UNITED STATES SECURITIES AND EXCHANGE COMMISSION

WASHINGTON, D.C. 20549

FORM 10-Q

	QUARTERLY REPORT PURSUANT TO SEC	TION 13 OR 15(d) OF THE SECU	RITIES EXCH	IANGE ACT OF 1934	
	\mathbf{F}_0	or the quarterly period ended ${ m M}$	/Iarch 31, 2021	_	
		OR			
	TRANSITION REPORT PURSUANT TO SEC	TION 13 OR 15(d) OF THE SECU	RITIES EXCH	HANGE ACT OF 1934	
	For the	e transition period from	to	.	
		Commission File Number: 0	01-38324		
	(Exa	Casa Systems,		er)	
	Delaware (State or other jurisdiction of incorporation or organization) 100 Old River Road Andover, Massachusetts (Address of principal executive offices)		_	75-3108867 (I.R.S. Employer Identification No.) 01810 (Zip Code)	
	Registrant's	telephone number, including a	rea code: (978	3) 688-6706	
		Securities registered pursuant to Section 1	_ 12(b) of the Act:		
	Title of each class	Trading Symbol		Name of each exchange on which re	gistered
	Common Stock, \$0.001 par value per share	CASA		The Nasdaq Stock Market LLC	3
	ndicate by check mark whether the registrant (1) has filed h shorter period that the registrant was required to file sucl				eceding 12 months
	ndicate by check mark whether the registrant has submitte aring the preceding 12 months (or for such shorter period t				(§ 232.405 of this
In the definiti	ndicate by check mark whether the registrant is a large actions of "large accelerated filer," "accelerated filer," "small	celerated filer, an accelerated filer, a non-a er reporting company," and "emerging gro	accelerated filer, a owth company" in	smaller reporting company, or an emerging gro Rule 12b-2 of the Exchange Act.	owth company. See
Large acce Non-accele	erated filer			Accelerated filer Smaller reporting company Emerging growth company	
	f an emerging growth company, indicate by check mark if provided pursuant to Section 13(a) of the Exchange Act. □		tended transition	period for complying with any new or revised fi	nancial accounting
T,	ndicate by check mark whether the registrant is a shell con	npany (as defined in Rule 12b-2 of the Exc	change Act). Ye	s □ No ⊠	
11		of common stock, \$0.001 par value per sha	1		

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Cautionary Note Regarding Forward-Looking Statements

This Quarterly Report on Form 10-Q contains forward-looking statements within the meaning of Section 27A of the Securities Act of 1933, as amended, and Section 21E of the Securities Exchange Act of 1934, as amended. All statements other than statements of historical fact contained in this Quarterly Report on Form 10-Q, 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," "might," "should," "expects," "plans," "anticipates," "would," "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 Quarterly Report on Form 10-Q 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 Quarterly Report on Form 10-Q and are subject to a number of risks, uncertainties and assumptions described in the "Risk Factors" section and elsewhere in this Quarterly Report on Form 10-Q. 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 communication service providers', or CSPs', 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 CSPs;
- 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 potential impact of the COVID-19 pandemic, which is highly uncertain and will depend on future developments on our business, our suppliers and our customers;
- 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, including our ability to maintain the synergies we have realized from our acquisition of NetComm Wireless Limited, or NetComm;
- 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;

- our overall effective tax rate, including impacts caused by the relative proportion of foreign to U.S. income, the amount and timing of certain employee stock-based compensation transactions, 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;
- the costs and possible outcomes of any legal actions or proceedings against us, including those described under "Part II, Item 1—Legal Proceedings";
- 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 our initial public offering.

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

PART I—FINANCIAL INFORMATION Item 1. Financial Statements

CASA SYSTEMS, INC.

CONDENSED CONSOLIDATED BALANCE SHEETS

(in thousands, except per share amounts) (Unaudited)

Assets Current assets: Cash and cash equivalents Accounts receivable, net of provision for doubtful accounts of \$150 and \$58 as of March 31, 2021 and December 31, 2020, respectively	\$	144,961	
Cash and cash equivalents Accounts receivable, net of provision for doubtful accounts of \$150 and \$58 as of	\$	144,961	
Accounts receivable, net of provision for doubtful accounts of \$150 and \$58 as of	\$	144,961	
•			\$ 157,455
March 31, 2021 and December 31, 2020, respectively			
		92,342	94,124
Inventory		96,510	101,204
Prepaid expenses and other current assets		9,598	3,864
Prepaid income taxes		14,764	 14,087
Total current assets		358,175	370,734
Property and equipment, net		27,239	28,880
Accounts receivable, net of current portion		65	143
Deferred tax assets		1,088	1,150
Goodwill		50,177	50,177
Intangible assets, net		35,697	35,844
Other assets		6,165	6,038
Total assets	\$	478,606	\$ 492,966
Liabilities and Stockholders' Equity		_	
Current liabilities:			
Accounts payable	\$	25,513	\$ 41,203
Accrued expenses and other current liabilities		28,620	39,793
Accrued income taxes		9,491	7,463
Deferred revenue		21,987	15,531
Current portion of long-term debt, net of unamortized debt issuance costs		15,207	15,171
Total current liabilities		100,818	 119,161
Accrued income taxes, net of current portion		9,716	9,520
Deferred tax liabilities		7,362	7,282
Deferred revenue, net of current portion		3,134	3,520
Long-term debt, net of current portion and unamortized debt issuance costs		275,575	276,085
Other liabilities, net of current portion		1,166	1,024
Total liabilities		397,771	416,592
Commitments and contingencies (Note 17)	-		
Stockholders' equity:			
Preferred stock, \$0.001 par value; 5,000 shares authorized as of March 31, 2021 and December 31, 2020; no shares issued and outstanding as of			
March 31, 2021 and December 31, 2020		_	_
Common stock, \$0.001 par value; 500,000 shares authorized; 86,502 and 85,329 shares issued as of March 31, 2021 and December 31, 2020, respectively; 84,780 and 83,607			
shares outstanding as of March 31, 2021 and December 31, 2020, respectively		86	85
Treasury stock, at cost; 1,722 shares		(4,826)	(4,826)
Additional paid-in capital		182,088	183,041
Accumulated other comprehensive income		1	337
Accumulated deficit		(96,514)	(102,263)
Total stockholders' equity	·	80,835	 76,374
Total liabilities and stockholders' equity	\$	478,606	\$ 492,966

CASA SYSTEMS, INC. CONDENSED CONSOLIDATED STATEMENTS OF INCOME AND COMPREHENSIVE INCOME (in thousands, except per share amounts) (Unaudited)

	 Three Months Ended March 31,		
	 2021		2020
Revenue:			
Product	\$ 93,798	\$	73,758
Service	 10,479		9,865
Total revenue	 104,277		83,623
Cost of revenue:			
Product	47,026		39,644
Service	 1,211		1,326
Total cost of revenue	 48,237		40,970
Gross profit	56,040		42,653
Operating expenses:			
Research and development	21,606		21,211
Selling, general and administrative	 21,880		24,991
Total operating expenses	43,486		46,202
Income (loss) from operations	 12,554		(3,549)
Other income (expense):			
Interest income	114		406
Interest expense	(3,918)		(4,628)
(Loss) gain on foreign currency, net	(747)		152
Other income, net	72		62
Total other income (expense), net	(4,479)		(4,008)
Income (loss) before provision for (benefit from) income taxes	8,075		(7,557)
Provision for (benefit from) income taxes	2,326		(8,719)
Net income	5,749		1,162
Other comprehensive income (loss)—foreign currency translation			
adjustment, net of tax	(336)		(516)
Other comprehensive income (loss)—gain on foreign currency hedge, net of tax	 _		356
Comprehensive income	\$ 5,413	\$	1,002
Net income attributable to common stockholders:	 		
Basic and diluted	\$ 5,749	\$	1,162
Net income per share attributable to common stockholders:	 		
Basic	\$ 0.07	\$	0.01
Diluted	\$ 0.06	\$	0.01
Weighted-average shares used to compute net income per share attributable to common stockholders:			
Basic	84,242		83,990
Diluted	 88,568		85,009
	 33,300		

CASA SYSTEMS, INC. CONDENSED CONSOLIDATED STATEMENTS OF STOCKHOLDERS' EQUITY (in thousands) (Unaudited)

	Commo	on Stock	ζ	Treasur	y Sto	ock	Additional Paid-in	Accumulated Other Comprehensive	Accumulated	Total Stockholders'
	Shares		ount	Shares	A	mount	Capital	Income	Deficit	<u>Equity</u>
Balances at January 1, 2021	85,329	\$	85	1,722	\$	(4,826)	\$ 183,041	\$ 337	\$ (102,263)	\$ 76,374
Exercise of stock options and common stock issued upon vesting of equity awards, net of shares withheld for employee taxes	1,173		1	_		_	(4,058)	_	_	(4,057)
Foreign currency translation adjustment	1,175						(1,050)	(336)	_	(336)
Stock-based compensation							3,105	(330)	_	3,105
Net income	_		_	_		_	_	_	5,749	5,749
Balances at March 31, 2021	86,502	\$	86	1,722	\$	(4,826)	\$ 182,088	\$ 1	\$ (96,514)	\$ 80,835
	Commo	on Stock		TO.	C.	l.	Additional	Accumulated Other		Total
	Shares		ount	Shares	,	mount	Paid-in Capital	Comprehensive Loss	Accumulated Deficit	Stockholders' Equity
Balances at January 1, 2020					,				Deficit	Equity
Exercise of stock options and common stock issued upon vesting of equity awards, net of shares withheld for	Shares 84,333	Am	84	Shares	A	mount	Capital \$ 169,561	Loss	Deficit	Equity \$ 38,564
Exercise of stock options and common stock issued upon vesting of equity awards, net of shares withheld for employee taxes	Shares	Am	ount	Shares	A	mount	Capital	Loss \$ (2,222)	Deficit	Equity \$ 38,564
Exercise of stock options and common stock issued upon vesting of equity awards, net of shares withheld for	Shares 84,333	Am	84	Shares	A	mount	Capital \$ 169,561	Loss \$ (2,222) — — 356	Deficit \$ (127,064)	Equity \$ 38,564
Exercise of stock options and common stock issued upon vesting of equity awards, net of shares withheld for employee taxes Cash flow hedges	Shares 84,333	Am	84	Shares	A	mount	Capital \$ 169,561	Loss \$ (2,222)	Deficit \$ (127,064)	Equity \$ 38,564 (147) 356
Exercise of stock options and common stock issued upon vesting of equity awards, net of shares withheld for employee taxes Cash flow hedges Foreign currency translation adjustment	Shares 84,333	Am	1 —	Shares 495	A	mount (1,795) — — —	Capital \$ 169,561	Loss \$ (2,222) — — 356	Deficit \$ (127,064)	Equity \$ 38,564 (147) 356 (517)
Exercise of stock options and common stock issued upon vesting of equity awards, net of shares withheld for employee taxes Cash flow hedges Foreign currency translation adjustment Repurchases of treasury shares	Shares 84,333	Am	1 —	Shares 495	A	mount (1,795) — — —	Capital \$ 169,561 (148) — — —	Loss \$ (2,222) — — 356	Deficit \$ (127,064)	Equity \$ 38,564 (147) 356 (517) (2,998)

CASA SYSTEMS, INC. CONDENSED CONSOLIDATED STATEMENTS OF CASH FLOWS (in thousands) (Unaudited)

		Three Months Ended March 31,		
		2021		2020
Cash flows (used in) provided by operating activities:				
Net income	\$	5,749	\$	1,162
Adjustments to reconcile net income to net cash provided by (used in)				
operating activities:				
Depreciation and amortization		4,209		4,768
Stock-based compensation		3,453		2,437
Deferred income taxes		138		(75)
Increase in provision for doubtful accounts		91		2
Change in provision for excess and obsolete inventory		113		519
Gain on disposal of assets		_		10
Changes in operating assets and liabilities:				
Accounts receivable		469		38,021
Inventory		4,558		11,873
Prepaid expenses and other assets		(5,834)		(231)
Prepaid income taxes		(680)		(6,446)
Accounts payable		(15,607)		(9,128)
Accrued expenses and other current liabilities		(10,118)		(8,204)
Accrued income taxes		2,225		(1,609)
Deferred revenue		6,079		(7,030)
Net cash (used in) provided by operating activities		(5,155)		26,069
Cash flows used in investing activities:				
Purchases of property and equipment		(852)		(390)
Purchases of software licenses		(1,400)		_
Net cash used in investing activities		(2,252)		(390)
Cash flows used in financing activities:		(=,===)		(555)
Principal repayments of debt		(750)		(830)
Proceeds from exercise of stock options		574		312
Employee taxes paid related to net share settlement of equity awards		(4,630)		(459)
Payments of dividends and equitable adjustments		(13)		(176)
Repurchases of treasury stock		(13)		(2,998)
Net cash used in financing activities		(4,819)		(4,151)
Effect of exchange rate changes on cash and cash equivalents		(266)		(408)
Net (decrease) increase in cash, cash equivalents and restricted cash		(12,492)		21,120
Cash, cash equivalents and restricted cash at beginning of period		158,461		114,657
	\$	145,969	\$	135,777
Cash, cash equivalents and restricted cash at end of period (1)	3	145,969	<u>a</u>	155,777
Supplemental disclosures of cash flow information:				
Cash paid for interest	\$	3,682	\$	4,194
Cash paid for income taxes	\$	290	\$	189
Supplemental disclosures of non-cash operating, investing and financing activities:				
Purchases of property and equipment included in accounts payable	\$	325	\$	1,879
Unpaid equitable adjustments included in accrued expenses and other current liabilities	\$	50	\$	555
Release of customer incentives included in accounts receivable and accrued expenses				
and other current liabilities	\$	1,076	\$	_

⁽¹⁾ See Note 2 of the accompanying notes for a reconciliation of the ending balance of cash, cash equivalents and restricted cash shown in these unaudited condensed consolidated statements of cash flows.

CASA SYSTEMS, INC. NOTES TO UNAUDITED CONDENSED CONSOLIDATED FINANCIAL STATEMENTS (in thousands, except per share 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, Spain, Colombia, the Netherlands, Hong Kong, Australia, Germany, the United Kingdom and New Zealand.

The Company offers physical, virtual and cloud-native 5G infrastructure and customer premise networking equipment for public and private high-speed data and multi-service communications networks. The Company's core and edge infrastructure technology enables communications service providers and enterprises to cost-effectively and dynamically increase data network speed, add bandwidth capacity and new services, 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 service provider ("CSP") industry. These risks include, but are not limited to, the level of capital spending by the CSPs, 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 CSPs 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 Company is an "emerging growth company," as defined in the Jumpstart Our Business Startups Act of 2012 (the "JOBS Act"), and may remain an emerging growth company until the last day of the fiscal year following the fifth anniversary of the Company's initial public offering, subject to specified conditions. 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. The Company has elected not to "opt out" of such extended transition period, which means that when a standard is issued or revised, and it has different application dates for public or private companies, the Company is required to adopt the new or revised standard at or prior to the time private companies are required to adopt the new or revised standard, provided that the Company continues to be an emerging growth company. The JOBS Act provides that the decision to take advantage of the extended transition period for complying with new or revised accounting standards is irrevocable.

The accompanying condensed consolidated balance sheet as of March 31, 2021, the condensed consolidated statements of income and comprehensive income for the three months ended March 31, 2021 and 2020, the condensed consolidated statements of cash flows for the three months ended March 31, 2021 and 2020 are unaudited. The financial data and other information disclosed in these notes related to the three months ended March 31, 2021 and 2020 are also unaudited. The accompanying condensed consolidated balance sheet as of December 31, 2020 was derived from the Company's audited consolidated financial statements for the year ended December 31, 2020 included in the Company's Annual Report on Form 10-K filed with the Securities and Exchange Commission ("SEC") on February 25, 2021 (the "Annual Report on Form 10-K"). 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 Annual Report on Form 10-K. There have been no changes to the Company's accounting policies from those disclosed in the Annual Report on Form 10-K that would have a material impact on the Company's condensed consolidated financial statements.

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 and cash flows to be anticipated for the full year ending December 31, 2021 or any future period.

The accompanying condensed consolidated financial statements include the accounts and results of operations of the Company and its whollyowned subsidiaries. All intercompany transactions and balances 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 condensed 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, the recoverability of net deferred tax assets, valuations of uncertain tax positions, warranty allowances, the valuation of 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.

The emergence of COVID-19 around the world, and particularly in the United States and China, presents various risks to the Company, not all of which the Company is able to fully evaluate or even to foresee at the current time, and could have a material effect upon the estimates and judgments relied upon by management in preparing these condensed consolidated financial statements. While the COVID-19 pandemic did not significantly adversely affect the Company's financial results and business operations in the quarter ended March 31, 2021, economic and health conditions in the United States and across most of the globe changed rapidly, and are continuing to change after the end of the quarter. Globally, all aspects of the Company's business remain fully operational. However, increasing demand for certain of the Company's products has increased pressure on its supply chain which could impact continued availability of inventory requirements. The Company will continue to monitor its business very closely for any effects of COVID-19 for as long as necessary on an ongoing basis.

Cash, Cash Equivalents and Restricted Cash

Cash and cash equivalents include all highly liquid investments maturing within three months from the date of purchase. As of March 31, 2021 and December 31, 2020, the Company's cash and cash equivalents consisted of investments in certificates of deposit and money market mutual funds.

Restricted cash as of March 31, 2021 and December 31, 2020 consisted of a certificate of deposit of \$1,008 and \$1,006, respectively, pledged as collateral for a stand-by letter of credit required to support a contractual obligation.

The following table is a reconciliation of cash, cash equivalents and restricted cash included in the accompanying condensed consolidated balance sheets that sum to the total cash, cash equivalents and restricted cash included in the accompanying condensed consolidated statements of cash flows:

	March 31, 2021		M	arch 31, 2020
Cash and cash equivalents	\$	144,961	\$	134,752
Restricted cash included in other assets		1,008		1,025
	\$	145,969	\$	135,777

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 customer contracts with customary payment terms, which are one year or less, are recorded at invoiced amounts and do not bear interest. The Company may, in limited circumstances, grant payment terms longer than one year. Payments due beyond 12 months from the balance sheet date are recorded as non-current assets. 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.

Accounts receivable as of March 31, 2021 and December 31, 2020 consisted of the following:

	M	Iarch 31, 2021	December 31, 2020
Current portion of accounts receivable, net:			
Accounts receivable, net	\$	91,709	\$ 93,480
Accounts receivable, extended payment terms		633	 644
		92,342	 94,124
Accounts receivable, net of current portion:			
Accounts receivable, extended payment terms		65	143
	\$	92,407	\$ 94,267

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 customer, 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 selling, general and administrative expenses in the condensed consolidated statements of income and comprehensive income.

As of March 31, 2021 and December 31, 2020, the Company concluded that all amounts due under extended payment terms were collectible and no reserve for credit losses was recorded. During the three months ended March 31, 2021 and 2020, the Company did not provide a reserve for credit losses and did not write off any uncollectible receivables due under extended payment terms.

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 deposit 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 and are set forth in the following tables:

	Revenue Three Months Ended		Accounts Receivab	
	2021	2020	2021	2020
Customer A	18%	*	23%	*
Customer B	*	12%	*	17%
Customer C	*	20%	*	*
Customer D	19%	*	13%	*

Less than 10% of total

Certain of the components and subassemblies included in the Company's products are obtained from a single source or a limited group of suppliers. 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.

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.

The Company classifies stock-based compensation expense in its consolidated statements of income and comprehensive income (loss) 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 Company estimates the fair value of each stock option grant on the date of grant using the Black-Scholes option pricing model. The Company was a private company until December 14, 2017 and lacks sufficient company-specific historical and implied volatility information for its stock. Therefore, for all options granted in 2020 or before, the Company estimated its expected stock volatility based on the historical volatility of publicly traded peer companies. Beginning with options granted in 2021, the Company estimates its expected stock volatility using a weighted-average calculation based on the historical volatility of the Company and 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 dividends declared in November 2014, June 2016, December 2016, May 2017 and November 2017 and in those circumstances the board of directors approved cash dividends to be paid to holders of the Company's stock options, stock appreciation rights ("SARs") and restricted stock units ("RSUs") upon vesting as an equitable adjustment to the holders of such instruments.

The Company has also granted 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 SAR is exercised. Because these awards may require the Company to settle the awards in cash, the Company accounts for them as a liability in the Company's consolidated balance sheets. The Company recognizes the liability related to these awards, as well as related compensation expense over the period during which services are rendered until completed. The Company estimates changes in the fair value of the SAR liability using the Black-Scholes option pricing model and records them in the consolidated statements of income 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 income and comprehensive income.

Impact of Recently Issued Accounting Standards

In February 2016, the FASB issued ASU 2016-02, *Leases* (Topic 842): *Amendments to FASB Accounting Standards Codification* ("ASU 2016-02"), which replaces the existing guidance for leases. ASU 2016-02 requires the identification of arrangements that should be accounted for as leases by lessees. In general, for lease arrangements exceeding a twelve-month term, the arrangements must now be recognized as assets and liabilities on the balance sheet of the lessee. Under ASU 2016-02, a right-of-use asset and lease obligation will be recorded for all leases, whether operating or financing, while the income statement will reflect lease expense for operating leases and amortization/interest expense for financing leases. The balance sheet amount recorded for existing leases at the date of adoption of ASU 2016-02 must be calculated using the applicable incremental borrowing rate at the date of adoption. This guidance will become effective for private companies, and emerging growth companies that choose to take advantage of the extended transition periods, for annual reporting periods beginning after December 15, 2021, and interim periods within fiscal years beginning after December 15, 2022. The Company has begun planning for adoption by implementing a new lease accounting software and by working to establish additional changes to internal processes to comply with all requirements upon adoption. The standard allows for, and the Company plans on using, a modified retrospective approach with comparatives under ASC 840, where entities would recognize a cumulative effect to retained earnings at the date of adoption without restating prior period balances or disclosure. Management is continuing to assess the impact of ASU 2016-02 on the Company's condensed consolidated financial statements and the accompanying notes thereto.

In June 2016, the FASB issued ASU 2016-13, *Measurement of Credit Losses on Financial Instruments* ("ASU 2016-13"). This guidance is intended to provide more decision-useful information about expected credit losses on financial instruments and other commitments to extend credit held by a reporting entity at each reporting date. The main provisions include presenting financial assets measured at amortized cost at the amount expected to be collected, which is net of an allowance for expected credit losses, and recording credit losses related to available-for-sale securities through an allowance for credit losses. The effective dates for the amendments in ASU 2016-13 were updated in ASU 2019-10, *Financial Instruments – Credit Losses (Topic 326)*, *Derivatives and Hedging (Topic 815)*, and Leases (Topic 842), and as such ASU 2016-13 will become effective for private companies, and emerging growth companies that choose to take advantage of the extended transition periods, for fiscal years beginning after December 15, 2022, including interim periods within those fiscal periods, and must be applied using a modified retrospective approach. The Company is currently evaluating the impact ASU 2016-13 will have on its consolidated financial statements.

Other

Other than the disclosures above, there have been no changes to the significant accounting policies disclosed in Note 2 "Summary of Significant Accounting Policies" to the Company's consolidated financial statements included in the Annual Report on Form 10-K for the fiscal year ended December 31, 2020.

3. Goodwill and Intangible Assets

Intangible assets, net consisted of the following at March 31, 2021 and December 31, 2020:

	 Cost	Accumulated Amortization	Net Balance
Developed Technology	\$ 25,000	\$ (6,251)	\$ 18,749
Customer Relationships	18,000	(3,150)	14,850
Trade Name	1,000	(581)	419
Purchased software	1,793	(114)	1,679
Totals as of March 31, 2021	\$ 45,793	\$ (10,096)	\$ 35,697

	Cost	Accumulated Amortization	Net Balance
Developed Technology	\$ 25,000	\$ (5,358)	\$ 19,642
Customer Relationships	18,000	(2,700)	15,300
Trade Name	1,000	(498)	502
Purchased software	432	(32)	400
Totals as of December 31, 2020	\$ 44,432	\$ (8,588)	\$ 35,844

As of March 31, 2021, amortization expense on existing intangible assets for the next five years and beyond is as follows:

Year Ending December 31,	
2021	\$ 4,589
2022	5,948
2023	5,753
2024	5,651
2025	5,651
Thereafter	8,105
	\$ 35,697

A summary of amortization expense recorded during the three months ended March 31, 2021 and 2020 is as follows:

	Three Months Ended March 31,						
	2021		2020				
Product cost of revenue	\$ 893	\$	893				
Research and development	82	2					
Selling, general and administrative	533	3	533				
Totals	\$ 1,508	\$	1,426				

The Company's goodwill is the result of its acquisition of NetComm on July 1, 2019 and represents the excess of purchase price over the estimated fair value of net assets acquired. There has been no change to the \$50,177 carrying amount of goodwill since December 31, 2020.

4. Inventory

Inventory as of March 31, 2021 and December 31, 2020 consisted of the following:

	rch 31, 2021	December 31, 2020		
Raw materials	\$ 45,794	\$	50,904	
Work in process	14		19	
Finished goods:				
Manufactured finished goods	50,227		49,764	
Deferred inventory costs	475		517	
	\$ 96,510	\$	101,204	

5. Property and Equipment

Property and equipment as of March 31, 2021 and December 31, 2020 consisted of the following:

	 March 31, 2021	December 31, 2020
Computers and purchased software	\$ 25,219	\$ 24,865
Leasehold improvements	4,172	4,148
Furniture and fixtures	2,642	2,644
Machinery and equipment	37,554	36,701
Land	3,091	3,091
Building	4,765	4,765
Building improvements	7,244	7,244
Trial systems at customers' sites	4,639	5,300
	 89,326	 88,758
Less: Accumulated depreciation and amortization	(62,087)	(59,878)
	\$ 27,239	\$ 28,880

During the three months ended March 31, 2021 and 2020, the Company transferred trial systems into inventory from property and equipment with values of \$661 and \$237, respectively, net of transfers of trial systems to cost of revenue. In addition, the Company transferred \$23 and \$9 of equipment into inventory from property and equipment during the three months ended March 31, 2021 and 2020, respectively.

Depreciation and amortization expense on property and equipment totaled \$2,701 and \$3,347 for the three months ended March 31, 2021 and 2020, respectively.

6. Accrued Expenses and Other Current Liabilities

Accrued expenses and other current liabilities as of March 31, 2021 and December 31, 2020 consisted of the following:

	N	March 31, 2021	D	December 31, 2020
Accrued compensation and related taxes	\$	12,977	\$	22,722
Accrued warranty		2,463		2,354
Dividends and equitable adjustments payable (see Note 11)		50		63
Other accrued expenses		13,130		14,654
	\$	28,620	\$	39,793

Accrued Warranty

Substantially all of the Company's products are covered by warranties for software and hardware for periods ranging from 90 days to one year. In addition, in conjunction with customers' 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 condensed 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 three months ended March 31, 2021 and 2020 is as follows:

	<u></u>	I nree Months Ended March 31,				
	2	021		2020		
Warranty reserve at beginning of period	\$	2,354	\$	2,448		
Provisions		866		2,745		
Charges		(757)		(2,839)		
Warranty reserve at end of period	\$	2,463	\$	2,354		

7. Fair Value Measurements

The following tables present information about the fair value of the Company's financial assets and liabilities as of March 31, 2021 and December 31, 2020 and indicate the level of the fair value hierarchy utilized to determine such fair values:

	Fair Value Measurements as of March 31, 2021 Using:								
		Level 1	Level 2			Level 3		Total	
Assets:									
Certificates of deposit—restricted cash	\$	_	\$	1,008	\$	_	\$	1,008	
Money market mutual funds		113,892		_		_		113,892	
	\$	113,892	\$	1,008	\$		\$	114,900	
Liabilities:									
SARs	\$	_	\$	_	\$	705	\$	705	
	\$	_	\$		\$	705	\$	705	

	Fair Value Measurements as of December 31, 2020 Using:								
		Level 1	Level 2			Level 3		Total	
Assets:									
Certificates of deposit—restricted cash	\$	_	\$	1,006	\$	_	\$	1,006	
Money market mutual funds		114,404		_		_		114,404	
	\$	114,404	\$	1,006	\$	_	\$	115,410	
Liabilities:									
SARs	\$	_	\$	_	\$	493	\$	493	
	\$	_	\$		\$	493	\$	493	

During the three months ended March 31, 2021 and 2020, 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 three months ended March 31, 2021 from those included in the Company's consolidated financial statements for the year ended December 31, 2020. The following table provides a summary of changes in the fair values of the Company's stock appreciation rights ("SARs") liability, for which fair value is determined by Level 3 inputs:

	Three Months Ended March 31,				
		2021	2020		
Fair value at beginning of period	\$	493	\$	264	
Change in fair value		347		(65)	
Exercises		(135)		<u> </u>	
Fair value at end of period	\$	705	\$	199	

8. 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 March 31, 2021, the Company had a foreign currency forward contract outstanding with a notional amount totaling 314 Euros maturing in the second quarter of 2021. As of December 31, 2020, no foreign currency forward contracts were outstanding.

The Company's foreign currency forward contracts described above economically hedged certain risks, but were not designated as hedges for financial reporting purposes, and accordingly, all changes in the fair value of the derivative instruments were recorded as unrealized foreign currency transaction gains or losses and were included in the condensed consolidated statements of income and comprehensive income as a component of other income (expense). The Company records derivative instruments in the condensed consolidated balance sheet at their fair values. As of March 31, 2021 and December 31, 2020, the Company recorded no asset relating to outstanding foreign currency forward contracts. As of March 31, 2021 and December 31, 2020, the Company recorded no liability relating to outstanding foreign currency forward contracts.

The Company also faces exposure to foreign currency exchange rate fluctuations, as a certain portion of its expenses are denominated in currencies other than U.S. Dollars. In certain instances, the Company utilizes forward contracts to hedge against foreign currency fluctuations. These contracts are used to minimize foreign gains or losses, as the gains or losses on the derivative are intended to offset the losses or gains on the underlying exposure. The Company does not engage in foreign currency speculation.

The Company designed its foreign currency risk management strategy principally to mitigate the potential financial impact of changes in the value of transactions and balances denominated in foreign currencies resulting from changes in foreign currency exchange rates. The Company may enter into cash flow hedges that utilize foreign currency forward contracts to hedge specific forecasted transactions of its foreign subsidiaries with the goal of protecting its budgeted expenses against foreign currency exchange rate changes compared to its budgeted rates.

During the three months ended March 31, 2020, the Company entered into two cash flow hedges with notional amounts of 8,500 AUD and 5,000 AUD to hedge certain Australian Dollar cash flows incurred during the second and third quarters of 2020, respectively. As the cash flows which were hedged had not yet occurred, the Company recognized their full fair value of \$356 as accumulated other comprehensive income in the accompanying condensed consolidated statement of stockholders' equity for the three months ended March 31, 2020. The Company did not have any cash flow hedges outstanding as of March 31, 2021 and December 31, 2020.

9. Income Taxes

The Company's effective income tax rate was 28.8% and 115.4% for the three months ended March 31, 2021 and 2020, respectively. The provision for (benefit from) income taxes was \$2,326 and \$(8,719) for the three months ended March 31, 2021 and 2020, respectively. The change in the provision for (benefit from) income taxes was primarily due to a discrete tax benefit of \$9,310 recorded in the three months ended March 31, 2020 associated with the enactment of the CARES Act. The change in the provision for (benefit from) income taxes was also impacted by changes in the jurisdictional mix of earnings period over period.

The effective income tax rate for the three months ended March 31, 2021 and 2020 differed from the federal statutory rate primarily due to the geographical mix of earnings and related foreign tax rate differential, permanent differences, research and development tax credits, foreign tax credits, the valuation allowance maintained against certain deferred tax assets and withholding taxes.

10. Debt

The aggregate principal amount of debt outstanding as of March 31, 2021 and December 31, 2020 consisted of the following:

]	March 31, 2021	D	December 31, 2020
Term loan	\$	287,250	\$	288,000
Revolving credit facility		6,500		6,500
Total principal amount of debt outstanding	\$	293,750	\$	294,500

Current and non-current debt obligations reflected in the condensed consolidated balance sheets as of March 31, 2021 and December 31, 2020 consisted of the following:

	 March 31, 2021	 December 31, 2020
Current liabilities:	 	_
Term loan	\$ 9,775	\$ 9,775
Revolving credit facility	6,500	6,500
Current portion of principal payment obligations	16,275	16,275
Unamortized debt issuance costs, current portion	(1,068)	(1,104)
Current portion of long-term debt, net of unamortized debt issuance costs	\$ 15,207	\$ 15,171
Non-current liabilities:	 	
Term loan	\$ 277,475	\$ 278,225
Unamortized debt issuance costs, non-current portion	(1,900)	(2,140)
Long-term debt, net of current portion and unamortized debt issuance costs	\$ 275,575	\$ 276,085

As of March 31, 2021, aggregate minimum future principal payments of the Company's debt are summarized as follows:

Year Ending December 31,	
2021	\$ 15,525
2022	3,000
2023	275,225
Thereafter	_
	\$ 293,750

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 March 31, 2021 and December 31, 2020, \$287,250 and \$288,000 in principal amount, respectively, were outstanding under the term loan facility (the "Term Loans"). As of March 31, 2021 and December 31, 2020, the Company had outstanding borrowings under the revolving credit facility of \$6,500. As of March 31, 2021 and December 31, 2020, the Company had also used \$1,513 and \$1,454 of available credit under the revolving credit facility for two stand-by letters of credit, one which serves as collateral to one of the Company's customers pursuant to a contractual performance guarantee and one which serves as collateral for operating leases in Australia. 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% per annum interest rate floor) and 3.00% per annum for base rate loans. The applicable margin for borrowings under the revolving credit facility is 1.75% per annum for Eurodollar rate loans and 0.75% per annum for base rate loans, subject to reduction based on the Company's maintaining 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, 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 breakage costs if the conversion is effected prior to the end of the applicable interest period. As of March 31, 2021, the interest rate on the Term Loans was 5.00% per annum plus the applicable margin of 4.00% per annum for Eurodollar rate loans. As of December 31, 2020, the interest rate on the Term Loans was 5.00% per annum, which was based on a one-month Eurodollar rate loans. As of March 31, 2021, the interest rate on the revolving credit facility was 2.01% per annum, which was based on a one-month Eurodollar rate of 0.26% per annum plus the applicable margin of 1.75% per annum for Eurodollar rate loans. As of December 31, 2020, the interest rate on the revolving credit facility was 2.12% per annum, which was based on the one-month Eurodollar rate of 0.37% per annum plus the applicable margin of 1.75% per annum for Eurodollar rate loans.

Upon entering into the term loan facility, the Company incurred debt issuance costs of \$7,811, which were initially recorded as a reduction of the debt liability and are amortized to interest expense using the effective interest method from the issuance date of the Term Loan until the maturity date. Principal payments of \$750 were made under the term loan facility during each of the three months ended March 31, 2021 and 2020. No principal payments were made under the revolving credit facility during the three months ended March 31, 2021. Interest expense for the Term Loan and revolving credit facility, including the amortization of debt issuance costs, totaled \$3,869 and \$4,448 for the three months ended March 31, 2021 and 2020, respectively.

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. For the three months ended March 31, 2021 and 2020, interest expense related to the fee for the unused amount of the revolving credit facility totaled \$11 and \$15, respectively.

The Term Loans mature on December 20, 2023, and the revolving credit facility matures on December 20, 2021. The Term Loans are subject to amortization in equal quarterly installments, which commenced 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. In accordance with these provisions, a mandatory prepayment of \$6,775 was paid by the Company on April 2, 2021. This amount was included in the current portion of long-term debt, net of unamortized debt issuance costs on the condensed consolidated balance sheets as of March 31, 2021 and December 31, 2020.

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. The Company was in compliance with all covenants as of March 31, 2021 and December 31, 2020.

Commercial Mortgage Loan

On July 1, 2015, the Company entered into a commercial mortgage loan agreement in the amount of \$7,950 (the "Mortgage Loan"). Borrowings under the Mortgage Loan bore interest at a rate of 3.5% per annum and were 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 Mortgage Loan was paid on the maturity date of July 1, 2020 utilizing the Company's revolving credit facility. Upon entering into the Mortgage Loan, the Company incurred debt issuance cost of \$45, which was initially recorded as a direct deduction from the debt liability and was being amortized to interest expense using the effective interest method from the issuance date of the loan until the maturity date.

The Mortgage Loan was paid on the maturity date of July 1, 2020, utilizing the Company's revolving credit facility. The Company made principal payments under the Mortgage Loan of \$80 during the three months ended March 31, 2020. Interest expense, including the amortization of debt issuance costs, totaled \$60 during the three months ended March 31, 2020.

11. Stockholders' Equity

In connection with special dividends previously declared, 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 equitable adjustments to the holders of such instruments in accordance with the provisions of the Company's equity incentive plans. These equitable adjustment payments are equal to an amount per share multiplied by the net number of shares subject to outstanding equity awards after applying the treasury stock method. The below table provides details of these equitable adjustment payments:

				Equitable Adjustment Payments									
					Three Mor	ths Ende	1	Ec	juitable Adju	istment Li	ability(1)		
Dividend Declaration Dates	Ad	quitable justment er share	Year of Final Vesting	Marcl	March 31, 2021 March 31, 2020			March 31, 2021	As of 1	December 31, 2020			
November 30, 2017	\$	0.5802	2021	\$	10	\$	38	\$	20	\$	30		
May 10, 2017		1.1774	2021		1		33		30		31		
December 27, 2016		2.3306	2020		2		93		_		2		
June 17, 2016		0.5891	2020		_		12		_		_		
Total				\$	13	\$	176	\$	50	\$	63		

(1) Net of estimated forfeitures. Amounts are included in accrued expenses and other current liabilities in the accompanying condensed consolidated balance sheets.

Stock Repurchase Program

On February 21, 2019, the Company announced a stock repurchase program authorizing it to repurchase up to \$75,000 of the Company's common stock. There were no repurchases made during the three months ended March 31, 2021. During the three months ended March 31, 2020, the Company repurchased 1,227 shares, for a cost of \$3,031, including commissions. As of March 31, 2021, \$70,208 remained authorized for repurchases of the Company's common stock under the stock repurchase program. The stock repurchase program has no expiration date and does not require us to purchase a minimum number of shares, and the Company may suspend, modify or discontinue the stock repurchase program at any time without prior notice.

12. Stock-based Compensation

2017 Stock Incentive Plan

The Company's 2017 Stock Incentive Plan (the "2017 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, performance-based stock units ("PSUs"), RSUs or other stock-based awards to the Company's employees, officers, directors, advisors and outside consultants. The total number of shares authorized for issuance under the 2017 Plan was 21,793 shares as of March 31, 2021, of which 10,179 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 three months ended March 31, 2021:

	Number of Shares		Weighted- Average Exercise Price	Weighted- Average Remaining Contractual Term		Aggregate Intrinsic Value
Outstanding at January 1, 2021	7,120	\$	8.01	(in years) 4.88	\$	9,367
3 ,	7,120	Ф		4.00	Ф	9,307
Granted	24		8.94			
Exercised	(156)		3.68			
Forfeited	(86)		10.12			
Outstanding at March 31, 2021	6,902	\$	8.08	4.64	\$	21,576
Options exercisable at March 31, 2021	6,391	\$	7.81	4.37	\$	20,593
Vested or expected to vest at March 31, 2021	6,892	\$	8.08	4.63	\$	21,568

The fair value of each option is estimated on the date of grant using the Black-Scholes option-pricing model using the following assumptions:

	Three Months En	ided March 31,
	2021	2020
Risk-free interest rate	1.0%	0.7%
Expected term (in years)	6.1	6.1
Expected volatility	38.2%	29.3%
Expected dividend yield	0.0%	0.0%

The weighted-average grant-date fair value of options granted during the three months ended March 31, 2021 and 2020 was \$3.42 and \$0.66 per share, respectively. Cash proceeds received upon the exercise of options were \$574 and \$312 during the three months ended March 31, 2021 and 2020, respectively. The intrinsic value of stock options exercised during the three months ended March 31, 2021 and 2020 was \$805 and \$273, respectively. The aggregate intrinsic value 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

A summary of RSU activity under the Company's 2011 Stock Incentive Plan (the "2011 Plan") and the 2017 Plan for the three months ended March 31, 2021 is as follows:

	Number of Shares	Weighted- Average Grant Date Fair Value	Aggregate Fair Value
Unvested balance at January 1, 2021	4,231	\$ 5.43	
Granted	669	9.14	
Vested	(872)	6.23	\$ 7,060
Forfeited	(4)	11.78	
Unvested balance at March 31, 2021	4,024	\$ 5.86	

The Company withheld 593 and 111 shares of common stock in settlement of employee tax withholding obligations due upon the vesting of RSUs during the three months ended March 31, 2021 and 2020, respectively.

Performance-Based Stock Units

During the three months ended March 31, 2021 and 2020, the Company granted PSUs to certain employees that vest over a three-year period based on the achievement of performance goals and continued performance of services. The performance goals consist solely of market-based vesting conditions, determined by the Company's level of achievement of pre-established parameters relating to the performance of the Company's stock price as set by the Board of Directors. Vesting may occur at any time during the three-year period.

Compensation expense is based on the estimated value of the awards on the grant date, and is recognized over the period from the grant date through the expected vest dates of each vesting condition, both of which were estimated based on a Monte Carlo simulation model applying the following key assumptions:

	Three Months E	nded March 31,
	2021	2020
Risk-free interest rate	0.2%	1.2%
Volatility	78.6%	70.0%
Dividend yield	0.0%	0.0%
Cost of equity	12.0%	11.0%

A summary of PSU activity for the year three months ended March 31, 2021 is as follows:

	Number of Shares	Average Grant Date Fair Value	Aggregate Fair Value
Unvested balance at January 1, 2021	737	\$ 3.22	
Granted	442	7.89	
Vested	(492)	3.22	\$ 4,023
Forfeited	_	_	
Unvested balance at March 31, 2021	687	\$ 6.23	

Stock Appreciation Rights

Over time, the Company has granted 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 SARs vested over a four-year period from the date of grant and expire ten years from the date of grant. During the three months ended March 31, 2021, 20 SARs were exercised with a fair value of \$6.75. As of March 31, 2021, 200 outstanding and fully vested SARs were exercisable with a weighted-average fair value of \$3.53 per SAR. The fair value of the SAR liability as of March 31, 2021 and December 31, 2020 was \$705 and \$493, respectively, (see Note 7) 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, SARs and PSUs for the three months ended March 31, 2021 and 2020 was classified in the condensed consolidated statements of income and comprehensive income as follows:

		Three Months Ended March 31,			
	2	021		2020	
Cost of revenue	\$	33	\$	31	
Research and development expenses		871		437	
Selling, general and administrative expenses		2,549		1,969	
Total stock-based compensation	\$	3,453	\$	2,437	

During the three months ended March 31, 2021 and 2020, the Company recognized stock-based compensation of \$347 and \$(65), respectively, as a change in fair value of the outstanding SAR liability and recognized \$3,106 and \$2,502, respectively, as additional paid-in capital.

As of March 31, 2021, there was \$27,409 of unrecognized compensation cost related to outstanding stock options, RSUs, SARs and PSUs, which is expected to be recognized over a weighted-average period of 2.09 years.

13. Net Income per Share

Basic and diluted net income per share attributable to common stockholders was calculated as follows:

	Three Months Ended March 31,			rch 31,
		2021		2020
Numerator:				
Net income attributable to common stockholders, basic and diluted	\$	5,749	\$	1,162
Denominator:				_
Weighted-average shares used to compute net income per share attributable to common stockholders, basic		84,242		83,990
				885
Dilutive effect of stock options		1,978		
Dilutive effect of restricted stock units		2,348		134
Weighted-average shares used to compute net income per share attributable to common stockholders, diluted		88,568		85,009
Net income per share attributable to common stockholders:				
Basic	\$	0.07	\$	0.01
Diluted	\$	0.06	\$	0.01

The following potential common shares, presented based on amounts outstanding at each period end, 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:

	Three Months Ended	l March 31,
	2021	2020
Options to purchase common stock	2,382	5,941
Unvested restricted stock units	1,221	2,527
Unvested performance-based stock units	_	983

14. Revenue from Contracts with Customers

Disaggregation of revenue

The Company disaggregates its revenue by product and service in the condensed consolidated statements of income and comprehensive income. Performance obligations related to product revenue are recognized at a point in time, while performance obligations related to service revenue are recognized over time. The Company also disaggregates its revenue based on geographic locations of its customers, as determined by the customer's shipping address, summarized as follows:

	Three Months Ended March 31, 2021 2020			
North America:		2021		2020
United States	\$	36,912	\$	29,440
Canada		26,238		4,512
Total North America		63,150		33,952
Europe, Middle East and Africa:	<u> </u>	6,353		14,098
Asia-Pacific:		_		
Australia		23,398		21,704
Other		6,801		11,484
Total Asia-Pacific		30,199		33,188
Latin America		4,575		2,385
Total revenue(1)	\$	104,277	\$	83,623

⁽¹⁾ Other than the United States, Canada and Australia, no individual countries represented 10% or more of the Company's total revenue for any of the periods presented.

The Company also disaggregates its revenue based on product line summarized as follows:

	 Three Months Ended March 31,		
	 2021		2020
Product revenue:			
Wireless	\$ 39,688	\$	20,657
Fixed telco	14,885		17,932
Cable	39,225		35,169
Total product revenue	 93,798		73,758
Service revenue:			_
Wireless	591		1,774
Fixed telco	1,606		250
Cable	8,282		7,841
Total service revenue	10,479		9,865
Total revenue	\$ 104,277	\$	83,623

Costs to Obtain or Fulfill a Contract

As of March 31, 2021 and December 31, 2020, the Company had short-term capitalized contract costs of \$98 and \$95, respectively, which are included in prepaid expenses and other current assets and had long-term capitalized contract costs of \$56 and \$70, respectively, which are included in other assets in the accompanying condensed consolidated balance sheets. During the three months ended March 31, 2021 and 2020, amortization expense associated with capitalized contract costs was \$23 and \$253, respectively, which was recorded to selling, general and administrative expenses in the accompanying condensed consolidated statements of income and comprehensive income.

Contract Balances

Contract liabilities consist of deferred revenue and include payments received in advance of performance under the contract. Such amounts are recognized as revenue when the Company satisfies its performance obligations, consistent with the above methodology. For the three months ended March 31, 2021, the Company recognized \$7,010 of revenue that was included in deferred revenue as of December 31, 2020. For the three months ended March 31, 2020, the Company recognized \$14,940 of revenue that was included in deferred revenue as of December 31, 2019.

The Company receives payments from customers based upon contractual billing terms. Accounts receivable are recorded when the right to consideration becomes unconditional. Contract assets include amounts related to the Company's contractual right to consideration for both completed and partially completed performance obligations that may not have been invoiced. As of March 31, 2021 and December 31, 2020, the Company included contract assets of \$6 and \$110, respectively, which is netted with deferred revenue in the accompanying condensed consolidated balance sheets.

Transaction price allocated to the remaining performance obligations

As of March 31, 2021, the aggregate remaining amount of revenue expected to be recognized related to unsatisfied or partially unsatisfied performance obligations is \$25,121, which consists of deferred revenue. The Company expects approximately 88% of this amount to be recognized in the next twelve months with the remaining amounts to be recognized over the next two to five years.

Other Revenue Recognition Policies

The Company's customary payment terms are generally 90 days or less. If the Company provides extended payment terms that represent a significant financing component, the Company adjusts the amount of promised consideration for the time value of money using an appropriate discount rate and recognizes interest income separate from the revenue recognized on contracts with customers. During the three months ended March 31, 2021 and 2020, the Company recorded \$6 and \$34 respectively, in interest income in the condensed consolidated statements of income and comprehensive income.

15. 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 condensed consolidated financial statements.

The Company's property and equipment, net by location was as follows:

	March 31, 2021	D	ecember 31, 2020
United States	\$ 19,792	\$	20,988
China	2,984		2,986
Australia	2,663		2,849
Other	1,800		2,057
Total property and equipment, net	\$ 27,239	\$	28,880

16. Related Parties

Employment of Rongke Xie

Rongke Xie, who serves as Deputy General Manager of Guangzhou Casa Communication Technology LTD ("Casa China"), a subsidiary of the Company, is the sister of Lucy Xie, the Company's Senior Vice President of Operations and a member of the Company's board of directors. Casa China paid Rongke Xie \$33 and \$22 in total compensation in the three months ended March 31, 2021 and 2020, respectively, for her services as an employee.

In March 2020, February 2019 and June 2018, the Company granted to Rongke Xie 90, 8 and 5 RSUs, respectively, which vest over four annual periods. The grant-date fair value of the awards totaled \$400, which will be recorded as stock-based compensation expense over the vesting period of the awards. During the three months ended March 31, 2021 and 2020, the Company recognized selling, general and administrative expenses of \$25 and \$13 related to these awards.

17. Commitments and Contingencies

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 March 31, 2021 and December 31, 2020, the Company had not experienced any losses related to these indemnification obligations and no material claims were outstanding where a contingent loss was considered to be probable or reasonably estimable. 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 condensed consolidated financial statements.

Litigation

The complete response to this section regarding legal proceedings is incorporated by reference herein to Part II Item I in this 10-Q.

Item 2. 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 condensed consolidated financial statements and related notes and other financial information included elsewhere in this Quarterly Report on Form 10-Q. 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 Quarterly Report on Form 10-Q, particularly in the section titled "Risk Factors." For discussion comparing the period ended March 31, 2020 to March 31, 2019, please refer to our Quarterly Report on form 10-Q, filed with the SEC on May 1, 2020.

Overview

Our solutions are conceived, designed and built to enable our CSP customers to offer high bandwidth data services to their subscribers, and to transform their networks to meet the growing demand for bandwidth and the introduction of new services. We offer physical, virtual and cloud-native 5G infrastructure and customer premise networking equipment for public and private high-speed data and multi-service communications networks. Our core and edge infrastructure technology enables CSPs and enterprises to cost-effectively and dynamically increase network speed, add bandwidth capacity and new services, reduce network complexity, and reduce operating and capital expenditures.

We offer scalable solutions that can meet the evolving bandwidth needs of our customers and their subscribers. Our first installation in a service provider's network frequently involves deploying our broadband products in only a portion of the provider's network and, for our cable products, 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 extend network coverage or increase network capacity.

Our solutions are commercially deployed in over 70 countries by more than 475 customers, including regional service providers as well as some of the world's largest Tier 1 CSPs, serving millions of subscribers.

COVID-19 Pandemic

The emergence of the coronavirus disease in 2019, or COVID-19, around the world, and particularly in the United States and China, and the accompanying responses of governments and businesses to the pandemic present various risks to us, not all of which we are able to fully evaluate or even foresee at the current time. While the COVID-19 pandemic did not significantly adversely affect our financial results, business operations or liquidity during the three months ended March 31, 2021, economic and health conditions in the United States and across most of the globe changed rapidly throughout 2020, and are continuing to change into 2021. Globally to date, all aspects of our business remain fully operational, and our work from home contingency plans have been implemented and are operating successfully. The pandemic has resulted in increased demand for certain of our products and resulting order volumes have created additional pressure on our supply chain. To date, while the increased demand has not resulted in any material delays to our production cycle, we continue to work with our supply chain and contract manufacturers in an effort to ensure continued availability of all anticipated inventory requirements. However, we cannot at this time predict whether, or to what extent, our efforts will be successful. Additionally, we saw decreases in certain operating expenses, such as travel and trade show expense, during the year ended December 31, 2020 and the three months ended March 31, 2021 due to the COVID-19 pandemic that we cannot ensure will be maintained. We intend to continue to monitor our business very closely for any effects of COVID-19 for as long as necessary on an ongoing basis.

In addition, in response to the COVID-19 pandemic, the Coronavirus Aid, Relief and Economic Security Act ("CARES Act") was signed into law on March 27, 2020. The CARES Act, among other things, includes tax provisions relating to refundable payroll tax credits, deferment of employer's social security payments, net operating loss utilization and carryback periods, modifications to the net interest deduction limitations and technical corrections to tax depreciation methods for qualified improvement property (QIP). For the three months ended March 31, 2021, we recognized a reduction to cost of goods sold and operating expenses for a payroll tax credit under the CARES Act of \$0.3 million and \$2.1 million, respectively. For the three months ended March 31, 2020, we recognized an income tax benefit of \$9.3 million (see Note 9 to our accompanying financial statements). We will continue to evaluate the impact of the CARES Act on our financial position, results of operations, and cash flows.

Due to the above circumstances and as described generally in this Quarterly Report on Form 10-Q, our results of operations for the three months ended March 31, 2021 are not necessarily indicative of the results to be expected in future periods. Management cannot predict the full impact of the COVID-19 pandemic on our sales channels, supply chain,

manufacturing and distribution, or on economic conditions generally, including the effects on our current and potential customers, who may temporarily accelerate or curtail spending on investments in current and/or new technologies, delay new equipment evaluations and trials, and possibly delay payments based on liquidity concerns, all of which could have a material impact on our business in the future. Similarly, our supply chain and our contract manufacturers could be affected, which could cause disruptions to our ability to meet customer demand. Although we have not been materially adversely impacted to date, we cannot predict the extent to which this may impact our future results of operations. If COVID-19 were to have such effects in the future, there would likely be a material adverse impact on our financial results, liquidity and capital resource needs. Thus, the ultimate extent of the effects of the COVID-19 pandemic on our business is highly uncertain and dependent upon future developments, and such effects could exist for an extended period of time even after the pandemic ends.

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:

	 Three Months Ended March 31,			
	 2021		2020	
	(in tho	usands)	is)	
Revenue:				
Product	\$ 93,798	\$	73,758	
Service	 10,479		9,865	
Total revenue	104,277		83,623	
Cost of revenue(1):				
Product	47,026		39,644	
Service	 1,211		1,326	
Total cost of revenue	 48,237		40,970	
Gross profit	56,040		42,653	
Operating expenses:	_			
Research and development(1)	21,606		21,211	
Selling, general and administrative(1)	21,880		24,991	
Total operating expenses	43,486		46,202	
Income (loss) from operations	12,554		(3,549)	
Other income (expense), net	(4,479)		(4,008)	
Income (loss) before provision for (benefit from) income taxes	8,075		(7,557)	
Provision for (benefit from) income taxes	2,326		(8,719)	
Net income	\$ 5,749	\$	1,162	

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

	Т	Three Months Ended March 31,					
	20	21		2020			
		(in thousands)					
Cost of revenue	\$	33	\$	31			
Research and development expense		871		437			
Selling, general and administrative expense		2,549		1,969			
Total stock-based compensation expense	\$	3,453	\$	2,437			

	Three Months Ended Mar	rch 31,
	2021	2020
	(as a percentage of total re	venue)
Revenue:		
Product	90.0%	88.2%
Service	10.0	11.8
Total revenue	100.0	100.0
Cost of revenue:		_
Product	45.1	47.4
Service	1.2	1.6
Total cost of revenue	46.3	49.0
Gross profit	53.7	51.0
Operating expenses:	-	·
Research and development	20.7	25.4
Selling, general and administrative	21.0	29.9
Total operating expenses	41.7	55.3
Income (loss) from operations	12.0	(4.2)
Other income (expense), net	(4.3)	(4.8)
Income (loss) before provision for (benefit from) income taxes	7.7	(9.0)
Provision for (benefit from) income taxes	2.2	(10.4)
Net income	5.5%	1.4%

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

Three Months Ended March 31, 2021 Compared to the Three Months Ended March 31, 2020

			Three Months En						
		2021			20	20		Chang	ge
		Amount % of Total			Amount	% of Total	Amount		%
					(dollars in	thousands)			
Revenue:									
Product	\$	93,798	90.0%	\$	73,758	88.2%	\$	20,040	27.2%
Service		10,479	10.0%		9,865	11.8%		614	6.2%
Total revenue	\$	104,277	100.0%	\$	83,623	100.0%	\$	20,654	24.7%
Revenue by geographic region:	_								
North America	\$	63,150	60.5%	\$	33,952	40.5%	\$	29,198	86.0%
Europe, Middle East and Africa		6,353	6.1%		14,098	16.9%		(7,745)	(54.9)%
Asia-Pacific		30,199	29.0%		33,188	39.7%		(2,989)	(9.0)%
Latin America		4,575	4.4%		2,385	2.9%		2,190	91.8%
Total revenue	\$	104,277	100.0%	\$	83,623	100.0%	\$	20,654	24.7%

	Three Months Ended March 31,				Change			
		2021		2020		Amount	%	
Product revenue:								
Wireless	\$	39,688	\$	20,657	\$	19,031	92.1%	
Fixed telco		14,885		17,932		(3,047)	(17.0)%	
Cable		39,225		35,169		4,056	11.5%	
Total product revenue		93,798		73,758		20,040	27.2%	
Service revenue:		<u>.</u>		<u>.</u>				
Wireless		591		1,774		(1,183)	(66.7)%	
Fixed telco		1,606		250		1,356	542.4%	
Cable		8,282		7,841		441	5.6%	
Total service revenue		10,479		9,865		614	6.2%	
Total revenue	\$	104,277	\$	83,623	\$	20,654	24.7%	

The increase in product revenue was primarily attributed to the continued increased demand for our wireless products, as well as an increase in cable product revenue from significantly increased sales to certain Tier 1 customers in the North America region.

The increase in service revenue was primarily due to increased product revenues with attached support revenue and new service agreements with certain large wireless customers.

Cost of Revenue and Gross Profit

	Three Months Ended March 31,				Change		
	 2021		2020		Amount	%	
	(dollars in thousands)						
Cost of revenue:							
Product	\$ 47,026	\$	39,644	\$	7,382	18.6%	
Service	1,211		1,326		(115)	(8.7)%	
Total cost of revenue	\$ 48,237	\$	40,970	\$	7,267	17.7%	

			Three Months En							
		2021			202	0	Change			
	I	Amount	Gross Margin		Amount	Gross Margin		mount	Gross Margin (bps)	
	(dollars in thousands)									
Gross profit:										
Product	\$	46,772	49.9%	\$	34,114	46.3%	\$	12,658	360	
Service		9,268	88.4%		8,539	86.6%		729	180	
Total gross profit	\$	56,040	53.7%	\$	42,653	51.0%	\$	13,387	270	

The increase in cost of product revenue was attributed to increased revenue. The gross margin increase was due to product mix, with sales of software and other higher gross margin products comprising a higher percentage of total revenue in the three months ended March 31, 2021 as compared to the three months ended March 31, 2020.

The decrease in cost of service revenue and increase in service gross profit were primarily due to a decrease in utilization of third-party professional services.

Research and Development

	T	Three Months Ended March 31,				Change		
		2021		2020	A	mount	%	
				(dollars in t	housand	s)		
Research and development	\$	21,606	\$	21,211	\$	395	1.9%	
Percentage of revenue		20.7%		25.4%				

The increase in research and development expense was primarily due to a \$0.2 million increase in purchases of research and development materials, an increase of \$0.2 million in professional services and a \$0.1 million increase in facilities costs. These increases were partially offset by a \$0.2 million decrease in personnel costs, driven by a reduction in payroll taxes due to a CARES Act credit of \$1.3 million during the three months ended March 31, 2021, offset by increased salaries and benefits of \$1.1 million due to increased headcount in 2021 compared to 2020.

Selling, General and Administrative

	T	Three Months Ended March 31,				Change			
	2021		2020			Amount	%		
				(dollars in t	housan	ıds)			
Selling, general and administrative	\$	21,880	\$	24,991	\$	(3,111)	(12.4)%		
Percentage of revenue		21.0%		29.9%	•				

The decrease in selling, general and administrative expense was primarily driven by a decrease of \$0.8 million in personnel costs, which was driven by a \$1.9 million decrease in commissions, a \$0.9 million decrease in travel due to COVID-19, and a \$0.8 million decrease in payroll taxes due to a CARES act credit during the three months ended March 31, 2021, partially offset by a \$2.7 million increase in salaries and benefits due to increased headcount in 2021 compared to 2020. The decrease in selling, general and administrative expense was further driven by a decrease of \$1.1 million in professional services due to a reduction in audit and tax consulting fees, a \$0.4 million decrease in trade show expenses due to COVID-19 and a \$0.8 million decrease in depreciation expense as assets that became fully depreciated were not replaced.

Other Income (Expense), Net

	1	Three Months Ended March 31,				Change			
		2021 2020			Aı	mount	%		
				(dollars in th	ousands)				
Other income (expense), net	\$	(4,479)	\$	(4,008)	\$	(471)	11.8%		
Percentage of revenue		(4.3)%		(4.8)%					

The change in other income (expense), net was primarily due to a \$0.9 million increase in foreign exchange losses due to fluctuations in the Australian dollar and the China Renminbi exchange rates and a \$0.3 million decrease in interest income due to lower interest rates, partially offset by a \$0.7 million decrease in interest expense due to decreases in both the outstanding principal balance and the interest rate on our term loan facility.

Provision for (benefit from) Income Taxes

	 Three Months Ended March 31,			Change			
	2021		2020		Amount	%	
			(dollars in t	housan	ds)		
Provision for (benefit from) income taxes	\$ 2,326	\$	(8,719)	\$	11,045	(126.7)%	
Effective tax rate	28.8%		115.4%				

The change to the income tax provision for the three months ended March 31, 2021 compared to the income tax benefit for the three months ended March 31, 2020 was primarily due to a discrete tax benefit of \$9.3 million recorded in the three months ended March 31, 2020 associated with the enactment of the CARES Act. The change in the provision for (benefit from) income taxes was also impacted by changes in the jurisdictional mix of earnings period over period.

Liquidity and Capital Resources

Since our inception, we have primarily funded our operations through issuances of shares of our convertible preferred stock, our initial public offering and cash flows from operations.

The following tables set forth our cash and cash equivalents and working capital as of March 31, 2021 and December 31, 2020 and our cash flows for the three months ended March 31, 2021 and 2020:

	March 31, 2021		December 31, 2020		
	(in thousands)				
Consolidated Balance Sheet Data:					
Cash and cash equivalents	\$ 144,961	\$	157,455		
Working capital	257,357		251,573		

	Three Months Ended March 31,				
	202	1		2020	
Consolidated Cash Flow Data:					
Net cash (used in) provided by operating activities	\$	(5,155)	\$	26,069	
Net cash used in investing activities		(2,252)		(390)	
Net cash used in financing activities		(4,819)		(4,151)	

As of March 31, 2021, we had cash, cash equivalents and restricted cash of \$146.0 million and net accounts receivable of \$92.4 million. We maintain a \$25.0 million revolving credit facility, under which we have drawn \$6.5 million and utilized \$1.5 million of availability, which we used as collateral for two stand-by letters of credit, leaving availability of \$17.0 million as of March 31, 2021.

Cash Flows

Operating Activities

Our primary source of cash from operating activities has been from cash collections from our customers. We expect cash flows from operating activities to be affected by increases and decreases in sales volumes 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 our selling, general and administrative departments and research and development. Future cash outflows from operating activities may increase as a result of further investment in research and development and selling, general and administrative requirements, 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 three months ended March 31, 2021, cash used in operating activities was \$5.2 million, primarily resulting from our net income of \$5.7 million plus net non-cash adjustments of \$8.0 million, offset by net cash used in changes in our operating assets and liabilities of \$18.9 million. The net cash used in changes in our operating assets and liabilities during the three months ended March 31, 2021 was primarily due to a decrease in accounts payable of \$15.6 million due to timing of vendor payments; a decrease in accrued expenses of \$10.1 million due to the timing of certain accrual payments, a \$5.8 million increase in prepaid expenses and other assets; and a \$0.7 million increase in prepaid income taxes. These uses of cash were partially offset by a \$6.1 million increase in deferred revenue due to the timing of revenue recognition; a \$4.6 million decrease in inventory due to the high volume of shipments during the period; a \$2.2 million increase in accrued income taxes; and a \$0.5 million decrease in accounts receivable due to collections during the period.

Investing Activities

Our investing activities have consisted primarily of expenditures for lab and computer equipment and software to support the development of new products. In addition, our investing activities include expansion of and improvements to 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 three months ended March 31, 2021 was \$2.3 million, consisting of purchases of property and equipment and software licenses.

Financing Activities

Net cash used in financing activities during the three months ended March 31, 2021 was \$4.8 million, consisting of employee taxes paid related to net share settlement of equity awards of \$4.6 million and debt principal repayments of \$0.8 million. These payments were partially offset by proceeds from the exercise of stock options of \$0.6 million.

Commercial Mortgage Loan

In July 2015, we entered into an \$8.0 million commercial mortgage loan agreement, which matured on July 1, 2020. On July 1, 2020, we paid in full the remaining \$6.5 million in unpaid principal and accrued interest under the mortgage loan with funds drawn upon our revolving credit facility. The annual interest rate on the loan was 3.5%, and the loan was repayable in 60 monthly installments of principal and interest based on a 20-year amortization schedule.

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 March 31, 2021 and December 31, 2020, we had borrowings of \$287.3 million and \$288.0 million, respectively, outstanding under the term loan facility. As of March 31, 2021 and December 31, 2020 we had borrowings of \$6.5 million under the revolving credit facility, which were drawn down to fund the repayment of our commercial mortgage loan. As of March 31, 2021 and December 31, 2020, we had also used \$1.5 million under the revolving credit facility for two stand-by

letters of credit, one which serves as collateral to one of our customers pursuant to a contractual obligation and one which is used as collateral for operating leases in Australia. 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% per annum interest rate floor) and 3.00% per annum for base rate loans. The applicable margin for borrowings under the revolving credit facility is 1.75% per annum for Eurodollar rate loans and 0.75% per annum for base rate loans, subject to reduction based on our maintaining 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, 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 breakage costs if the conversion is effected prior to the end of the applicable interest period. As of March 31, 2021, the interest rate on the term loans was 5.00% per annum, which was based on a six-month Eurodollar rate at the applicable floor of 1.00% per annum plus the applicable margin of 4.00% per annum, which was based on a one-month Eurodollar rate of 1.00% per annum plus the applicable margin of 4.00% per annum for Eurodollar rate loans. As of March 31, 2021, the interest rate on the revolving credit facility was 2.01% per annum, which was based on a one-month Eurodollar rate of 0.26% per annum plus the applicable margin of 1.75% per annum for Eurodollar rate loans. As of December 31, 2020, the interest rate on the revolving credit facility was 2.12% per annum, which was based on the one-month Eurodollar rate of 0.37% per annum plus the applicable margin of 1.75% per annum for Eurodollar rate loans.

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, which commenced 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. In accordance with these provisions, a mandatory prepayment of \$6.8 million was paid on April 2, 2021.

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 only 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 revolving credit facility (subject to certain exceptions). The term loan facility contains a cross-default provision, whereby, if repayment of borrowings under the revolving credit facility are accelerated due to a default of the net leverage ratio covenant, repayment of the outstanding term loan balance could also be accelerated. Because the financial covenant under the revolving credit facility only applies if outstanding utilization thereunder exceeds 30% of the total borrowing capacity on the last day of each fiscal quarter, this cross-default provision has the effect of limiting our ability to utilize more than 30% of our total borrowing capacity under the revolving credit facility of \$25.0 million if both our net leverage ratio exceeds the maximum permitted by the agreement and we would not otherwise be able to reduce our outstanding utilization of the revolving credit facility to below the 30%

testing threshold prior to the last day of any quarter. As of March 31, 2021 and December 31, 2020, we were incompliance with all applicable covenants of the facilities. We do not expect to require the use of the revolving credit facility to fund operations during the next 12 months.

Tax Cuts and Jobs Act

Of our total cash and cash equivalents of \$145.0 million as of March 31, 2021, \$113.2 million was held by our foreign subsidiaries. The Tax Cuts and Jobs Act, or TCJA, established a modified territorial system requiring a mandatory deemed repatriation tax on undistributed earnings of foreign subsidiaries. As of March 31, 2021, we had \$30.4 million of undistributed earnings in China that are not indefinitely reinvested. The remaining unremitted earnings of our foreign subsidiaries are either indefinitely reinvested or could be remitted with an immaterial tax cost.

We believe our existing cash and cash equivalents, anticipated cash flows from future operations and liquidity available from our revolving credit facility will be sufficient to meet our working capital and capital expenditure needs and debt service obligations 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.

Stock Repurchase Program

On February 21, 2019, we announced a stock repurchase program under which we were authorized to repurchase up to \$75.0 million of our common stock. During the three months ended March 31, 2020, we repurchased approximately 1.2 million shares for a total cost of approximately \$3.0 million. During the three months ended March 31, 2021 we did not repurchase any shares. As of March 31, 2021, approximately \$70.2 million remained authorized for repurchases of our common stock under the stock repurchase program. The stock repurchase program has no expiration date and does not require us to purchase a minimum number of shares, and we may suspend, modify or discontinue the stock repurchase program at any time without prior notice.

Contractual Obligations and Commitments

Our material contractual obligations include our term loan facility, revolving credit facility, operating leases and purchase agreements with our contract manufacturers and suppliers. There have been no material changes to our contractual obligations and commitments from those disclosed in our Annual Report on Form 10-K for the fiscal year ended December 31, 2020.

Critical Accounting Policies and Significant Judgments and Estimates

We prepare our condensed consolidated financial statements in accordance with generally accepted accounting principles in the United States. The preparation of condensed consolidated financial statements also requires us to make estimates and assumptions that affect the reported amounts of assets, liabilities, revenues, costs and expenses and related disclosures. We base our estimates on historical experience and on various other assumptions that we believe to be reasonable under the circumstances. Actual results could differ significantly from the estimates made by our management.

Other than our policies related to Stock-based Compensation, as described in Note 2 of the above notes to the condensed consolidated financial statements, there have been no material changes to our critical accounting policies and estimates from those disclosed in our Annual Report on Form 10-K for the fiscal year ended December 31, 2020.

Off-Balance Sheet Arrangements

As of March 31, 2021 and December 31, 2020, 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

Refer to the "Summary of Significant Accounting Policies" footnote within our condensed consolidated financial statements included elsewhere in this Quarterly Report on Form 10-Q for our analysis of recent accounting pronouncements that are applicable to our business.

Item 3. Quantitative and Qualitative Disclosures About Market Risk.

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 and interest rates. We currently mitigate certain foreign currency exchange rate risks with derivative instruments and enter into exchange rate hedging arrangements to manage certain of the risks described below. We do not engage in foreign currency speculation.

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. For our subsidiaries in Ireland and Australia, the U.S. dollar is the functional currency. For each of our other foreign subsidiaries, the functional currency is the local currency. During the three months ended March 31, 2021 and 2020, we incurred foreign currency transaction gains (losses) of \$(0.7) million and \$0.2 million, respectively, primarily related to unrealized and realized foreign currency gains for accounts receivable denominated in foreign currencies and operating expenses that are denominated in local currencies. We recorded these foreign currency transaction losses as a component of other income (expense), net in our condensed consolidated statements of income and comprehensive income. We believe that a 10% change in the exchange rate between either the U.S. dollar and Euro or the U.S. dollar and Australian dollar would not materially impact our operating results or financial position.

Our foreign currency risk management practices are principally intended to mitigate the potential financial impact of changes in the value of transactions and balances denominated in foreign currencies resulting from changes in foreign currency exchange rates. From time to time we enter into cash flow hedges, which utilize foreign currency forward contracts to hedge specific forecasted transactions of our foreign subsidiaries with the goal of protecting our budgeted revenues and expenses against foreign currency exchange rate changes compared to our budgeted rates. During the three months ended March 31, 2021, we had a currency forward contract outstanding with a notional amount totaling 0.3 million Euros that will mature in the second quarter of 2021, and we expect to continue to hedge certain significant transactions denominated in currencies other than the U.S. dollar in the future.

The success of our foreign currency risk management program depends upon forecasts of transaction activity denominated in various currencies. To the extent that these forecasts are overstated or understated during periods of currency volatility, we could experience unanticipated foreign currency gains or losses that could have a material impact on our results of operations. Furthermore, our failure to identify new exposures and hedge against them in an effective manner may result in material foreign currency gains or losses.

Interest Rate Sensitivity

Our cash and cash equivalents as of March 31, 2021 and December 31, 2020 consisted of cash maintained in FDIC-insured operating accounts as well as investments in money market mutual funds and certificates of deposit. We also have policies requiring us to invest in high-quality issuers, limit our exposure to any individual issuer, and ensure adequate liquidity. Our primary exposure to market risk for our cash equivalents is interest income sensitivity, which is primarily affected by changes in the general level of U.S. interest rates. However, we do not believe a sudden change in the interest rates for our cash equivalents would have a material impact on our financial condition, results of operations or cash flows.

We have a credit agreement that provides us with 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. 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% per annum interest rate floor) and 3.00% per annum for base rate loans. The applicable margin for borrowings under the revolving credit facility is 1.75% per annum for Eurodollar rate loans and 0.75% per annum for base rate loans, subject to reduction based on our maintaining of specified net leverage ratios.

As of March 31, 2021, we had borrowings of \$287.3 million outstanding under the term loan facility, bearing interest at a rate of 5.00% per annum, which was based on a six-month Eurodollar rate at the applicable floor of 1.00% per annum plus the applicable margin of 4.00% per annum for Eurodollar rate loans. Changes in interest rates could cause interest charges on our term loan facility to fluctuate. Based on the amount of borrowings outstanding as of March 31, 2021, an increase of 10% in the one-month Eurodollar rate as of March 31, 2021 would cause pre-tax decreases to our earnings and cash flows of approximately \$0.3 million per year, assuming that such rate was to remain in effect for a year. A decrease in the one-month Eurodollar rate as of March 31, 2021 would have no impact on our earnings and cash flows, as the interest rate in effect at March 31, 2021 on the term loan facility was at the applicable floor of 1.00% per annum.

On July 1, 2020, we drew down upon our revolving credit facility under our term loan agreement in the amount of \$6.5 million. As noted in Note 10, *Debt*, borrowings under the revolving credit facility mature on December 21, 2021 and the applicable margin for borrowings under the revolving credit facility is 1.75% per annum for Eurodollar rate loans. The interest rate on the outstanding borrowings as of March 31, 2021, was 2.01%, which was based on a six-month Eurodollar rate of 0.26% per annum plus the applicable margin of 1.75% per annum for Eurodollar rate loans. An increase or decrease of 10% in the one-month Eurodollar rate would result in a pre-tax change to our earnings and cash flows of less than \$0.1 million per year, assuming that such rate was to remain in effect for a year.

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 by our suppliers were to significantly increase for the components we purchase from them, 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.

Item 4. Controls and Procedures.

Evaluation of Disclosure Controls and Procedures

Our management, with the participation of our Chief Executive Officer and Chief Financial Officer, has evaluated the effectiveness of our disclosure controls and procedures (as defined in Rules 13a-15(e) and 15d-15(e) under the Securities Exchange Act of 1934, as amended, or the Exchange Act), as of the end of the period covered by this Quarterly Report on Form 10-Q. The term "disclosure controls and procedures," as defined in Rules 13a-15(e) and 15d-15(e) under the Exchange Act, means controls and other procedures of a company that are designed to ensure that information required to be disclosed by a company in the reports that it files or submits under the Exchange Act is recorded, processed, summarized and reported, within the time periods specified in the Securities and Exchange Commission's rules and forms. Disclosure controls and procedures include, without limitation, controls and procedures designed to ensure that information required to be disclosed by a company in the reports that it files or submits under the Exchange Act is accumulated and communicated to the company's management, including its principal executive and principal financial officers, as appropriate to allow timely decisions regarding required disclosure. Our management recognizes that any controls and procedures, no matter how well designed and operated, can provide only reasonable assurance of achieving their objectives and our management necessarily applies its judgment in evaluating the cost-benefit relationship of possible controls and procedures. Based on the evaluation of our disclosure controls and procedures as of the end of the period covered by this Quarterly Report on Form 10-Q, our Chief Executive Officer and Chief Financial Officer have concluded that as of such date, our disclosure controls and procedures were effective.

Changes in Internal Control over Financial Reporting

There were no changes in our internal control over financial reporting during our most recently completed fiscal quarter that have materially affected, or are reasonably likely to materially affect, our internal control over financial reporting.

PART II—OTHER INFORMATION

Item 1. 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.

On May 29, 2019, John Shen filed a putative shareholder class action complaint in the Massachusetts Superior Court of Essex County, John Shen v. Casa Systems, Inc, et al., Civil Action No. 1977CV00787, against us; certain of our current and former executive officers and directors; Summit Partners, our largest investor; and the underwriters from our December 15, 2017, initial public offering, or IPO. On July 3, 2019, Mirza R. Baig filed a similar putative shareholder class action complaint in the Massachusetts Superior Court of Essex County, Mirza R. Baig v. Casa Systems, Inc., Civil Action No. 1977CV00961, against the same defendants. Pursuant to plaintiffs' motion filed on July 26, 2019, and accepted September 3, 2019, the two matters were consolidated and transferred to the Business Litigation Session of the Massachusetts Superior Court, Suffolk County, John Shen v. Casa Systems, Inc, et al., Civil Action No. 19-CV-03203-BLS2 and Mirza R. Baig v. Casa Systems, Inc., Civil Action No. 19-CV-03204-BLS2. The complaints purported to be brought on behalf of all purchasers of our common stock in and/or traceable to the IPO. The complaints generally alleged that (i) each of the defendants violated Section 11 and/or Section 12(a)(2) of the Securities Act of 1933, as amended, or the Securities Act, because documents related to the IPO, including our registration statement and prospectus were materially misleading by containing untrue statements of material fact and/or omitting to state material facts necessary to make such statements not misleading and (ii) the individual defendants and Summit Partners acted as controlling persons within the meaning and in violation of Section 15 of the Securities Act. On November 12, 2019, plaintiffs filed an amended shareholder class action complaint, purportedly on behalf of all purchasers of our common stock in and/or traceable to the IPO, which contained substantially similar allegations and asserted the same claims as the two initial complaints, described above. Plaintiffs sought, among other things compensatory damages, costs and expenses, including counsel and expert fees, rescission or a rescissory measure of damages, and equitable and injunctive relief. On January 14, 2020, the defendants filed motions to dismiss the amended complaint with prejudice. On January 12, 2021, the court granted the motions to dismiss. On February 22, 2021, plaintiffs filed notice of appeal.

On August 9, 2019, Donald Hook filed a putative shareholder class action lawsuit in the Supreme Court of the State of New York, County of New York, *Donald Hook, et al.*, *v. Casa Systems, Inc. et al.*, *Index No. 654548/2019*, against the same defendants named in the Shen and Baig matters. The complaint purports to be brought on behalf of all purchasers of our common stock in and/or traceable to our IPO and generally alleges that (i) each of the defendants violated Section 11 and/or Section 12(a)(2) of the Securities Act because documents related to our IPO including our registration statement and prospectus were materially misleading by containing untrue statements of material fact and/or omitting to state material facts necessary to make such statements not misleading and (ii) the individual defendants and Summit Partners acted as controlling persons within the meaning and in violation of Section 15 of the Securities Act. On November 22, 2019, plaintiff filed an amended complaint, which contains substantially similar allegations as the initial complaint, described above, and asserts claims for violations of Sections 11 and 15 of the Securities Act. Plaintiff seeks, among other things, compensatory damages, costs and expenses, including counsel and expert fees, rescission or a rescissory measure of damages, disgorgement, and equitable and injunctive relief. On January 21, 2020, the defendants filed motions to dismiss the amended complaint, which remains pending.

On August 13, 2019, Panther Partners, Inc., filed a putative shareholder class action lawsuit in the Supreme Court of the State of New York, New York County, *Panther Partners, Inc., et al., v. Jerry Guo et al., Index No 654585/2019*, against us, certain of our current and former executive officers and directors, and the underwriters from our April 30, 2018 follow-on offering of common stock, which we refer to as our "Follow-on Offering." The complaint purports to be brought on behalf of all purchasers of our common stock in our Follow-on Offering and generally alleges that (i) each of the defendants, other than Abraham Pucheril, violated Section 11 of the Securities Act, and each of the defendants violated Section 12(a)(2) of the Securities Act, because documents related to our Follow-on Offering, including our registration statement and prospectus, were materially misleading by containing untrue statements of material fact and/or omitting to state material facts necessary to make such statements not misleading and (ii) the individual defendants acted as controlling persons within the meaning and in violation of Section 15 of the Securities Act. On November 22, 2019, plaintiff filed an amended complaint, which contains substantially similar allegations and asserts the same claims as the initial complaint, described above. Plaintiff seeks, among other things, compensatory damages, costs and expenses, including counsel and expert fees, rescission or a rescissory measure of damages, and equitable and injunctive relief. On January 21, 2020, the defendants served motions to dismiss the amended complaint, which remain pending.

No amounts have been accrued for any of the putative class action lawsuits referenced above as of March 31, 2021, as we do not believe the likelihood of a material loss is probable. Although the ultimate outcome of these matters cannot be predicted with certainty, the resolution of any of these matters could have a material impact on our results of operations in the period in which such matter is resolved.

Item 1A. Risk Factors.

In addition to the other information set forth in this Quarterly Report on Form 10-Q, you should carefully consider the factors discussed in "Part I, Item 1A Risk Factors" in our Annual Report on Form 10-K for the fiscal year ended December 31, 2020, or the 2020 10-K, which could materially affect our business, financial condition or future results. There have been no material changes from the risk factors previously disclosed in the 2020 10-K.

Item 2. Unregistered Sales of Equity Securities and Use of Proceeds.

Use of Proceeds

On December 14, 2017, the Securities and Exchange Commission, or the SEC, declared our registration statement on Form S-1 (File No. 333-221658) for our initial public offering, or IPO, effective. The net offering proceeds to us from the IPO, after deducting underwriting discounts of \$6.3 million and offering expenses payable by us totaling \$4.1 million, were approximately \$79.3 million. No offering discounts, commissions or expenses were paid directly or indirectly to any of our directors or officers (or their associates) or persons owning 10.0% or more of any class of our equity securities or to any other affiliates. There has been no material change in the planned use of proceeds from our IPO as described in our final prospectus filed with the SEC on December 15, 2017 pursuant to Rule 424(b)(4). As of March 31, 2021, we had not used any of the net offering proceeds and we have invested the proceeds into an investment portfolio with the primary objective of preserving principal and providing liquidity without significantly increasing risk.

Stock Repurchase Program

The following table sets forth information with respect to repurchases of shares of our common stock during the three-month period ended March 31, 2021:

Casa Systems, Inc. Purchase of Equity Securities

Period	Total Number of Shares Purchased (In thousands)	 Average Price Paid per Share (1)	Total Number of Shares Purchased as Part of Publicly Announced Plans or Programs (2) (In thousands)	 Approximate Dollar Value of Shares that May Yet Be Purchased Under the Plans or Programs (In thousands)
January 1 - January 31, 2021	` _	\$ _	` <u> </u>	\$ 70,208
February 1 - February 28, 2021	_	\$ _	_	\$ 70,208
March 1 - March 31, 2021	_	\$ _	_	\$ 70,208

(1) The calculation of average price included above excludes the cost of commissions.

(2) On February 21, 2019, we announced that our board of directors authorized the repurchase of up to \$75.0 million of our common stock under a stock repurchase program. From inception through March 31, 2021, we repurchased approximately 1.7 million shares under the program. The stock repurchase program has no expiration date and does not require us to purchase a minimum number of shares. We may suspend, modify or discontinue the stock repurchase program at any time without prior notice.

Item 5. Other Information.

On April 28, 2021, we entered into an employment agreement with Scott Bruckner, our Chief Financial Officer. Under the employment agreement, Mr. Bruckner is an at-will employee, and his employment with us can be terminated by him or us at any time and for any reason. The employment agreement provides that Mr. Bruckner is entitled to an annual base salary of \$463,600.00 during his employment with us and that he is eligible, at our sole discretion, to earn a target annual bonus equal to 100% of his base salary, subject to adjustment. The employment agreement also provides that Mr. Bruckner is eligible to participate in our annual long-term incentive program, with a target annual equity award equal to 250% of his then-current base salary, and with the form, terms and conditions of such long-term incentive awards to be determined in our sole discretion.

Under the employment agreement, Mr. Bruckner is entitled, subject to his execution and nonrevocation of a release of claims in our favor, in the event of the termination of his employment by us without cause or by him for good reason in connection with a change in control (as such terms are defined in the employment agreement) to (i) receive an amount equal to the sum of his then-current annual base salary, with such amount payable in equal installments over a period of 12 months, (ii) continue to receive an amount equal to COBRA premiums for health benefit coverage on the same terms as were applicable to him prior to his termination for a period of 12 months following the date that his employment with us is terminated, or earlier, if he becomes eligible to enroll in a health benefit plan with a new employer, and (iii) accelerated vesting of all outstanding and unvested time-based stock options and other equity awards, with any stock options being exercisable following his termination of employment for the period of time set forth in the applicable option agreement.

In addition, the employment agreement provides that in the event Mr. Bruckner's employment with us terminates by reason of his death or disability, Mr. Bruckner is entitled to accelerated vesting of all outstanding and unvested time-based stock options and other equity awards, with any stock options being exercisable following his termination of employment for the period of time set forth in the applicable option agreement.

The foregoing summary is qualified in its entirety by the terms of the employment agreement, a copy of which is being filed herewith.

Item 6. Exhibits.

Exhibit Index

Exhibit Number	Description
3.1	Restated Certificate of Incorporation of the Registrant (incorporated by reference to Exhibit 3.1 to the Registrant's Current Report on Form 8-K (File No. 001-38324) filed on December 19, 2017)
3.2	By-laws of the Registrant (incorporated by reference to Exhibit 3.2 to the Registrant's Current Report on Form 8-K (File No. 001-38324) filed on December 19, 2017)
10.1	Employment Agreement, dated April 28, 2021, by and between the Registrant and Scott Bruckner
31.1	Certification of Principal Executive Officer Pursuant to Rules 13a-14(a) and 15d-14(a) under the Securities Exchange Act of 1934, as Adopted Pursuant to Section 302 of the Sarbanes-Oxley Act of 2002
31.2	Certification of Principal Financial Officer Pursuant to Rules 13a-14(a) and 15d-14(a) under the Securities Exchange Act of 1934, as Adopted Pursuant to Section 302 of the Sarbanes-Oxley Act of 2002
32.1*	Certification of Principal Executive Officer Pursuant to 18 U.S.C. Section 1350, as Adopted Pursuant to Section 906 of the Sarbanes-Oxley Act of 2002
32.2*	Certification of Principal Financial Officer Pursuant to 18 U.S.C. Section 1350, as Adopted Pursuant to Section 906 of the Sarbanes-Oxley Act of 2002
101.INS	Inline XBRL Instance Document – the instance document does not appear in the Interactive Data File because its XBRL tags are embedded within the Inline XBRL document
101.SCH	Inline XBRL Taxonomy Extension Schema Document
101.CAL	Inline XBRL Taxonomy Extension Calculation Linkbase Document
101.DEF	Inline XBRL Taxonomy Extension Definition Linkbase Document
101.LAB	Inline XBRL Taxonomy Extension Label Linkbase Document
101.PRE	Inline XBRL Taxonomy Extension Presentation Linkbase Document
104	Cover Page Interactive Data File (formatted as inline XBRL with applicable taxonomy extension information contained in Exhibits 101)

^{*} Furnished herewith.

SIGNATURES

Pursuant to the requirements of the Securities Exchange Act of 1934, the registrant has duly caused this report to be signed on its behalf by the undersigned, thereunto duly authorized.

	CASA SYST	CASA SYSTEMS, INC.			
Date: April 30, 2021	Ву:	/s/ Jerry Guo			
		Jerry Guo President, Chief Executive Officer and Chairman (Principal Executive Officer)			
Date: April 30, 2021	Ву:	/s/ Scott Bruckner			
		Scott Bruckner			
		Chief Financial Officer			
		(Principal Financial Officer)			

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EMPLOYMENT AGREEMENT

This Employment Agreement (the "<u>Agreement</u>"), effective April 28, 2021 (the "<u>Effective Date</u>"), is made and entered into by and between Casa Systems, Inc. (the "<u>Company</u>"), and Scott Bruckner (the "<u>Executive</u>").

RECITALS

WHEREAS, the Company desires to continue to employ the Executive as its Chief Financial Officer; and

WHEREAS, the Executive has agreed to accept such continued employment on the terms and conditions set forth in this Agreement.

NOW, THEREFORE, in consideration of the foregoing and of the respective covenants and agreements of the parties herein contained, the parties hereto agree as follows:

- 1. *Term of Employment*. The term of this Agreement shall commence on the Effective Date and continue until terminated in accordance with the provisions set forth in Section 7 below (the "<u>Term of Employment</u>"). No provision of this Agreement shall be construed to create a promise of employment for any specific period of time, and nothing herein shall alter the Company's policy of employment at-will, under which both the Company and the Executive remain free to end the employment relationship for any reason, at any time, with or without Cause (as defined below) or notice. Similarly, nothing in this Agreement shall be construed as an agreement, either express or implied, to pay the Executive any compensation or grant the Executive any benefit beyond the end of the Term of Employment, except as explicitly set forth below.
- 2. *Position.* During the Term of Employment, the Executive shall continue to serve as the Company's Chief Financial Officer, working out of the Company's Andover, MA office and traveling as required by the Executive's job duties. The Executive shall report to the Company's Chief Executive Officer.
- 3. *Scope of Employment*. During the Term of Employment, the Executive shall be responsible for the performance of those duties consistent with the Executive's position, plus such other duties as may from time to time be assigned to the Executive by the Company. The Executive shall perform and discharge faithfully, diligently, and to the best of the Executive's ability, the Executive's duties and responsibilities hereunder. The Executive shall devote the Executive's entire business time, loyalty, attention and efforts to the business and affairs of the Company and its affiliates. The Executive agrees to abide by the rules, regulations, instructions, personnel practices and policies of the Company and any changes therein that may be adopted from time to time by the Company.

- 4. *Compensation*. As full compensation for all services rendered by the Executive during the Term of Employment, the Company will provide to the Executive the following:
 - (a) *Base Salary*. The Executive shall receive a base salary at the annualized rate of \$463,600.00 (the "<u>Base Salary</u>"), to be paid in installments in accordance with the Company's regularly established payroll procedure.
 - (b) Discretionary Bonus. Following the end of each calendar year and subject to the approval of the Board, the Executive may be eligible to receive in that subsequent year a discretionary retention and performance bonus (the "Annual Bonus"). The target amount of such Annual Bonus will be 100% of the Executive's then current Base Salary, based on the Executive's performance and the Company's performance during the applicable calendar year, as determined by the Board in its sole discretion. The Executive must be an active employee of the Company on the date the Annual Bonus is distributed in order to be eligible for and to earn any bonus award, as it also serves as an incentive to remain employed by the Company.
 - (c) Long-Term Incentive Program. The Executive shall continue to be eligible to participate in the Company's annual Long Term Incentive Program, with a target award equal to two hundred fifty percent (250%) of the Executive's then current Base Salary, and with the form, terms and conditions of such long-term incentive awards to be determined in the sole discretion of the Board.
 - (d) Vacation and Holidays. The Executive shall be eligible for up to 25 days of paid vacation per calendar year. The number of vacation days for which the Executive is eligible shall accrue at the rate of 2.083 days per month that the Executive is employed during such calendar year. The Executive's use and forfeiture of vacation time shall be in accordance with the Company's applicable policies and practices. In addition, the Executive will be eligible to take those holidays observed by the Company.
 - (e) *Benefits*. The Executive may participate in any and all benefit programs that the Company establishes and makes available to its employees from time to time, provided that the Executive is eligible under (and subject to all provisions of) the plan documents governing those programs. Benefits are subject to change at any time in the Company's sole discretion.
 - (f) *Withholdings*. All compensation payable to the Executive shall be subject to applicable taxes and withholdings.
- 5. Expenses. The Executive shall be entitled to reimbursement by the Company for all reasonable business and travel expenses incurred by the Executive on the Company's behalf during the course of the Executive's employment, upon the presentation by the Executive of documentation itemizing such expenditures and attaching all supporting vouchers and receipts. Reimbursement will be made no later than 30 calendar days after the expense is substantiated (which is expected to occur within 30 calendar days after the expense is incurred). The expenses eligible for reimbursement under this provision may not

affect the amount of such expenses eligible for reimbursement in any other taxable year, and the right to reimbursement is not subject to liquidation or exchange for another benefit.

6. *Non-Disclosure, Inventions, Non-Competition, and Non-Solicitation Agreement.* As a condition of the Executive's continued employment pursuant to the terms set forth herein, the Executive hereby reaffirms the Executive's obligations set forth in the Assignment, Invention and Non-Disclosure Agreement, dated October 18, 2017 (the "Non-Disclosure Agreement"), and the Non-Competition and Non-Solicitation Agreement, dated October 18, 2017 (the "Non-Competition Agreement"), that the Executive previously executed for the benefit of the Company, which remain in full force and effect.

7. Termination.

- (a) Death and Disability. In the event of the Executive's death during the Term of Employment, this Agreement shall terminate immediately. If, during the Term of Employment, the Executive shall suffer a "Disability" within the meaning of Section 22(e)(3) of the Internal Revenue Code of 1986, the Company may terminate the Executive's employment. Section 22(e)(3) provides, in relevant part: "An individual is permanently and totally disabled if he is unable to engage in any substantial gainful activity by reason of any medically determinable physical or mental impairment which can be expected to result in death or which has lasted or can be expected to last for a continuous period of not less than 12 months." In the event the Executive is terminated due to death or Disability, the Executive shall be eligible to receive the separation benefits set forth in Section 8(b) below.
- (b) *Termination by the Company for Cause.* The Executive may be terminated by the Company immediately and without notice for Cause. "Cause" shall mean:
 - (i) Willful misconduct by the Executive; or
 - (ii) Willful failure by the Executive to perform his responsibilities to the Company (including, without limitation, breach by the Executive of any provision of this Agreement, the Non-Disclosure Agreement, or the Non-Competition Agreement).

Cause shall be determined by the Company, which determination shall be conclusive. The Executive's employment shall be considered to have been terminated for "Cause" if the Company determines, within 30 days after the Executive's resignation, that termination for Cause was warranted.

- (c) *Termination by the Company Without Cause.* The Executive may be immediately terminated by the Company without Cause upon delivery of written notice to the Executive. In the event the Executive is terminated without Cause (whether in the context of a Change in Control (defined below) or otherwise), the Executive shall be eligible to receive the severance benefits set forth in Section 8(a) below.
- (d) *Termination by the Executive for Good Reason in Connection with a Change in Control.* The Executive may terminate the Executive's employment under this

Agreement immediately for Good Reason in accordance with Good Reason Process within 12 months (plus the Cure Period and one day to the extent the Cure Period extends beyond such 12-month period) following a Change in Control, in which case the Executive shall be entitled to receive the severance benefits set forth in Section 8(a) below. "Good Reason" shall exist upon (i) a material diminution in the Executive's Base Salary; (ii) a material diminution in the Executive's authority, duties or responsibilities; (iii) a material change in geographic location at which the Executive performs services; or (iv) any material breach by the Company of this Agreement. "Good Reason Process" means the following series of actions: (i) the Executive reasonably determines in good faith that Good Reason exists, (ii) the Executive promptly notifies the Company or the acquiring or succeeding corporation (if applicable) in writing of the existence of Good Reason following the occurrence of the event that gave rise to the existence of Good Reason, (iii) the Executive cooperates in good faith with the Company's (or the acquiring or succeeding corporation's, if applicable) efforts to remedy the conditions that gave rise to the existence of Good Reason for a period of 30 days following such notice (such 30-day period, the "Cure Period"), (iv) notwithstanding such efforts, Good Reason continues to exist at the end of the Cure Period, and (v) the Executive terminates his employment following the conclusion of the Cure Period. For the avoidance of doubt, if the Company or the acquiring or succeeding corporation successfully remedies the conditions that gave rise to the existence of Good Reason during the Cure Period, Good Reason shall be deemed not to have existed. "Change in Control" means any of the following events provided that such event constitutes a "change in control event" within the meaning of Treasury Regulation Section 1.409A-3(i)(5)(i): the sale of all or substantially all of the outstanding shares of capital stock, assets or business of the Company, by merger, consolidation, sale of assets or otherwise (other than a merger or consolidation in which all or substantially all of the individuals and entities who were beneficial owners of the Company's voting securities immediately prior to such transaction beneficially own, directly or indirectly, more than 50% (determined on an as-converted basis) of the outstanding securities entitled to vote generally in the election of directors of the resulting, surviving or acquiring corporation in such transaction).

(e) Other Termination by the Executive. If the Executive terminates his employment with the Company other than for Good Reason in connection with a Change in Control pursuant to Section 7(d), the Executive agrees to provide ninety (90) days' advance written notice to the Company (the "Applicable Notice Period"), provided, however, that the Company may, in its sole discretion, in lieu of all or part of the Applicable Notice Period, pay the Executive an amount equal to the Base Salary that would otherwise have been payable to the Executive had the Executive remained employed for the duration of the Applicable Notice Period. In such instance, the Executive's termination will become effective on the date set forth in a written notice of termination to be provided by the Company (the "Early Termination Date"), and the Executive will be paid an amount equal to the Base Salary the Executive would have received had the Executive remained employed by the Company between the Early Termination Date and the end of the Applicable Notice Period (the "Early").

<u>Termination Payment</u>"), with the Early Termination Payment to be made no later than the 30th day following the end of the Applicable Notice Period.

(f) Effect of Termination. Except for a termination by the Company without Cause, by the Executive for Good Reason in connection with a Change in Control, or due to the Executive's death or Disability, in the event of any termination of the Term of Employment under any other circumstance (including, without limitation, the Company's termination of the Executive for Cause), the Company's obligations under this Agreement shall immediately cease and the Executive shall be entitled to only the Base Salary that has accrued and to which the Executive is entitled as of the effective date of such termination, and an amount equal to the value of any vacation time accrued but unused as of such date (the "Accrued Compensation"), and, if applicable, any Early Termination Payment that may be due pursuant to section 7(e) above. The Executive shall not be entitled to any other compensation or consideration, including any bonus not yet paid, that the Executive may have received had the Executive's Term of Employment not ceased.

8. Severance Benefits

Severance Benefits in the Event of Termination Without Cause or for Good Reason in Connection with a Change (a) in Control. Subject to Section 15 below and to the Executive's compliance with the conditions set forth in Section 8(c) below, in the event that the Company terminates the Executive's employment without Cause or the Executive terminates the Executive's employment for Good Reason in connection with a Change in Control, the Executive will be eligible to receive, in addition to the Accrued Compensation, the following severance benefits (the "Severance Benefits"): (i) the Company will pay to the Executive an amount equal to the Executive's annualized Base Salary, at the rate then in effect, payable in equal installments and in accordance with the Company's standard payroll policy as then in effect, for a period of twelve (12) months commencing at the time set forth in Section 8(c) hereof (the "Severance Period"), (ii) provided the Executive is eligible for and timely elects to continue receiving group medical insurance pursuant to the "COBRA" law, continuing until the conclusion of the Severance Period or, if earlier, until the date the Executive becomes eligible to enroll in the medical plans of any new employer, the Company will pay the share of the premium for health coverage that is paid by the Company for active and similarly-situated employees who receive the same type of coverage, unless the Company's provision of such COBRA payments will violate the nondiscrimination requirements of applicable law, in which case this benefit will not apply; and (iii) notwithstanding any provision to the contrary in any Company stock plan, or under the terms of any grant, award agreement or form for exercising any right under any such plan, any stock options, restricted stock or RSU awards, stock appreciation rights or other equity awards then held by the Executive as of the last day of the Term of Employment shall, to the extent such awards are time-based vesting awards, become fully exercisable or vested, as the case may be, and with respect to any time-based vesting stock options then held by the Executive, those options shall remain exercisable for the period of time set forth in the applicable grant

agreement. Any performance-based vesting awards shall be subject to the accelerated vesting terms, if any, set out in the applicable grant document(s).

- (b) Separation Benefits in the Event of Termination Due to Death or Disability. Subject to Section 15 below and, in the event of the Executive's termination due to Disability, to the Executive's compliance with the conditions set forth in Section 8(c) below, in addition to the Accrued Compensation (but, for the avoidance of doubt, in lieu of the Severance Benefits set forth in Section 8(a) above), in the event of a termination of the Executive due to the Executive's death or Disability, the Executive (or his estate in the event of his death) will receive the following separation benefits (the "Separation Benefits"): Notwithstanding any provision to the contrary in any Company stock plan, or under the terms of any grant, award agreement or form for exercising any right under any such plan, any stock options, restricted stock or RSU awards, stock appreciation rights or other equity awards then held by the Executive as of the last day of the Term of Employment shall, to the extent such awards are time-based vesting awards, become fully exercisable or vested, as the case may be, and with respect to any time-based vesting stock options then held by the Executive, those options shall remain exercisable for the period of time set forth in the applicable grant agreement. Any performance-based vesting awards shall be subject to the accelerated vesting terms, if any, set out in the applicable grant document(s).
- (c) Separation and Release of Claims Agreement. As a condition of the Executive's receipt of the Severance Benefits or, in the event of the Executive's termination due to his Disability, Separation Benefits, the Executive must execute and return to the Company a separation and release of claims agreement provided by and satisfactory to the Company (the "Separation Agreement"), and such Separation Agreement must become binding and enforceable within 60 calendar days after the Executive's termination of employment or such shorter period as may be specified by the Company in the Separation Agreement. Except as provided in Section 15 below, any payments to be made either in a lump sum or in the form of salary continuation pursuant to the terms of Section 8(a) of this Agreement shall be payable in accordance with the normal payroll practices of the Company, with such payment or, as may be applicable, the first such payment, due and payable as soon as administratively practicable following the date the Separation Agreement becomes effective (provided, however, that if the 60day period following the Executive's termination from employment would end in a calendar year subsequent to the year in which the Executive's employment ends, payments will not be made or begin before the first payroll period of the subsequent year). For the avoidance of doubt, if the Executive does not timely execute the Separation Agreement, or if the Executive revokes the executed Separation Agreement within the time period permitted by law, the Executive will not be entitled to any payments or benefits (including the accelerated vesting of stock options or other equity awards) set forth in Section 8 of this Agreement, any stock options and other equity awards that vested on account of such termination as provided for in Section 8(a) or 8(b) of this Agreement, as applicable, shall be cancelled with no consideration due to the Executive, and the Company will not have any further obligations to the Executive under this Agreement or otherwise. The Executive agrees that, should the Executive become eligible to

participate in the medical plan of any subsequent employer prior to the conclusion of the Severance Period, the Executive will provide the Company with written notice thereof within five (5) business days of such eligibility. The Executive further agrees to repay any overpayment of health benefit premiums made by the Company hereunder. Notwithstanding anything to the contrary herein, in the event that the Company's payment of the amounts described in Section 8(a) would subject the Company to any tax or penalty under the Patient Protection and Affordable Care Act (as amended from time to time, the "ACA") or Section 105(h) of the Internal Revenue Code of 1986, as amended ("Section 105(h)"), or applicable regulations or guidance issued under the ACA or Section 105(h), the Executive and the Company agree to work together in good faith to restructure such benefit.

- 9. *Absence of Restrictions*. The Executive represents and warrants that the Executive is not bound by any employment contracts, restrictive covenants or other restrictions that prevent the Executive from continuing employment with, or carrying out the Executive's responsibilities for, the Company, or which are in any way inconsistent with any of the terms of this Agreement.
- 10. *Amendments*. Any amendment to this Agreement shall be made in writing and signed by the parties hereto.
- 11. *Notice*. Any notice required to be given, served or delivered to any of the parties hereto shall be sufficient if it is in writing and sent by certified or registered mail with proper postage prepaid, telecopier (with receipt confirmed), courier service or personal delivery addressed as follows:

To Executive:

At the address set forth in the Executive's personnel file

To Company:

Casa Systems, Inc. Attn: General Counsel 100 Old River Road, Unit 100 Andover, MA 01810

or to such other address as a party from time to time may designate by notice to the other.

12. Applicable Law; Jury Trial Waiver. This Agreement shall be governed by and construed in accordance with the laws of the Commonwealth of Massachusetts (without reference to the conflict of laws provisions thereof). Any action, suit or other legal proceeding arising under or relating to any provision of this Agreement shall be commenced only in a court of the Commonwealth of Massachusetts (or, if appropriate, a federal court located within the Commonwealth of Massachusetts), and each of the Company and the Executive consents to the jurisdiction of such a court. Each of the Company and the Executive hereby irrevocably waives any right to a trial by jury in any action, suit or other legal proceeding arising under or relating to any provision of this Agreement.

- 13. *Entire Agreement*. This Agreement constitutes the entire agreement between the parties and supersedes all prior agreements and understandings, whether written or oral, relating to the subject matter of this Agreement.
- 14. *Successors and Assigns*. This Agreement shall be binding upon and inure to the benefit of both parties and their respective successors and assigns, including any corporation with which or into which the Company may be merged or which may succeed to its assets or business; provided, however, that the obligations of the Executive are personal and shall not be assigned by the Executive.

15. *Section 409A*.

- (a) Six Month Delay. If (i) a termination of employment pursuant to this Agreement constitutes a "separation from service" as defined in Section 409A of the Internal Revenue Code of 1986, as amended (the "Code") and (ii) any portion of any payment, compensation or other benefit provided to the Executive in connection with the Executive's separation from service (as defined in Section 409A of Code) is determined to constitute "nonqualified deferred compensation" within the meaning of Section 409A and (iii) the Executive is a specified employee as defined in Section 409A(a)(2)(B)(i) of the Code, as determined by the Company in accordance with its procedures, by which determination the Executive hereby agrees to be bound, such portion of the payment, compensation or other benefit will not be paid before the earlier of (A) the day that is six months plus one day after the date of separation from service (as determined under Section 409A) or (B) the tenth day after the date of the Executive's death (as applicable, the "New Payment Date"). The aggregate of any payments that otherwise would have been paid to the Executive during the period between the date of separation from service and the New Payment Date will be paid to the Executive in a lump sum in the first payroll period beginning after such New Payment Date, and any remaining payments will be paid on their original schedule.
- (b) General 409A Principles. For purposes of this Agreement, each amount to be paid or benefit to be provided will be construed as a separate identified payment for purposes of Section 409A, and any payments that are due within the "short term deferral period" as defined in Section 409A or are paid in a manner covered by Treas.

 Reg. Section 1.409A-1(b)(9)(iii) will not be treated as deferred compensation unless applicable law requires otherwise. Neither the Company nor the Executive will have the right to accelerate or defer the delivery of any such payments or benefits except to the extent specifically permitted or required by Section 409A. This Agreement is intended to comply with the provisions of Section 409A and the Agreement will, to the extent practicable, be construed in accordance therewith. Terms defined in the Agreement will have the meanings given such terms under Section 409A if and to the extent required to comply with Section 409A. In any event, the Company makes no representations or warranty and will have no liability to the Executive or any other person if any provisions of or payments under this Agreement are determined to constitute deferred compensation subject to Code Section 409A but not to satisfy the conditions of that section.

16. Acknowledgment. The Executive states and represents that the Executive has had an opportunity to fully discuss and review the terms of this Agreement with an attorney. The Executive further states and represents that the Executive has carefully read this Agreement, understands the contents herein, freely and voluntarily assents to all of the terms and conditions hereof, and signs the Executive's name of the Executive's own free act.

17. Miscellaneous.

- (a) No delay or omission by the Company in exercising any right under this Agreement shall operate as a waiver of that or any other right. A waiver or consent given by the Company on any one occasion shall be effective only in that instance and shall not be construed as a bar to or waiver of any right on any other occasion.
- (b) The captions of the sections of this Agreement are for convenience of reference only and in no way define, limit or affect the scope or substance of any section of this Agreement.
- (c) In case any provision of this Agreement shall be invalid, illegal or otherwise unenforceable, the validity, legality and enforceability of the remaining provisions shall in no way be affected or impaired thereby.

[Remainder of page intentionally left blank]

IN WITNESS WHEREOF, the parties hereto have executed this Agreement.

CASA SYSTEM, INC.

By: /s/ Jerry Guo
Name: Jerry Guo
Title: President & CEO

Date: <u>April 28, 2021</u>

EXECUTIVE: /s/ Scott Bruckner
Scott Bruckner

Date: <u>April 28, 2021</u>

CERTIFICATION PURSUANT TO RULES 13a-14(a) AND 15d-14(a) UNDER THE SECURITIES EXCHANGE ACT OF 1934, AS ADOPTED PURSUANT TO SECTION 302 OF THE SARBANES-OXLEY ACT OF 2002

I, Jerry Guo, certify that:

- 1. I have reviewed this Quarterly Report on Form 10-Q of Casa Systems, Inc.;
- 2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;
- 3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the Registrant as of, and for, the periods presented in this report;
- 4. The Registrant's other certifying officer(s) and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the Registrant and have:
 - (a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the Registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;
 - (b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;
 - (c) Evaluated the effectiveness of the Registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and
 - (d) Disclosed in this report any change in the Registrant's internal control over financial reporting that occurred during the Registrant's most recent fiscal quarter (the Registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the Registrant's internal control over financial reporting; and
- 5. The Registrant's other certifying officer(s) and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the Registrant's auditors and the audit committee of the Registrant's board of directors (or persons performing the equivalent functions):
 - (a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the Registrant's ability to record, process, summarize and report financial information; and
 - (b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the Registrant's internal control over financial reporting.

Date: April 30, 2021	By:	/s/ Jerry Guo
		Jerry Guo
		President, Chief Executive Officer and Chairman

CERTIFICATION PURSUANT TO RULES 13a-14(a) AND 15d-14(a) UNDER THE SECURITIES EXCHANGE ACT OF 1934, AS ADOPTED PURSUANT TO SECTION 302 OF THE SARBANES-OXLEY ACT OF 2002

I, Scott Bruckner, certify that:

- 1. I have reviewed this Quarterly Report on Form 10-Q of Casa Systems, Inc.;
- 2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;
- 3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the Registrant as of, and for, the periods presented in this report;
- 4. The Registrant's other certifying officer(s) and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the Registrant and have:
 - (a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the Registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;
 - (b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;
 - (c) Evaluated the effectiveness of the Registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and
 - (d) Disclosed in this report any change in the Registrant's internal control over financial reporting that occurred during the Registrant's most recent fiscal quarter (the Registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the Registrant's internal control over financial reporting; and
- 5. The Registrant's other certifying officer(s) and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the Registrant's auditors and the audit committee of the Registrant's board of directors (or persons performing the equivalent functions):
 - (a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the Registrant's ability to record, process, summarize and report financial information; and
 - (b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the Registrant's internal control over financial reporting.

Date: April 30, 2021	By:	/s/ Scott Bruckner
		Scott Bruckner
		Chief Financial Officer

CERTIFICATION PURSUANT TO 18 U.S.C. SECTION 1350, AS ADOPTED PURSUANT TO SECTION 906 OF THE SARBANES-OXLEY ACT OF 2002

In connection with this Quarterly Report on Form 10-Q of Casa Systems, Inc. (the "Company") for the period ended March 31, 2021 as filed with the Securities and Exchange Commission on the date hereof (the "Report"), I, Jerry Guo, as President, Chief Executive Officer and Chairman of the Company, hereby certify, as of the date hereof, pursuant to 18 U.S.C. § 1350, as adopted pursuant to § 906 of the Sarbanes-Oxley Act of 2002, that, to my knowledge, the Report fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934, and the information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of the Company at the dates and for the periods indicated.

Date: April 30, 2021	By:	/s/ Jerry Guo		
		Jerry Guo		
		President Chief Executive Officer and Chairman		

CERTIFICATION PURSUANT TO 18 U.S.C. SECTION 1350, AS ADOPTED PURSUANT TO SECTION 906 OF THE SARBANES-OXLEY ACT OF 2002

In connection with this Quarterly Report on Form 10-Q of Casa Systems, Inc. (the "Company") for the period ended March 31, 2021 as filed with the Securities and Exchange Commission on the date hereof (the "Report"), I, Scott Bruckner, as Chief Financial Officer of the Company, hereby certify, as of the date hereof, pursuant to 18 U.S.C. § 1350, as adopted pursuant to § 906 of the Sarbanes-Oxley Act of 2002, that, to my knowledge, the Report fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934, and the information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of the Company at the dates and for the periods indicated.

Date: April 30, 2021	By:	/s/ Scott Bruckner
		Scott Bruckner
		Chief Financial Officer