seller shall not have an exclusive privilege to sell to or otherwise provide TWC or the Purchasers with, and TWC and the Purchasers may contract with other manufacturers and suppliers for the procurement of, products and services similar to the Equipment and Services.

7. Effect on Agreement. Except as specifically amended by this Third Amendment, the Agreement will remain in full force and effect.

8. Counterparts. This Third Amendment may be executed in more than one counterpart, each of which shall be deemed to be an original and all of which together shall be deemed a single document. Signatures delivered by facsimile shall have the same force and effect as original signatures.

9. Governing Law. This Third Amendment shall be subject to and governed by the laws of the State of New York, other than such laws, rules, regulations and case law that would result in the application of the laws of a jurisdiction other than the State of New York.

The Parties have executed this Third Amendment to be effective on the Third Amendment Date.

CASA SYSTEMS, INC.		**TIME WARNER CABLE ENTERPRISES LLC**	
By:	/s/ Gary Hall	By:	/s/ Hamid Heidary
Name:	Gary Hall	Name:	Hamid Heidary
Title:	CFO	Title:	EVP/CTO
Date:	12/30/15	Date:	12/29/15

Appendix A: Amendment and Restatement of Attachment A to Exhibit B

Part Number	Description	Unit Price
[**]	**[**]**	**[**]**
	[**]	
[**]	**[**]**	**[**]**
	[**]	
[**]	**[**]**	**[**]**
	[**]	
[**]	**[**]**	**[**]**
	[**]	
[**]	**[**]**	**[**]**
	[**]	
[**]	**[**]**	**[**]**
	[**]	
[**]	**[**]**	**[**]**
	[**]	
[**]	**[**]**	**[**]**
	[**]	
[**]	**[**]**	**[**]**
	[**]	

Part Number	Description	Unit Price
[**]	**[**]**	**[**]**
	[**]	
[**]	**[**]**	**[**]**
	[**]	
[**]	**[**]**	**[**]**
	[**]	
[**]	**[**]**	**[**]**
	[**]	
[**]	**[**]**	**[**]**
	[**]	
[**]	**[**]**	**[**]**
	[**]	
[**]	**[**]**	**[**]**
	[**]	
[**]	**[**]**	**[**]**
	[**]	
[**]	**[**]**	**[**]**
	[**]	
[**]	**[**]**	**[**]**
	[**]	
[**]	**[**]**	**[**]**
	[**]	
[**]	**[**]**	**[**]**
	[**]	
	[**]	

FOURTH AMENDMENT TO
MASTER PURCHASE AGREEMENT

This **Fourth Amendment to the Master Purchase Agreement** (this "Fourth Amendment") is entered into effective as of January 1, 2016 (the "Fourth Amendment Date") by and between **Time Warner Cable Enterprises LLC** ("TWC") and **Casa Systems, Inc.** ("Seller").

RECITAL

TWC and Seller are parties to that certain Master Purchase Agreement dated October 31, 2013, as amended (the "Agreement"). The Parties desire to further amend the Agreement as set forth herein. Capitalized terms used in this Fourth Amendment and not otherwise defined herein shall have the meanings set forth in the Agreement.

AGREEMENT

In consideration of the Recital, which is incorporated into this Fourth Amendment, and the covenants, agreements and other consideration set forth in this Fourth Amendment, and other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, the Parties, intending to be legally bound, agree as follows:

1. Credit. Seller shall apply a credit of $[**] to TWC Purchase Order #42000-0000143904 that has a Purchase Order price of $[**] prior to such credit.

2. DOCSIS 3.1 Compliance. In consideration of [**] hereunder, Section 4 of the Second Amendment, dated December 18, 2014 to the Agreement is hereby deemed void *ab initio*.

3. Effect on Agreement. Except as specifically amended by this Fourth Amendment, the Agreement will remain in full force and effect.

4. Counterparts. This Fourth Amendment may be executed in more than one counterpart, each of which shall be deemed to be an original and all of which together shall be deemed a single document. Signatures delivered by facsimile shall have the same force and effect as original signatures.

5. Governing Law. This Fourth Amendment shall be subject to and governed by the laws of the State of New York, other than such laws, rules, regulations and case law that would result in the application of the laws of a jurisdiction other than the State of New York.

[Signature page follows]

The Parties have executed this Fourth Amendment to be effective on the Fourth Amendment Date.

CASA SYSTEMS, INC.

By: /s/ Gary Hall

Name: Gary Hall

Title: CFO

Date: February 5, 2016

TIME WARNER CABLE ENTERPRISES LLC

By: /s/ Hamid Heidary

Name: Hamid Heidary

Title: Executive Vice President

Date: February 1, 2016

Exhibit 21.1

Subsidiaries of Casa Systems, Inc.

Name of Subsidiary	Jurisdiction of Incorporation or Organization
Casa Communications Limited	Ireland
Casa Communications Technology S.L.	Spain
Casa Properties LLC	Delaware
Casa Systems B.V.	Netherlands
Casa Systems Canada Ltd.	Quebec, Canada
Casa Systems SAS	France
Casa Systems Securities Corporation	Massachusetts
Guangzhou Casa Communication Technology LTD	China

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February 13, 2017

By Electronic Submission

Securities and Exchange Commission
Division of Corporation Finance
100 F Street, N.E.
Washington, DC 20549

Attention: Joshua Shainess

Re: Casa Systems, Inc.
Confidential Draft Registration Statement on Form S-1
Submitted December 13, 2016
CIK No. 0001333835

Ladies and Gentlemen:

On behalf of Casa Systems, Inc. (the "Company"), submitted herewith on a confidential basis is Amendment No. 2 ("Amendment No. 2") to the Confidential Draft Registration Statement referenced above (the "Registration Statement").

Amendment No. 2 is being submitted in response to comments contained in a letter, dated February 3, 2017 (the "Letter"), from Larry Spirgel of the Staff (the "Staff") of the Securities and Exchange Commission (the "Commission") to Jerry Guo, the Company's Chief Executive Officer. The responses contained herein are based on information provided to us by representatives of the Company. The responses are keyed to the numbering of the comments in the Letter and to the headings used in the Letter. Where appropriate, the Company has responded to the Staff's comments by making changes to the disclosure in the Registration Statement as set forth in Amendment No. 2. Page numbers referred to in the responses reference the applicable pages of Amendment No. 2.

General

1. *We note your response to our comment 6 that you expect to continue to generate revenue from purchases by Charter Communications, Inc. It appears that as of September 2016, Charter has entered into a warrant agreement with Arris that will extend through 2023, whereby Charter will be permitted to purchase up to 6 million shares of Arris stock at a discounted price if Charter buys a certain amount of products from Arris. We note your disclosure that Arris is one of your primary competitors. In light of the existence of this agreement, which may provide Charter with incentive to purchase increasingly larger*

portions of your competitor's product, please consider expanding your disclosure to include the basis for your expectations that purchases from Charter will continue to generate revenue. Please also consider discussing in greater detail any developments you anticipate with respect to your relationship with Charter, including the renewal of any long-term contracts, as well as any specific risk you foresee with regard to Charter's agreement with Arris. We note your disclosure on page 12 that your customers generally make purchases from you on a purchase order basis rather than pursuant to long-term contracts.

Response: In response to the Staff's comment, the Company has revised the disclosure on pages 12, 13 and 15 of Amendment No. 2. The Company supplementally advises the Staff that the Company is not aware of any specific impacts that the agreement between Charter and Arris has had on Charter's purchases of the Company's solutions.

Risk Factors, page 12

2. *We note your response to our comment 11, as well as your risk factor on page 16 that your revenue growth will be adversely affected if you are unable to sell additional products to your existing customers. Please tell us what consideration you gave to including a separate risk factor disclosing that the timing and extent of capacity expansions by your customers leads to variability in your revenue.*

Response: In response to the Staff's comment, the Company has revised the disclosure on pages 13 and 16 of Amendment No. 2. The Company supplementally advises the Staff that the Company considered inclusion of a separate risk factor disclosing that the timing and extent of capacity expansions by its customers leads to variability in its revenue, however the Company believes that the revised disclosure on page 13 of Amendment No. 2 adequately discloses the material risks related to the timing of capacity expansions and the revised disclosure on page 16 of Amendment No. 2 adequately discloses the material risks related to the extent of capacity expansions.

If you have any further questions or comments, or if you require any additional information, please contact the undersigned by telephone at (617) 526-6626 or facsimile at (617) 526-5000. Thank you for your assistance.

Very truly yours,

/s/ David A. Westenberg

David A. Westenberg

cc: Jerry Guo, Casa Systems, Inc.