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

FORM 10-Q

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

For the quarterly period ended June 30, 2021

or

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

For the transition period from to

Commission File Number: 001-38897

FASTLY, INC.
(Exact name of registrant as specified in its charter)

Delaware	**27-5411834**
(State or other jurisdiction of incorporation or organization)	**(I.R.S. Employer Identification Number)**

475 Brannan Street, Suite 300
San Francisco, CA 94107
(Address of principal executive offices) (Zip code)

(844) 432-7859
(Registrant's telephone number, including area code)

Not Applicable
(Former name, former address, or former fiscal year, if changed since last report)

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

Title of each class	Trading Symbol(s)	Name of each exchange on which registered
Class A Common Stock, $0.00002 par value	FSLY	The New York Stock Exchange

Indicate by check mark whether the registrant (1) has filed all reports required to be filed by Section 13 or 15(d) of the Securities Exchange Act of 1934 during the preceding 12 months (or for such shorter period that the registrant was required to file such reports), and (2) has been subject to such filing requirements for the past 90 days. Yes ☒ No ☐

Indicate by check mark whether the registrant has submitted electronically every Interactive Data File required to be submitted pursuant to Rule 405 of Regulation S-T (§232.405 of this chapter) during the preceding 12 months (or for such shorter period that the registrant was required to submit and post such files). Yes ☒ No ☐

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

Large accelerated filer	☒	Accelerated filer	☐
Non-accelerated filer	☐	Smaller reporting company	☐
		Emerging growth company	☐

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

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

As of July 30, 2021, 116.6 million shares of the registrants’ Class A common stock were outstanding.

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SPECIAL 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, (the "Securities Act"), and Section 21E of the Securities Exchange Act of 1934, as amended, (the "Exchange Act"), about us and our industry that involve substantial risks and uncertainties. All statements other than statements of historical facts contained in this report, including statements regarding our future results of operations and financial condition, business strategy, and plans and objectives of management for future operations, are forward-looking statements. In some cases, forward-looking statements may be identified by words such as "anticipate," "believe," "continue," "could," "design," "estimate," "expect," "intend," "may," "plan," "potentially," "predict," "project," "should," "will," or the negative of these terms or other similar expressions.

Forward-looking statements are based on our management’s beliefs and assumptions and on information currently available. These forward-looking statements are subject to a number of known and unknown risks, uncertainties and assumptions, including risks described in the section titled "Risk Factors" and elsewhere in this Quarterly Report on Form 10-Q, regarding, among other things:

- our ability to attract and retain customers;
- our ability to increase the usage of our platform by existing customers;
- defects, interruptions, security breaches, delays in performance, or similar problems with our platform, including the impact of our global platform outage on June 8, 2021;
- the potential impact of the COVID-19 pandemic on our business, operations, and the markets and communities in which we, our partners, and our customers operate;
- component delays or shortages;
- our financial performance, including our revenue, cost of revenue, operating expenses, and our ability to attain and sustain profitability;
- our ability to adapt and respond effectively to rapidly changing technology, evolving industry standards, changing regulations, and changing customer needs, requirements, or preferences;
- the growth of our relevant markets;
- our platform’s functionality, scalability, performance, ease of use, reliability, and cost effectiveness relative to that of our competitors’ products and services;
- our ability to compete effectively with existing competitors and new market entrants;
- our ability to attract and retain qualified employees and key personnel;
- our ability to maintain, protect, and enhance our intellectual property;
- our ability to comply with laws and regulations that currently apply or may become applicable to our business or our customers both in the United States and internationally; and
- challenges that we may face as we integrate the business and operations of Signal Sciences, a security technology company we acquired on October 1, 2020.

We caution you that the foregoing list may not contain all of the forward-looking statements made in this Quarterly Report on Form 10-Q.

Other sections of this Quarterly Report on Form 10-Q may include additional factors that could harm our business and financial performance. Moreover, we operate in a very competitive and rapidly changing environment. New risk factors emerge from time to time, and it is not possible for our management to predict all risk factors nor can we assess the impact of all factors on our business or the extent to which any factor, or combination of factors, may cause actual results to differ from those contained in, or implied by, any forward-looking statements.

You should not rely upon forward-looking statements as predictions of future events. We cannot assure you that the events and circumstances reflected in the forward-looking statements will be achieved or occur. Although we believe that the expectations reflected in the forward-looking statements are reasonable, we cannot guarantee future results, levels of activity, performance or achievements. Except as required by law, we undertake no obligation to update publicly any forward-looking statements for any reason after the date of this report or to conform these statements to actual results or to changes in our expectations. You should read this Quarterly Report on Form 10-Q and the documents that we reference in this Quarterly Report on Form 10-Q and have filed as exhibits to this report with the understanding that our actual future results, levels of activity, performance, and achievements may be materially different from what we expect. We qualify all of our forward-looking statements by these cautionary statements.

Investors and others should note that we may announce material business and financial information to our investors using our investor relations website (www.investors.fastly.com), our filings with the Securities and Exchange Commission, webcasts, press releases, and conference calls. We use these mediums, including our website, to communicate with investors and the general public about our company, our products, and other issues. It is possible that the information that we make available on our website may be deemed to be material information. We therefore encourage investors and others interested in our company to review the information that we make available on our website.

PART I - FINANCIAL INFORMATION

Item 1. Financial Statements

FASTLY, INC.
CONDENSED CONSOLIDATED BALANCE SHEETS
(in thousands)
(unaudited)

	As of June 30, 2021	As of December 31, 2020
ASSETS		
Current assets:		
Cash and cash equivalents	$ 687,986	$ 62,900
Marketable securities, current	241,744	131,283
Accounts receivable, net of allowance for credit losses of $2,947 and $3,248 as of June 30, 2021 and December 31, 2020, respectively	56,065	50,258
Restricted cash	87	87
Prepaid expenses and other current assets	22,222	16,728
Total current assets	1,008,104	261,256
Marketable securities, noncurrent	173,227	20,448
Property and equipment, net	116,471	95,979
Operating right-of-use assets	62,630	60,019
Goodwill	635,646	635,590
Intangible assets, net	113,215	121,742
Other assets	27,578	24,917
Total assets	$ 2,136,871	$ 1,219,951
LIABILITIES AND STOCKHOLDERS' EQUITY		
Current liabilities:		
Accounts payable	$ 10,202	$ 9,150
Accrued expenses	28,609	34,334
Finance lease liabilities, current	14,773	11,033
Operating lease liabilities, current	19,713	19,895
Other current liabilities	29,735	19,677
Total current liabilities	103,032	94,089
Long-term debt	931,385	—
Finance lease liabilities, noncurrent	19,685	14,707
Operating lease liabilities, noncurrent	47,177	44,890
Other long-term liabilities	6,502	4,400
Total liabilities	1,107,781	158,086
Commitments and contingencies (Note 10)		
Stockholders' equity:		
Class A and Class B common stock	2	2
Additional paid-in capital	1,426,520	1,350,050
Accumulated other comprehensive income (loss)	(261)	6
Accumulated deficit	(397,171)	(288,193)
Total stockholders' equity	1,029,090	1,061,865
Total liabilities and stockholders' equity	$ 2,136,871	$ 1,219,951

The accompanying notes are an integral part of the condensed consolidated financial statements.

FASTLY, INC.
CONDENSED CONSOLIDATED STATEMENTS OF OPERATIONS
(in thousands, except per share data)
(unaudited)

	Three months ended June 30,		Six months ended June 30,	
	2021	**2020**	**2021**	**2020**
Revenue	$ 85,026	$ 74,663	$ 169,878	$ 137,587
Cost of revenue	40,320	29,697	77,814	56,962
Gross profit	44,706	44,966	92,064	80,625
Operating expenses:				
Research and development	30,346	16,655	59,334	30,953
Sales and marketing	36,334	24,680	71,206	43,848
General and administrative	35,494	18,069	68,955	32,238
Total operating expenses	102,174	59,404	199,495	107,039
Loss from operations	(57,468)	(14,438)	(107,431)	(26,414)
Interest income	276	378	450	1,097
Interest expense	(1,436)	(371)	(2,097)	(687)
Other income (expense), net	178	(53)	114	349
Loss before income taxes	(58,450)	(14,484)	(108,964)	(25,655)
Income tax expense (benefit)	(155)	(24)	14	795
Net loss	$ (58,295)	$ (14,460)	$ (108,978)	$ (26,450)
Net loss per share attributable to common stockholders, basic and diluted	$ (0.51)	$ (0.14)	$ (0.95)	$ (0.27)
Weighted-average shares used in computing net loss per share attributable to common stockholders, basic and diluted	115,326	99,835	114,733	97,618

The accompanying notes are an integral part of the condensed consolidated financial statements.

FASTLY, INC.
CONDENSED CONSOLIDATED STATEMENTS OF COMPREHENSIVE LOSS
(in thousands)
(unaudited)

	Three months ended June 30,		Six months ended June 30,	
	2021	**2020**	**2021**	**2020**
Net loss	$ (58,295)	$ (14,460)	$ (108,978)	$ (26,450)
Other comprehensive income (loss):				
Foreign currency translation gain (loss)	$ 23	$ (94)	$ (42)	$ (81)
Gain (loss) on investments in available-for-sale-securities, net of tax	(147)	(208)	(225)	270
Total other comprehensive income (loss)	$ (124)	$ (302)	$ (267)	$ 189
Comprehensive loss	$ (58,419)	$ (14,762)	$ (109,245)	$ (26,261)

The accompanying notes are an integral part of the condensed consolidated financial statements.

FASTLY, INC.
CONDENSED CONSOLIDATED STATEMENTS OF STOCKHOLDERS' EQUITY
(in thousands, except share amounts; unaudited)

	Three months ended June 30, 2021							
	Common Stock—Class A		Common Stock—Class B		Additional Paid-in Capital	Accumulated Other Comprehensive Income (Loss)	Accumulated Deficit	Total Stockholders' Equity
	Shares	Amount	Shares	Amount				
Balance at March 31, 2021	104,949,564	$ 1	9,890,765	$ 1	$ 1,384,045	$ (137)	$ (338,876)	$ 1,045,034
Exercise of stock options	428,071	—	—	—	2,886	—	—	2,886
Vesting of early exercised stock options	—	—	14,364	—	64	—	—	64
Vesting of restricted stock units	419,134	—	—	—	—	—	—	—
Vesting of restricted stock awards	112,062	—	—	—	—	—	—	—
Shares issued under ESPP	153,678	—	—	—	5,719	—	—	5,719
Stock-based compensation	—	—	—	—	33,806	—	—	33,806
Conversion of Class B to Class A Stock	196,830	—	(196,830)	—	—	—	—	—
Net loss	—	—	—	—	—	—	(58,295)	(58,295)
Other comprehensive loss	—	—	—	—	—	(124)	—	(124)
Balance at June 30, 2021	106,259,339	$ 1	9,708,299	$ 1	$ 1,426,520	$ (261)	$ (397,171)	$ 1,029,090

	Three months ended June 30, 2020							
	Common Stock—Class A		Common Stock—Class B		Additional Paid-in Capital	Accumulated Other Comprehensive Income	Accumulated Deficit	Total Stockholders' Equity
	Shares	Amount	Shares	Amount				
Balance as of March 31, 2020	71,789,279	$ 1	24,171,714	$ 1	$ 459,360	$ 687	$ (204,251)	$ 255,798
Issuance of Class A common stock issued in connection with the follow-on public offering, net of underwriting discounts	6,900,000	—	—	—	274,177	—	—	274,177
Vesting of early exercised stock options	—	—	28,728	—	128	—	—	128
Vesting of restricted stock units	60,458	—	—	—	—	—	—	—
Shares issued under ESPP	226,288	—	—	—	4,247	—	—	4,247
Exercise of vested stock options	1,716,673	—	—	—	5,657	—	—	5,657
Exercise of common stock warrants	—	—	145	—	—	—	—	—
Stock-based compensation	—	—	—	—	16,668	—	—	16,668
Conversion of Class B to Class A Stock	9,628,764	—	(9,628,764)	—	—	—	—	—
Net loss	—	—	—	—	—	—	(14,460)	(14,460)
Other comprehensive loss	—	—	—	—	—	(302)	—	(302)
Balance as of June 30, 2020	90,321,462	$ 1	14,716,313	$ 1	$ 760,237	$ 385	$ (218,711)	$ 541,913

	Six months ended June 30, 2021													
	Common Stock—Class A			Common Stock—Class B			Additional Paid-in Capital		Accumulated Other Comprehensive Income (Loss)		Accumulated Deficit		Total Stockholders' Equity	
	Shares	Amount		Shares	Amount									
Balance at December 31, 2021	103,394,496	$	1	10,228,700	$	1	$	1,350,050	$	6	$	(288,193)	$	1,061,865
Exercise of vested stock options	1,028,830		—	—		—		5,605		—		—		5,605
Vesting of early exercised stock options	—		—	28,729		—		128		—		—		128
Vesting of restricted stock units	909,081		—	—		—		—		—		—		—
Vesting of restricted stock awards	224,124		—	—		—		—		—		—		—
Shares issued under ESPP	153,678		—	—		—		5,719		—		—		5,719
Stock-based compensation	—		—	—		—		65,018		—		—		65,018
Conversion of Class B to Class A Stock	549,130		—	(549,130)		—		—		—		—		—
Net loss	—		—	—		—		—		—		(108,978)		(108,978)
Other comprehensive loss	—		—	—		—		—		(267)		—		(267)
Balance at June 30, 2021	106,259,339	$	1	9,708,299	$	1	$	1,426,520	$	(261)	$	(397,171)	$	1,029,090

	Six months ended June 30, 2020													
	Common Stock—Class A			Common Stock—Class B			Additional Paid-in Capital		Accumulated Other Comprehensive Income		Accumulated Deficit		Total Stockholders' Equity	
	Shares	Amount		Shares	Amount									
Balance as of December 31, 2019	60,954,694	$	1	33,863,021	$	1	$	449,463	$	196	$	(192,009)	$	257,652
Change in accounting policy	—		—	—		—		—		—		(252)		(252)
Issuance of Class A common stock issued in connection with the follow-on public offering, net of underwriting discounts	6,900,000		—	—		—		274,177		—		—		274,177
Vesting of early exercised stock options	—		—	65,318		—		274		—		—		274
Vesting of restricted stock units	60,458		—	—		—		—		—		—		—
Shares issued under ESPP	226,288		—	—		—		4,247		—		—		4,247
Exercise of vested stock options	2,823,361		—	—		—		8,831		—		—		8,831
Cashless exercise of common stock warrants	—		—	144,635		—		—		—		—		—
Stock-based compensation	—		—	—		—		23,245		—		—		23,245
Conversion of Class B to Class A Stock	19,356,661		—	(19,356,661)		—		—		—		—		—
Net loss	—		—	—		—		—		—		(26,450)		(26,450)
Other comprehensive income	—		—	—		—		—		189		—		189
Balance as of June 30, 2020	90,321,462	$	1	14,716,313	$	1	$	760,237	$	385	$	(218,711)	$	541,913

The accompanying notes are an integral part of the condensed consolidated financial statements.

FASTLY, INC.
CONDENSED CONSOLIDATED STATEMENTS OF CASH FLOWS
(in thousands)
(unaudited)

	Six months ended June 30,	
	2021	2020
Cash flows from operating activities:		
Net loss	$ (108,978)	$ (26,450)
Adjustments to reconcile net loss to net cash used in operating activities:		
Depreciation expense	13,346	9,372
Amortization of intangible assets	10,620	72
Amortization of right-of-use assets and other	12,660	10,188
Amortization of debt discount and issuance costs	1,269	38
Amortization of deferred contract costs	2,946	1,481
Stock-based compensation	64,264	22,610
Provision for credit losses	(195)	1,016
Interest paid on finance leases	(735)	(268)
Loss on disposals of property and equipment	27	—
Other adjustments	813	(304)
Changes in operating assets and liabilities:		
Accounts receivable	(5,612)	(22,211)
Prepaid expenses and other current assets	(5,494)	(1,983)
Other assets	(5,089)	(4,769)
Accounts payable	162	1,364
Accrued expenses	(3,835)	2,626
Operating lease liabilities	(12,856)	(8,413)
Other liabilities	8,804	(336)
Net cash used in operating activities	(27,883)	(15,967)
Cash flows from investing activities:		
Purchases of marketable securities	(333,868)	(56,187)
Sales of marketable securities	12,497	—
Maturities of marketable securities	57,253	44,901
Purchases of property and equipment	(11,013)	(12,241)
Capitalized internal-use software	(2,680)	(2,181)
Purchases of intangible assets	(2,093)	(1,811)
Net cash used in investing activities	(279,904)	(27,519)
Cash flows from financing activities:		
Proceeds from follow-on public offering, net of underwriting fees	—	274,896
Payments of costs related to initial public offering	—	(173)
Issuance of convertible note, net of issuance costs	930,775	—
Payments of other debt issuance costs	(1,351)	—
Repayments of finance lease liabilities	(6,579)	(2,900)
Proceeds from employee stock purchase plan	4,564	4,164
Proceeds from exercise of vested stock options	5,605	8,831
Net cash provided by financing activities	933,014	284,818
Effects of exchange rate changes on cash, cash equivalents, and restricted cash	(141)	(56)
Net increase in cash, cash equivalents, and restricted cash	625,086	241,276
Cash, cash equivalents, and restricted cash at beginning of period	63,880	86,229
Cash, cash equivalents, and restricted cash at end of period	$ 688,966	$ 327,505

The accompanying notes are an integral part of the condensed consolidated financial statements.

FASTLY, INC.
CONDENSED CONSOLIDATED STATEMENTS OF CASH FLOWS—Continued
(in thousands)
(unaudited)

	Six months ended June 30,	
	2021	**2020**
Supplemental disclosure of cash flow information:		
Cash paid for interest	$ 759	$ 348
Cash paid for income taxes, net of refunds received	$ 175	$ 910
Property and equipment additions not yet paid in cash	$ 1,814	$ 3,885
Vesting of early-exercised stock options	$ 128	$ 274
Cashless exercise of common stock warrants	$ —	$ 1,557
Stock-based compensation capitalized to internal-use software	$ 754	$ 635
Costs related to the follow-on public offering, accrued but not yet paid	$ —	$ 546
Assets obtained in exchange for operating lease obligations	$ 13,481	$ 10,278
Assets obtained in exchange for finance lease obligations	$ 15,538	$ 7,842
Reconciliation of cash, cash equivalents, and restricted cash as shown in the statements of cash flows:		
Cash and cash equivalents	$ 687,986	$ 257,418
Restricted cash	87	70,087
Restricted cash included in other assets	893	—
Total cash, cash equivalents, and restricted cash	$ 688,966	$ 327,505

The accompanying notes are an integral part of the condensed consolidated financial statements.

1. Nature of Business

Fastly, Inc. has built an edge cloud platform that can process, serve, and secure its customer’s applications as close to their end users as possible. As of June 30, 2021, our edge network spans across 61 markets around the world. We were incorporated in Delaware in 2011 and are headquartered in San Francisco, California.

As used herein, "Fastly," "we," "our," "the Company," and similar terms include Fastly, Inc. and its subsidiaries, unless the context indicates otherwise,

Follow-on Public Offering

On May 26, 2020, we completed a follow-on public offering in which we sold 6,900,000 shares of Class A common stock, which included 900,000 shares sold pursuant to the exercise by the underwriters of an option to purchase additional shares, at the public offering price of $41.50 per share. We received net proceeds of $274.9 million, after deducting underwriting discounts and commissions, from sales of our shares in the public offering.

2. Summary of Significant Accounting Policies

Basis of Presentation

The interim unaudited condensed consolidated financial statements and accompanying notes have been prepared in accordance with United States generally accepted accounting principles ("U.S. GAAP") along with instructions to Form 10-Q and Article 10 of Securities and Exchange Commission ("SEC") Regulation S-X.

Certain changes in presentation have been made to conform the prior period presentation to the current period reporting. Such reclassifications did not affect total revenues, operating income, or net income. We have made certain presentation changes to distinguish and disclose as a separate line item, our Marketable securities, noncurrent balance from our Other assets line in the Condensed Consolidated Balance Sheets. We have made certain presentation changes to distinguish and disclose as a separate line item, the amortization expense of intangible assets from our depreciation and amortization expenses within operating cash flows in the Condensed Consolidated Statements of Cash Flows. We have also made certain presentation changes to distinguish and disclose as a separate line item, the non-cash amortization expense of our deferred contract costs balance from other assets within operating cash flows in the Condensed Consolidated Statements of Cash Flows.

We have also made certain presentation changes to retroactively adjust for the effects of Accounting Standards Codification No. 842, Leases ("ASC 842") that was adopted as part of our form 10-K filing on March 1, 2021 with an adoption effective date of January 1, 2020, using the modified retrospective method. Changes to our Condensed Consolidated Statements of Cash Flows include separately disclosing under operating cash flows the amortization of right-of-use assets and other, and payments associated with operating lease liabilities. We have also updated our supplemental cash flow disclosures accordingly to disclose assets obtained in exchange for operating lease obligations and assets obtained in exchange for finance lease obligations, in accordance with the disclosure requirements of ASC 842. We have also updated our Condensed Consolidated Statement of Stockholders' Equity to include the impact to accumulated deficit upon adoption for the activity in the three and six months ended June 30, 2020.

The following tables show the affected line items within the condensed consolidated financial statements (in millions):

Condensed Consolidated Statement of Stockholders' Equity

	Three Months Ended June 30, 2020		
	As previously reported	Adjustments	As adjusted
	(in thousands)		
Accumulated Deficit:			
Balance as of March 31, 2020	$ (203,999)	$ (252)	$ (204,251)
Balance as of June 30, 2020	$ (218,459)	$ (252)	$ (218,711)
Total Stockholders' Equity			
Balance as of March 31, 2020	$ 256,050	$ (252)	$ 255,798
Balance as of June 30, 2020	$ 542,165	$ (252)	$ 541,913

	Six months ended June 30, 2020		
	As previously reported	Adjustments	As adjusted
	(in thousands)		
Accumulated Deficit:			
Balance as of December 31, 2019	$ (192,009)	$ —	$ (192,009)
Change in accounting policy	$ —	$ (252)	$ (252)
Balance as of June 30, 2020	$ (218,459)	$ (252)	$ (218,711)
Total Stockholders' Equity			
Balance as of December 31, 2019	$ 257,652	$ —	$ 257,652
Change in accounting policy	$ —	$ (252)	$ (252)
Balance as of June 30, 2020	$ 542,165	$ (252)	$ 541,913

Condensed Consolidated Statement of Cash Flows

	Six months ended June 30, 2020		
	As previously reported	Adjustments	As adjusted
	(in thousands)		
Cash flows from operating activities:			
Amortization of deferred rent	$ 1,491	$ (1,491)	$ —
Amortization of right-of-use asset and other	—	10,188	10,188
Other adjustments	(20)	(284)	(304)
Operating lease liabilities	—	(8,413)	(8,413)
Net cash used in operating activities	(15,967)	—	(15,967)
Cash flows from investing activities:			
Purchase of property and equipment	(12,550)	309	(12,241)
Net cash provided by investing activities	(27,828)	309	(27,519)
Cash flows from financing activities:			
Repayments of capital lease liabilities	(2,591)	2,591	—
Repayments of finance lease liabilities	—	(2,900)	(2,900)
Net cash provided by financing activities	$ 285,127	$ (309)	$ 284,818
Supplemental disclosure of cash flow information:			
Capital lease outstanding on current year addition	$ 2,969	$ (2,969)	$ —
Assets obtained in exchange for operating lease obligations	$ —	$ 10,278	$ 10,278
Assets obtained in exchange for finance lease obligations	$ —	$ 7,842	7,842

Principles of Consolidation

The accompanying interim condensed consolidated financial statements include the accounts of the Company and its wholly-owned subsidiaries. All intercompany transactions and balances have been eliminated in consolidation.

Unaudited Interim Financial Statements

The accompanying interim condensed consolidated balance sheet as of June 30, 2021, the related interim condensed consolidated statements of operations, the condensed consolidated statements of comprehensive loss, and the condensed consolidated statements of stockholders' equity for the three and six months ended June 30, 2021 and 2020, the condensed consolidated statements of cash flows for the six months ended June 30, 2021 and 2020, and the related footnote disclosures are unaudited. The unaudited interim condensed consolidated financial statements have been prepared in accordance with U.S. GAAP. In management’s opinion, the unaudited financial statements have been prepared on the same basis as the audited financial statements and include all adjustments, which include only normal recurring adjustments necessary for the fair presentation of our financial position as of June 30, 2021. The results for the three and six months ended June 30, 2021 are not necessarily indicative of the results expected for the full fiscal year or any other periods.

Use of Estimates

The preparation of our condensed consolidated financial statements requires us to make estimates, judgments, and assumptions that affect the reported amounts of assets, liabilities, revenue, costs and expenses, and related disclosures. Actual results and outcomes could differ significantly from our estimates, judgments, and assumptions. Significant estimates, judgments, and assumptions used in these financial statements include, but are not limited to, those related to revenue, accounts receivable and related reserves, fair value of assets acquired and liabilities assumed for business combinations, useful lives and realizability of long-lived assets including our goodwill and intangible assets, income tax reserves, and accounting for stock-based compensation. Estimates are periodically reviewed in light of changes in circumstances, facts, and experience. The effects of material revisions in estimates are reflected in the condensed consolidated financial statements in the period of change and prospectively from the date of the change in estimate.

The ongoing global COVID-19 pandemic has adversely impacted many operational aspects of our business and may continue to do so in the future. Since the start of the pandemic, we have assessed the impact that COVID-19 had on our results of operations, including, but not limited to an assessment of our allowance for credit losses, the carrying value of short-term and long-term marketable securities, the carrying value of goodwill and other long-lived assets, and the impact to revenue recognition and cost of revenues. The future impacts of the pandemic and any resulting economic impact are largely unknown and are continuing to evolve. We will continue to actively monitor the impact that COVID-19 has on the results of our business operations, and may make decisions required by federal, state or local authorities, or that are determined to be in the best interests of our employees, customers, partners, suppliers and stockholders. As a result, our estimates and judgments may change materially as new events occur or additional information becomes available to us.

Concentrations of Credit Risk

Financial instruments that potentially subject us to significant concentration of credit risk consist primarily of cash, cash equivalents, marketable securities, and accounts receivable. The primary focus of our investment strategy is to preserve capital and meet liquidity requirements. Our investment policy addresses the level of credit exposure by limiting the concentration in any one corporate issuer or sector and establishing a minimum allowable credit rating. To manage the risk exposure, we invest cash equivalents and marketable securities in a variety of fixed income securities, including government and investment-grade debt securities and money market funds. We place our cash primarily in checking and money market accounts with reputable financial institutions. Deposits held with these financial institutions may exceed the amount of insurance provided on such deposits, if any.

Concentrations of credit risk with respect to accounts receivable are primarily limited to certain customers to which we make substantial sales. Our customer base consists of a large number of geographically dispersed customers diversified across several industries. To reduce this risk, we routinely assess the financial strength of our customers. Based on such assessments, we believe that our accounts receivable credit risk exposure is limited.

No customer accounted for more than 10% of revenue for the three and six months ended June 30, 2021. One customer accounted for 13% and 12% of revenue for the three and six months ended June 30, 2020. As of June 30, 2021, we had one customer that accounted for more than 10% of the total accounts receivable balance. As of December 31, 2020, we had a different customer that accounted for more than 10% of the total accounts receivable balance.

Significant Accounting Policies

Other than the following updates to our accounting policies in conjunction with the issuance of the convertible debt in March 2021, there have been no material changes to our significant accounting policies as compared to those described in “Note 2 – Summary of Significant Accounting Policies” of our Annual Report on Form 10-K for the fiscal year ended December 31, 2020.

Convertible Debt

We early adopted ASU 2020-06 as of January 1, 2021, which in effect, allows for the separation models for convertible debt that contain cash conversion features accounted for as a cash conversion or beneficial conversion features to be removed. We evaluated the terms of our debt in line with ASU 2020-06 and concluded that the instrument does not require separation and that there were no other derivatives that required separation. We have combined these features with the host contract and we account for our convertible debt as a single liability in long-term debt on our condensed consolidated balance sheet. The carrying amount of the liability is based on the gross proceeds, net of the unamortized transaction costs incurred related to the issuance of the convertible debt instrument. This difference represents a debt discount that is amortized to interest expense over the term of the convertible debt instrument using the effective interest rate method. We apply the if-converted method for calculation of diluted earnings per share for our convertible debt instrument.

Recently Adopted Accounting Pronouncements

On December 2019, the FASB issued ASU No. 2019-12, Income Taxes (Topic 740), which simplifies the accounting for income taxes, primarily by eliminating certain exceptions to ASC 740. This standard is effective for fiscal periods beginning after December 15, 2020. We adopted this standard on January 1, 2021. The adoption of this standard did not have a material impact on our consolidated financial statements.

In August 2020, the FASB issued ASU No. 2020-06, Debt—Debt with Conversion and Other Options (Subtopic 470-20) and Derivatives and Hedging—Contracts in Entity’s Own Equity (Subtopic 815-40). The update removes separation models for convertible debt that contain cash conversion features accounted for as a cash conversion or beneficial conversion features. Under this ASU, these features will be combined with the host contract. ASU 2020-06 does not impact the accounting treatment for conversion features that are accounted for as a derivative under Topic 815. The update also requires the application of the if-converted method to be used for convertible instruments and the effect of potential share settlement be included in the diluted earnings per share calculation when an instrument may be settled in cash or shares. The amendments in this update are effective for public business entities for fiscal years beginning after December 15, 2021, and interim periods within those fiscal years. The amendment is to be adopted through either a fully retrospective or modified retrospective method of transition, only at the beginning of an entity's fiscal year. Early adoption is permitted. We have elected to early adopt the standard as of January 1, 2021 using the modified retrospective method of transition. We evaluated the terms of our debt and concluded that the instrument does not require separation and that there were no other derivatives that required separation. As a result, there is no equity component and we recorded the convertible note as a single liability within long-term debt on our Condensed Consolidated Balance Sheet. We apply the if-converted method for calculation of diluted earnings per share for our convertible debt instruments.

Other Recent Accounting Pronouncements

Other recently issued accounting pronouncements are not expected to have a material impact on our condensed consolidated financial statements.

3. Revenue

Revenue recognition

Revenue is recognized upon transfer of control of promised products or services to customers in an amount that reflects the consideration we expect to receive in exchange for those products or services. The processing and recording of certain revenue requires a manual process, which uses a complex set of procedures to generate complete and accurate data to record these revenue transactions. We enter into contracts that can include various combinations of products and services, each of which are distinct and accounted for as separate performance obligations. Revenue is recognized net of any taxes collected from customers, which are subsequently remitted to governmental authorities.

A performance obligation is a promise in a contract to transfer a distinct good or service to the customer and is the unit of account. Our contracts with customers often include promises to transfer multiple products and services to a customer. Determining whether products and services are considered distinct performance obligations that should be accounted for separately versus together may require significant judgment. For contracts with multiple performance obligations, we allocate the contract transaction price to each performance obligation using our estimate of the standalone selling price ("SSP") of each distinct good or service in the contract.

Judgment is required to determine the SSP for each distinct performance obligation. We analyze separate sales of our products and services as a basis for estimating the SSP of our products and services. We then use the SSP as the basis for allocating the transaction price when our product and services are sold together in a contract with multiple performance obligations. In instances where SSP is not directly observable, such as when we do not sell the product or service separately, we determine the SSP using information that may include market conditions and other observable inputs. We typically have more than one SSP for individual products and services due to the stratification of those products and services by customers and circumstances. In these instances, we may use information, such geographic region and distribution channel, in determining the SSP.

The transaction price in a contract for usage-based services is typically equal to the minimum commit price in the contract less any discounts provided. The transaction price in a contract that does not contain usage-based services is equal to the total contract value. Because our typical contracts represent distinct services delivered over time with the same pattern of transfer to the customer, usage-based consideration primarily related to actual consumption over the minimum commit levels is allocated to the period to which it relates. The amount of consideration recognized for usage above the minimum commit price is limited to the amount we expect to be entitled to receive in exchange for providing services. We have elected to apply the practical expedient for estimating and disclosing the variable consideration when variable consideration is allocated entirely to a wholly unsatisfied performance obligation or to a wholly unsatisfied promise to transfer a distinct good or service that forms part of a single performance obligation from our remaining performance obligations under these contracts.

Performance obligations represent stand-ready obligations that are satisfied over time as the customer simultaneously receives and consumes the benefits provided by us. These obligations can be content delivery, security, professional services, support, edge cloud platform services, and others. Accordingly, our revenue is recognized over time, consistent with the pattern of benefit provided to the customer over the term of the agreement.

At times, customers may request changes that either amend, replace, or cancel existing contracts. Judgment is required to determine whether the specific facts and circumstances within the contracts should be accounted for as a separate contract or as a modification.

In contracts where there are timing differences between when we transfer a promised good or service to the customer and when the customer pays for that good or service, we have determined our contracts do not include a significant financing component. We have also elected the practical expedient to not measure financing components for any contract where the timing difference is less than one year.

Nature of products and services

We primarily derive revenue from the sale of services to customers executing contracts in which the standard contract term is one year, although terms may vary by contract. Most of our contracts are non-cancelable over the contractual term. The majority of our usage based contracts commit the customer to a minimum monthly level of usage and specify the rate at which the customer must pay for actual usage above the monthly minimum. Beginning in the fourth quarter of 2020, we also offer subscriptions to access a unified security web application and application programming interface at a fixed rate.

Revenue by geography is based on the billing address of the customer. Aside from the United States, no other single country accounted for more than 10% of revenue for the three and six months ended June 30, 2021. For the three and six months ended June 30, 2020, one other country, Singapore, accounted for 13% and 12% of revenue, respectively.

The following table presents our net revenue by geographic region:

	Three months ended June 30,		Six months ended June 30,	
	2021	2020	2021	2020
	(in thousands)		(in thousands)	
United States	$ 59,674	$ 46,046	$ 122,408	$ 87
Asia Pacific	9,077	14,057	18,231	23
Europe	8,232	7,993	17,872	15
All other	8,043	6,567	11,367	11
Total revenue	$ 85,026	$ 74,663	$ 169,878	$ 137

The majority of our revenue is derived from enterprise customers, which are defined as customers with revenue in excess of $100,000 over the previous 12-month period. For legacy Signal Sciences customers through the acquisition in the fourth quarter of 2020 (see Note 5), they are counted as enterprise customers if they have had revenue in excess of $75,000 during the previous 9-month period, since the closing of the Signal Sciences acquisition on October 1, 2020. The following table presents our net revenue for enterprise and non-enterprise customers:

	Three months ended June 30,		Six months ended June 30,	
	2021	2020	2021	2020
	(in thousands)		(in thousands)	
Enterprise customers	$ 74,372	$ 67,330	$ 149,837	$ 123,
Non-enterprise customers	10,654	7,333	20,041	14,
Total revenue	$ 85,026	$ 74,663	$ 169,878	$ 137,

Contract balances

The timing of revenue recognition may differ from the timing of invoicing to customers. We have an unconditional right to consideration when we invoice our customers and record a receivable. We record a contract asset when revenue is recognized prior to invoicing, or a contract liability (deferred revenue) when revenue is recognized subsequent to invoicing.

Deferred revenue includes amounts billed to customers for which revenue has not been recognized and consists of the unearned portions of edge cloud platform usage and billings to customers for our security subscription services. Amounts that have been invoiced for annual subscriptions, but not collected, are recorded in accounts receivable and in unearned revenue or in revenue depending on whether services have been delivered to the customer. Our payment terms and conditions vary by contract type. Payment terms on invoiced amounts are at an average of 30 days.

The following table presents our contract assets and contract liabilities as of June 30, 2021 and as of December 31, 2020:

	As of June 30, 2021	As of December 31, 202
	(in thousands)	
Contract assets	$ 209	$
Contract liabilities	$ 27,236	$ 18,

The following table presents the revenue recognized during the three and six months ended June 30, 2021 and 2020 from amounts included in the contract liability at the beginning of the period:

	Three months ended June 30,		Six months ended June 30,	
	2021	2020	2021	2020
	(in thousands)			
Revenue recognized in the period from amounts included in contract liability at the beginning of the period	$ 6,840	$ 834	$ 11,136	$ 301

Remaining performance obligations

As of June 30, 2021, we had $134.7 million of remaining performance obligations, which includes deferred revenue and amounts that will be invoiced and recognized in future periods, respectively. We apply the practical expedient of ASC 606, which gives us the optional exemption from disclosing certain information about our remaining performance obligations for our service contracts for which the original contract duration is one year or less, such as the aggregate transaction price allocated to the performance obligations that are unsatisfied (or partially unsatisfied) as of the end of the reporting period. The typical contract term is one year, although terms may vary by contract. As of June 30, 2021, we expect to recognize 84% of this balance over the next 12 months and the remainder within the following year.

Costs to obtain a contract

We capitalize incremental costs associated with obtaining customer contracts, specifically for sales commissions. These costs are deferred on our Condensed Consolidated Balance Sheets and are amortized over the expected period of benefit on a straight-line basis. Based on the nature of our unique technology and services, the rate at which we continually enhance and update our technology, and our historical customer retention, the expected period of benefit is determined to be approximately five years. Amortization is recorded within the sales and marketing line item on the accompanying Condensed Consolidated Statements of Operations. The incremental costs associated with obtaining customer contracts, the majority of which are deferred commissions, are included in other assets on the accompanying Condensed Consolidated Balance Sheets.

As of June 30, 2021 and December 31, 2020, our costs to obtain contracts were as follows:

	As of June 30, 2021	As of December 31, 202
	(in thousands)	
Deferred contract costs, net	$ 22,077	$ 19,

During the three months ended June 30, 2021 and 2020, we recognized $1.5 million and $0.8 million of amortization related to deferred contract costs, respectively. During the six months ended June 30, 2021 and 2020, we recognized $2.9 million and $1.5 million of amortization related to deferred contract costs, respectively. These costs are recorded within the sales and marketing financial statement line item on the accompanying Condensed Consolidated Statements of Operations.

4. Investments and Fair Value Measurements

Our total cash, cash equivalents and marketable securities consisted of the following:

	As of June 30, 2021	As of December 31, 2020
	(in thousands)	
Cash and cash equivalents:		
Cash	$ 5,772	$ 21,273
Money market funds	682,214	36,629
Commercial paper	—	4,998
Total cash and cash equivalents	$ 687,986	$ 62,900
Marketable securities:		
Corporate notes and bonds	$ —	$ 14,314
Commercial paper	166,298	41,445
U.S. Treasury securities	65,409	75,524
Foreign government and supranational securities	10,037	—
Total marketable securities, current	$ 241,744	$ 131,283
Corporate notes and bonds	30,516	—
U.S. Treasury securities	100,516	20,448
Asset-backed securities	21,770	—
Foreign government and supranational securities	20,425	—
Total marketable securities, non-current	$ 173,227	$ 20,448
Total marketable securities	$ 414,971	$ 151,731
Total Cash, Cash Equivalents and Marketable Securities	$ 1,102,957	$ 214,631

As of June 30, 2021 and December 31, 2020, all of our securities are classified as available-for-sale. The majority of these securities have contractual maturities of one year or less and accordingly, we have classified these securities as short-term. These short-term securities are included within the marketable securities, current financial statement line item on our Condensed Consolidated Balance Sheet. As of June 30, 2021 and December 31, 2020, we also held certain securities that have contractual maturities greater than one year. As we do not intend to hold these securities to maturity, accordingly, consistent with our intentions to hold the securities for more than 12 months, we have classified all securities as long-term. These long-term securities are included within the marketable securities, noncurrent financial statement line item on our Condensed Consolidated Balance Sheet.

Available-for-Sale Investments

The following table summarizes adjusted cost, gross unrealized gains and losses, and fair value related to available-for-sale securities classified as marketable securities on the accompanying Condensed Consolidated Balance Sheets as of June 30, 2021 and December 31, 2020:

	As of June 30, 2021			
	Amortized Cost	Gross Unrealized Gain	Gross Unrealized Loss	Fair Value
	(in thousands)			
Corporate notes and bonds	$ 30,552	$ —	$ (36)	$ 30,516
Commercial paper	166,298	—	—	166,298
U.S. Treasury securities	165,989	11	(75)	165,925
Asset-backed securities	21,773	—	(3)	21,770
Foreign government and supranational securities	30,479	—	(17)	30,462
Total available-for-sale investments	$ 415,091	$ 11	$ (131)	$ 414,971

	As of December 31, 2020			
	Amortized Cost	Gross Unrealized Gain	Gross Unrealized Loss	Fair Value
	(in thousands)			
Corporate notes and bonds	$ 14,297	$ 17	$ —	$ 14,314
Commercial paper	41,445	—	—	41,445
U.S. Treasury securities	95,884	93	(5)	95,972
Total available-for-sale investments	$ 151,626	$ 110	$ (5)	$ 151,731

There were no securities in a continuous loss position for 12 months or longer as of June 30, 2021 and December 31, 2020. Investments are reviewed periodically to identify possible other-than-temporary impairments. No impairment loss has been recorded on the securities included in the tables above, as we believe that the decrease in fair value of these securities is temporary.

Fair Value of Financial Instruments

For certain of our financial instruments, including cash held in banks, accounts receivable, and accounts payable, the carrying amounts approximate fair value due to their short maturities, and are therefore excluded from the fair value tables below.

Fair value is defined as the exchange price that would be received for an asset or paid to transfer a liability (an exit price) in the principal or most advantageous market for the asset or liability in an orderly transaction between market participants on the measurement date. There is a three-tier fair value hierarchy, which prioritizes the inputs used in measuring fair value as follows:

Level 1—Observable inputs such as quoted prices in active markets for identical assets or liabilities;

Level 2—Inputs other than Level 1 that are observable, either directly or indirectly, such as quoted prices for similar assets or liabilities, quoted prices in markets that are not active, or other inputs that are observable or can be corroborated by observable market data for substantially the full term of the assets or liabilities; and

Level 3—Unobservable inputs that are supported by little or no market activity, which require management judgment or estimation.

We measure our cash equivalents, marketable securities, and restricted cash at fair value. We classify our cash equivalents, marketable securities and restricted cash within Level 1 or Level 2 because we value these investments using quoted market prices or alternative pricing sources and models utilizing market observable inputs. The fair value of our Level 1 financial assets is based on quoted market prices of the identical underlying security. The fair value of our Level 2 financial assets is based on inputs that are directly or indirectly observable in the market, including the readily available pricing sources for the identical underlying security that may not be actively traded.

Financial assets and liabilities measured and recorded at fair value on a recurring basis consisted of the following types of instruments:

	As of June 30, 2021			
	Level 1	Level 2	Level 3	Total
	(in thousands)			
Cash equivalents:				
Money market funds	$ 682,214			$ 682,214
Total cash equivalents	682,214	—	—	682,214
Marketable securities:				
Corporate notes and bonds	—	30,516	—	30,516
Commercial paper	—	166,298	—	166,298
U.S. Treasury securities	—	165,925	—	165,925
Asset-backed securities	—	21,770	—	21,770
Foreign government and supranational securities	—	30,462	—	30,462
Total marketable securities	—	414,971	—	414,971
Restricted cash:				
Money market funds	980			980
Total restricted cash	980	—	—	980
Total financial assets	$ 683,194	$ 414,971	$ —	$ 1,098,165

	As of December 31, 2020			
	Level 1	Level 2	Level 3	Total
	(in thousands)			
Cash equivalents:				
Money market funds	$ 36,629	$ —	$ —	$ 36,629
Commercial paper	—	4,998	—	4,998
Total cash equivalents	36,629	4,998	—	41,627
Marketable securities:				
Corporate notes and bonds	—	14,314	—	14,314
Commercial paper	—	41,445	—	41,445
U.S. Treasury securities	—	95,972	—	95,972
Total marketable securities	—	151,731	—	151,731
Restricted cash:				
Money market funds	980	—	—	980
Total restricted cash	980	—	—	980
Total financial assets	$ 37,609	$ 156,729	$ —	$ 194,338

The Company classifies its investments, which are comprised of corporate notes and bonds, commercial paper, U.S. treasury securities, foreign government and supranational securities and asset-backed securities within Level 2 of the fair value hierarchy because the fair value of these securities is priced by using inputs based on non-binding market consensus prices that are primarily corroborated by observable market data or quoted market prices for similar instruments. There were no transfers of assets and liabilities measured at fair value between Level 1 and Level 2, or between Level 2 and Level 3, during the three and six months ended June 30, 2021 and 2020.

5. Business Combinations

Signal Sciences

On October 1, 2020, we completed the acquisition of Signal Sciences. We acquired 100% of the voting rights of Signal Sciences and it is now our wholly-owned subsidiary. The acquisition is expected to expand our security portfolio and bolster our existing security offerings with our web application and API protection solutions.

Under the terms of the Merger Agreement, we acquired Signal Sciences for an aggregate purchase price of $759.4 million, consisting of approximately $223.0 million in cash and the balance in Class A Common Stock and equity consideration of $536.4 million. A total of 6,367,709 shares were issued, of which the fair value of 5,471,210 shares were attributed to purchase price and 896,499 shares, which are restricted as they are subject to revesting conditions, will be recognized as stock-based compensation expense as the required employee services are provided. These restricted shares, which belong to the three co-founders of Signal Sciences, will revest on a quarterly basis over a 2-year period. All of these shares have a par value of $0.00002 per share.

As part of the acquisition, we assumed the Signal Sciences Corp. 2014 Stock Option and Grant Plan, as amended (the “Signal Plan”) and registered 251,754 shares under the Signal Plan, which were the outstanding unvested options to purchase shares of common stock of Signal Sciences. Such options became exercisable to purchase shares of Fastly’s Class A common stock, subject to appropriate adjustments to the number of shares and the exercise price of each such option.

We assumed the aforementioned unvested options at the completion of the acquisition with an estimated fair value of $21.8 million. Of the total consideration, $1.1 million was allocated to the purchase price and $20.7 million was allocated to future services, which will be expensed over the employees' remaining requisite service periods of approximately 2.5 years on a straight-line basis. The estimated fair value of the stock options assumed was determined using the Black-Scholes option pricing model. The share conversion ratio of 0.1 was applied to convert Signal Sciences’ outstanding stock awards into shares of Fastly's Class A common stock.

We accounted for the transaction as a business combination using the acquisition method of accounting. We allocated the purchase price to the tangible and identifiable intangible assets acquired and liabilities assumed based on their respective estimated fair values on the acquisition date. The fair values assigned to tangible assets acquired and liabilities assumed are based on management’s estimates and assumptions and may be subject to change as additional information is received. The determination of the fair value of the intangible assets acquired required management to make significant estimates and assumptions related to forecasted future revenues and selection of the royalty rate and discount rate.

The fair value of assets and liabilities acquired may change as additional information is received during the measurement period. The measurement period will end no later than one-year from the acquisition date. The purchase consideration was preliminarily allocated to the tangible and intangible assets and liabilities acquired as of the acquisition date, with the excess recorded to goodwill, which includes the value attributable to the assembled workforce, as shown below (in thousands):

		Amount
Assets acquired		
Cash and cash equivalents	$	21,501
Other current assets		6,419
Intangible assets, net		124,100
Other non-current assets		8,094
Total assets acquired	$	160,114
Liabilities assumed		
Current liabilities		(14,755)
Non-current liabilities		(21,170)
Total liabilities assumed	$	(35,925)
Net assets acquired		124,189
Total acquisition consideration		759,393
Goodwill transferred	$	635,204

Identifiable finite-lived intangible assets were comprised of the following:

		Total (in thousands)	Estimated useful life (in years)
Customer relationships	$	69,100	8.0
Developed technology		49,500	5.0
Trade name		3,300	3.0
Backlog		2,200	2.0
Total intangible assets acquired	$	124,100	

The fair values of the acquired developed technology and trade name intangible assets were determined using the relief from royalty method. The fair values of the acquired customer relationships and backlog intangible assets were determined using the multi-period excess earnings method. The acquired intangible assets have a total weighted average amortization period of 6.6 years.

As part of the stock acquisition of Signal Sciences, we allocated a significant value of the acquisition to intangible assets. The deferred tax liability provided an additional source of taxable income to support the realization of the pre-existing deferred tax assets. As a result a portion of our valuation allowance was released and we recorded a $13.0 million tax benefit in the year ended December 31, 2020.

During the year ended December 31, 2020, acquisition-related expenses of $20.8 million were expensed within general and administrative expenses as incurred. The amounts of revenue and net loss of Signal Sciences included in our consolidated statement of operations from the acquisition date of October 1, 2020 to December 31, 2020 are $6.7 million and $23.0 million, respectively.

The unaudited pro forma results do not reflect any cost saving synergies from operating efficiencies, or the effect of the incremental costs incurred from integrating these companies. For pro forma purposes, 2020 earnings were adjusted to exclude acquisition-related costs. Accordingly, these unaudited pro forma results are presented for informational purposes only and are not necessarily indicative of what the actual results of operations of the combined company would have been if the acquisition had occurred at the beginning of the period presented, nor are they indicative of future results of operations.

The unaudited pro forma financial information was as follows (in thousands):

		(Unaudited) For the year ended December 31, 2020 (in thousands)
Revenue	$	313,665
Net loss	$	(159,248)

6. Balance Sheet Information

Property and equipment, net

Property and equipment, net consisted of the following:

	As of June 30, 2021	As of December 31, 2020
	(in thousands)	
Computer and networking equipment	$ 159,939	$ 129,998
Leasehold improvements	3,802	3,817
Furniture and fixtures	1,260	1,092
Office equipment	654	659
Internal-use software	25,194	22,066
Property and equipment, gross	$ 190,849	$ 157,632
Accumulated depreciation and amortization	(74,378)	(61,653)
Property and equipment, net	$ 116,471	$ 95,979

Depreciation on property and equipment for the three months ended June 30, 2021 and 2020 was approximately $6.9 million and $4.7 million, respectively. Included in these amounts was amortization expense for capitalized internal-use software costs of approximately $1.0 million and $0.6 million, respectively, for the three months ended June 30, 2021 and 2020.

Depreciation expense on property and equipment for the six months ended June 30, 2021 and 2020 was approximately $13.3 million and $9.4 million, respectively. Included in these amounts was amortization expense for capitalized internal-use software costs of approximately $1.9 million and $1.2 million, respectively, for the six months ended June 30, 2021 and 2020.

As of June 30, 2021 and December 31, 2020, the unamortized balance of capitalized internal-use software costs on our Condensed Consolidated Balance Sheets was approximately $15.4 million and $14.2 million, respectively.

We lease certain networking equipment from various third parties, through equipment finance leases. Our networking equipment assets as of June 30, 2021 and December 31, 2020, included a total of $51.8 million and $36.2 million acquired under finance lease agreements, respectively. These leases are capitalized in property and equipment, and the related amortization of assets under finance leases is included in depreciation and amortization expense. The accumulated depreciation of the associated networking equipment assets under finance leases totaled $9.1 million and $6.7 million as of June 30, 2021 and December 31, 2020, respectively.

Other assets

Other assets consisted of the following:

	As of June 30, 2021	As of December 31, 2020
	(in thousands)	
Deferred contract costs, net	$ 22,077	$ 19,332
Restricted cash	893	893
Other assets	4,608	4,692
Total other assets	$ 27,578	$ 24,917

Accrued expenses

Accrued expenses consisted of the following:

	As of June 30, 2021	As of December 31, 2020
	(in thousands)	
Accrued compensation and related benefits	$ 11,539	$ 17,840
Sales and use tax payable	6,885	6,274
Accrued acquisition-related costs	—	3,644
Accrued colocation and bandwidth costs	4,135	2,208
Other accrued liabilities	6,050	4,368
Total accrued expenses	$ 28,609	$ 34,334

Other Current Liabilities

Other current liabilities consisted of the following:

	As of June 30, 2021	As of December 31, 2020
	(in thousands)	
Deferred revenue, current	$ 22,667	$ 15,916
Accrued computer and networking equipment	6,249	3,126
Liability for early-exercised stock options	255	255
Other current liabilities	564	380
Total other current liabilities	$ 29,735	$ 19,677

Other Long-Term Liabilities

Other long-term liabilities consisted of the following:

	As of June 30, 2021	As of December 31, 2020
	(in thousands)	
Deferred revenue, non-current	$ 4,569	$ 2,104
CARES Act payroll tax deferral	1,676	1,676
Other long-term liabilities	257	620
Total other long-term liabilities	$ 6,502	$ 4,400

7. Leases

We have operating leases for corporate offices and data centers ("colocation leases"), and finance leases for networking equipment. Our leases have remaining lease terms of 0.1 years to 6 years, some of which include options to extend the leases. We have elected the short-term lease recognition practical expedient, whereby we will not recognize right-of-use ("ROU") assets or lease liabilities for existing short-term leases.

We also sublease a portion of our corporate office spaces. Our subleases have remaining lease terms of 3 years. Our sublease income was $0.2 million and $0.3 million, respectively, for the three months ended June 30, 2021, and 2020. Our sublease income was $0.4 million and $0.5 million, respectively, for the six months ended June 30, 2021, and 2020.

The components of lease cost were as follows:

	Three months ended June 30, 2021	Three months ended June 30, 2020	Six months ended June 30, 2021	Six months ended June 30, 2020
	(in thousands)			
Operating lease cost:				
Operating lease cost	$ 6,452	$ 5,227	$ 12,804	$ 10
Variable lease cost	1,460	1,355	2,818	2
Total operating lease costs	$ 7,912	$ 6,582	$ 15,622	$ 12
Finance lease cost:				
Amortization of assets under finance lease	$ 1,250	$ 723	$ 2,484	$ 1
Interest	405	149	735	
Total finance lease costs	$ 1,655	$ 872	$ 3,219	$ 1

Other information related to leases was as follows:

	Three months ended June 30, 2021	Three months ended June 30, 2020	Six months ended June 30, 2021	Six months ended June 30, 2020
	(in thousands)			
Supplemental Cash Flow Information				
Cash paid for amounts included in the measurement of lease liabilities:				
Payments for operating leases liabilities included in cash from operating activities	$ 6,491	$ 4,141	12,856	8,413
Payments for finance leases interest included in cash from operating activities	$ 405	$ 149	735	268
Payments for finance leases liabilities included in cash from financing activities	$ 3,628	$ 1,307	$ 6,579	$ 2,900
Assets obtained in exchange for lease obligations:				
Operating leases	$ 4,657	$ 7,898	$ 13,481	$ 10,278
Finance leases	$ 13,529	$ 5,852	$ 15,538	$ 7,842

	As of June 30, 2021	As of December 31, 2020
Weighted Average Remaining Lease Term (in years)		
Operating leases	4.40	4.44
Finance leases	2.39	2.51
Weighted Average Discount Rate		
Operating leases	5.56 %	5.68 %
Finance leases	5.14 %	5.12 %

As of June 30, 2021, we had undiscounted commitments of $17.8 million for operating leases that have not yet commenced, and therefore are not included in the right-of-use asset or operating lease liability. These operating leases will commence in 2021 with lease terms of 2 years to 6 years.

Future minimum lease payments under non-cancellable leases as of June 30, 2021 were as follows:

	Operating Leases	Finance Leases
	(in thousands)	
Remainder of 2021	$ 24,489	$ 8,403
2022	19,354	15,014
2023	13,941	11,488
2024	12,374	1,675
2025	11,864	—
Thereafter	11,900	—
Total future minimum lease payments	$ 93,922	$ 36,580
Less: imputed interest	(9,252)	(2,122)
Total liability	$ 84,670	$ 34,458

8. Goodwill and Intangible Assets

The changes in the carrying amount of goodwill for the six months ended June 30, 2021 are as follows:

	Six months ended June 30, 2021
	(in thousands)
Balance as of December 31, 2020	$ 635,590
Foreign currency translation and other adjustments	56
Balance as of June 30, 2021	$ 635,646

As of June 30, 2021 and December 31, 2020, our intangible assets consisted of the following:

	As of June 30, 2021			As of December 31, 2020		
	Gross carrying value	Accumulated amortization	Net carrying value	Gross carrying value	Accumulated amortization	Net carrying value
	(in thousands)					
Intangible assets:						
Customer relationships	$ 69,100	$ (6,478)	$ 62,622	$ 69,100	$ (2,053)	$ 67,047
Developed technology	49,500	(7,425)	42,075	49,500	(2,475)	47,025
Trade names	3,300	(825)	2,475	3,300	(275)	3,025
Internet protocol addresses	4,984	(723)	4,261	2,891	(578)	2,313
Backlog	2,200	(825)	1,375	2,200	(275)	1,925
In-process research and development ("IPR&D")	368	—	368	368	—	368
Domain name	39	—	39	39	—	39
Total intangible assets	$ 129,491	$ (16,276)	$ 113,215	$ 127,398	$ (5,656)	$ 121,742

Our intangible assets are comprised of customer relationships, developed technology, trade names, internet protocol addresses, backlog, and IPR&D. Our customer relationships, developed technology, trade names, internet protocol addresses, backlog, domain name intangible assets are subject to amortization. IPR&D intangible and domain name assets are indefinite-lived and not subject to amortization. We purchased $2.1 million of intangible assets during the three and six months ended June 30, 2021. We did not purchase additional intangible assets during the three and six months ended June 30, 2020.

Amortization expense was $5.3 million and $10.6 million for the three and six months ended June 30, 2021. Amortization expense was less than $0.1 million for the three and six months ended June 30, 2020.

We perform tests for impairment of goodwill and long-lived assets on an annual basis as of October 31 or more frequently if events or changes in circumstances indicate that our long-lived assets might be impaired. We did not record any impairment charges during both the three and six months ended June 30, 2021 and 2020.

The annual expected amortization expense of intangible assets subject to amortization as of June 30, 2021 is as follows:

	As of June 30, 2021 (in thousands)	
Remainder of 2021	$	10,628
2022		20,974
2023		19,874
2024		19,040
2025		16,561
Thereafter		25,770
Total	$	112,847

9. Debt Instruments

Cash Collateralized Revolving Credit Agreement

In November 2019, we entered into a Revolving Credit Agreement with Citibank, N.A (the "Lender") for an aggregate commitment amount of $70.0 million with a maturity date of November 3, 2022 (the "Revolver"). The amount of borrowings available under the Revolving Credit Agreement at any time are collateralized by our cash, which is classified as restricted cash on our balance sheets. With prior written notice to the Lender, we have the right, at any time prior to the Revolver's maturity date, without premium or penalty, to terminate or reduce the Revolver arrangement. In event of such termination, the aggregate principal of the then outstanding amounts, including any accrued interest to date, shall be repaid and the restrictions on the associated collateralized cash would be released.

The interest rate associated with each advance under the Revolving Credit Agreement is equal to the sum of LIBOR for the applicable interest period plus 1.50% which is a per annum rate based on outstanding borrowings. As such, for the initial interest period ending in November 2020, the interest rate is set at 3.46%. The commitment fee is 0.20% per annum based on the average daily unused amount of the commitment amount. Interest payments on outstanding borrowings are due on the last day of each interest period and payments for the commitment fee are due at the end of each calendar quarter.

In November 2020, we terminated the Revolving Credit Agreement in accordance with its terms. In connection with the termination of the Revolving Credit Agreement, we repaid the then outstanding aggregate principal amount of $20.3 million, as well as any accrued and unpaid interest, as of the termination date. The associated restriction on the collateralized cash of $70.1 million was also released, accordingly.

Senior Secured Credit Facilities Agreement

On February 16, 2021, we entered into a Senior Secured Credit Facilities Agreement ("Credit Agreement") with Silicon Valley Bank for an aggregate commitment amount of $100.0 million with a maturity date of February 16, 2024. The Credit Agreement bears interest at a rate per annum equal to the sum of LIBOR for the applicable interest period plus 1.75% - 2.00%, depending on the average daily outstanding balance of all loans and letters of credit under the Credit Agreement. Interest payments on outstanding borrowings are due on the last day of each interest period. The Credit Agreement has a commitment fee on the unused portion of the borrowing commitment, which is payable on the last day of each calendar quarter at a rate per annum of 0.20% - 0.25% depending on the average daily outstanding balance of all loans and letters of credit under the Credit Agreement. In addition, our Credit Agreement contains a financial covenant that requires us to maintain a consolidated adjusted quick ratio of at least 1:25 to 1:00 tested on a quarterly basis as well as a springing revenue growth covenant for certain periods if our consolidated adjusted quick ratio falls below 1.75 to 1:00 on the last day of any fiscal quarter. The Credit Agreement requires us to comply with these affirmative and negative covenants and we were in compliance with all covenants as of June 30, 2021.We recorded $0.6 million of debt issuance costs associated with the Credit Agreement in other assets on our condensed consolidated balance sheet. During the three and six months ended June 30, 2021, no amount was drawn down on our Credit Agreement. As of June 30, 2021, and no amount was outstanding under the Credit Agreement.

Convertible Senior Notes

On March 5, 2021, we issued approximately $948.8 million aggregate principal amount of our 0% convertible senior notes due 2026 (the “Notes”), including the exercise in full by the initial purchasers of their option to purchase up to an additional approximately $123.8 million principal amount of the Notes. The Notes were issued in a private placement to qualified institutional buyers pursuant to Rule144A under the Securities Act. The Notes will mature on March 15, 2026, unless earlier converted, redeemed or repurchased. The net proceeds from the issuance of the Notes were approximately $930.0 million after deducting the initial purchasers’ discounts and transaction costs.

We may not redeem the Notes prior to March 20, 2024. On or after March 20, 2024, we may redeem for cash, all or any portion of the Notes, at our option, at a redemption price equal to 100% of the principal amount of the Notes to be redeemed, plus accrued and unpaid special interest, if any, to, but excluding, the redemption date, if the last reported sale price of our common stock has been at least 130% of the conversion price for the Notes then in effect for at least 20 trading days (whether or not consecutive) during any 30 consecutive trading day period (including the last trading day of such period) ending on, and including, the trading day immediately preceding the date on which we provide notice of redemption. No sinking fund is provided for the Notes.

Holders of the Notes may convert their notes at their option at any time prior to the close of business on the business day immediately preceding December 15, 2025, only under the following circumstances: (i) during any calendar quarter commencing after the calendar quarter ending on June 30, 2021 (and only during such calendar quarter), if the last reported sale price of our Class A common stock for at least 20 trading days (whether or not consecutive) during a period of 30 consecutive trading days ending on, and including, the last trading day of the immediately preceding calendar quarter is greater than or equal to 130% of the conversion price for the Notes on each applicable trading day; (ii) during the five business day period after any ten consecutive trading day period (the “Measurement Period”) in which the trading price, as defined in the indenture agreement governing the Note filed with our Current Report on Form 8-K filed with the Securities and Exchange Commission on March 5, 2021, per $1,000 principal amount of notes for each trading day of the Measurement Period was less than 98% of the product of the last reported sale price of our Class A common stock and the conversion rate on each such trading day; (iii) if we call such Notes for redemption, at any time prior to the close of business on the scheduled trading day immediately preceding the applicable redemption date, but only with respect to the Notes called (or deemed called) for redemption; or (iv) upon the occurrence of specified corporate events. On or after December 15, 2025 until the close of business on the second scheduled trading day immediately preceding the maturity date, holders may convert all or any portion of their notes at any time, regardless of the foregoing circumstances.

Upon conversion, we may satisfy our conversion obligation by paying or delivering, as the case may be, cash, shares of our Class A common stock or a combination of cash and shares of our Class A common stock, at our election. The initial conversion rate is 9.7272 shares of Class A common stock per $1,000 principal amount of Notes, equivalent to an initial conversion price of approximately $102.80 per share of Class A common stock. The conversion rate is subject to adjustment as described in the indenture governing the Notes but will not be adjusted for any accrued and unpaid special interest. In addition, following certain corporate events that occur prior to the maturity date of the Notes or if we deliver a notice of redemption in respect of the Notes, we will, in certain circumstances, increase the conversion rate of the Notes for a holder who elects to convert its Notes, in connection with such a corporate event or convert its Notes called (or deemed called) for redemption during the related redemption period, as the case may be.

The indenture includes customary covenants and sets forth certain events of default after which the Notes may be declared immediately due and payable and sets forth certain types of bankruptcy or insolvency events of default involving us after which the Notes become automatically due and payable. If we undergo a fundamental change, as defined in the indenture agreement governing the Notes, then subject to certain conditions and except as described in the indenture governing the Notes, holders may require us to repurchase for cash all or any portion of their Notes at a fundamental change repurchase price equal to 100% of the principal amount of the Notes to be repurchased, plus accrued and unpaid special interest, if any, to, but excluding, the fundamental change repurchase date.

We evaluated the terms of our debt and concluded that the instrument does not require separation and that there were no other derivatives that required separation. As such, we have combined these features with the host contract and we account for our convertible debt as a single liability in long-term debt on our condensed consolidated balance sheet. The initial purchasers' discounts and transaction costs of $18.8 million incurred related to the issuance of the Notes were classified as liability and represents the difference between the principal amount of the Notes and the liability component (the “debt discount”), which is amortized to interest expense using the effective interest method over the term of the Notes.

As of June 30, 2021, the conversion conditions have not been met and therefore the Notes are not yet convertible.

The following table reflects the carrying values of the debt agreements as of June 30, 2021:

	As of June 30, 2021 (in thousands)
Convertible Senior notes (effective interest rate of 0.40%)	
Principal amount	$ 948,750
Less: unamortized debt issuance costs	(17,365)
Less: current portion of long-term debt	—
Long-term debt, less current portion	$ 931,385

Total interest expense related to our debt obligations for the three and six months ended June 30, 2021, was $1.0 million and $1.4 million, respectively, which excludes the interest expense related to our finance leases which is separately disclosed in Note 7—Leases. For the three and six months ended June 30, 2020, our interest expense is $0.4 million and $0.7 million, respectively, of which $0.1 million and $0.3 million relates to finance lease agreements and other costs.

10. Commitments and Contingencies

Purchase Commitments

As of June 30, 2021, we had long-term commitments for cost of revenue related agreements (i.e., bandwidth usage, peering and other managed services with various networks, internet service providers ("ISPs") and other third-party vendors). We also have long-term commitments for various non-cancelable software as a service ("SaaS") agreements.

Our minimum future commitments related to our purchase commitments as of June 30, 2021 were as follows:

	Cost of Revenue Commitments	SaaS Agreements	Total Purchase Commitments
		(in thousands)	
Remainder of 2021	$ 25,317	$ 8,614	$ 33,931
2022	21,405	13,434	34,839
2023	4,474	9,189	13,663
2024	2,592	—	2,592
2025	1,642	—	1,642
Thereafter	46	—	46
Total	$ 55,476	$ 31,237	$ 86,713

Sales and Use Tax

We conduct operations in many tax jurisdictions throughout the United States. In many of these jurisdictions, non-income-based taxes, such as sales and use and telecommunications taxes are assessed on our operations. We are subject to indirect taxes, and may be subject to certain other taxes, in some of these jurisdictions. Historically, we have not billed or collected these taxes and, in accordance with U.S. GAAP, we have recorded a provision for our tax exposure in these jurisdictions when it is both probable that a liability has been incurred and the amount of the exposure can be reasonably estimated. As a result, we have recorded a liability of $6.9 million and $6.3 million as of June 30, 2021 and December 31, 2020, respectively. These estimates are based on several key assumptions, including the taxability of our products, the jurisdictions in which we believe we have nexus and the sourcing of revenues to those jurisdictions. In the event these jurisdictions challenge our assumptions and analysis, our actual exposure could differ materially from our current estimates.

Legal Matters

We are currently involved in, and may in the future be involved in, various legal proceedings and claims arising from the normal course of business, and an unfavorable resolution of any of these matters could materially affect our future results of operations, cash flows or financial position. We are also party to various disputes that management considers routine and incidental to its business. Management does not expect the results of any of these routine actions to have a material effect on our business, results of operations, financial condition, or cash flows.

On August 27, 2020, a purported securities class action lawsuit was filed in the United States District Court for the Northern District of California, captioned Marcos Betancourt v. Fastly, Inc., et al. (Case No. 4:20-cv-06024-PJH) naming as defendants us and certain of our officers. On September 15, 2020, a substantively identical complaint was filed against the same defendants in the same court, captioned Rami Habib v. Fastly, Inc., et al. (Case No. 4:20-cv-06454-JST). On September 27, 2020, the court consolidated the two cases into one putative class action, captioned In re Fastly, Inc. Securities Litigation. On February 10, 2021, the Court appointed lead plaintiff ("Lead Plaintiff") and lead counsel. On April 12, 2021, Lead Plaintiff filed a consolidated complaint (the "Consolidated Complaint"). The Consolidated Complaint asserts that all defendants violated Section 10(b) of the Securities Exchange Act of 1934, as amended (the "Exchange Act") and SEC Rule 10b-5 by making materially false or misleading statements between May 6, 2020 and October 14, 2020 regarding the Company's business and financials, including allegations that the Company failed to disclose the identity of one of its largest customers. The Lead Plaintiff also alleges that certain of the Company's officers violated Section 20(a) of the Exchange Act. On June 11, 2021, defendants filed a motion to dismiss the Consolidated Complaint that Lead Plaintiff opposed on July 26, 2021.

On December 28, 2020, certain of our officers and directors were named as defendants in a shareholder derivative action filed in the United States District Court for the District of Delaware, captioned Wei v. Bixby, et al., Case No. 1:20-cv-01773-MN. On February 2, 2021, a substantially similar shareholder derivative complaint was filed against the same defendants in the same court, captioned Kristen Gorenberg v. Bixby et al., Case No. 1:21-cv-00136. The derivative complaints assert, inter alia, breach of fiduciary duty claims. On March 15, 2021, the Court consolidated the cases and stayed the consolidated derivative action until after resolution of our motion to dismiss in the above-referenced securities class action. It is possible that additional lawsuits will be filed, or allegations made by stockholders, regarding these same or other matters and also naming as defendants the Company and our officers and directors.

The pending lawsuits and any other related lawsuits are subject to inherent uncertainties, and the actual defense and disposition costs will depend upon many unknown factors. The outcome of the pending lawsuits and any other related lawsuits is necessarily uncertain. We could be forced to expend significant resources in the defense of the pending lawsuits and any additional lawsuits, and we may not prevail. In addition, we may incur substantial legal fees and costs in connection with such lawsuits. We currently are not able to estimate the possible cost to us from these matters, as the pending lawsuits are currently at an early stage, and we cannot be certain how long it may take to resolve the pending lawsuits or the possible amount of any damages that we may be required to pay. Such amounts could be material to our financial statements if we do not prevail in the defense against the pending lawsuits and any other related lawsuits, or even if we do prevail.

As of June 30, 2021, we have not accrued for any loss contingencies on the above mentioned lawsuits as we do not believe an outcome resulting in a loss is probable. We will accrue for loss contingencies if it becomes both probable that we will incur a loss and if we can reasonably estimate the amount or range of the loss.

Indemnification

We enter into standard indemnification agreements in the ordinary course of business. Pursuant to these agreements, we agree to indemnify, hold harmless, and reimburse the indemnified party for losses suffered or incurred by the indemnified party, generally our business partners or customers, in connection with our provision of its services. Generally, these obligations are limited to claims relating to infringement of a patent, copyright, or other intellectual property right, breach of our security or data protection obligations, or our negligence, willful misconduct, or violation of law. Subject to applicable statutes of limitation, the term of these indemnification agreements is generally for the duration of the agreement. The maximum potential amount of future payments we could be required to make under these indemnification agreements is unlimited; however, we carry insurance that covers certain third-party claims relating to our services and could limit our exposure in that respect.

We have agreed to indemnify each of our officers and directors during his or her lifetime for certain events or occurrences that happen by reason of the fact that the officer or director is, was, or has agreed to serve as an officer or director of the Company. We have director and officer insurance policies that may limit our exposure and may enable us to recover a portion of certain future amounts paid.

To date, we have not encountered material costs as a result of such indemnification obligations and have not accrued any related liabilities in our financial statements. In assessing whether to establish an accrual, we consider such factors as the degree of probability of an unfavorable outcome and the ability to make a reasonable estimate of the amount of loss.

11. Stockholders' Equity

Common Stock

Our Amended and Restated Certificate of Incorporation, as amended and restated in May 2019 (the "Certificate"), authorizes the issuance of 1.0 billion shares of Class A common stock and 94.1 million shares of Class B common stock, each at a par value per share of $0.00002. Holders of Class A common stock are entitled to one vote per share and holders of Class B common stock are entitled to 10 votes per share.

As of June 30, 2021 and December 31, 2020, 106.3 million and 103.4 million shares of Class A common stock were issued and outstanding, respectively. As of June 30, 2021 and December 31, 2020, 9.7 million and 10.2 million shares of Class B common stock were issued and outstanding, respectively.

Our amended and restated certificate of incorporation includes an automatic conversion provision, which, on the date when the outstanding shares of our Class B common stock represent less than 10% of the aggregate number of shares of the then outstanding Class A common stock and Class B common stock (the “Sunset Trigger Date”), all our outstanding shares of Class B common stock will automatically convert into the same number of shares of Class A common stock under the terms of our amended and restated certificate of incorporation on the trading day falling nine months after the Sunset Trigger Date ("the Conversion"). No additional Class B shares may be issued following the Conversion. On October 12, 2020, the outstanding shares of our Class B common stock represented less than 10% of the aggregate number of shares of the then outstanding Class A common stock and Class B common stock. As a result, all our outstanding shares of Class B common stock automatically converted into the same number of shares of Class A common stock on July 12, 2021 (the "Conversion"), pursuant to the terms of the Certificate. Upon the conversion, outstanding options denominated in shares of Class B common stock issued under any of the Company’s equity incentive plans remained unchanged, except that they now represent the right to receive shares of Class A common stock. In accordance with the Certificate, the shares of Class B common stock that converted to Class A common stock were retired and will not be reissued by the Company.

On July 12, 2021, the Company filed a certificate with the Secretary of State of the State of Delaware effecting the retirement of the shares of Class B common stock that were issued but no longer outstanding following the Conversion. Upon the effectiveness of the certificate, the Company’s total number of authorized shares of capital stock was reduced by the retirement of 90.0 million shares of Class B common stock.

Preferred Stock

Our Amended and Restated Certificate of Incorporation, as amended and restated in May 2019, also authorizes the issuance of 10.0 million shares of preferred stock, at a par value per share of $0.00002, with rights and preferences, including voting rights, designated from time to time by the Board of Directors (the "Board"). As of both June 30, 2021 and December 31, 2020, no shares of preferred stock were issued and outstanding.

Equity Incentive Plans

In March 2011, our stockholders approved our 2011 Equity Incentive Plan ("2011 Plan") which allows for the issuance of incentive stock options, nonstatutory stock options, stock appreciation rights, restricted stock awards, and restricted stock unit awards ("RSUs") to employees, directors, and consultants of the Company. Options granted under our 2011 Plan are exercisable for shares of our Class B common stock.

As of both June 30, 2021 and December 31, 2020, there were 23.6 million shares of Class B common stock reserved for issuance pursuant to outstanding stock options under the 2011 Plan. As of June 30, 2021 and December 31, 2020, there were no shares of Class B common stock available for issuance for future grants under the 2011 Plan.

In May 2019, in conjunction with our IPO, our Board and stockholders approved our 2019 Equity Incentive Plan (the "2019 Plan") which allows for the issuance of incentive stock options, non-statutory stock options, stock appreciation rights, RSUs, performance-based stock awards, and other forms of equity compensation, which are collectively referred to as stock awards. Additionally, the 2019 Plan provides for the grant of performance cash awards. Options are exercisable for shares of our Class A common stock. No further awards will be issued under the 2011 Plan.

In October 2020, we assumed the Signal Sciences Corp. 2014 Stock Option and Grant Plan, as amended (the “Signal Plan”) and registered 251,754 shares under the Signal Plan, which were the outstanding unvested options to purchase shares of common stock of Signal Sciences. Such options became exercisable to purchase shares of Fastly’s Class A common stock, subject to appropriate adjustments to the number of shares and the exercise price of each such option.

As of June 30, 2021 and December 31, 2020, an aggregate of 25.1 million shares and 19.4 million shares of Class A common stock have been reserved for issuance under the 2019 Plan, respectively. As of June 30, 2021 and December 31, 2020, there were 17.4 million and 12.8 million Class A common stock available for issuance under the 2019 Plan, respectively.

In May 2019, in conjunction with our IPO, our Board and stockholders approved the Employee Stock Purchase Plan ("ESPP"). The ESPP allows eligible employees to purchase shares of our Class A common stock through payroll deductions of up to 15% of their eligible compensation, subject to a maximum of $25,000 per calendar year.

As of June 30, 2021 and December 31, 2020, an aggregate of 4.6 million shares and 3.5 million shares of Class A common stock have been reserved for issuance under the ESPP, respectively. As of June 30, 2021 and December 31, 2020, there were 3.8 million shares and 2.8 million shares of Class A common stock available for future issuance under the ESPP, respectively.

Stock Options

Options granted under the 2011 Plan are exercisable for Class B common stock and generally expire within 10 years from the date of grant and generally vest over four years, at the rate of 25% on the first anniversary of the date of grant and ratably on a monthly basis over the remaining 36-month period thereafter based on continued service.

Options granted under the 2019 Plan are exercisable for Class A common stock and generally expire within 10 years from the date of grant and generally vest over four years, at the rate of 25% on the first anniversary of the date of grant and ratably on a monthly basis over the remaining 36-month period thereafter based on continued service.

Forfeitures are recognized as they occur.

The following table summarizes stock option activity during the six months ended June 30, 2021:

	Shares	Weighted-Average Exercise Price	Weighted-Average Remaining Contractual Term	Aggregate Intrinsic Value
	(in thousands)		(in years)	(in thousands)
Outstanding at December 31, 2020	6,963	$ 5.63	6.7	$ 569,094
Granted	—	—		
Exercised	(1,029)	5.45		
Cancelled/forfeited	(184)	10.48		
Outstanding at June 30, 2021	5,750	$ 5.51	6.1	$ 310,997
Vested and exercisable at June 30, 2021	4,054	$ 4.03	5.5	$ 225,285
Unvested and exercisable at June 30, 2021	216	$ 6.54	7.3	$ 11,483

The total pre-tax intrinsic value of options exercised during the six months ended June 30, 2021 and 2020 was $60.9 million and $76.3 million, respectively.

The total grant date fair value of employee options vested for the six months ended June 30, 2021 and 2020 was $8.8 million and $4.6 million, respectively.

There were no options granted during the three and six months ended June 30, 2021 and 2020.

During the three and six months ended June 30, 2021, we recorded stock-based compensation expense from stock options of approximately $4.4 million and $8.2 million, respectively.

During the three and six months ended June 30, 2020, we recorded stock-based compensation expense from stock options of approximately $2.0 million and $3.8 million, respectively.

During the three and six months ended June 30, 2021, we modified the terms of options awarded to certain employees to allow for the remaining unvested awards to be fully vested upon their change in employment status. As a result, we recorded incremental stock-based compensation expense in relation to these modifications of $1.2 million in both the three and six months ended June 30, 2021. Included in this expense, is the incremental fair value resulting from the modifications of the options of $1.1 million. During the three and six months ended June 30, 2020, we recorded incremental stock-based compensation expense in relation to these modifications of $0.4 million in both the three and six months ended June 30, 2020. Included in this expense is the incremental fair value resulting from the modifications of the options of $0.3 million.

As of June 30, 2021, total unrecognized stock-based compensation cost related to outstanding unvested stock options that are expected to vest was $18.7 million. This unrecognized stock-based compensation cost is expected to be recognized over a weighted-average period of approximately 1.91 years.

Early Exercise of Stock Options

Certain stock options granted by the Company are exercisable at the date of grant, with unvested shares subject to repurchase by the Company in the event of voluntary or involuntary termination of employment of the stockholder. Such exercises are recorded as a liability on the accompanying Condensed Consolidated Balance Sheets and reclassified into equity as the options vest.

As of June 30, 2021 and December 31, 2020, a total of 62,248 and 90,977 shares of Class B Common Stock were subject to repurchase by the Company at the lower of (i) the fair market value of such shares on the date of repurchase, or (ii) the original exercise price of such shares. The corresponding exercise value of approximately $0.3 million and $0.4 million as of June 30, 2021 and December 31, 2020, respectively, is recorded in other current liabilities and other long-term liabilities on the accompanying Condensed Consolidated Balance Sheets.

The activity of non-vested shares as a result of early exercise of options granted to employees and non-employees, is as follows:

	Six months ended June 30, 2021
	(in thousands)
Beginning balance as of December 31, 2020	91
Early exercise of options	—
Vested	(29)
Repurchased	—
Ending balance as of June 30, 2021	62

Restricted Stock Units ("RSUs")

We began granting RSUs under the 2019 Plan during the fiscal year ended December 31, 2019. The fair value of RSUs is based on the grant date fair value and is expensed on a straight-line basis over the applicable vesting period. RSUs granted to new hires typically vest over four years, at the rate of 25% on the first anniversary of the vest date and ratably on a quarterly basis over the remaining 36-month period thereafter. RSUs granted to existing employees typically vest in equal quarterly installments over a four year service period. All vesting is contingent on continued service. Forfeitures are recognized as they occur.

The following table summarizes RSU activity during the six months ended June 30, 2021:

	Number of Shares		Weighted-Average Grant Date Fair Value Per Share
	(in thousands)		
Unvested RSUs as of December 31, 2020	4,520	$	30.01
Granted	1,305		72.45
Vested	(871)		28.36
Cancelled/forfeited	(217)		40.18
Unvested RSUs as of June 30, 2021	4,737	$	41.54

During the three and six months ended June 30, 2021, we recognized stock-based compensation expense related to RSUs of $15.8 million and $29.0 million, respectively.

During the three and six months ended June 30, 2020, we recognized stock-based compensation expense related to RSUs of $13.4 million and $17.4 million, respectively.

During the three and six months ended June 30, 2021, there were no RSU awards modifications that resulted in incremental stock-based compensation expense recorded. During the three and six months ended June 30, 2020, the Company modified the terms of its RSUs awarded to an employee to allow for the remainder unvested awards to be fully vested upon their change in employment status. As a result, the Company recorded incremental stock-based compensation expense in relation to the modification of $4.8 million for both the three and six months ended June 30, 2020. Included in this expense, is the incremental fair value resulting from the modifications of the RSUs of $0.1 million.

As of June 30, 2021, total unrecognized stock-based compensation cost related to non-vested RSUs was $181.4 million. This unrecognized stock-based compensation cost is expected to be recognized over a weighted-average period of approximately 3 years.

Stock Subject to Revest ("Revest Shares")

In conjunction with the acquisition of Signal Sciences in fiscal 2020, a restriction was placed on 896,499 shares belonging to the three co-founders of Signal Sciences which are subject to revesting on a quarterly basis over a 2 year period. Refer to Note 5—Business Combinations for further details.

The following table summarizes the activity related to the revest shares during the six months ended June 30, 2021:

	Number of Shares		Weighted-Average Grant Date Fair Value Per Share
	(in thousands)		
Unvested revest shares as of December 31, 2020	784	$	97
Vested	(224)		9
Cancelled/forfeited	—		
Unvested revest shares as of June 30, 2021	560	$	97

For the three and six months ended June 30, 2021, we recognized stock-based compensation expense related to revest shares of $11.0 million and $21.9 million, respectively.

As of June 30, 2021, total unrecognized stock-based compensation cost related to revest shares was $54.7 million. This unrecognized stock-based compensation cost is expected to be recognized over a weighted-average period of approximately 1.2 years.

Performance-Based Restricted Stock Units ("PSUs")

In March 2020, we granted a maximum total of 87,918 shares of PSUs to certain employees of the Company, pursuant to the Company's 2019 Equity Incentive Plan. The PSUs granted reflect a maximum of 200% of target performance and represent the right of the employees to be issued on a future date, one (1) share of Class A common stock for each RSU received that will vest on the applicable vesting date. On November 2, 2020, the Compensation Committee of the Board of Directors set the performance conditions related to the previously granted PSUs. The performance conditions are based on the level of achievement of certain Company and individual targets related to Fastly's operating plan for the fiscal year 2020 ("2020 operating plan"). The PSUs would vest at 50% of the target if the Company achieves 90% performance under the 2020 operating plan, 100% of the target if the Company achieves 100% performance under the 2020 operating plan and 200% of the target if the Company achieves 110% performance or greater under the 2020 operating plan. These awards were eligible to vest linearly within those parameters. Subject to employees' continuous service with the Company through each vesting date, based on the extent of such targets achieved, 25% of the number of PSUs credited to them upon certification of achievement will vest on February 15, 2021, May 15, 2021, August 15, 2021, and November 15, 2021, respectively. Based on the results of the 2020 operating plan, the actual award was reduced to 75,828 shares which represents attainment of 172%. As a result, 12,090 shares subject to the PSUs were cancelled.

In February 2021, we granted a maximum total of 70,680 shares of PSUs to certain employees of the Company, pursuant to the Company's 2019 Equity Incentive Plan. The PSUs granted reflect a maximum of 150% of target performance and represent the right of the employees to be issued on a future date, one (1) share of Class A common stock for each RSU received that will vest on the applicable vesting date. The performance conditions were set and approved on the date of grant and are based on the level of achievement of certain Company and individual targets related to Fastly's operating plan for the fiscal year 2021 ("2021 operating plan"). The PSUs will vest at 50% of the target if the Company achieves 90% performance under the 2021 operating plan, 100% of the target if the Company achieves 100% performance under the 2021 operating plan and 150% of the target if the Company achieves 110% performance or greater under the 2021 operating plan. These awards will be eligible to vest linearly within those parameters. Subject to employees' continuous service with the Company through each vesting date, based on the expected extent of such targets achieved, 25% of the total RSUs on February 15, 2022 and thereafter in 12 equal quarterly installments (i.e. 6.25% of the total RSUs will vest per quarter) on May 15, August 15, November 15, and February 15.

The following table summarizes the activity related to the PSUs during the six months ended June 30, 2021:

	Number of Shares	Weighted-Average Grant Date Fair Value Per Share
	(in thousands)	
Unvested PSUs as of December 31, 2020	88	$ 65
Granted	71	102
Vested	(38)	6
Cancelled/forfeited	(12)	65
Unvested PSUs as of June 30, 2021	109	$ 89

For the three and six months ended June 30, 2021, we recognized stock-based compensation expense related to PSUs of $1.7 million and $3.8 million, respectively, based on the extent of the performance conditions that were deemed probable of achievement.

As of June 30, 2021, total unrecognized stock-based compensation cost related to PSUs was $4.4 million. This unrecognized stock-based compensation cost is expected to be recognized over a weighted-average period of approximately 1.8 years.

ESPP

The ESPP allows eligible employees to purchase shares of our common stock through payroll deductions of up to 15% of their eligible compensation. The ESPP provides for six-month offering periods, commencing in May and November of each year. At the end of each offering period employees are able to purchase shares at 85% of the lower of the fair market value of our Class A common stock on the first trading day of the offering period or on the date of purchase.

We estimate the fair value of shares to be issued under the ESPP on the first day of the offering period using the Black-Scholes valuation model. The inputs to the Black-Scholes option pricing model are our stock price on the first date of the offering period, the risk-free interest rate, the estimated volatility of our stock price over the term of the offering period, the expected term of the offering period and the expected dividend rate. Stock-based compensation expense related to the ESPP is recognized on a straight-line basis over the offering period. Forfeitures are recognized as they occur.

We estimated the fair value of shares granted under the ESPP using the Black-Scholes option pricing model with the following assumptions:

	Six months ended June 30,	
	2021	2020
Fair value of common stock	$12.66 - $24.07	$6.02 - 14.09
Expected term (in years)	0.49 to 0.50	0.50
Risk-free interest rate	0.02% - 0.10%	0.14% - 1.59%
Expected volatility	47% - 50%	43% - 60%
Dividend yield	—%	—%

During the three and six months ended June 30, 2021, we withheld $2.6 million and $6.0 million in contributions from employees, respectively, and recognized $0.9 million and $2.1 million in stock-based compensation expense related to the ESPP, respectively. During the three and six months ended June 30, 2020, we withheld $1.9 million and $4.1 million in contributions from employees, respectively, and recognized $1.3 million and $2.0 million in stock-based compensation expense related to the ESPP, respectively.

During the three and six months ended June 30, 2021, 0.2 million shares of our Class A common stock was purchased under the offering period that commenced on November 21, 2020. During the three and six months ended June 30, 2020, $0.2 million shares of our Class A common stock was purchased under the offering period that commenced on November 21, 2019.

Stock-based Compensation Expense

The following table summarizes the components of total stock-based compensation expense included in the accompanying Condensed Consolidated Statements of Operations:

	Three months ended June 30,		Six months ended June 30,	
	2021	2020	2021	2020
	(in thousands)			
Stock-based compensation expense by caption:				
Cost of revenue	$ 1,828	$ 1,090	$ 3,014	$ 1,705
Research and development	8,634	4,053	16,592	5,724
Sales and marketing	5,631	7,076	10,639	8,559
General and administrative	17,333	4,062	34,019	6,622
Total	$ 33,426	$ 16,281	$ 64,264	$ 22,610

For the three and six months ended June 30, 2021, we capitalized $0.4 million and $0.8 million of stock-based compensation expense, respectively. For the three and six months ended June 30, 2020, we capitalized $0.4 million and $0.6 million of stock-based compensation expense, respectively.

Common Stock Warrant Liabilities

Prior to the IPO, we issued convertible preferred stock warrants in conjunction with the issuances of debt. We recorded these warrants to purchase convertible preferred stock as a liability on the consolidated balance sheets at fair value upon issuance as the warrants were exercisable for contingently redeemable preferred stock which was classified outside of stockholders' equity (deficit). The liability associated with these warrants were subject to remeasurement at each balance sheet date, with changes in fair value recorded in the consolidated statement of operations and comprehensive loss as other expense, net.

On May 17, 2019, immediately upon closing of the IPO, our warrants to purchase convertible preferred stock were automatically converted to warrants to purchase an equal number of shares of our Class B common stock. As a result, the warrants were remeasured a final time, immediately prior to the closing of the IPO, and reclassified to additional paid-in capital within stockholders' equity. Changes in the fair value were recorded within other expense, net on the consolidated statement of operations. As of December 31, 2019, the warrants were classified and recorded as additional paid-in capital on the condensed consolidated balance sheets.

In the three and six months ended June 30, 2020, the remainder Class B common stock warrants related to the previously outstanding subordinated debt and loan agreements were fully exercised under the cashless exercise method pursuant to the corresponding warrant agreements. As a result of such exercises, we issued 144,635 shares of our Class B common stock and there were no remaining outstanding common stock warrant liabilities as of June 30, 2020.

12. Net Loss Per Share Attributable to Common Stockholders

We compute net loss per share using the two-class method required for multiple classes of common stock and participating securities. Class A and Class B common stock are the only outstanding equity of the Company. The rights of the holders of the Class A common stock and Class B common stock are identical, except with respect to voting and conversion. Each share of Class A common stock is entitled to one vote per share and each share of Class B common stock is entitled to 10 votes per share. Shares of Class B common stock may be converted into Class A common stock at any time at the option of the stockholder on a one-for-one basis, and are automatically converted into Class A common stock upon sale or transfer, subject to certain limited exceptions. Shares of Class A common stock are not convertible. Accordingly, the Class A common stock and Class B common stock share equally in our net losses. Prior to the IPO, our participating securities also included convertible preferred stock. The holders of convertible preferred stock did not have a contractual obligation to share in our losses, and as a result, net losses were not allocated to these participating securities.

On July 12, 2021, the shares of Class B common stock that converted to Class A common stock were retired and will not be reissued by us. Accordingly, our net loss per share will no longer be computed using a two-class method, but instead a single class share method subsequent to this date.

The following table sets forth the calculation of basic and diluted net loss per share attributable to common stockholders during the periods presented. The shares issued in the IPO, the shares issued pursuant to the exercise by the underwriters of an option to purchase additional shares, and the shares of Class A and Class B common stock issued upon conversion of the outstanding shares of convertible preferred stock in the IPO are included in the table below, weighted for the period outstanding:

	Three months ended June 30,				Six months ended June 30,			
	2021		2020		2021		2020	
	Class A(1)	Class B(2)	Class A(1)	Class B(2)	Class A(1)	Class B(2)	Class A(1)	Class B(2)
	(in thousands, except per share amounts)							
Net loss attributable to common stockholders	$ (53,339)	$ (4,956)	$ (11,595)	$ (2,865)	$ (99,511)	$ (9,467)	$ (19,680)	$ (6,770)
Weighted-average shares used in computing net loss per share attributable to common stockholders, basic and diluted	105,522	9,804	80,056	19,779	104,766	9,967	72,633	24,985
Net loss per share attributable to common stockholders, basic and diluted	$ (0.51)	$ (0.51)	$ (0.14)	$ (0.14)	$ (0.95)	$ (0.95)	$ (0.27)	$ (0.27)

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(1) Class A common stock includes the issuance of 12.9 million shares of Class A common stock issued by us in connection with our IPO and the shares issued in connection with our follow-on offering on May 26, 2020. It also includes shares issued upon the exercise of options and vesting of RSUs granted subsequent to our IPO, shares issued as part of our prior acquisitions, and converted Common B shares.

(2) Class B common stock includes, for all periods presented, common stock issued prior to the IPO and the conversion of all of our preferred stock into an aggregate of 53.6 million shares of our Class B common stock upon closing of the IPO. Some of these shares have subsequently been converted into shares of Class A common stock.

Since we were in a loss position for the periods presented, basic net loss per share is the same as diluted net loss per share, as the inclusion of all potential common shares outstanding would have been anti-dilutive. We apply the if-converted method for calculation of diluted earnings per share for our convertible debt instruments. The potential shares of common stock that were excluded from the computation of diluted net loss per share attributable to common stockholders for the period presented because including them would have been antidilutive are as follows:

	Number of Shares As of June 30,	
	2021	2020
	(in thousands)	
Stock options	5,750	8,330
RSUs	4,737	5,166
PSUs	109	88
Revest shares	560	—
Early exercised stock options	62	135
Shares issuable pursuant to the ESPP	23	28
Convertible senior notes (if-converted)	9,229	—
Total	20,470	13,747

13. Income Taxes

Our provision for income taxes for interim periods is determined using an estimate of our annual effective tax rate, adjusted for discrete items, if any, that arise during the period. Each quarter, we update our estimate of the annual effective tax rate, and if the estimated annual effective tax rate changes, we make a cumulative adjustment in such period.

In the three months ended June 30, 2021 and 2020, we recorded income tax benefit of $0.2 million and $0.0 million, respectively. In the six months ended June 30, 2021 and 2020, we recorded income tax expenses of $0.0 million and $0.8 million, respectively.

We continue to maintain a full valuation allowance on our U.S. Federal and state net deferred tax assets. The tax expense for the three and six months ended June 30, 2021 and 2020 was primarily due to foreign and state income tax expense.

14. Information About Revenue and Geographic Areas

We consider operating segments to be components of the Company in which separate financial information is available and is evaluated regularly by our Chief Operating Decision Maker ("CODM") in deciding how to allocate resources and in assessing performance. Our CODM is the Chief Executive Officer ("CEO"). The CEO reviews financial information presented on a consolidated basis, accompanied by information about revenue, customer size, and industry vertical for purposes of allocating resources and evaluating financial performance.

We have determined that we operate under one business unit with no segment managers who are held accountable for operations, operating results, or plans for levels or components below the consolidated unit level. Accordingly, we have determined that we have a single reporting segment and operating unit structure.

Revenue

Revenue by geography is based on the billing address of the customer. Refer to Note 3, "Revenue" for more information on net revenue by geographic region.

Long-Lived Assets

The following table presents long-lived assets by geographic region:

	As of June 30, 2021	As of December 31, 2020
	(in thousands)	
United States	$ 79,890	$ 65,054
All other countries	36,581	30,925
Total long-lived assets	$ 116,471	$ 95,979

15. Subsequent Events

On October 12, 2020, the outstanding shares of our Class B common stock represented less than 10% of the aggregate number of shares of the then outstanding Class A common stock and Class B common stock. As a result, all our outstanding shares of Class B common stock automatically converted into the same number of shares of Class A common stock on July 12, 2021, pursuant to the terms of our amended and restated certificate of incorporation (the "Certificate"). In accordance with the Certificate, the shares of Class B common stock that converted to Class A common stock were retired and will not be reissued by us.

ITEM 2. MANAGEMENT’S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS

You should read the following discussion and analysis of our financial condition and results of operations together with the condensed consolidated financial statements and related notes that are included elsewhere in this Quarterly Report on Form 10-Q. This discussion contains forward-looking statements based upon current plans, expectations, and beliefs that involve risks and uncertainties. Our actual results may differ materially from those anticipated in these forward-looking statements as a result of various factors, including those set forth under “Risk Factors” and in other parts of this Quarterly Report on Form 10-Q. Our fiscal year ends on December 31.

As used herein, "Fastly," "we," "our," "the Company" and similar terms include Fastly, Inc. and its subsidiaries, unless the context indicates otherwise.

Overview

Developers are reinventing the way we live, work, and play online. Yet they repeatedly encounter innovation barriers when delivering modern digital experiences. Expectations for digital experiences are at an all-time high; they must be fast, secure, and highly personalized. If they aren’t reliable, end-users simply take their business elsewhere. The challenge today is enabling developers to deliver a modern digital experience while simultaneously providing scale, security, and performance. We built our edge cloud platform to solve this problem.

The edge cloud is an emerging category of Infrastructure as a Service ("IaaS") that enables developers to build, secure, and deliver digital experiences, at the edge of the internet. This service represents the convergence of the Content Delivery Network ("CDN") with functionality that has been traditionally delivered by hardware-centric appliances such as Application Delivery Controllers ("ADC"), Web Application Firewalls ("WAF"), Bot Detection, and Distributed Denial of Service ("DDoS") solutions. It also includes the emergence of a new, but growing, edge computing market which aims to move compute power and logic as close to the end-user as possible. The edge cloud uses the emerging cloud computing, serverless paradigm in which the cloud provider runs the server and dynamically manages the allocation of machine resources. When milliseconds matter, processing at the edge is an ideal way to handle highly dynamic and time-sensitive data. The edge cloud complements data center, central cloud, and hybrid solutions.

Our mission is to fuel the next modern digital experience by providing developers with a programmable and reliable edge cloud platform that they adopt as their own.

Organizations must keep up with complex and ever-evolving end-user requirements. We help them surpass their end-users’ expectations by powering fast, secure, and scalable digital experiences. We built a powerful edge cloud platform, designed from the ground up to be programmable and support agile software development. We believe our platform gives our customers a significant competitive advantage, whether they were born into the digital age or are just embarking on their digital transformation journey. Our platform consists of four key components: a programmable edge, a software-defined modern network, safety in depth, and a philosophy of customer empowerment. Our programmable edge provides developers with real-time visibility and control, where they can write and deploy code in a serverless environment and to push application logic to the edge. It supports modern application delivery processes, freeing developers to innovate without constraints. Our software-defined modern network is built for the software-defined future. It is powerful, efficient, and flexible, designed to enable us to rapidly scale to meet the needs of the most demanding customers and never be a barrier to their growth. Our 145 terabit software-centric network is located across 61 markets as of June 30, 2021. We define markets as unique metropolitan areas where we have one or more Points of Presence ("POPs"). Our safety in depth approach integrates security into multiple layers of development: architecture, engineering, and operations. That's why we invest in building security into the fabric of our platform, alongside performance. We provide developers and security operations teams with a fast, safe environment to create, build, and run modern applications.

Our platform provides developers and security operations teams with solutions that foster innovation without impacting performance. Finally, being developers ourselves, we empower customers to build great things while supporting their efforts through frictionless tools and a deeply technical support team that facilitates ongoing collaboration.

We serve both established enterprises, mid-market companies and technology-savvy organizations. Our customers represent a diverse set of organizations across many industries with one thing in common: they are competing by using the power of software to build differentiation at the edge. With our edge cloud platform, our customers are disrupting existing industries and creating new ones. For example, several of our customers have reinvented digital publishing by connecting readers through subscription models to indispensable content, helping people understand the world through deeply reported independent journalism. Our customers' software applications use our edge cloud platform to deliver consistently excellent experiences, such as online shopping, fast and more secure financial transactions, and broadcast quality live streaming on any device. The range of applications that developers build with our edge cloud platform continues to expand rapidly.

So where do we go from here? Our vision is to create a trustworthy internet, where good thrives. We want all developers to have the ability to deliver the next transformative digital experience on a global scale. And because big ideas often start small, we love it when developers experiment and iterate on our edge cloud platform, coming up with exciting new ways to solve today's complex problems.

We generate substantially all of our revenue from charging our customers based on their usage of our platform. Initially, customers typically choose to become platform customers, for which we charge fees based on their committed or actual use of our platform, as measured in gigabytes and requests. Many of our customers generate billings in excess of their minimum commitment. We also generate revenue from additional products as well as professional and other services, such as implementation. We charge a flat one-time or recurring fee for these additional products and services. In the fourth quarter of 2020, we also began offering subscriptions to access a unified security web application and application programming interface at a fixed rate.

We focus our direct selling efforts on medium to large organizations as well as smaller companies that are exhibiting significant growth. We engage with and support these customers with our field sales representatives, account managers, and technical account managers who focus on customer satisfaction and drive expansion of their usage of our platform and products. These teams work with technical and business leaders to help our customers' end-users receive the best possible digital experience, while also lowering our customers' total cost of ownership.

We are continuing to bring new innovations to our edge cloud platform and software-defined modern network architecture, and are seeing an increased interest from customers in our programmable edge computing solution. The success of these direct selling efforts is reflected by our 408 enterprise customers, as of June 30, 2021 that generated 89% of our total revenue for the trailing 12 months ended June 30, 2021. These enterprise customers are defined as customers with revenue in excess of $100,000 over the previous 12-month period. Legacy Signal Sciences customers are counted as enterprise customers if they have had revenue in excess of $75,000 during the previous 9-month period, since the closing of the Signal Sciences acquisition on October 1, 2020 (see Note 5).

Our usage-based revenue grows as our customers' websites and applications deliver, process, and protect more traffic, as they adopt more features of our edge platform and as they more broadly adopt our platform across their organizations. A meaningful indicator of the increased activity from our existing customers is our Dollar-Based Net Expansion Rate ("DBNER"), Net Retention Rate ("NRR") and Last-Twelve Months Net Retention Rate ("LTM NRR"), metrics used in measuring the revenue growth from existing customers attributed to increased usage of our platform and purchase of additional services.

Our DBNER was 126.2% and 137.4% for the trailing 12 months ended June 30, 2021 and 2020, respectively. Our NRR was 93.2% and 137.8% for the trailing twelve months ended June 30, 2021 and 2020, respectively. Our LTM NRR was 120.7% and 135.6% for the trailing 12 months ended June 30, 2021 and 2020, respectively. We believe the LTM NRR is supplemental as it removes some of the volatility inherent in a usage-based business model from the measurement of the NRR metric.

Customers that have negotiated contracts with us generate a substantial majority of our revenue. These customers typically purchase one or more products, for which we charge a monthly recurring or one-time fee depending on the products selected. Some of these customers also choose to purchase various levels of account management and enhanced customer support for a monthly fee. Typically, the term of these contracts is 12 months and includes a minimum monthly billing commitment in exchange for more favorable pricing terms. Many of these customers generate billings in excess of their minimum commitment. In addition, customers can sign up online by providing their credit card information and agreeing to a minimum monthly fee. Beginning in the fourth quarter of 2020, we also offer subscriptions to access a unified security web application and application programming interface at a fixed rate.

The timing of new revenue from our sales efforts is difficult to predict. The length of our sales cycle, from initial evaluation to payment, can range from several months to well over a year and can vary substantially from customer to customer. Similarly, the onboarding and ramping process with new enterprise customers can take several months, as well as existing enterprise customers with new business, can take several months and can be subject to delays for unanticipated reasons.

We have achieved significant growth in recent periods. For the three months ended June 30, 2021 and 2020, our revenue was $85.0 million and $74.7 million, respectively, an increase of 14%. For the six months ended June 30, 2021 and 2020, our revenue was $169.9 million and $137.6 million, respectively, an increase of 23%. Our 10 largest customers generated an aggregate of 35% and 31% of our revenue in the trailing 12 months ended June 30, 2021 and 2020, respectively. For the three months ended June 30, 2021 and 2020, we incurred a net loss of $58.3 million and $14.5 million, respectively. For the six months ended June 30, 2021 and 2020, we incurred a net loss of $109.0 million and $26.5 million, respectively.

Recent Events

Departure and Appointment of Principal Financial Officer

On May 5, 2021, we announced that Adriel Lares will step down from his office as our Chief Financial Officer. On June 29, 2021, we announced that Ronald W. “Ron” Kisling, age 60, has been appointed to serve as our Chief Financial Officer. Mr. Kisling will begin serving as our Chief Financial Officer effective August 9, 2021. Until that time, Adriel Lares will remain in his position as our Chief Financial Officer.

Conversion of dual class common stock structure

On October 12, 2020, the outstanding shares of our Class B common stock represented less than 10% of the aggregate number of shares of the then outstanding Class A common stock and Class B common stock. As a result, all our outstanding shares of Class B common stock automatically converted into the same number of shares of Class A common stock on July 12, 2021, pursuant to the terms of our amended and restated certificate of incorporation (the "Certificate"). Upon the conversion, outstanding options denominated in shares of Class B common stock issued under any of our equity incentive plans remained unchanged, except that they now represent the right to receive shares of Class A common stock. In accordance with the Certificate, the shares of Class B common stock that converted to Class A common stock were retired and will not be reissued by us.

Factors Affecting Our Performance

Winning New Customers

We are focused on continuing to attract new customers. Our customer base includes both large, established enterprises that are undergoing digital transformation and emerging companies spanning a wide array of industries and verticals. In both instances, developers within these companies often use and advocate the adoption of our platform by their companies. We also benefit from word-of-mouth promotion across the broader developer community. We will continue to invest in our developer outreach, leveraging it as a cost-efficient approach to attracting new customers. With our newly expanded security portfolio from the acquisition of Signal Sciences at the end of 2020 and our edge computing capabilities, we will increase our focus on brand awareness, public relations and analyst relations in efforts to help generate awareness and demand for these offerings. We also plan to dedicate significant resources to sales and marketing programs, including various online marketing activities as well as targeted account-based advertising. This will require us to dedicate significant resources to further develop the market for our platform and differentiate our platform from competitive products and services. We will also need to expand, retain, and motivate our sales and marketing personnel in order to target our sales efforts at larger enterprises and senior management of these potential customers.

The uncertainty surrounding the EU-US Privacy Shield framework, which was invalidated by the Court of Justice of the EU in July 2020, could impact customer growth and acquisition for customers and potential customers conducting business in Europe. We have encountered and may continue to encounter heightened concerns relating to privacy from customers and potential customers conducting business in Europe since the invalidation of the EU-US Privacy Shield framework. Specifically, we have received more requests relating to EU privacy requirements, impacting the sales negotiation process, and had potential customers decline to do business with us due to privacy concerns related to updated interpretations of the laws applicable to transfers of personal data to the United States. For additional details, refer to the section titled "Risk Factors."

In addition, on June 8, 2021, we experienced a global platform outage due to an undiscovered software bug caused by human error. The outage was triggered by a valid customer configuration change and could influence potential customers' buying decisions.

Expanding within our Existing Customer Base

We emphasize retaining our customers and expanding their usage of our platform and adoption of our other products. Customers often begin with smaller deployments of our programmable edge platform and then expand their usage over time. In addition, our programmable edge platform includes a variety of other offerings, such as load balancing, shielding, web security, and WAF. As our customers mature, we assist them in expanding their use of our platform, including the use of additional offerings beyond edge cloud delivery. As enterprises grow and experience increased traffic, their needs evolve, leading them to find additional use cases for our platform and expand their usage accordingly. In addition, given that customer acquisition costs are incurred largely for acquiring and initial onboarding, we gain operating leverage to the extent that existing customers expand their use of our platform and products.

Our ability to retain our customers and expand their usage could be impaired for a variety of reasons, including a customer moving to another provider or reducing usage within the term of their contract to their minimum usage commitment. Even if our customers expand their usage of our platform, we cannot guarantee that they will maintain those usage levels for any meaningful period of time or that they will renew their commitments. For example, on June 8, 2021, we experienced a global platform outage due to an undiscovered software bug caused by human error. The outage was triggered by a valid customer configuration change and has resulted in customers reducing or removing traffic from our platform and service level agreement claims.

In addition, we cannot be certain what actions the U.S. or another country's government may take with respect to certain of our customers that may adversely affect our ability to do business with our customers that operate in other countries, target those countries as a market or that have strong business ties to such countries. For example, our largest customer during the year ended December 31, 2020 has strong business ties to China and significantly reduced its usage of our platform in the later part of 2020. We believe this was in response to various actions taken by the U.S. and other governments against them. Further reductions in this, or other, customer's traffic levels could have an additional negative impact on our business.

For additional details, refer to the section titled "Risk Factors."

International Customer Growth

We intend to continue expanding our efforts to attract customers outside of the United States by augmenting our sales teams and strategically increasing our presence in the number of markets in select international locations. As of June 30, 2021, our edge network spans across 42 markets and 27 countries that are outside of the United States. As of December 31, 2020, our edge network spans across 40 markets and 25 countries that are outside of the United States.

Our international expansion, including our global sales efforts, will add increased complexity and cost to our business. This will require us to significantly expand our sales and marketing capabilities outside of the United States, as well as increase the number of markets we have a presence in around the world to support our customers. We have limited experience managing the administrative aspects of a global organization, and we have only recently begun to establish and operate offices in foreign countries, which could place a strain on our business and culture.

Investing in Sales and Marketing

Our customers have been pivotal in driving brand awareness and broadening our reach. While we continue to leverage our self-service approach to drive adoption by developers, we intend to continue to expand our sales and marketing efforts, with an increased focus on sales to enterprises globally. Utilizing our direct sales force, we have multiple selling points within organizations to acquire new customers and increase usage from our existing customers. We intend to increase our discretionary marketing spend, including account based and brand spend, to drive the effectiveness of our sales teams. As a result, we expect our total operating expenses to increase as we continue to expand. Our investments in our sales and marketing teams are intended to help accelerate our sales, onboarding, and ramp cycles.

These efforts will require us to invest significantly in financial and other resources. Furthermore, we believe that there is significant competition for sales personnel with the skills and technical knowledge that we require. Our ability to achieve significant revenue growth will depend, in large part, on our success in recruiting, training, and retaining sufficient numbers of sales personnel to support our growth.

Continued Investment in Our Platform and Network Infrastructure

We must continue to invest in our platform and network infrastructure to maintain our position in the market. We expect our revenue growth to be dependent on an expanding customer base and continued adoption of our edge cloud platform. In anticipation of winning new customers and staying ahead of our customers' needs, we plan to continue to invest in order to expand the scale and capacity of our software-defined modern network, resulting in increased network service provider fees, which could adversely affect our gross margins if we are unable to offset these costs with revenue from new customers and increase revenue from existing customers. Our suppliers have been impacted by the COVID-19 pandemic, which has reduced the availability of or resulted in delays, and may continue to reduce the availability or result in delays, of most of the parts and components needed to construct our servers. In addition, supplier production constraints as well as third parties making large quantity purchases have impacted, and may continue to impact, our ability to procure a sufficient quantity of the same parts and components required to construct our servers. Any such delays or shortages could interrupt our ability to complete the construction of our servers to meet the usage needs of our customers.

Our customers require constant innovation within their own organizations and expect the same from us. Therefore, we will continue to invest in resources to enhance our development capabilities and introduce new products and features on our platform. We believe that investment in research and development will contribute to our long-term growth but may also negatively impact our short-term profitability. For the three and six months ended June 30, 2021, our research and development expenses as a percentage of revenue was 36% and 35%, respectively. We may also seek to acquire or invest in businesses, products, or technologies that we believe could complement or expand our platform, enhance our technical capabilities, or otherwise offer growth opportunities. For example, towards the end of 2020, we acquired Signal Sciences, a security software company that provides protection from web, API, and mobile security threats, expanding our security portfolio.

Developers use our platform to build custom applications and require a state-of-the-art infrastructure to test and run these applications. We will continue to invest in our network infrastructure by strategically increasing our POPs. We also anticipate making investments in upgrading our technology and hardware to continue providing our customers a fast and secure platform. Our total investment in property and equipment for the three and six months ended June 30, 2021 was $4.6 million and $13.7 million, representing 5% and 8% of our revenue in the period, respectively. We expect our investment in property and equipment to increase on an absolute basis and may increase as a percentage of revenue in future periods. Our gross margins and operating results are impacted by these investments. As of June 30, 2021, our network is located in 61 markets across 28 countries.

In the event that there are errors in software, failures of hardware, damages to a facility or misconfigurations of any of our services—whether caused by our products, third-party error, our own error, natural disasters, or security breaches—we could experience lengthy interruptions in our platform as well as delays and additional expenses in arranging new facilities and services. For example, on June 8, 2021, we experienced a global platform outage due to an undiscovered software bug caused by human error. The outage was triggered by a valid customer configuration change and has resulted in customers reducing or removing traffic from our platform and service level agreement claims. Within 49 minutes, 95% of our network was operating as normal. In addition, there can be no assurance that we are adequately prepared for unexpected increases in bandwidth demands by our customers, particularly when customers experience cyber-attacks. The bandwidth we have contracted to purchase may become unavailable for a variety of reasons, including service outages, payment disputes, network providers going out of business, natural disasters, networks imposing traffic limits, or governments adopting regulations that impact network operations.

Uncertainty of the Coronavirus (COVID-19) Pandemic

The ongoing global COVID-19 pandemic has adversely impacted, and may continue to adversely impact, many aspects of our business. As certain of our customers or potential customers experience downturns or uncertainty in their own business operations and revenue resulting from the spread of COVID-19, they have and may continue to decrease or delay their technology spending, request pricing concessions or payment extensions, or seek renegotiation of their contracts. In addition, a portion of our revenue is related to usage of our platform in connection with live events, such as sporting events, that have continued to be impacted. Usage of our platform fluctuated following the implementation of preventative measures to contain or mitigate the outbreak of COVID-19, and we cannot predict how usage levels will continue to be impacted by these preventative measures. There is no assurance that customers will continue to use our platform, or to the same extent, as the COVID-19 pandemic begins to taper off or when it has ended. As a result, it has been difficult to accurately forecast our revenues or financial results, especially given that the near and long term impacts of the pandemic remains uncertain. Our results of operations could be materially above or below our forecasts, which could adversely affect our results of operations, disappoint analysts and investors, and/or cause our stock price to decline.

In response to the COVID-19 pandemic, many state, local, and foreign governments have put in place restrictions in order to control the spread of the disease. Such restrictions, or the perception that further restrictions could occur, have resulted in business closures, work stoppages, slowdowns and delays, work-from-home policies, travel restrictions, and cancellation or postponement of events, among other effects that impacted productivity and disrupted our operations and those of our partners and customers. For example, we experienced delays in the ramping of new traffic due to travel and data center restrictions in South Asia that delayed network build outs and the timing of customer code freezes, each affected in part due to COVID-19-related issues. In addition, our suppliers have been impacted by the COVID-19 pandemic, which has reduced the availability or resulted in delays, and may continue to reduce the availability or result in delays, of most of the parts and components needed to construct our servers. In March 2020, we closed all of our offices, suspended non-essential travel, cancelled or postponed Fastly-sponsored in-person events, and we are not permitting in-person employee attendance at industry events or work-related meetings. We have instead shifted to hosting virtual events, including Altitude, our signature Fastly event. We may take further actions that alter our operations as may be required by federal, state, or local authorities, or which we determine are in our best interests. While much of our operations can be performed remotely, certain activities such as expanding and maintaining our network of POPs around the world often require personnel to be on-site, and our ability to carry out these activities have been, and may continue to be negatively impacted if our employees or local data center personnel are not able to travel. In addition, travel restrictions have affected our ability to conduct audits of our data centers and facilities, requiring us to use alternative procedures to the standard on-site visit. Any inability to complete these audits could affect our compliance certifications and cause customers to reduce or cease using our services. In addition, for activities that may be conducted remotely, there is no guarantee that we will be as effective while working remotely because our team is dispersed and many employees and their families have been negatively affected, mentally or physically, by the COVID-19 pandemic. Decreased effectiveness and availability of our team could adversely affect our results due to slow-downs in our sales cycles and our customer ramping and onboarding process, delays in recruiting and onboarding efforts, delays in our entry into customer contracts, delays in addressing performance issues, delays in product development, delays and inefficiencies among various operational aspects of our business, including our financial organization, or other decreases in productivity that could seriously harm our business. Moreover, our finance organization’s ability to ensure that we comply with the requirements of Section 404 may be impaired in the future, including the ability of our registered public accounting firm to issue an attestation report on management’s assessment of our internal control over financial reporting. Furthermore, we may decide to postpone or cancel planned investments in our business in response to changes in our business as a result of the spread of COVID-19, which may impact our ability to attract and retain customers and our rate of innovation, either of which could harm our business.

In addition, while the potential impact and duration of the COVID-19 pandemic on the global economy and our business in particular may be difficult to assess or predict, the pandemic has resulted in, and may continue to result in, significant disruption of global financial markets, and may reduce our ability to access additional capital, which could negatively affect our liquidity in the future.

We do not yet know the full extent of potential delays or impacts on our business, operations, or the global economy as a whole. While there have recently been vaccines developed and administered, and the spread of COVID-19 may eventually be contained or mitigated, we cannot predict the timing of the vaccine roll-out globally or the efficacy of such vaccines, including against variants that emerge, and we do not yet know how businesses, customers, or our partners will operate in a post COVID-19 environment. There may be additional costs or impacts to our business and operations, including when we are able to return to our offices and resume in-person activities, travel, and events. In addition, there is no guarantee that a future outbreak of this or any other widespread epidemics will not occur, or that the global economy will recover, either of which could harm our business.

For additional details, refer to the section titled "Risk Factors."

Key Business Metrics

We regularly review a number of metrics, including the key metrics presented in the table below, to evaluate our business, measure our performance, identify trends affecting our business, prepare financial projections, and make strategic decisions. The calculation of the key metrics and other measures discussed below may differ from other similarly titled metrics used by other companies, securities analysts, or investors. The results of Signal Sciences have been consolidated into our financial results and our key metrics as of June 30, 2020 and for the six months ended June 30, 2021.

	June 30,	
	2021	2020
Number of customers (as of end of period)	2,581	1,951
Number of enterprise customers (as of end of period)	408	304
Dollar-Based Net Expansion Rate ("DBNER") (trailing 12 months)	126.2 %	137.4 %
NRR (as of end of period)	93.2 %	137.8 %
LTM NRR (trailing 12 months)	120.7 %	135.6 %

Number of Customers

We believe that the number of customers is an important indicator of the adoption of our platform. Our definition of a customer consists of identifiable operating entities with which we have a billing relationship in good standing and from which we recognized revenue during the period. An identifiable operating entity is defined as a company, a government entity, or a distinct business unit of a larger company that has a relationship with Fastly through direct sale or through one of our reseller partners where charges are identified on an end-customer basis. In cases where charges are identified through a reseller partner rather than on an end-customer basis, we record a single customer record for the reseller partner. Our customer groupings may be impacted by changes to our customers' business, including any impact from merger and acquisition activities, internal business reorganizations leading to operational and decision making changes, and corporate structure changes such as subsidiary consolidation and reorganization that may arise in the future. In addition to our paying customers, we also have trial, developer, nonprofit and open source program, and other non-paying accounts that are excluded from our customer count metric. As of June 30, 2021 and 2020, we had 2,581 and 1,951 customers, respectively.

Number of Enterprise Customers

Historically our revenue has been driven primarily by a subset of customers who have leveraged our platform substantially from a usage standpoint. These enterprise customers are defined as customers with revenue in excess of $100,000 over the previous 12-month period. Legacy Signal Sciences customers are counted as enterprise customers if they have had revenue in excess of $75,000 during the previous 9-month period, since the closing of the Signal Sciences acquisition on October 1, 2020 (Note 5). As of June 30, 2021, we had 408 enterprise customers which generated 89% of our revenue for the trailing 12 months ended June 30, 2021. As of June 30, 2020, we had 304 enterprise customers which generated 90% of our revenue for the trailing 12 months ended June 30, 2020. We believe the recruitment and cultivation of enterprise customers is critical to our long-term success.

Dollar Based Net Expansion Rate ("DBNER")

Our ability to generate and increase our revenue is dependent upon our ability to increase the number of new customers and usage of our platform and increase the purchase of additional products by our existing customers. We track our growth, in part, by measuring our DBNER. Our DBNER increases when customers increase their usage of our platform or purchase additional products, and declines when they reduce their usage, benefit from lower pricing on their existing usage, or curtail their purchases of additional products. We believe DBNER is a key metric in measuring the long-term value of our customer relationships and our ability to grow our revenue through increased usage of our platform and purchase of additional products by our existing customers. However, our calculation of DBNER indicates only expansion among continuing customers and does not indicate any decrease in revenue attributable to former customers, which may differ from similar metrics of other companies.

We calculate DBNER by dividing the revenue for a given period from customers who remained customers as of the last day of the given period ("current period") by the revenue from the same customers for the same period measured one year prior ("base period"). The revenue included in the current period excludes revenue from (i) customers that churned after the end of the base period and (ii) new customers that entered into a customer agreement after the end of the base period. For example, to calculate our DBNER for the trailing 12 months ended June 30, 2021, we divide (i) revenue, for the trailing 12 months ended June 30, 2021, from customers that entered into a customer agreement on or before June 30, 2020 , and that remained customers as of June 30, 2021, by (ii) revenue, for the trailing 12 months ended June 30, 2020, from the same set of customers.

For the trailing 12 months ended June 30, 2021 and 2020 our DBNER was 126.2% and 137.4%, respectively. We believe that an annual cohort analysis of our customers demonstrates our success in customer expansion. Once a customer begins to generate revenue for us, they tend to increase their usage of our platform, in particular in their second year. Customer accounts acquired in 2018, 2019, and 2020 are referred to as the 2018 Cohort, 2019 Cohort, and 2020 Cohort respectively. As described above, our customers tend to increase their usage of our platform in their second year, which is typically followed by more modest increases in usage, if any, in ensuing years. For example, the DBNER for the 2018 Cohort was 310.6% for the year ended December 31, 2019. However, the DBNER for the 2018 Cohort was 163.2% for the year ended December 31, 2020, which generally represents their third year as a customer, depending on when they entered into a customer agreement. While DBNER may fluctuate from quarter to quarter based on, among other things, the timing associated with new customer accounts, we expect our DBNER to decrease as customers that have used our platform for more than two years become a larger portion of both our overall customer base and the revenue that we use to calculate DBNER.

Net Retention Rate ("NRR") and Last-Twelve Months Net Retention Rate ("LTM NRR")

Our ability to generate and increase our revenue is also dependent upon our ability to retain our existing customers. In addition to measuring expansion using DBNER, NRR and LTM NRR also allow us to track customer retention which demonstrates the stickiness of our edge cloud platform.

Our NRR measures the net change in monthly revenue from existing customers in the last month of the period (the “current" period month) compared to the last month of the same period one year prior (the “prior" period month), and includes revenue contraction due to billing decreases or customer churn, revenue expansion due to billing increases, but excludes revenue from new customers. We believe the LTM NRR is supplemental as it removes some of the volatility inherent in a usage-based business model from the measurement of the NRR metric. We calculate Net Retention Rate by dividing the revenue from the current period month by the revenue in the prior period month. For the last month of the quarters ended June 30, 2021 and 2020 our NRR was 93.2% and 137.8%, respectively.

Our LTM NRR is intended to be supplemental to our NRR as we believe that it removes some of the volatility that is inherent in a usage-based business model. We calculate LTM NRR by dividing the total customer revenue for the prior twelve-month period (“prior 12-month period”) ending at the beginning of the last twelve-month period (“LTM period”) minus revenue contraction due to billing decreases or customer churn, plus revenue expansion due to billing increases during the LTM period from the same customers by the total prior 12-month period revenue. For the last month of the quarters ended June 30, 2021 and 2020 our LTM NRR was 120.7% and 135.6%, respectively.

Key Components of Statement of Operations

Revenue

We derive our revenue primarily from usage-based fees earned from customers using our platform. We also earn fixed-rate recurring revenue from certain products, services and subscriptions, including revenue from Signal Sciences customers.

Our usage-based fees earned from customers are generally billed in arrears. Our security products are primarily annual subscriptions that are billed in advance. Many customers have tiered usage pricing which reflects discounted rates as usage increases. For most contracts, usage charges are determined on a monthly basis based on actual usage within the month and do not impact usage charges within any other month. Our larger customers often enter into contracts that contain minimum billing commitments and reflect discounted pricing associated with such usage levels.

We define U.S. revenue as revenue from customers that have a billing address in the United States, and we define international revenue as revenue from customers that have a billing address outside of the United States. Our revenue has been and will continue to be impacted by new and existing customers’ usage of our products, international expansion, and the success of our sales efforts.

Cost of Revenue and Gross Margin

Cost of revenue consists primarily of fees paid for bandwidth, peering, and colocation. Cost of revenue also includes personnel costs, such as salaries, benefits, bonuses, and stock-based compensation for our customer support and infrastructure employees, and non-personnel costs, such as amortization of capitalized internal-use software development costs and depreciation of our network equipment and amortization of certain intangible assets. Our arrangements with network service providers require us to pay fees based on bandwidth use, in some cases subject to minimum commitments, which may be underutilized. We expect our cost of revenue to continue to increase on an absolute basis and may increase as a percentage of revenue, including as a result of depreciation and amortization associated with capital expenditures as well as amortization of any acquired intangibles and technology in future periods.

Our gross margin has been and will continue to be affected by a number of factors, including the timing and extent of our investments in our operations, our ability to manage our network service providers and cloud infrastructure-related fees, the timing of amortization of capitalized software development costs, depreciation of our network equipment, and the extent to which we periodically choose to pass on our cost savings from network optimization efforts to our customers in the form of lower usage rates.

Research and Development

Research and development expenses consist primarily of personnel costs, including salaries, benefits, bonuses, and stock-based compensation. Research and development expenses also include cloud infrastructure fees for development and testing, and an allocation of our general overhead expenses. We capitalize the portion of our software development costs that meet the criteria for capitalization.

We continue to focus our research and development efforts on adding new features and products including new use cases, improving the efficiency and performance of our network, and increasing the functionality of our existing products. Over the long term we expect our research and development expenses to decrease as a percentage of our revenue. However, our research and development expenses may fluctuate as a percentage of our revenue from period to period due to the timing and extent of these expenses and the impact of any acquisitions.

Sales and Marketing

Sales and marketing expenses consist primarily of personnel costs, including commissions for our sales employees, salaries, benefits, bonuses, and stock-based compensation. Sales and marketing expenses also include expenditures related to advertising, marketing, our brand awareness activities, costs related to our Altitude conferences, professional services fees, amortization of certain intangible assets, and an allocation of our general overhead expenses.

We focus our sales and marketing efforts on generating awareness of our company, platform and products, creating sales leads, and establishing and promoting our brand, both domestically and internationally. We plan to increase our investment in sales and marketing by hiring additional sales and marketing personnel, expanding our sales channels, driving our go-to-market strategies, building our brand awareness, and sponsoring additional marketing events. Over the long term, we expect our sales and marketing expenses to decrease as a percentage of our revenue. However, our sales and marketing expenses may fluctuate as a percentage of our revenue from period to period due to the timing and extent of these expenses and the impact of any acquisitions.

General and Administrative

General and administrative expenses consist primarily of personnel costs, including salaries, benefits bonuses, and stock-based compensation for our accounting, finance, legal, trust, human resources and administrative support personnel, and executives. General and administrative expenses also include costs related to legal and other professional services fees, sales and other taxes, depreciation and amortization, an allocation of our general overhead expenses, and bad debt expense and acquisition-related costs. We expect that we will incur costs associated with supporting the growth of our business, including future acquisitions. Additionally we expect that we will incur ongoing costs to support our operations as a public company and to meet the increased compliance requirements associated with our international expansion.

Our general and administrative expenses include a significant amount of sales and other taxes to which we are subject based on the manner we sell and deliver our products. Historically, we have not collected such taxes from our customers and have therefore recorded such taxes as general and administrative expenses. We expect that these expenses will decline in future years as we continue to implement our sales tax collection mechanisms and start collecting these taxes from our customers.

Overall, we expect our general and administrative expenses to continue to increase on an absolute basis and may increase as a percentage of revenue in future periods. Over the long term, we expect our general and administrative expenses to decrease as a percentage of our revenue.

Income Taxes

Our income tax expense consists primarily of income taxes in certain foreign jurisdictions where we conduct business and state minimum income taxes in the United States. We have a full valuation allowance on our U.S. Federal and state deferred tax assets, including net operating loss carryforwards. We expect to maintain this valuation allowance for the foreseeable future.

Other Income and Expense, net

Our interest income consists primarily of interest earned on our cash, cash equivalents and investments. Our interest expense consists primarily of contractual interest expense, amortization of discount and debt issuance costs associated with our debt obligations. Our other income (expense), net, consists primarily of our foreign currency transaction gains and losses.

Results of Operations

The following tables set forth our results of operations for the period presented:

	Three months ended June 30,		Six months ended June 30,	
	2021	2020	2021	2020
	(in thousands)			
Condensed Consolidated Statement of Operations:				
Revenue	$ 85,026	$ 74,663	$ 169,878	$ 137,587
Cost of revenue[1]	40,320	29,697	77,814	56,962
Gross profit	44,706	44,966	92,064	80,625
Operating expenses:				
Research and development[1]	30,346	16,655	59,334	30,953
Sales and marketing[1]	36,334	24,680	71,206	43,848
General and administrative[1]	35,494	18,069	68,955	32,238
Total operating expenses	102,174	59,404	199,495	107,039
Loss from operations	(57,468)	(14,438)	(107,431)	(26,414)
Interest income	276	378	450	1,097
Interest expense	(1,436)	(371)	(2,097)	(687)
Other income (expenses), net	178	(53)	114	349
Loss before income taxes	(58,450)	(14,484)	(108,964)	(25,655)
Income tax expense (benefit)	(155)	(24)	14	795
Net loss attributable to common stockholders	$ (58,295)	$ (14,460)	$ (108,978)	$ (26,450)

(1) Includes stock-based compensation expense as follows:

	Three months ended June 30,		Six months ended June 30,	
	2021	2020	2021	2020
	(in thousands)			
Cost of revenue	$ 1,828	$ 1,090	$ 3,014	$ 1,705
Research and development	8,634	4,053	16,592	5,724
Sales and marketing	5,631	7,076	10,639	8,559
General and administrative	17,333	4,062	34,019	6,622
Total	$ 33,426	$ 16,281	$ 64,264	$ 22,610

The following tables set forth our results of operations for the period presented as a percentage of our revenue:

	Three months ended June 30,		Six months ended June 30,	
	2021	2020	2021	2020
Condensed Consolidated Statements of Operations, as a percentage of revenue:*				
Revenue	100 %	100 %	100 %	100 %
Cost of revenue	47	40	46	41
Gross profit	53	60	54	59
Operating expenses:				
Research and development	36	22	35	22
Sales and marketing	43	33	42	32
General and administrative	42	24	41	23
Total operating expenses	120	80	117	78
Loss from operations	(68)	(19)	(63)	(19)
Interest income	—	1	—	1
Interest expense	(2)	—	(1)	—
Other income (expenses), net	—	—	—	—
Loss before income taxes	(70)	(18)	(64)	(18)
Income tax expense (benefit)	—	—	—	1
Net loss attributable to common stockholders	(69)%	(19)%	(64)%	(19)%

* Columns may not add up to 100% due to rounding.

Revenue

	Three months ended June 30,			Six months ended June 30,		
	2021	2020	Change	2021	2020	Change
	(in thousands)			(in thousands)		
Revenue	$ 85,026	$ 74,663	14 %	$ 169,878	$ 137,587	23 %

Revenue was $85.0 million for the three months ended June 30, 2021 compared to $74.7 million for the three months ended June 30, 2020, an increase of $10.3 million, or 14%. Revenue was $169.9 million for the six months ended June 30, 2021 compared to $137.6 million for the six months ended June 30, 2020, an increase of $32.3 million, or 23%. Revenue growth was driven by the acquisition of Signal Sciences and the further adoption of our modern edge platform and products and is net of the impact of purchase price accounting adjustments and customer credits issued related to our June outage.

We had 2,581 customers and 408 enterprise customers as of June 30, 2021, compared to 1,951 customers and 304 enterprise customers as of June 30, 2020. This represents an increase of 630, or 32%, in customers and 104, or 34%, in enterprise customers from June 30, 2020.

Approximately 93% and 94% of our revenue in the three and six months ended June 30, 2021 was driven by usage on our platform, respectively. Approximately 95% of our revenue for both the three and six months ended June 30, 2020 was driven by usage on our platform. Revenue was primarily from existing customers, as revenue from new customers contributed less than 10% of our revenue. The proportion of the revenue contribution between new and existing customers is consistent with prior periods and typical customer behavior as customers tend to contribute more revenue over time as their use of the platform increases. The remainder of our revenue was generated by our other products and services, including support and professional services.

U.S. revenue was $59.7 million or 70% of revenue for the three months ended June 30, 2021, compared to $46.0 million or 62% of revenue for the three months ended June 30, 2020. This represents an increase of $13.6 million, or 30%. International revenue was $25.4 million or 30% of revenue for the three months ended June 30, 2021, compared to $28.6 million or 38% of revenue for the three months ended June 30, 2020. This represents a decrease of $3.3 million, or 11%.

U.S. revenue was $122.4 million or 72% of revenue for the six months ended June 30, 2021, compared to $87.1 million or 63% of revenue for the six months ended June 30, 2020. This represents an increase of $35.4 million, or 41%. International revenue was $47.5 million or 28% of revenue for the six months ended June 30, 2021, compared to $50.5 million or 37% of revenue for the six months ended June 30, 2020. This represents a decrease of $3.0 million, or 6%.

We had 1,929 domestic customers and 652 international customers as of June 30, 2021. We recently changed our process for identifying the geographic location of our customers. This resulted in a shift in our customer count from international to domestic. Because this shift was primarily driven by our customers who signed up online and contribute a small proportion of our revenue, this change in customer count designation does not have a material impact on either the revenue split between domestic and international or our results of operations.

Cost of Revenue

	Three months ended June 30,			Six months ended June 30,		
	2021	2020	Change	2021	2020	Change
	(in thousands)			(in thousands)		
Cost of revenue	$ 40,320	$ 29,697	36 %	$ 77,814	$ 56,962	37 %

For the three and six months ended June 30, 2021 and 2020, our cost of revenue consisted of bandwidth, peering, and colocation fees, as well as personnel costs including salaries, benefits, bonuses, and stock-based compensation for employees who support the build out and operation of the network. Our cost of revenue also includes depreciation expense for network equipment, amortization of capitalized internal-use software, amortization of certain intangibles and other network costs.

Cost of revenue was $40.3 million for the three months ended June 30, 2021 compared to $29.7 million for the three months ended June 30, 2020, an increase of $10.6 million, or 36%. Depreciation and amortization expense increased by $4.8 million as we continue to invest in our platform, of which $2.5 million relates to an increase in amortization expense for intangible assets acquired in connection with the Signal Sciences acquisition. There was also a $1.7 million increase in personnel related costs, such as salaries, benefits, bonuses, and stock-based compensation, due to the increased headcount to support the growth of our business. In addition, the increase in cost of revenue is a result of an increase in colocation costs of $1.5 million, an increase in hosted data service and other SaaS costs of $1.4 million to support the increased traffic on our platform, and an increase in bandwidth costs of $1.1 million.

Cost of revenue was $77.8 million for the six months ended June 30, 2021 compared to $57.0 million for the six months ended June 30, 2020, an increase of $20.8 million, or 37%. Depreciation and amortization expense increased by $9.3 million as we continue to invest in our platform, of which $5.0 million relates to an increase in amortization expense for intangible assets acquired in connection with the Signal Sciences acquisition. There was also a $3.4 million increase in personnel related costs, such as salaries, benefits, bonuses, and stock-based compensation, due to the increased headcount to support the growth of our business. In addition, the increase in cost of revenue is a result of an increase in colocation costs of $3.0 million, an increase in bandwidth costs of $3.0 million and an increase in hosted data service and other SaaS costs of $2.2 million to support the increased traffic on our platform.

Gross Profit and Gross Margin

	Three months ended June 30,			Six months ended June 30,		
	2021	2020	Change	2021	2020	Change
	(in thousands)			(in thousands)		
Gross profit	$ 44,706	$ 44,966	(1)%	$ 92,064	$ 80,625	14 %
Gross margin	53 %	60 %	(7)%	54 %	59 %	(5)%

Gross profit was $44.7 million for the three months ended June 30, 2021 compared to $45.0 million for the three months ended June 30, 2020, a decrease of $0.3 million, or 1%. Gross margin was 53% for the three months ended June 30, 2021 compared to 60% for the three months ended June 30, 2020, a decrease of 7%. The decrease in gross margin reflects an increase in costs due to our continued investment in infrastructure and capacity and the return to traditional seasonal usage patterns as compared to the increased traffic experienced in the prior year due to the onset of the COVID pandemic. The decline in gross margin also reflects the impact of the amortization of intangible assets and other purchase accounting adjustments from our acquisition of Signal Sciences and the reduction to revenue from the network outage.

Gross profit was $92.1 million for the six months ended June 30, 2021 compared to $80.6 million for the six months ended June 30, 2020, an increase of $11.5 million, or 14%. Gross margin was 54% for the six months ended June 30, 2021 compared to 59% for the six months ended June 30, 2020, a decrease of 5%. The decrease in gross margin reflects an increase in costs due to our continued investment in infrastructure and capacity and the return to traditional seasonal usage patterns as compared to the increased traffic experienced in the prior year due to the onset of the COVID pandemic. The decline in gross margin also reflects the impact of the amortization of intangible assets and other purchase accounting adjustments from our acquisition of Signal Sciences and the reduction to revenue from the network outage.

Operating Expenses

	Three months ended June 30,			Six months ended June 30,		
	2021	2020	Change	2021	2020	Change
	(in thousands)			(in thousands)		
Research and development	$ 30,346	$ 16,655	82 %	$ 59,334	$ 30,953	92 %
Sales and marketing	36,334	24,680	47 %	71,206	43,848	62 %
General and administrative	35,494	18,069	96 %	68,955	32,238	114 %
Total operating expenses	$ 102,174	$ 59,404	72 %	$ 199,495	$ 107,039	86 %
Percentage of revenue:						
Research and development	36 %	22 %	14 %	35 %	22 %	13 %
Sales and marketing	43 %	33 %	10 %	42 %	32 %	10 %
General and administrative	42 %	24 %	18 %	41 %	23 %	18 %

Research and development

Research and development expenses were $30.3 million for the three months ended June 30, 2021 compared to $16.7 million for the three months ended June 30, 2020, an increase of $13.6 million, or 82%. This is primarily due to an increase of $12.1 million of personnel-related costs, such as salaries, benefits, bonuses, and stock-based compensation due to an increase in headcount and new equity awards granted to employees, including the personnel added as a result of the Signal Sciences acquisition. There was also an increase of $0.8 million in hosted data service and other SaaS costs as we continue to continue to develop new products and features for our next-generation edge computing solutions.

Research and development expenses were $59.3 million for the six months ended June 30, 2021 compared to $31.0 million for the six months ended June 30, 2020, an increase of $28.3 million, or 92%. This is primarily due to an increase of $26.4 million of personnel-related costs, such as salaries, benefits, bonuses, and stock-based compensation due to an increase in headcount and new equity awards granted to employees, including the personnel added as a result of the Signal Sciences acquisition. There was also an increase of $1.3 million in hosted data service and other SaaS costs as we continue to continue to develop new products and features for next-generation edge computing solutions.

Sales and marketing

Sales and marketing expenses were $36.3 million for the three months ended June 30, 2021 compared to $24.7 million for the three months ended June 30, 2020, an increase of $11.6 million, or 47%. This is primarily due to a $10.5 million increase in personnel related costs, such as salaries, sales commissions, benefits, and stock-based compensation, due to an increase in headcount and new equity awards granted to employees, including the personnel added as a result of the Signal Sciences acquisition. This is offset by $4.8 million of stock-based compensation and $0.6 million of severance relating to an employee termination in the second quarter of fiscal 2020, that did not recur in the current quarter. We also had an increase of $3.2 million in external marketing spend primarily related to various marketing campaigns and an increase of $2.7 million in amortization expense related to certain intangible assets acquired in connection with the Signal Sciences acquisition.

Sales and marketing expenses were $71.2 million for the six months ended June 30, 2021 compared to $43.8 million for the six months ended June 30, 2020, an increase of $27.4 million, or 62%. This is primarily due to a $20.4 million increase in personnel related costs, such as salaries, sales commissions, benefits, and stock-based compensation, due to an increase in headcount and new equity awards granted to employees, including the personnel added as a result of the Signal Sciences acquisition. This is offset by $4.8 million of stock-based compensation and $0.6 million of severance relating to an employee termination in the second quarter of fiscal 2020, that did not recur in the current quarter. We also had an increase of $6.6 million in external marketing spend primarily related to various marketing campaigns and an increase of $5.5 million in amortization expense related to certain intangible assets acquired in connection with the Signal Sciences acquisition.

General and administrative

General and administrative costs were $35.5 million for the three months ended June 30, 2021 compared to $18.1 million for the three months ended June 30, 2020, an increase of $17.4 million, or 96%. The increase is due to an increase of $15.5 million of personnel related costs, such as salaries, benefits, and stock-based compensation due to an increase in headcount and new equity awards granted to employees, including the personnel added as a result of the Signal Sciences acquisition, an increase of $1.3 million acquisition-related costs in connection with the acquisition of Signal Sciences, and $1.1 million in other external professional services such as legal, accounting, and enterprise systems to support the growth of our business as a public company, including our efforts to comply with the regulations of the Sarbanes-Oxley Act. The increases are partially offset by a $0.6 million decrease in bad debt expense.

General and administrative costs were $69.0 million for the six months ended June 30, 2021 compared to $32.2 million for the six months ended June 30, 2020, an increase of $36.8 million, or 114%. The increase is due to an increase of $32.7 million of personnel related costs, such as salaries, benefits, and stock-based compensation due to an increase in headcount and new equity awards granted to employees, including the personnel added as a result of the Signal Sciences acquisition. We also had an increase of $2.2 million acquisition-related costs in connection with the acquisition of Signal Sciences, and $2.7 million in other external professional services such as legal, accounting, and enterprise systems to support the growth of our business as a public company, including our efforts to comply with the regulations of the Sarbanes-Oxley Act. The increases are partially offset by a $1.2 million decrease in bad debt expense.

Other Income and Expense, net

Interest Income

	Three months ended June 30,			Six months ended June 30,		
	2021	2020	Change	2021	2020	Change
	(in thousands)			(in thousands)		
Interest income	$ 276	$ 378	(27)%	$ 450	$ 1,097	(59)%

Interest income was $0.3 million for the three months ended June 30, 2021 compared to $0.4 million for the three months ended June 30, 2020, a decrease of $0.1 million, or 27%. This decrease is due to a reduction in interest rates on our cash balances and investments portfolio.

Interest income was $0.5 million for the six months ended June 30, 2021 compared to $1.1 million for the six months ended June 30, 2020, a decrease of $0.6 million, or 59%. This decrease is due to a reduction in interest rates on our cash balances and investments portfolio.

Interest Expense

	Three months ended June 30,			Six months ended June 30,		
	2021	2020	Change	2021	2020	Change
	(in thousands)			(in thousands)		
Interest expense	$ 1,436	$ 371	287 %	$ 2,097	$ 687	205 %

Interest expense was $1.4 million for the three months ended June 30, 2021 compared to $0.4 million for the three months ended June 30, 2020, an increase of $1.0 million, or 287%. This increase is primarily due the amortization of debt issuance costs related to the convertible debt and revolving credit facility.

Interest expense was $2.1 million for the six months ended June 30, 2021 compared to $0.7 million for the six months ended June 30, 2020, an increase of $1.4 million, or 205%. This increase is primarily due the amortization of debt issuance costs related to the convertible debt and revolving credit facility.

Other income (expense), net

	Three months ended June 30,			Six months ended June 30,		
	2021	2020	Change	2021	2020	Change
	(in thousands)			(in thousands)		
Other income (expense), net	$ 178	$ (53)	(436)%	$ 114	$ 349	(67)%

Other income, net was $0.2 million for the three months ended June 30, 2021 compared to other expense, net of $0.1 million for the three months ended June 30, 2020, a decrease in other expense, net of $0.3 million, or 436%. The change is mainly driven by our foreign currency transaction gains and losses between the periods.

Other income (expense), net was $0.1 million for the six months ended June 30, 2021 compared to other income, net of $0.3 million for the six months ended June 30, 2020, a decrease of $0.2 million, or 67%. The change is mainly driven by our foreign currency transaction gains and losses between the periods.

Liquidity and Capital Resources

As of June 30, 2021, we had cash, cash equivalents, and marketable securities and restricted cash totaling $1.1 billion. Our cash, cash equivalents, and marketable securities primarily consisted of bank deposits and money market funds held at major financial institutions, U.S. Treasury securities and investment-grade commercial paper and corporate debt securities. As of June 30, 2021, our marketable securities balance included $173.2 million of marketable securities classified as long-term investments.

On May 26, 2020, we completed a follow-on public offering in which we sold 6,900,000 shares of Class A common stock, which included 900,000 shares sold pursuant to the exercise by the underwriters of an option to purchase additional shares, at the public offering price of $41.50 per share. We received net proceeds of $274.9 million, after deducting underwriting discounts and commissions, from sales of our shares in the public offering.

To date, we have financed our operations primarily through equity issuances, payments received from customers, the net proceeds we received through sales of equity and debt securities, and borrowings under our convertible note and credit facility. Our principal uses of cash in recent periods have primarily been around funding our operations and capital expenditures. We also enter into finance leases for infrastructure assets in co-location facilities that we directly lease and operate.

We believe that our cash and cash equivalents balances, our credit facilities, net of the cash outflows used in our operations, will be sufficient to satisfy our anticipated cash needs for working capital and capital expenditures for at least the next 12 months. We have generated losses from operations in the past and expect to continue to incur operating losses for the foreseeable future due to the investments and strategic initiatives we intend to make to grow our business.

Cash Collateralized Revolving Credit Agreement

In November 2019, we entered into a Revolving Credit Agreement for an aggregate commitment amount of $70.0 million with a maturity date of November 3, 2022 (the "Revolver"). In November 2020, we terminated the Revolving Credit Agreement in accordance with its terms.

Senior Secured Credit Facilities Agreement

On February 16, 2021, we entered into a Senior Secured Credit Facilities Agreement ("Credit Agreement") with Silicon Valley Bank for an aggregate commitment amount of $100.0 million, with a maturity date of February 16, 2024.

Convertible Senior Notes

In March 2021, we issued approximately $948.8 million aggregate principal amount of 0% convertible senior unsecured notes due in 2026 (the "Notes") in a private placement to qualified institutional buyers pursuant to Rule144A under the Securities Act. The Notes will mature on March 15, 2026, unless earlier converted, redeemed or repurchased.

Please refer to Note 9 — Debt Instruments for details on the subsequent termination of our Revolving Credit Agreement, Credit Agreement and the Notes.

Cash Flows

The following table summarizes our cash flows for the period indicated:

	Six months ended June 30,	
	2021	**2020**
	(in thousands)	
Cash used in operating activities	$ (27,883)	$ (15,967)
Cash used in investing activities	$ (279,904)	$ (27,519)
Cash provided by financing activities	$ 933,014	$ 284,818

Cash Flows from Operating Activities

For the six months ended June 30, 2021, cash used in operating activities consisted primarily of our net loss of $109.0 million adjusted for non-cash items, including $64.3 million of stock-based compensation expense, $12.7 million of amortization of right-of-use assets and other, $13.3 million of depreciation expense and $10.6 million related to the amortization of our intangible assets. With respect to changes in operating assets and liabilities, there was an increase in accounts receivable of $5.6 million, primarily due to the growth of our business and the timing of cash receipts from our customers, an increase in other long-term assets of $5.1 million due to commissions paid out in the period, and an increase of $5.5 million in prepaid expenses and other current assets due to pre-payments for SaaS licenses. We also had $12.9 million of operating lease payments. This was offset by a net increase of $5.1 million in accounts payable, accrued expenses, and other liabilities due to timing of payments and increases in accrued commissions.

For the six months ended June 30, 2020, cash used in operating activities consisted primarily of our net loss of $26.5 million adjusted for non-cash items, including $22.6 million of stock-based compensation expense, $10.2 million of amortization of right-of-use assets and other, $9.4 million of depreciation expense and $0.1 million related to the amortization of our intangible assets. With respect to changes in operating assets and liabilities, there was an increase in accounts receivable of $22.2 million, primarily due to the growth of our business and the timing of cash receipts from certain of our larger customers, an increase in other long-term assets of $4.8 million due to higher commissions being capitalized due to higher sales, and an increase of $2.0 million in prepaid expenses and other current assets due to pre-payments for SaaS licenses. We also had $8.4 million of operating lease payments. This was partially offset by an increase of $3.7 million in accounts payable, accrued expenses, and other liabilities due to timing of payments.

Cash Flows from Investing Activities

For the six months ended June 30, 2021, cash used in investing activities was $279.9 million, primarily consisting of $333.9 million of purchases of marketable securities, $11.0 million of payments related to purchases of property and equipment to expand our network, $2.1 million in purchases of intangible assets, and $2.7 million of additions to capitalized internal-use software. This was partially offset by $69.8 million of maturities and sales of marketable securities.

For the six months ended June 30, 2020, cash used in investing activities was $27.8 million, primarily consisting of $56.2 million of purchases of marketable securities, partially offset by $44.9 million of maturities and sales of marketable securities, $12.2 million of payments related to purchases of property and equipment to expand our network, $2.2 million of additions to capitalized internal-use software, and $1.8 million of purchases of intangible assets.

Cash Flows from Financing Activities

For the six months ended June 30, 2021, cash provided by financing activities was $933.0 million, primarily consisting of $930.8 million of proceeds from the issuance of the Notes, net of issuance costs, $1.4 million payments of other debt issuance costs, $5.6 million in proceeds from stock option exercises by our employees, and $4.6 million in proceeds from the employee stock purchase plan ("ESPP"). This increase was partially offset by $6.6 million of finance lease payments.

For the six months ended June 30, 2020, cash provided by financing activities was $285.1 million, primarily consisting of $274.9 million of proceeds from our follow-on public offering, net of underwriting fees, $8.8 million in proceeds from stock option exercises by our employees, and $4.2 million in proceeds from the ESPP. This was partially offset by $2.9 million of finance lease payments, and $0.2 million of payments of costs related to our follow-on public offering.

Contractual Obligations and Other Commitments

Our principal commitments consist of obligations under operating and finance leases, purchase obligations for contracts with our cloud infrastructure provider, network service providers, and other vendors, and outstanding debt. There have been no material changes in our contractual obligations and commitments from our most recently filed Annual Report on Form 10-K for the fiscal year ended December 31, 2020, except for those described under Note 7, Note 9, and Note 10 of the notes to our unaudited condensed consolidated financial statements included in Part I, Item 1 of this Form 10-Q.

Off-Balance Sheet Arrangements

We have not entered into any off-balance sheet arrangements and do not have any holdings in variable interest entities.

Critical Accounting Policies and Estimates

We prepare our condensed consolidated financial statements in accordance with U.S. GAAP. The preparation of our condensed consolidated financial statements requires us to make estimates, judgments, and assumptions that affect the reported amounts of assets, liabilities, revenue, costs, expenses, and related disclosures. Actual results and outcomes could differ significantly from our estimates, judgments, and assumptions. To the extent that there are material differences between these estimates and actual results, our future financial statement presentation, financial condition, results of operations, and cash flows will be affected.

There have been no material changes to our critical accounting policies and estimates as compared to the critical accounting policies and estimates disclosed in “Management's Discussion and Analysis – Critical Accounting Policies” of our Annual Report on Form 10-K for the fiscal year ended December 31, 2020.

Recent Accounting Pronouncements

See “Summary of Significant Accounting Policies" in Note 2 of the notes to our unaudited condensed consolidated financial statements included in Part I, Item 1 of this Form 10-Q.

Item 3. Quantitative and Qualitative Disclosures about Market Risk

We are exposed to certain market risks in the ordinary course of our business. These risks primarily include interest rate and currency exchange risks as follows:

Interest Rate Risk

We had cash, cash equivalents, and marketable securities of $1,103.0 million, and restricted cash of $1.0 million as of June 30, 2021, which consisted of bank deposits, money market funds, corporate notes and bonds, commercial paper, U.S. Treasury securities, and asset-backed securities. The cash and cash equivalents are held for working capital purposes. The restricted cash is held as cash collateral in connection with our Cash Collateralized Revolving Credit Agreement. To date, fluctuations in interest income have not been significant. The primary objective of our investment activities is to preserve principal while generating income without significantly increasing risk. We do not enter into investments for trading or speculative purposes and have not used any derivative financial instruments to manage our interest rate risk exposure. Due to the short-term nature of our investments, we have not been exposed to, nor do we anticipate being exposed to, material risks due to changes in interest rates. A hypothetical 10% change in interest rates during the period presented would not have had a material impact on our condensed consolidated financial statements.

Currency Exchange Risks

The functional currency of our foreign subsidiaries is the U.S. dollar. Therefore, we are exposed to foreign exchange rate fluctuations as we convert the financial statements of our foreign subsidiaries into U.S. dollars. The local currencies of our foreign subsidiaries are denominated in the British pound, Japanese Yen, Australian Dollar, and Euro. Our subsidiaries remeasure monetary assets and liabilities at period-end exchange rates, while non-monetary items are remeasured at historical rates. Revenue and expense accounts are remeasured at the average exchange rate in effect during the period. If there is a change in foreign currency exchange rates, the conversion of our foreign subsidiaries’ financial statements into U.S. dollars would result in a realized gain or loss which is recorded in our condensed consolidated statements of operations. We do not currently engage in any hedging activity to reduce our potential exposure to currency fluctuations, although we may choose to do so in the future. A hypothetical 10% change in foreign exchange rates during the period presented would not have had a material impact on our condensed consolidated financial statements.

Item 4. Controls and Procedures

Evaluation of Disclosure Controls and Procedures

The Company's management, with the participation of our principal executive officer and principal 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 Exchange Act), as of the end of the period covered by this Quarterly Report on Form 10-Q. Based on the evaluation of our disclosure controls and procedures as of June 30, 2021, our principal executive officer and principal financial officer concluded that, as of such date, due to the material weakness described below, our disclosure controls and procedures were not effective.

Notwithstanding the material weakness, management has concluded that the financial statements included elsewhere in this Quarterly Report present fairly, in all material respects, our financial position, results of operations and cash flows in conformity with GAAP.

Material Weakness

We identified a material weakness in our internal control over financial reporting for the year ended December 31, 2019 which remained partially unremediated for the year ended December 31, 2020. The material weakness related to the lack of sufficient qualified accounting resources, including those with the appropriate level of technical accounting knowledge, to timely identify and assess accounting implications of complex transactions which resulted in the incorrect application of generally accepted accounting principles. This control deficiency, aggregated with the other deficiencies, constitutes a material weakness. These deficiencies if left unremediated, could result in increased deficiencies of misstatements in future years.

The process of implementing an effective financial reporting systems is a continuous effort that requires us to anticipate and react to changes in our business and the economic and regulatory environments and to expend significant resources to maintain a financial reporting system that is adequate to satisfy our reporting obligations. We continue to evaluate and take actions to improve our internal control over financial reporting. We have increased the number of qualified accounting resources with the requisite accounting and financial reporting knowledge and experience and reallocated responsibilities across the accounting organization to ensure that the appropriate level of knowledge and experience is applied based on risk and complexity of transactions to address control deficiencies.

Based on the actions taken, we believe we have made significant progress in enhancing our control environment with respect to accounting and financial reporting for complex transactions. However, we are continuing to evaluate the operating effectiveness of the controls and believe that our additional resources and allocation of responsibilities will assist in remediation of the material weakness.

Changes in Internal Control

In March 2021, we entered into an arrangement for the sale of convertible senior notes and concurrently, adopted the new accounting standard associated with the accounting for Convertible Instruments. Please refer to Note 9—Debt Instruments for further details on the transaction. We have identified appropriate changes to our accounting policies, business processes, and related internal controls to support recognition and disclosure requirements as a result of the transaction and accounting standard adoption. These included the development of new policies around the accounting for the convertible instrument and the review of relevant debt covenants.

Other than the change as described above, there have been no other changes in our internal control over financial reporting in connection with the evaluation required by Rules 13a-15(d) and 15d-15(d) of the Exchange Act that occurred during the period covered by this Quarterly Report on Form 10-Q that materially affected, or are reasonably likely to materially affect, our internal control over financial reporting.

Inherent Limitations on Effectiveness of Controls

Our management, including our Chief Executive Officer and Chief Financial Officer, does not expect that our disclosure controls and procedures or our internal control over financial reporting will prevent or detect all errors and all fraud. A control system, no matter how well conceived and operated, can provide only reasonable, not absolute, assurance that the objectives of the control system are met. Because of the inherent limitations in all control systems, no evaluation of controls can provide absolute assurance that all control issues and instances of fraud, if any, within the Company have been detected. The design of any system of controls also is based in part upon certain assumptions about the likelihood of future events, and there can be no assurance that any design will succeed in achieving its stated goals under all potential future conditions. Over time, controls may become inadequate because of changes in conditions, or the degree of compliance with the policies or procedures may deteriorate. Because of the inherent limitations in a cost-effective control system, misstatements due to error or fraud may occur and not be detected.

PART II - OTHER INFORMATION

Item 1. Legal Proceedings

The information set forth under "Legal Matters" in Note 10 of the notes to our unaudited condensed consolidated financial statements included in Part I, Item 1 of this Form 10-Q is incorporated herein by reference.

In addition, from time to time, we may be subject to legal proceedings and claims arising from the normal course of business, and an unfavorable resolution of any of these matters could materially affect our future results of operations, cash flows, or financial position.

Item 1A. Risk Factors

Investing in our Class A common stock involves a high degree of risk. You should carefully consider the risks and uncertainties described below, together with all of the other information contained in this Quarterly Report on Form 10-Q, including the section titled "Management's Discussion and Analysis of Financial Condition and Results of Operations" and our unaudited condensed consolidated financial statements and related notes, before deciding to invest in our Class A common stock. Unless otherwise indicated, references to our business being harmed in these risk factors will include harm to our business, reputation, customer growth, results of operations, financial condition, or prospects. Any of these events could cause the trading price of our Class A common stock to decline, which would cause you to lose all or part of your investment. Our business, results of operations, financial condition, or prospects could also be harmed by risks and uncertainties not currently known to us or that we currently do not believe are material.

We have marked with an asterisk (*) those risks described below that reflect substantive changes from, or additions to, the risks described in our Annual Report on Form 10-K for the year ended December 31, 2020.

Select Risk Factors Affecting Our Business

Our business is subject to a number of risks and uncertainties, including those risks discussed at-length below. These risks include, among others, the following:

- If our platform fails to perform properly due to defects, interruptions, outages, delays in performance, or similar problems, and if we fail to develop enhancements to resolve any defect, interruption, delay, or other problems, we could lose customers, become subject to service performance or warranty claims or incur significant costs.
- If we are unable to attract new customers, in particular, enterprise customers, and to have existing enterprise customers continue and increase their use of our platform, our business will likely be harmed.
- If we fail to forecast our revenue accurately, or if we fail to manage our expenditures, our operating results could be adversely affected.
- We receive a substantial portion of our revenues from a limited number of customers, and the loss of, or a significant reduction in usage by, one or more of our major customers would result in lower revenues and could harm our business.
- Component delays or shortages could interrupt our ability to complete the construction of our servers to meet the usage needs of our customers.*
- Our limited operating history and our history of operating losses makes it difficult to evaluate our current business and prospects and may increase the risks associated with your investment.
- If we fail to adapt and respond effectively to rapidly changing technology, evolving industry standards, changing regulations, and changing customer needs, requirements, or preferences, our products may become less competitive.
- Failure to effectively develop and expand our marketing and sales capabilities could harm our ability to increase our customer base and achieve broader market acceptance of our platform.
- The markets in which we participate are competitive, and if we do not compete effectively, our business will be harmed.

- If we fail to maintain and enhance our brand, our ability to expand our customer base will be impaired and our business, results of operations and financial condition may suffer.

- Acquisitions, strategic investments, partnerships, or alliances, including our acquisition of Signal Sciences, could be difficult to identify and integrate, divert the attention of management, disrupt our business, and dilute stockholder value.

- We are, and in the future may be, involved in class-action lawsuits and other litigation matters that are expensive and time-consuming. If resolved adversely, lawsuits and other litigation matters could seriously harm our business.

- Health epidemics, including the ongoing COVID-19 pandemic, have had, and could in the future have, an adverse impact on our business, operations, and the markets and communities in which we, our partners and customers operate.*

- We have identified a material weakness in our internal control over financial reporting, and if we are unable to remediate and maintain effective internal control over financial reporting in the future, investors may lose confidence in the accuracy and completeness of our financial reports, and the market price of our Class A common stock may be seriously harmed.

- Our stock price may be volatile, and the value of our Class A common stock may decline.

Risks Related to Our Business, Industry and Technology

If our platform fails to perform properly due to defects, interruptions, outages, delays in performance, or similar problems, and if we fail to develop enhancements to resolve any defect, interruption, delay, or other problems, we could lose customers, become subject to service performance or warranty claims or incur significant costs.

Our operations are dependent upon our ability to prevent system interruption. The applications underlying our edge cloud computing platform are inherently complex and may contain material defects or errors, which may cause disruptions in availability or other performance problems. We have from time to time found defects and errors in our platform and may discover additional defects or errors in the future that could result in data unavailability, unauthorized access to, loss, corruption, or other harm to our customers' data. These defects or errors could also be found in third-party applications or open source software on which we rely. We may not be able to detect and correct defects or errors before implementing our products. Consequently, we or our customers may discover defects or errors after our products have been deployed.

We currently serve our customers from our POPs located around the world. Our customers need to be able to access our platform at any time, without interruption or degradation of performance. However, we have not developed redundancies for all aspects of our platform. We depend, in part, on our third-party facility providers' ability to protect these facilities against damage or interruption from natural disasters, power or telecommunications failures, criminal acts, public health issues, such as the COVID-19 pandemic, and similar events. In some cases, third-party cloud providers run their own platforms that we access, and we are, therefore, vulnerable to their service interruptions. In the event that there are any defects or errors in software, failures of hardware, damages to a facility, or misconfigurations of any of our services, we may have to divert resources away from other planned work, could experience lengthy interruptions in our platform, and also incur delays and additional expenses in arranging new facilities and services. Our customers may choose to divert their traffic away from our platform as a result of interruptions or delays. Disaster recovery arrangements, including the existence of redundant data centers that are designed to become active during certain lapses of service, may not function as intended, and any disruptions to our service could harm our business.

We design our system infrastructure and procure and own or lease the computer hardware used for our platform. Design and mechanical errors, spikes in usage volume, and failure to follow system protocols and procedures could cause our systems to fail, resulting in interruptions on our platform. Moreover, we have experienced and may in the future experience system failures or interruptions in our platform as a result of human error. For example, in January 2021, an undiscovered bug in a software update caused a platform interruption that affected many of our customers, resulting in service level agreement claims. In addition, on June 8, 2021, we experienced a global platform outage due to an undiscovered software bug caused by human error. The outage was triggered by a valid customer configuration change and has resulted in customers reducing or removing traffic from our platform and service level agreement claims. Any interruptions or delays in our platform, whether caused by our products or our data centers, third-party error, our own error, natural disasters, or security breaches, or whether accidental or willful, could harm our relationships with customers, reduce customers' usage of our platform, cause our revenue to decrease and/or our expenses to increase, and divert resources away from product development. Also, in the event of damage or interruption, our insurance policies may not adequately compensate us for any losses that we may incur. These factors in turn could further reduce our revenue, subject us to liability and cause us to issue service credits or cause customers to fail to renew their customer contracts, any of which could harm our business.

The occurrence of any defects, errors, disruptions in service, failures involving redundant data centers, or other performance problems, interruptions, or delays with our platform, whether in connection with the day-to-day operations or otherwise, could result in:

- loss of customers;
- reduced customer usage of our platforms;
- lost or delayed market acceptance and sales of our products, or the failure to launch products or features on anticipated timelines;
- delays in payment to us by customers;
- injury to our reputation and brand;
- governmental inquiry or oversight;
- legal claims, including warranty and service level agreement claims, against us; or
- diversion of our resources, including through increased service and warranty expenses or financial concessions, and increased insurance costs.

The costs incurred in correcting any material defects, errors, or other performance problems in our platform may be substantial and could harm our business.

If we are unable to attract new customers, in particular, enterprise customers, and to have existing enterprise customers continue and increase their use of our platform, our business will likely be harmed.

To grow our business, we must continue to attract new customers, in particular, enterprise customers and generate revenue from those new customers. To do so, we must successfully convince potential customers of the benefits and the value of our platform. This may require significant and costly sales efforts that are targeted at larger enterprises and senior management of these potential customers. Sales to enterprise customers may involve longer sales cycles as a result of customers requiring considerable time to evaluate our platform, requiring participation in a competitive purchasing process, having more formal processes for approval of purchases, and more complex requirements. These factors significantly impact our ability to add new customers and increase the time, resources, and sophistication required to do so. In addition, numerous other factors, some of which are out of our control, may now or in the future impact our ability to acquire new customers, including potential customers' commitments to other providers, real or perceived costs of switching to our platform, our failure to expand, retain, and motivate our sales and marketing personnel, our failure to develop or expand relationships with potential customers and channel partners, failure by us to help our customers to successfully deploy our platform, negative media or industry or financial analyst commentary regarding us or our solutions, litigation, and deteriorating general economic conditions. If we fail to attract new customers, particularly enterprise customers, as a result of these and other factors our business will likely be harmed.

In addition, our ability to grow and generate incremental revenue depends on our ability to maintain and grow our relationships with our existing enterprise customers so that they continue and increase their usage of our platform. If these customers do not maintain and increase their usage of our platform, our revenue may decline and our results of operations will likely be harmed.

We charge our customers based on the usage of our platform. Most of our customers, including some of our largest enterprise customers, do not have long-term contractual financial commitments to us. And a majority of our current customer contracts are only one year in duration. In order for us to maintain or improve our results of operations, it is important that our customers, in particular, our enterprise customers, use our platform in excess of their commitment levels, if any, and continue to use our platform on the same or more favorable terms. Our ability to retain our largest customers and expand their usage could be impaired for a variety of reasons, including customer budget constraints, customer satisfaction, changes in our customers' underlying businesses, changes in the type and size of our customers, pricing changes, competitive conditions, the acquisition of our customers by other companies, governmental actions, or the possibility thereof, and general economic conditions. Because many of our largest customers' minimum usage commitments for our platform are relatively low compared to their expected usage, it can be easy for certain customers to quickly reallocate usage or switch from our platform to an alternative platform altogether. In addition, they may reduce or cease their use of our products at any time without penalty or termination charges, even after they have expanded usage in prior periods.

We base our decisions about expense levels and investments on estimates of our future revenue and future anticipated rate of growth. Many of our expenses are fixed cost in nature for some minimum amount of time, such as colocation and bandwidth, so if we do experience slower usage growth on our platform it may not be possible to reduce costs in a timely manner or without the payment of fees to exit certain obligations early. If any of these events were to occur, our business may be harmed.

In addition, many of our customers have negotiated and may continue to negotiate lower rates for their usage in exchange for an agreement to renew, expand their usage in the future, or adopt new products. As a result, in certain cases, even though customers have not reduced their usage of our platform, the revenue we derive from that usage has decreased. If our usage or revenue fall significantly below the expectations of the public market, securities analysts, or investors, our business would be harmed, which could cause our stock price to decline.

Our future success also depends in part on our ability to expand our existing customer relationships, in particular, with enterprise customers, by increasing their usage of our platform and selling them additional products. The rate at which our customers increase their usage of our platform and purchase products from us depends on a number of factors, including our ability to grow our platform and maintain the security and availability of it, develop and deliver new features and products, maintain customer satisfaction, general economic conditions and pricing and services offered by our competitors. If our efforts to increase usage of our platform by, or sell additional products to, our enterprise customers are not successful, our business would be harmed. In addition, even if our largest customers increase their usage of our platform, we cannot guarantee that they will maintain those usage levels for any meaningful period of time. In addition, because many of our products endeavor to deliver increased efficiency and functionality, the successful sale of an additional product to an existing customer could result in a reduction of the customer's overall usage of our platform.

If we fail to forecast our revenue accurately, or if we fail to manage our expenditures, our operating results could be adversely affected.

We cannot accurately predict customers' usage or renewal rates given the diversity of our customer base across industries, geographies and size, and ability of customers to allocate usage, among other factors. If we do not realize returns on these investments in our growth, our results of operations could differ materially from our forecasts, which would adversely affect our results of operations and could disappoint analysts and investors, causing our stock price to decline.

We receive a substantial portion of our revenues from a limited number of customers from a limited number of industries, and the loss of, or a significant reduction in usage by, one or more of our major customers would result in lower revenues and could harm our business.

Our future success is dependent on establishing and maintaining successful relationships with a diverse set of customers. We currently receive a substantial portion of our revenues from a limited number of customers and from a limited number of industries, such as media and entertainment. For the trailing 12 months ended June 30, 2021, our top ten customers accounted for approximately 35% of our revenue and our top five customers accounted for approximately 23% of our revenue. It is likely that we will continue to be dependent upon a limited number of customers for a significant portion of our revenues for the foreseeable future and, in some cases, the portion of our revenues attributable to individual customers may increase in the future. The loss of one or more key customers or a reduction in usage by any major customers would reduce our revenues. For example, on June 8, 2021, we experienced a global platform outage due to an undiscovered software bug caused by human error. The outage was triggered by a valid customer configuration change and has resulted in customers, including some of our largest customers, reducing or removing traffic from our platform and service level agreement claims. If we fail to maintain existing customers or develop relationships with new customers and across different industries, our business would be harmed.

Component delays or shortages could interrupt our ability to complete the construction of our servers to meet the usage needs of our customers.*

Our business is dependent upon the timely supply of certain parts and components to construct our servers. We rely on a limited number of suppliers for several components of the equipment we use to operate our network and provide products to our customers. Our reliance on these suppliers exposes us to risks, including reduced control over production costs and constraints based on the then current availability, terms, and pricing of these components. The ongoing COVID-19 pandemic has resulted, and we expect will continue to result, in disruptions and delays for these components and the delivery and installation of such components at our co-location facilities. For example, during the first quarter of 2021, a global shortage of microchips has resulted in supply constraints for a number of electronics firms, including manufacturers that supply the components to construct our servers. If our supply of certain components is disrupted or delayed, there can be no assurance that we will be able to obtain adequate replacements for the existing components or that supplies will be available on terms that are favorable to us, if at all. Any disruption or delay in the supply of our hardware components may limit capacity expansion or replacement of defective or obsolete equipment, or cause other constraints on our operations that could damage our customer relationships and harm our business.

Our limited operating history and our history of operating losses makes it difficult to evaluate our current business and prospects and may increase the risks associated with your investment.

We were founded in 2011 and have experienced net losses and negative cash flows from operations since inception. Our limited operating history makes it difficult to evaluate our current business and our future prospects, including our ability to plan for and model future growth. We have encountered and will continue to encounter risks and difficulties frequently experienced by rapidly growing companies in constantly evolving industries, including the risks described in this report. If we do not address these risks successfully, our business may be harmed.

We generated a net loss of $58.3 million and $109.0 million for the three and six months ended June 30, 2021, and as of June 30, 2021, we had an accumulated deficit of $397.2 million. We will need to generate and sustain increased revenue levels and manage costs in future periods in order to become profitable; even if we achieve profitability, we may not be able to maintain or increase our level of profitability. We intend to continue to expend significant funds to support further growth and further develop our platform, including expanding the functionality of our platform, expanding our technology infrastructure and business systems to meet the needs of our customers, expanding our direct sales force and partner ecosystem, increasing our marketing activities, and growing our international operations. We will also face increased compliance costs associated with growth, expansion of our customer base, and the costs of being a public company. Our efforts to grow our business may be costlier than we expect, and we may not be able to increase our revenue enough to offset our increased operating expenses. We may incur significant losses in the future for a number of reasons, including the other risks described herein, and unforeseen expenses, difficulties, complications and delays, and other unknown events. If we are unable to achieve and sustain profitability, our business may be harmed.

Further, we have limited historical financial data and operate in a rapidly evolving market. As such, any predictions about our future revenue and expenses may not be as accurate as they would be if we had a longer operating history or operated in a more predictable market.

If we fail to adapt and respond effectively to rapidly changing technology, evolving industry standards, changing regulations, and changing customer needs, requirements, or preferences, our products may become less competitive.

The market in which we compete is relatively new and subject to rapid technological change, evolving industry standards and regulatory changes, as well as changing customer needs, requirements, and preferences. The success of our business will depend, in part, on our ability to adapt and respond effectively to these changes on a timely basis. If we are unable to develop and sell new products that satisfy our customers and provide enhancements, new features, and capabilities to our platform that keep pace with rapid technological and industry change, our revenue and operating results could be adversely affected. If new technologies emerge that enable large internet platform companies to utilize their own data centers and implement delivery approaches that limit or eliminate reliance on third-party providers like us, or that enable our competitors to deliver competitive products and applications at lower prices, more efficiently, more conveniently, or more securely, such technologies could adversely impact our ability to compete. If our platform does not allow us or our customers to comply with the latest regulatory requirements, our existing customers may decrease their usage on our platform and new customers will be less likely to adopt our platform.

Our platform must also integrate with a variety of network, hardware, mobile, and software platforms and technologies, and we need to continuously modify and enhance our products and platform capabilities to adapt to changes and innovation in these technologies. If developers widely adopt new software platforms, we would have to attempt to develop new versions of our products and enhance our platform's capabilities to work with those new platforms. These development efforts may require significant engineering, marketing, and sales resources, all of which would affect our business and operating results. Any failure of our platform's capabilities to operate effectively with future infrastructure platforms, technologies, and software platforms could reduce the demand for our platform. If we are unable to respond to these changes in a cost-effective manner, our products may become less marketable and less competitive or obsolete, and our business may be harmed.

Moreover, our platform is highly technical and complex and, for example, our delivery products rely on knowledge of the Varnish Configuration Language ("VCL") to utilize many features of this platform. Potential developers may be unfamiliar or opposed to working with VCL and therefore decide to not adopt our platform, which may harm our business.

Failure to effectively develop and expand our marketing and sales capabilities could harm our ability to increase our customer base and achieve broader market acceptance of our platform.

We have historically benefited from word-of-mouth and other organic marketing to attract new customers. Through this word-of-mouth marketing, we have been able to build our brand with relatively low marketing and sales costs. This strategy has allowed us to build a substantial customer base and community of users who use our products and act as advocates for our brand and our platform, often within their own corporate organizations. However, our ability to further increase our customer base and achieve broader market acceptance of our edge cloud platform will significantly depend on our ability to expand our marketing and sales operations. We plan to continue expanding our sales force and strategic partners, both domestically and internationally. We also plan to continue to dedicate significant resources to sales, marketing, and demand-generation programs, including various online marketing activities as well as targeted account-based advertising. The effectiveness of our targeted account-based advertising has varied over time and may vary in the future. All of these efforts will require us to invest significant financial and other resources and if they fail to attract additional customers our business will be harmed. We have also used a strategy of offering free trial versions of our platform in order to strengthen our relationship and reputation within the developer community by providing these developers with the ability to familiarize themselves with our platform without first becoming a paying customer. However, most trial accounts do not convert to paid versions of our platform, and to date, only a few users who have converted to paying customers have gone on to generate meaningful revenue. If our other lead generation methods do not result in broader market acceptance of our platform and the users of trial versions of our platform do not become, or are unable to convince their organizations to become, paying customers, we will not realize the intended benefits of this strategy, and our business will be harmed.

We believe that there is significant competition for sales personnel, including sales representatives, sales managers, and sales engineers, with the skills and technical knowledge that we require. Our ability to achieve significant revenue growth will depend, in large part, on our success in recruiting, training, and retaining sufficient numbers of sales personnel to support our growth. New hires require significant training and may take significant time before they achieve full productivity. Our recent hires may not become productive as quickly as we expect, if at all, and we may be unable to hire or retain sufficient numbers of qualified individuals in the markets where we do business or plan to do business. In addition, particularly if we continue to grow rapidly, new members of our sales force will have relatively little experience working with us, our platform, and our business model. If we are unable to hire and train sufficient numbers of effective sales personnel, our sales personnel do not reach significant levels of productivity in a timely manner, or our sales personnel are not successful in acquiring new customers or expanding usage by existing customers, our business will be harmed.

The markets in which we participate are competitive, and if we do not compete effectively, our business will be harmed.

The market for cloud computing platforms, particularly enterprise grade products, is highly fragmented, competitive, and constantly evolving. With the introduction of new technologies and market entrants, we expect that the competitive environment in which we compete will remain intense going forward. Legacy CDNs, such as Akamai, Limelight, EdgeCast (part of Verizon Digital Media), Level3, and Imperva, and small business-focused CDNs, such as Cloudflare, InStart, StackPath, and Section.io, offer products that compete with ours. We also compete with application and API security vendors like Akamai, Cloudflare, Imperva, Amazon Web Services and F5 (Shape), with cloud providers who are starting to offer compute functionality at the edge like Amazon's CloudFront, AWS Lambda, and Google Cloud Platform, as well as traditional data center and appliance vendors like F5, Citrix, A10 Networks, Cisco, Imperva, Radware, and Arbor Networks, who offer a range of on-premise solutions for load balancing, WAF, and DDoS. Some of our competitors have made or may make acquisitions or may enter into partnerships or other strategic relationships that may provide more comprehensive offerings than they individually had offered. Such acquisitions or partnerships may help competitors achieve greater economies of scale than us. In addition, new entrants not currently considered to be competitors may enter the market through acquisitions, partnerships, or strategic relationships. We compete on the basis of a number of factors, including:

- our platform's functionality, scalability, performance, ease of use, reliability, security availability, and cost effectiveness relative to that of our competitors' products and services;
- our global network coverage and availability;
- our ability to utilize new and proprietary technologies to offer services and features previously not available in the marketplace;
- our ability to identify new markets, applications, and technologies;
- our ability to attract and retain customers;
- our brand, reputation, and trustworthiness;
- our credibility with developers;
- the quality of our customer support;
- our ability to recruit software engineers and sales and marketing personnel;
- our ability to protect our intellectual property; and
- our ability to identify opportunities for acquisitions and strategic relationships and successfully execute on them, including our acquisition of Signal Sciences.

We face substantial competition from legacy CDNs, small business-focused CDNs, cloud providers, traditional data center, and appliance vendors. In addition, existing and potential customers may not use our platform, or may limit their use, because they pursue a "do-it-yourself" approach by putting in place equipment, software, and other technology products for content and application delivery within their internal systems; enter into relationships directly with network providers instead of relying on an overlay network like ours; or implement multi-vendor policies to reduce reliance on external providers like us.

Our competitors vary in size and in the breadth and scope of the products and services offered. Many of our competitors and potential competitors have greater name recognition, longer operating histories, more established customer relationships and installed customer bases, larger marketing budgets, and greater resources than we do. While some of our competitors provide a platform with applications to support one or more use cases, many others provide point-solutions that address a single use case. Other potential competitors not currently offering competitive applications may expand their product offerings, and our current customers may develop their own products or features, to compete with our offerings. Our competitors may be able to respond more quickly and effectively than we can to new or changing opportunities, technologies, standards, and customer requirements. An existing competitor or new entrant could introduce new technology that reduces demand for our platform. In addition to application and technology competition, we face pricing competition. Some of our competitors offer their applications or services at a lower price, which has resulted in pricing pressures. Some of our larger competitors have the operating flexibility to bundle competing applications and services with other offerings, including offering them at a lower price or for no additional cost to customers as part of a larger sale of other products. For all of these reasons, we may not be able to compete successfully and competition could result in the failure of our platform to achieve or maintain market acceptance, the market for our edge cloud platform may grow more slowly than we anticipate, any of which could harm our business.

If we fail to maintain and enhance our brand, our ability to expand our customer base will be impaired and our business, results of operations and financial condition may suffer.

We believe that maintaining and enhancing our brand is important to continued market acceptance of our existing and future products, attracting new customers, and retaining existing customers. We also believe that the importance of brand recognition will increase as competition in our market increases. Successfully maintaining and enhancing our brand will depend largely on the effectiveness of our marketing efforts, our ability to provide reliable products that continue to meet the needs of our customers at competitive prices, our ability to maintain our customers' trust, our ability to continue to develop new functionality and products, and our ability to successfully differentiate our platform from competitive products and services. Additionally, our brand and reputation may be affected if customers do not have a positive experience with our partners' services. Our brand promotion activities may not generate customer awareness or yield increased revenue, and even if they do, any increased revenue may not offset the expenses we incurred in building our brand. If we fail to successfully promote and maintain our brand, our business may be harmed.

Acquisitions, strategic investments, partnerships, or alliances could be difficult to identify and integrate, divert the attention of management, disrupt our business, and dilute stockholder value.

On October 1, 2020, we completed the acquisition of Signal Sciences. We may in the future seek to acquire or invest in businesses, products, or technologies that we believe could complement or expand our platform, enhance our technical capabilities, or otherwise offer growth opportunities. The pursuit of potential acquisitions may divert the attention of management and cause us to incur various expenses in identifying, investigating, and pursuing acquisitions, whether or not such acquisitions are completed. In addition, we have limited experience in acquiring other businesses and we may not successfully identify desirable acquisition targets or, when we acquire additional businesses, such as Signal Sciences, we may not be able to integrate them effectively following the acquisition. Acquisitions could also result in dilutive issuances of equity securities or the incurrence of debt, which could adversely affect our operating results, may cause unfavorable accounting treatment, may expose us to claims and disputes by third parties, including intellectual property claims, and may not generate sufficient financial returns to offset additional costs and expenses related to the acquisitions. We may also incur significant, and sometimes unanticipated, costs in connection with these acquisitions or in integration with our business. In addition, if an acquired business, such as Signal Sciences, fails to meet our expectations or we do not realize sufficient value, our business may be harmed.

Further, it is possible that there could be a loss of our or any acquired company's key employees and customers, disruption of either company's or both companies' ongoing businesses or unexpected issues, higher than expected costs and an overall post-completion process that takes longer than originally anticipated. Specifically, the following issues, among others, must be addressed in combining any company's, including Signal Sciences', operations with ours in order to realize the anticipated benefits of the acquisition so the combined company performs as the parties hope:

- combining the companies' corporate functions;
- combining their business with our business in a manner that permits us to achieve the synergies anticipated to result from the acquisition, the failure of which would result in the anticipated benefits of the acquisition not being realized in the time frame currently anticipated or at all;
- maintaining existing and new agreements with customers, service providers, and vendors;

- determining whether and how to address possible differences in corporate cultures, management philosophies and strategies relating to channels, resellers, and partners;
- integrating the companies' administrative and information technology infrastructure;
- developing products and technology that allow value to be unlocked in the future; and
- evaluating and forecasting the financial impact of the acquisition transaction, including accounting charges.

In addition, at times the attention of certain members of our management and resources may be focused on completion of the acquisition and integration planning of the businesses of the two companies and diverted from day to day business operations, which may disrupt our ongoing business and the business of the combined company. For example, certain members of our management team and other personnel have spent significant time on the acquisition and integration of Signal Sciences.

We are, and in the future may be, involved in class-action lawsuits and other litigation matters that are expensive and time-consuming. If resolved adversely, lawsuits and other litigation matters could seriously harm our business.

We are, and in the future may be, subject to litigation such as putative class action and shareholder derivative lawsuits brought by stockholders. We anticipate that we will continue to be a target for lawsuits in the future. For example, on August 27, 2020 and September 15, 2020, we and certain of our officers were named as defendants in putative securities class action purportedly brought on behalf of holders of our Class A common stock. These two securities class actions have been consolidated and defendants filed a motion to dismiss the consolidated complaint on June 11, 2021. On December 28, 2020 and February 2, 2021, certain of our officers and directors were named as defendants in shareholder derivative actions. These two shareholder derivative actions have been consolidated and stayed pending resolution of our motion to dismiss in the securities class action. Any litigation to which we are a party may result in an onerous or unfavorable judgment that may not be reversed on appeal, or we may decide to settle lawsuits on similarly unfavorable terms. Any such negative outcome could result in payments of substantial monetary damages and accordingly our business could be seriously harmed. The results of lawsuits and claims cannot be predicted with certainty. Regardless of the final outcome, defending these claims, and associated indemnification obligations, are costly and can impose a significant burden on management and employees, and we may receive unfavorable preliminary, interim, or final rulings in the course of litigation, which could seriously harm our business.

Health epidemics, including the ongoing COVID-19 pandemic, have had, and could in the future have, an adverse impact on our business, operations, and the markets and communities in which we, our partners and customers operate.*

The ongoing global COVID-19 pandemic has adversely impacted, and may continue to adversely impact, many aspects of our business. As certain of our customers or potential customers experience downturns or uncertainty in their own business operations and revenue resulting from the spread of COVID-19, they have and may continue to decrease or delay their technology spending, request pricing concessions or payment extensions, or seek renegotiation of their contracts. In addition, a portion of our revenue is related to usage of our platform in connection with live events, such as sporting events, that have continued to be impacted. Usage of our platform fluctuated following the implementation of preventative measures to contain or mitigate the outbreak of COVID-19, and we cannot predict how usage levels will continue to be impacted by these preventative measures. There is no assurance that customers will continue to use our platform, or to the same extent, as the COVID-19 pandemic begins to taper off or when it has ended. As a result, it has been difficult to accurately forecast our revenues or financial results, especially given that the near and long term impact of the pandemic remains uncertain. Our results of operations could be materially below our forecasts, which could adversely affect our results of operations, disappoint analysts and investors, or cause our stock price to decline.

In response to the COVID-19 pandemic, many state, local, and foreign governments have put in place restrictions in order to control the spread of the disease. Such restrictions, or the perception that further restrictions could occur, have resulted in business closures, work stoppages, slowdowns and delays, work-from-home policies, travel restrictions, and cancellation or postponement of events, among other effects that impacted productivity and disrupted our operations and those of our partners and customers. For example, we experienced delays in the ramping of new traffic due to travel and data center restrictions in South Asia that delayed network build outs and the timing of customer code freezes, each affected in part due to COVID-19-related issues. In addition, our suppliers have been impacted by the COVID-19 pandemic, which has reduced the availability or resulted in delays, and may continue to reduce the availability or result in delays, of parts and components to us. In March 2020, we closed all of our offices, suspended non-essential travel, cancelled or postponed Fastly-sponsored in-person events, and we are not permitting in-person employee attendance at industry events or work-related meetings. We have instead shifted to hosting virtual events, including Altitude, our signature Fastly event. We may take further actions that alter our operations as may be required by federal, state, or local authorities, or which we determine are in our best interests. While much of our operations can be performed remotely, certain activities such as expanding and maintaining our network of POPs around the world often require personnel to be on-site, and our ability to carry out these activities have been, and may continue to be negatively impacted if our employees or local data center personnel are not able to travel. In addition, travel restrictions have affected our ability to conduct audits of our data centers and facilities, requiring us to use alternative procedures to the standard on-site visit. Any inability to complete these audits could affect our compliance certifications and cause customers to reduce or cease using our services. In addition, for activities that may be conducted remotely, there is no guarantee that we will be as effective while working remotely because our team is dispersed and many employees and their families have been negatively affected, mentally or physically, by the COVID-19 pandemic. Decreased effectiveness and availability of our team could harm our business. Moreover, our finance organization's ability to ensure that we comply with the requirements of Section 404 may be impaired in the future, including the ability of our registered public accounting firm to issue an attestation report on management's assessment of our internal control over financial reporting. Furthermore, we may decide to postpone or cancel planned investments in our business in response to changes in our business as a result of the spread of COVID-19, which may impact our ability to attract and retain customers and our rate of innovation, either of which could harm our business.

In addition, while the potential impact and duration of the COVID-19 pandemic on the global economy and our business in particular may be difficult to assess or predict, the pandemic has resulted in, and may continue to result in, significant disruption of global financial markets, and may reduce our ability to access additional capital, which could negatively affect our liquidity in the future.

We do not yet know the full extent of potential delays or impacts on our business, operations, or the global economy as a whole. While there have recently been vaccines developed and administered, and the spread of COVID-19 may eventually be contained or mitigated, we cannot predict the timing of the vaccine roll-out globally or the efficacy of such vaccines, including against variants that emerge, and we do not yet know how businesses, customers, or our partners will operate in a post COVID-19 environment. There may be additional costs or impacts to our business and operations, including when we are able to return to our offices and resume in-person activities, travel, and events. In addition, there is no guarantee that a future outbreak of this or any other widespread epidemics will not occur, or that the global economy will recover, either of which could harm our business.

We may not be able to scale our business quickly enough to meet our customers' growing needs. If we are not able to grow efficiently, our business could be harmed.

As usage of our edge cloud computing platform grows and as the breadth of use cases for our platform expands, we will need to devote additional resources to improving our platform architecture, integrating with third-party applications and maintaining infrastructure performance. In addition, we will need to appropriately scale our processes and procedures that support our growing customer base, including increasing our number of POPs around the world and investments in systems, training, and customer support.

Any failure of or delay in these efforts could cause impaired system performance and reduced customer satisfaction. These issues could reduce the attractiveness of our platform to customers, resulting in decreased sales to new customers, lower renewal rates by existing customers, the issuance of service credits, or requested refunds, which would hurt our revenue growth and our reputation. Even if we are able to upgrade our systems and expand our staff, any such expansion will be expensive and complex, and require the dedication of significant management time and attention. We could also face inefficiencies or operational failures as a result of our efforts to scale our cloud infrastructure. We cannot be sure that the expansion and improvements to our cloud infrastructure will be effectively implemented on a timely basis, if at all, and such failures would harm our business.

We may have insufficient transmission bandwidth and colocation space, which could result in disruptions to our platform and loss of revenue.

Our operations are dependent in part upon transmission bandwidth provided by third-party telecommunications network providers and access to colocation facilities to house our servers. There can be no assurance that we are adequately prepared for unexpected increases in bandwidth demands by our customers, particularly when customers experience cyber-attacks. The bandwidth we have contracted to purchase may become unavailable for a variety of reasons, including service outages, payment disputes, network providers going out of business, natural disasters, networks imposing traffic limits, or governments adopting regulations that impact network operations. In some regions, bandwidth providers have their own services that compete with us, or they may choose to develop their own services that will compete with us. These bandwidth providers may become unwilling to sell us adequate transmission bandwidth at fair market prices, if at all. This risk is heightened where market power is concentrated with one or a few major networks. We also may be unable to move quickly enough to augment capacity to reflect growing traffic or security demands. Failure to put in place the capacity we require could result in a reduction in, or disruption of, service to our customers and ultimately a loss of those customers. Such a failure could result in our inability to acquire new customers demanding capacity not available on our platform.

If our security measures, or those maintained on our behalf, are compromised now, or in the future, or the security, confidentiality, integrity or availability of our information technology, software, services, networks, communications or data is compromised, limited or fails, our business could experience a materially adverse impact, including significant costs and disruptions that could harm our business, financial results, and reputation.

Our business is dependent on providing our customers with fast, efficient, and reliable distribution of applications and content over the internet. We transmit and store our customers' information, data, and encryption keys as well as our own; customer information and data may include personally identifiable data of and about their end-users. Maintaining the security and availability of our platform, network, and internal IT systems and the security of information we hold on behalf of our customers is a critical issue for us and our customers, and we may expend significant resources, fundamentally change our business activities and practices, or modify our operations in an effort to protect against security incidents and to mitigate, detect, and remediate actual and potential vulnerabilities. Attacks on our customers and our own network are frequent and take a variety of forms, including DDoS attacks, infrastructure attacks, botnets, malicious file attacks, cross-site scripting, credential abuse, ransomware, bugs, viruses, worms, and malicious software programs. Malicious actors can attempt to fraudulently induce employees or suppliers to disclose sensitive information through spamming, phishing, or other tactics. Similarly, supply chain attacks have increased in frequency and severity, and we cannot guarantee that third parties and infrastructure in our supply chain have not been compromised or that they do not contain exploitable defects or bugs that could result in a breach of or disruption to our platform, systems and networks or the systems and networks of third parties that support us and our services. In addition, unauthorized parties may attempt to gain physical access to our facilities in order to infiltrate our information systems. We have in the past been subject to cyber-attacks from third parties, including parties who we believe are sponsored by government actors. Since our customers share our multi-tenant architecture, an attack on any one of our customers could have a negative effect on other customers. These attacks have significantly increased the bandwidth used on our platform and have strained our network. If attacks like these were to occur in the future and if we do not have the systems and processes in place to respond to them, our business could be harmed.

Security incidents, whether as a result of third-party action, employee or customer error, technology impairment or failure, malfeasance or criminal activity, or hostile state actors, could result in unauthorized access to, or loss or unauthorized disclosure of, customer information or data, litigation, indemnity obligations, and other possible liabilities. Incidents involving customer information have in the past resulted in pricing and other concessions, decreased customer usage and terminations by affected customers, and similar security incidents could occur in the future that result in pricing concessions, indemnity obligations, and other possible liabilities related to such unauthorized access, loss or disclosure, including litigation. Further, certain of our insurance policies and the laws of some states may limit or prohibit insurance coverage for punitive or certain other types of damages or liability arising from gross negligence or intentional misconduct of us and our suppliers and we cannot assure you that we are adequately insured against the risks that we face.

In recent years, cyber-attacks have increased in size, sophistication, and complexity, increasing exposure for our customers and us. In addition, as we expand our emphasis on selling security-related products, we may become a more attractive target for attacks on our infrastructure intended to destabilize, overwhelm, or shut down our platform. For example, we have had security incidents in the past that have tested the limits of our infrastructure and impacted the performance of our platform. The costs to us to avoid or alleviate cyber or other security problems and vulnerabilities are significant. However, our efforts to address these problems and vulnerabilities may not be successful. Any actual or perceived significant breach of our security measures could:

- lead to the dissemination of proprietary information or sensitive, personal, or confidential data about us, our employees, or our customers —including personally identifiable information of individuals involved with our customers and their end-users;
- lead to interruptions or degradation of performance in our platform;
- threaten our ability to provide our customers with access to our platform;
- generate negative publicity about us;
- result in litigation and increased legal liability or fines; or
- lead to governmental inquiry or oversight.

Additionally, applicable data protection laws, privacy policies and data protection obligations may require us to notify relevant stakeholders of security incidents, including affected individuals, customers, regulators and credit reporting agencies. Such disclosures are costly, and the disclosures or the failure to comply with such requirements, could lead to materially adverse impacts, including, without limitation, negative publicity, a loss of customer confidence in our services or breach of contract claims.

The occurrence, or perceived occurrence, of any of these events could harm our business or damage our brand and reputation, lead to customer credits, loss of customers, higher expenses, and possibly impede our present and future success in retaining and attracting new customers. A successful security breach or attack on our infrastructure would be damaging to our reputation and could harm our business.

Similar security risks exist with respect to our business partners and the third-party vendors that we rely on for aspects of our information technology support services and administrative functions. As a result, we are subject to the risk that cyber-attacks on our business partners and third-party vendors may adversely affect our business even if an attack or breach does not directly impact our systems. It is also possible that security breaches sustained by our competitors could result in negative publicity for our entire industry that indirectly harms our reputation and diminishes demand for our platform.

The nature of our business exposes us to inherent liability risks.

Our platform and related applications, including our security solutions, are designed to provide rapid protection against web application vulnerabilities and cyber-attacks. However, no security product can provide absolute protection against all vulnerabilities and cyber-attacks. Our platform is subject to cyber-attacks, and the failure of our platform and related applications to adequately protect against these cyber-attacks may allow our customers to be attacked. Any adverse consequences of these attacks, and our failure to meet our customers' expectations as they relate to such attacks, could harm our business.

Due to the nature of our applications, we are potentially exposed to greater risks of liability for product or system failures than may be inherent in other businesses. Although substantially all of our customer agreements contain provisions that limit our liability to our customers, these limitations may not be sufficient, and we cannot assure you that these limitations will be enforced or the costs of any litigation related to actual or alleged omissions or failures would not have a material adverse effect on us even if we prevail.

Our dedication to our values may negatively influence our financial results.

We have taken, and may continue to take, actions that we believe are in the best interests of our customers, our employees, and our business, even if those actions do not maximize financial results in the short term. For instance, we do not knowingly allow our platform to be used to deliver content from groups that promote violence or hate, and that conflict with our values like strong ethical principles of integrity and trustworthiness, among others. However, this approach may not result in the benefits that we expect, and our employees or third parties may disagree with our interpretation of our values, or take issue with how we execute on our values, which may result in us becoming a target for negative publicity, increased scrutiny, lawsuits, or network attacks, in which case our business could be harmed.

Our growth depends in large part on the success of our partner relationships.

We maintain a partner ecosystem of companies who build edge applications to integrate with our platform. We are dependent on these partner relationships to amplify our reach and provide our customers with enhanced value from our platform. Our future growth will be increasingly dependent on the success of our partner relationships, including their development of useful applications for our platform. If those partnerships do not provide these benefits or if our partners are unable to serve our customers effectively, we may need to allocate resources internally to provide these services or our customers may not realize the full value of our platform, which could harm our business.

Moreover, our partners' business partners may not completely align with our core values and therefore may do business with companies that we otherwise would not. Our association with these companies could damage our brand and reputation and potentially harm our business.

We operate in an emerging and evolving market, which may develop more slowly or differently than we expect. If our market does not grow as we expect, or if we cannot expand our services to meet the demands of this market, our revenue may decline, or fail to grow, and we may incur operating losses.

The market for edge computing is in an early stage of development. There is considerable uncertainty over the size and rate at which this market will grow, as well as whether our platform will be widely adopted. Our success will depend, to a substantial extent, on the widespread adoption of our platform as an alternative to other solutions, such as legacy CDNs, enterprise data centers, central cloud, and small business-focused CDNs. Some organizations may be reluctant or unwilling to use our platform for a number of reasons, including concerns about additional costs, uncertainty regarding the reliability, and security of cloud-based offerings or lack of awareness of the benefits of our platform. Moreover, many organizations have invested substantial personnel and financial resources to integrate traditional on-premise services into their businesses, and therefore may be reluctant or unwilling to migrate to cloud-based services. Our ability to expand sales of our product into new and existing markets depends on several factors, including potential customer awareness of our platform; the timely completion of data centers in those markets; introduction and market acceptance of enhancements to our platform or new applications that we may introduce; our ability to attract, retain and effectively train sales and marketing personnel; our ability to develop relationships with partners; the effectiveness of our marketing programs; the pricing of our services; and the success of our competitors. If we are unsuccessful in developing and marketing our product into new and existing markets, or if organizations do not perceive or value the benefits of our platform, the market for our product might not continue to develop or might develop more slowly than we expect, either of which may harm our business.

The estimates of market opportunity and forecasts of market growth may prove to be inaccurate, and any real or perceived inaccuracies may harm our reputation and negatively affect our business. Even if the market in which we compete achieves the forecasted growth, our business could fail to grow at similar rates, if at all.

Third party market opportunity estimates and our growth forecasts are subject to significant uncertainty and are based on assumptions and estimates that may not prove to be accurate. The variables that go into the calculation of our market opportunity are subject to change over time, and there is no guarantee that any particular number or percentage of addressable companies or end-users covered by our market opportunity estimates will purchase our products at all or generate any particular level of revenues for us. Even if the market in which we compete meets the size estimates and growth forecasted, our business could fail to grow for a variety of reasons, including reasons outside of our control, such as competition in our industry.

Usage of our platform accounts for substantially all of our revenue.

We expect that we will be substantially dependent on our edge cloud platform to generate revenue for the foreseeable future. As a result, our operating results could suffer due to:

- any decline in demand for our edge cloud platform;
- the failure of our edge cloud platform to achieve continued market acceptance;
- the market for edge cloud computing services not continuing to grow, or growing more slowly than we expect;
- the introduction of products and technologies that serve as a replacement or substitute for, or represent an improvement over, our edge cloud platform;
- technological innovations or new standards that our edge cloud platform does not address;

- sensitivity to current or future prices offered by us or our competitors;
- our customers' development of their own edge cloud platform; and
- our inability to release enhanced versions of our edge cloud platform on a timely basis.

If the market for our edge cloud platform grows more slowly than anticipated or if demand for our edge cloud platform does not grow as quickly as anticipated, whether as a result of competition, pricing sensitivities, product obsolescence, technological change, unfavorable economic conditions, uncertain geopolitical environment, budgetary constraints of our customers, or other factors, our business would be harmed.

We expect fluctuations in our financial results and key metrics, making it difficult to project future results, and if we fail to meet the expectations of securities analysts or investors, our stock price and the value of your investment could decline.

Our operating results, as well as our key metrics, including our DBNER, NRR and LTM NRR, have fluctuated in the past and are expected to fluctuate in the future due to a variety of factors, many of which are outside of our control. As a result, our past results may not be indicative of our future performance and period-to-period comparisons of our operating results and key metrics may not be meaningful or accurately measure our business. In addition to the other risks described herein, factors that may affect our operating results include the following:

- fluctuations in demand for or pricing of our platform;
- our ability to attract new customers;
- our ability to retain our existing customers;
- fluctuations in the usage of our platform by our customers, which is directly related to the amount of revenue that we recognize from our customers;
- fluctuations in customer delays in purchasing decisions in anticipation of new products or product enhancements by us or our competitors;
- changes in customers' budgets and in the timing of their budget cycles and purchasing decisions;
- the timing of customer payments and any difficulty in collecting accounts receivable from customers;
- timing of new functionality of our existing platform;
- our ability to control costs, including our operating expenses;
- the amount and timing of payment for operating expenses, particularly research and development and sales and marketing expenses, including commissions;
- the amount and timing of costs associated with recruiting, training, and integrating new employees;
- the effects of acquisitions or other strategic transactions;
- expenses in connection with acquisitions or other strategic transactions;
- our ability to successfully deploy POPs in new regions;
- general economic conditions, both domestically and internationally, as well as economic conditions specifically affecting industries in which our customers participate;
- the ability to maintain our partnerships;
- the impact of new accounting pronouncements;
- changes in the competitive dynamics of our market, including consolidation among competitors or customers;
- significant security breaches of, technical difficulties with, or interruptions to, the delivery and use of our platform; and

- awareness of our brand and our reputation in our target markets.

Additionally, certain large scale events, such as major elections and sporting events, can significantly impact usage of our platform, which could cause fluctuations in our results of operations. While increased usage of our platform during these events could result in increased revenue, these seasonal and one-time events could also impact the performance of our platform during those events and lead to a sub-optimal experience for some customers. Such annual and one-time events may cause fluctuations in our results of operations as they would impact both our revenue and our operating expenses.

Any of the foregoing and other factors may cause our results of operations to vary significantly. If our quarterly results of operations fall below the expectations of investors and securities analysts who follow our stock, the price of our Class A common stock could decline substantially, and our business could be harmed.

Our pricing models subject us to various challenges that could make it difficult for us to derive sufficient value from our customers, and we do not have sufficient history with our pricing models to accurately predict the optimal pricing necessary to attract new customers and retain existing customers.

We generally charge our customers for their usage of our platform based on the combined total usage, as well as the features and functionality enabled. Additionally, once our product is purchased, customers can also buy a combination of our add-on products. We do not know whether our current or potential customers or the market in general will continue to accept this pricing model going forward and, if it fails to gain acceptance, our business could be harmed. We also generally purchase bandwidth from internet service providers and server colocation space from third parties based on expected usage from our customers. Moreover, if our customers use our platform in a manner that is inconsistent with how we have purchased bandwidth, servers, and colocation space, our business could be harmed.

We have limited experience with respect to determining the optimal prices for our products and, as a result, we have in the past changed our pricing model and expect that we may need to do so in the future. As the market for our products matures, or as new competitors introduce new products or services that compete with ours, we may be unable to attract new customers at the same price or based on the same pricing models as we have used historically. Pricing decisions may also impact the mix of adoption among our customers and negatively impact our overall revenue. Moreover, larger organizations may demand substantial price concessions. As a result, in the future we may be required to reduce our prices or develop new pricing models, which could adversely affect our revenue, gross margin, profitability, financial position, and cash flow.

Our sales and onboarding cycles with customers can be long and unpredictable, and our sales and onboarding efforts require considerable time and expense.

The timing of our sales with our enterprise customers and related revenue recognition is difficult to predict because of the length and unpredictability of the sales cycle for these customers. In addition, for our enterprise customers, the lengthy sales cycle for the evaluation and implementation of our products may also cause us to experience a delay between expenses for such sales efforts and the generation of corresponding revenue. The length of our sales cycle for these customers, from initial evaluation to payment, can range from several months to well over a year and can vary substantially from customer to customer. Similarly, the onboarding and ramping process with new enterprise customers, or with existing customers that are moving additional traffic onto our platform, can take several months. As the purchase of our products can be dependent upon customer initiatives, our sales cycle can extend to even longer periods of time. Customers often view a switch to our platform as a strategic decision requiring significant investment and, as a result, frequently require considerable time to evaluate, test, and qualify our product offering prior to entering into or expanding a contract commitment. During the sales cycle, we expend significant time and money on sales and marketing and contract negotiation activities, which may not result in a completed sale. Additional factors that may influence the length and variability of our sales cycle include:

- the effectiveness of our sales force, particularly new salespeople and sales leadership, as we increase the size of our sales force and train our new salespeople to sell to enterprise customers;
- the discretionary nature of customers’ purchasing decisions and budget cycles;
- customers’ procurement processes, including their evaluation of competing products;
- economic conditions and other factors affecting customer budgets;
- the regulatory environment in which our customers operate;
- integration complexity for a customer deployment;

- the customer’s familiarity with edge cloud computing platforms;
- evolving customer demands;
- selling new products to enterprise customers; and
- competitive conditions.

Given these factors, it is difficult to predict whether and when a customer will switch to our platform.

Given that it can take several months for our customers to ramp up their usage of our platform, during that time, we may not be able to generate enough revenue from a particular customer or that customer may not increase their usage in a meaningful way. Moreover, because the switching costs are fairly low, our customers are able to switch from our platform to alternative services relatively easily. As a result, actual usage could be materially above or below our forecasts, which could adversely affect our results of operations, disappoint analysts and investors, or cause our stock price to decline.

If our platform does not achieve sufficient market acceptance, our financial results and competitive position will suffer.

To meet our customers’ rapidly evolving demands, we invest substantial resources in research and development of enhanced products to incorporate additional functionality or expand the use cases that our platform addresses. Maintaining adequate research and development resources, such as the appropriate personnel and development technology, to meet the demands of the market is essential. If we are unable to develop products internally due to inadequate or ineffective research and development resources, we may not be able to address our customers’ needs on a timely basis or at all. In addition, if we seek to supplement our research and development capabilities or the breadth of our products through acquisitions, such acquisitions could be expensive and we may not successfully integrate acquired technologies or businesses into our business. When we develop or acquire new or enhanced products, we typically incur expenses and expend resources upfront to develop, market, promote, and sell the new offering. Therefore, when we develop or acquire and introduce new or enhanced products, they must achieve high levels of market acceptance in order to justify the amount of our investment in developing or acquiring and bringing them to market. Our new products or enhancements and changes to our existing products could fail to attain sufficient market acceptance for many reasons, including:

- failure to predict market demand accurately in terms of functionality and a failure to supply products that meet this demand in a timely fashion;
- defects, errors, or failures;
- negative publicity about our platform’s performance or effectiveness;
- changes in the legal or regulatory requirements, or increased legal or regulatory scrutiny, adversely affecting our platform;
- emergence of a competitor that achieves market acceptance before we do;
- delays in releasing enhancements to our platform to the market; and
- introduction or anticipated introduction of competing products by our competitors.

If our platform and any future enhancements do not achieve adequate acceptance in the market, or if products and technologies developed by others achieve greater acceptance in the market, our business could be harmed.

Beyond overall acceptance of our platform by our customers, it is important that we maintain and grow acceptance of our platform among the developers that work for our customers. We rely on developers to choose our platform over other options they may have, and to continue to use and promote our platform as they move between companies. These developers often make design decisions and influence the product and vendor processes within our customers. If we fail to gain or maintain their acceptance of our platform, our business would be harmed.

We rely on third-party hosting providers that may be difficult to replace.

We rely on third-party hosting services such as Amazon Web Services ("AWS"), Google, Softlayer (acquired by IBM), and other cloud providers that facilitate the offering of our platform. Some of these third-party hosting services offer competing products to ours and therefore may not continue to be available on commercially reasonable terms, or at all. These providers may be unwilling to do business with us if they view our platform as a threat. Any loss of the right to use any of the hosting providers could impair our ability to offer our platform until we are able to obtain alternative hosting providers.

If we do not or cannot maintain the compatibility of our platform with third-party applications that our customers use in their businesses, our business will be harmed.

Because our customers choose to integrate our products with certain capabilities provided by third-party providers, the functionality and popularity of our platform depends, in part, on our ability to integrate our platform and applications with third-party applications. These third parties may change the features of their technologies, restrict our access to their applications, or alter the terms governing use of their applications in a manner that is adverse to our business. Such changes could functionally limit or prevent our ability to use these third-party technologies in conjunction with our platform, which would negatively affect adoption of our platform and harm our business. If we fail to integrate our platform with new third-party applications that our customers use, we may not be able to offer the functionality that our customers need, which would harm our business.

We provide service level commitments under our customer agreements. If we fail to meet these contractual commitments, we could be obligated to provide credits for future service, or face contract termination with refunds of prepaid amounts, which could harm our business.

Most of our customer agreements contain service level commitments. If we are unable to meet the stated service level commitments, including failure to meet the uptime and delivery requirements under our customer agreements, we have in the past and may in the future be contractually obligated to provide the affected customers with service credits which could significantly affect our revenues in the periods in which the uptime and/or delivery failure occurs and the credits are applied. For example, as a result of platform interruptions in January 2021 and June 2021, certain of our affected customers with whom we have service level commitments are entitled to receive service credits. We could also face customer terminations with refunds of prepaid amounts, which could significantly affect both our current and future revenues. Any service level failures could harm our business.

If we fail to offer high quality support, our business may be harmed.

Our customers rely on our support team to assist them in deploying our products effectively and resolve technical and operational issues. High-quality support is important for the renewal and expansion of our agreements with existing customers. The importance of maintaining high quality support will increase as we expand our business and pursue new customers. If we do not help our customers quickly resolve issues and provide effective ongoing support, our ability to maintain and expand our relationships with existing and new customers could suffer and our business could be harmed. Further, increased demand for customer support, without corresponding revenue, could increase costs and adversely affect our business. In addition, as we continue to grow our operations and expand internationally, we will need to be able to provide efficient customer support that meets our customers’ needs globally at scale and our customer support team will face additional challenges, including those associated with delivering support and documentation in multiple languages. Our failure to do so could harm our business.

Risks Related to Employees and Managing Our Growth

We rely on the performance of highly skilled personnel, including our management and other key employees, and the loss of one or more of such personnel, or of a significant number of our team members, could harm our business.

We believe our success has depended, and continues to depend, on the efforts and talents of senior management and key personnel, including Artur Bergman, our Chief Architect and Executive Chairman and Joshua Bixby, our Chief Executive Officer. From time to time, there may be changes in our management team resulting from the hiring or departure of executives and key employees, or the transition of executives within our business, which could disrupt our business. Some of our executive officers and other members of our management team have been with us for a short period of time, including Brett Shirk, our Chief Revenue Officer, who joined us in February 2021. In addition, on May 5, 2021, we announced that Adriel Lares will step down from his office as our Chief Financial Officer. On June 29, 2021, we announced the appointment of Ron Kisling as our new Chief Financial Officer. Mr. Kisling will begin serving in this role effective August 9, 2021. We are also dependent on the continued service of our existing software engineers because of the complexity of our platform. Our senior management and key employees are employed on an at-will basis. We cannot ensure that we will be able to retain the services of any member of our senior management or other key employees or that we would be able to timely replace members of our senior management or other key employees should any of them depart. The loss of one or more of our senior management or other key employees could harm our business.

The failure to attract and retain additional qualified personnel could prevent us from executing our business strategy.

To execute our business strategy, we must attract and retain highly qualified personnel. Competition for executive officers, software developers, sales personnel, and other key employees in our industry is intense. In particular, we compete with many other companies for software developers with high levels of experience in designing, developing, and managing cloud-based software, as well as for skilled sales and operations professionals. In addition, we believe that the success of our business and corporate culture depends on employing people with a variety of backgrounds and experiences, and the competition for such diverse personnel is significant. The market for such talented personnel is competitive. Many of the companies with which we compete for experienced personnel have greater resources than we do and can frequently offer such personnel substantially greater compensation than we can offer. In addition, prospective and existing employees often consider the value of the equity awards they receive in connection with their employment. If the perceived value of our equity awards declines, experiences significant volatility, or increases such that prospective employees believe there is limited upside to the value of our equity awards, it may adversely affect our ability to recruit and retain key employees. If we fail to attract new personnel or fail to retain and motivate our current personnel, our business would be harmed.

Our recent rapid growth may not be indicative of our future growth and, if we continue to grow rapidly, we may not be able to manage our growth effectively.

We have experienced substantial growth in various aspects of our business since inception. For example, our headcount has grown from 939 employees as of December 31, 2020 to 993 employees as of June 30, 2021, including growing by approximately 149 employees on October 1, 2020 in connection with our acquisition of Signal Sciences. In addition, we are rapidly expanding, and expect to continue to expand in the future, our international operations. We have also experienced significant growth in the number of customers, usage, and amount of data delivered across our platform. This growth has placed and may continue to place significant demands on our corporate culture, operational infrastructure, and management. We may not continue to grow as rapidly in the future. Overall growth of our revenue depends on a number of factors, including our ability to:

- address new and developing markets, such as large enterprise customers outside the United States;
- control expenses;
- recruit, hire, train, and manage additional qualified engineers;
- recruit, hire, train, and manage additional sales and marketing personnel;
- maintain our corporate culture;
- expand our international operations;
- implement and improve our administrative, financial and operational systems, procedures, and controls;
- attract new customers and increase our existing customers’ usage on our platform;

- expand the functionality and use cases for the products we offer on our platform;
- provide our customers with customer support that meets their needs; and
- successfully identify and acquire or invest in businesses, products, or technologies that we believe could complement or expand our products, such as our acquisition of Signal Sciences.

We may not successfully accomplish any of the above objectives. We expect to continue to expend substantial financial and other resources on:

- sales and marketing, including a significant expansion of our sales organization;
- our infrastructure, including POP deployments, systems architecture, management tools, scalability, availability, performance, and security, as well as disaster recovery measures;
- product development, including investments in our product development team and the development of new products and new functionality for our existing products;
- acquisitions or strategic investments;
- international expansion; and
- general administration, including increased legal and accounting expenses associated with being a public company.

If we cannot maintain our company culture as we grow, our success and our business may be harmed.

We believe our culture has been a key contributor to our success to date and that the critical nature of the products that we provide promotes a sense of greater purpose and fulfillment in our employees. We have invested in building a strong corporate culture and believe it is one of our most important and sustainable sources of competitive advantage. Any failure to preserve our culture could negatively affect our ability to recruit and retain personnel and to effectively focus on and pursue our corporate objectives. As we grow and develop the systems and processes associated with being a public company, we may find it difficult to maintain these important aspects of our culture. In addition, while we have historically benefited from having a dispersed workforce, as we grow and our resources become more globally dispersed and our organizational management structures become more complex, we may find it increasingly difficult to maintain these beneficial aspects of our corporate culture. If we fail to maintain our company culture, our business may be harmed.

Risks Related to Our Financial Position and Need for Additional Capital

Because substantially all of our revenue from usage on our platform is recognized over the term of the relevant contract, downturns or upturns in sales contracts are not immediately reflected in full in our operating results.

Revenue for usage on our platform accounts for substantially all of our total revenue. We recognize revenue over the term of each of our customer contracts, which are typically one year in length but may be longer in length. As a result, much of our revenue is generated from contracts entered into during previous periods. Consequently, a decline in new or renewed contracts in any one quarter may not significantly reduce our revenue for that quarter but could negatively affect our revenue in future quarters. Our revenue recognition model also makes it difficult for us to rapidly increase our revenue through new contracts in any period, as revenue from customers is recognized over the applicable term of their contracts.

Seasonality may cause fluctuations in our sales and operating results.

We have experienced, and expect to continue to experience in the future, seasonality in our business, and our operating results and financial condition may be affected by such trends in the future. We generally experience seasonal fluctuations in demand for our platform. For example, we have some customers who increase their usage and requests when they need more capacity during busy periods, especially in the fourth quarter of the year, and then subsequently scale back. We also host certain large scale events, such as major elections or sporting events, that may be seasonal or one-time which can cause revenue to fluctuate between the periods in which these events occur and subsequent periods. Since we have built our network to handle seasonal capacity fluctuations, we may not be able to reduce our capacity in a timely manner, and as such sustain more costs. We believe that the seasonal trends that we have experienced in the past may continue for the foreseeable future, particularly as we expand our sales to larger enterprises. To the extent we experience this seasonality, it may cause fluctuations in our operating results and financial metrics, and make forecasting our future operating results and financial metrics difficult.

Additionally, we do not have sufficient experience in selling certain of our products to determine if demand for these products are or will be subject to material seasonality.

Our current operations are international in scope and we plan on further geographic expansion, creating a variety of operational challenges.

A component of our growth strategy involves the further expansion of our operations and customer base internationally. For the year ended December 31, 2020, the percentage of revenue generated from customers outside the United States was 32% of our total revenue. We currently have offices in Japan and the United States, as well as employees located throughout the world. We are continuing to adapt to and develop strategies to address international markets but there is no guarantee that such efforts will have the desired effect. As of December 31, 2020, approximately 17% of our full-time employees were located outside of the United States. We expect that our international activities will grow over the foreseeable future as we continue to pursue opportunities in existing and new international markets, which will require significant management attention and financial resources. In connection with such expansion, we may face difficulties including costs associated with, varying seasonality patterns, potential adverse movement of currency exchange rates, longer payment cycle difficulties in collecting accounts receivable in some countries, tariffs and trade barriers, a variety of regulatory or contractual limitations on our ability to operate, adverse tax events, reduced protection of intellectual property rights in some countries, and a geographically and culturally diverse workforce and customer base. Failure to overcome any of these difficulties could harm our business.

Our current and future international business and operations involve a variety of risks, including:

- changes in a specific country's or region's political or economic conditions;
- greater difficulty collecting accounts receivable and longer payment cycles;
- potential or unexpected changes in trade relations, regulations, or laws;
- increased regulatory inquiry or oversight;
- more stringent regulations relating to privacy and data security and the unauthorized use of, or access to, commercial and personal information, particularly in Europe;
- differing labor regulations, especially in Europe and Japan, where labor laws are generally more advantageous to employees as compared to the United States, including deemed hourly wage and overtime regulations in these locations;
- challenges inherent in efficiently managing an increased number of employees over large geographic distances, including the need to implement appropriate systems, policies, benefits, and compliance programs;
- challenges to our corporate culture resulting from a dispersed workforce;
- difficulties in managing a business in new markets with diverse cultures, languages, customs, legal systems, alternative dispute systems, and regulatory systems;
- increased travel, real estate, infrastructure, and legal compliance costs associated with international operations;
- currency exchange rate fluctuations and the resulting effect on our revenue and expenses, and the cost and risk of entering into hedging transactions if we chose to do so in the future;
- challenges related to providing support and developing products in foreign languages;
- limitations on our ability to reinvest earnings from operations in one country to fund the capital needs of our operations in other countries;
- laws and business practices favoring local competitors or general market preferences for local vendors;
- potential tariffs and trade barriers;
- limited or insufficient intellectual property protection or difficulties enforcing our intellectual property;
- political instability or terrorist activities;

- exposure to liabilities under anti-corruption and anti-money laundering laws, and similar laws and regulations in other jurisdictions; and
- adverse tax burdens and foreign exchange controls that could make it difficult to repatriate earnings and cash.

Our limited experience in operating our business internationally increases the risk that any potential future expansion efforts that we may undertake will not be successful. If we invest substantial time and resources to further expand our international operations and are unable to do so successfully and in a timely manner, our business may be harmed.

Our ability to timely raise capital in the future may be limited, or may be unavailable on acceptable terms, if at all, and our failure to raise capital when needed could harm our business, and debt or equity issued to raise additional capital may reduce the value of our Class A common stock.

We have funded our operations since inception primarily through payments received from our customers, sales of equity and debt securities, and borrowings under our credit facilities. We cannot be certain when or if our operations will generate sufficient cash to fully fund our ongoing operations or the growth of our business. We intend to continue to make investments to support our business and may require additional funds. Our future capital requirements may vary materially from those currently planned and will depend on many factors, including our growth rate, market acceptance of our platform, the expansion of sales and marketing activities, strategic transactions, as well as overall economic conditions. For example, on October 1, 2020 we acquired Signal Sciences for an aggregate purchase price of $759.4 million, consisting of approximately $223.0 million in cash and 6,367,709 shares of our Class A common stock, including 896,499 shares which are restricted as they are subject to revesting conditions. The aggregate purchase price reflects the value of the net shares issued, which excludes the above mentioned shares that are restricted.

We may need to engage in equity or debt financings to secure additional funds. Additional financing may not be available on favorable terms, if at all and any additional financing will need to be in compliance with the terms of our Senior Secured Credit Facilities Credit Agreement ("Credit Agreement"), dated as of February 16, 2021, with the lenders party thereto and Silicon Valley Bank ("SVB") as a lender and as the administrative agent, issuing bank and swingline lender. If adequate funds are not available on acceptable terms, we may be unable to invest in future growth opportunities, which could harm our business, operating results, and financial condition. Furthermore, if we issue additional equity securities, stockholders will experience dilution, and the new equity securities could have rights senior to those of our common stock. Any debt financing we secure could involve additional restrictive covenants relating to our capital raising activities and other financial and operational matters, which may make it more difficult for us to obtain additional capital and to pursue business opportunities, including potential acquisitions. If we were to violate such restrictive covenants, we could incur penalties, increased expenses and an acceleration of the payment terms of our outstanding debt, which could in turn harm our business. Because our decision to issue securities in future offerings will depend on numerous considerations, including factors beyond our control, we cannot predict or estimate the amount, timing, or nature of any future issuances of debt or equity securities. As a result, our stockholders bear the risk of future issuances of debt or equity securities reducing the value of our Class A common stock and diluting their interests.

If our estimates or judgments relating to our critical accounting policies prove to be incorrect, our results of operations could be adversely affected.

The preparation of financial statements in conformity with generally accepted accounting principles in the United States ("U.S. GAAP") requires management to make estimates and assumptions that affect the amounts reported in the consolidated financial statements and accompanying notes. We base our estimates on historical experience and on various other assumptions that we believe to be reasonable under the circumstances, as provided in the section titled “Management’s Discussion and Analysis of Financial Condition and Results of Operations—Critical Accounting Policies.” The results of these estimates form the basis for making judgments about the carrying values of assets, liabilities, and equity and the amount of revenue and expenses that are not readily apparent from other sources. Significant assumptions and estimates used in preparing our consolidated financial statements include, but are not limited to, those related to revenue, accounts receivable and related reserves, fair value of assets acquired and liabilities assumed for business combinations, useful lives and realizability of long-lived assets including our goodwill and intangible assets, income tax reserves, and accounting for stock-based compensation. Our results of operations may be adversely affected if our assumptions change or if actual circumstances differ from those in our assumptions, which could cause our results of operations to fall below the expectations of securities analysts and investors, resulting in a decline in the trading price of our Class A common stock.

Current and future indebtedness could restrict our operations, particularly our ability to respond to changes in our business or to take specified actions.

Our Credit Agreement with SVB contains, and any future indebtedness would likely contain, a number of restrictive covenants that impose significant operating and financial restrictions on us, including restrictions on our ability to incur additional indebtedness, grant liens, pay dividends and make distributions, transfer property, make investments, and take other actions that may otherwise be in our best interests. In addition, our Credit Agreement contains a financial covenant that requires us to maintain a consolidated adjusted quick ratio of at least 1:25 to 1:00 tested on a quarterly basis as well as a springing revenue growth covenant for certain periods if our consolidated adjusted quick ratio falls below 1.75 to 1:00 on the last day of any fiscal quarter. Our ability to meet these financial covenants can be affected by events beyond our control, and we may not be able to continue to meet those covenants. In addition, a breach of a covenant under our Credit Agreement or any other current or future credit facility of ours may result in a cross-default under any such separate credit facility. If we seek to enter into one or more additional credit facilities in the future we may not be able to obtain debt financing on terms that are favorable to us, if at all. Holders of our existing debt have, and holders of any future debt we may incur would have, rights senior to holders of common stock to make claims on our assets. In addition, the terms of our existing debt do, and the terms of any future debt could, restrict our operations, including our ability to pay dividends on our common stock. If we are unable to obtain adequate financing or financing on terms that are satisfactory to us when we require it, our ability to continue to support our business growth and to respond to business challenges could be significantly impaired, and our business may be harmed.

We have identified a material weakness in our internal control over financial reporting, and if we are unable to remediate and maintain effective internal control over financial reporting in the future, investors may lose confidence in the accuracy and completeness of our financial reports, and the market price of our Class A common stock may be seriously harmed.

As a public company, we are required to maintain internal control over financial reporting and to report any material weaknesses in those internal controls. For example, we are required to perform system and process evaluation and testing of our internal control over financial reporting to allow management to report on the effectiveness of our internal control over financial reporting, as required by Section 404 of the Sarbanes-Oxley Act 9 ("Section 404"). Our independent registered public accounting firm also needs to attest to the effectiveness of our internal control over financial reporting. We designed, implemented, and tested internal control over financial reporting required to comply with this obligation. That process is time-consuming, costly, and complicated.

We and our independent registered public accounting firm identified a material weakness in our internal control over financial reporting for the years ended December 31, 2019 and 2018, which remains partially unremediated for the year ended December 31, 2020. The material weakness related to the lack of sufficient qualified accounting resources, including those with the appropriate level of technical accounting knowledge, to timely identify and assess accounting implications of complex transactions which resulted in the incorrect application of generally accepted accounting principles. We reported this material weakness in our Annual Report on Form 10-K for the years ended December 31, 2020 and December 31, 2019.

The process of implementing an effective financial reporting system is a continuous effort that requires us to anticipate and react to changes in our business and the economic and regulatory environments and to expand significant resources to maintain a financial reporting system that is adequate to satisfy our reporting obligations. We continue to evaluate and take actions to improve our internal control over financial reporting. We have increased the number of qualified accounting resources with the requisite accounting and financial reporting knowledge and experience and reallocated responsibilities across the accounting organization to ensure that the appropriate level of knowledge and experience is applied based on risk and complexity of transactions to address control deficiencies.

Based on the actions taken, we believe we have made significant progress in enhancing our control environment with respect to accounting and financial reporting for complex transactions. However, we are continuing to evaluate the operating effectiveness of the controls and believe that our additional resources and allocation of responsibilities will assist in remediation of the material weaknesses.

If we fail to remediate our existing material weakness or identify future material weaknesses in our internal control over financial reporting, or if we are unable to comply with the requirements of Section 404 or assert that our internal control over financial reporting is effective, or if our independent registered public accounting firm is unable to express an unqualified opinion or expresses a qualified or adverse opinion about the effectiveness of our internal control over financial reporting, investors may lose confidence in the accuracy and completeness of our financial reports and the market price of our Class A common stock could be negatively affected. In addition, we could become subject to investigations by the stock exchange on which our securities are listed, the SEC, and other regulatory authorities, which could require additional financial and management resources.

We may not be able to successfully manage the growth of our business if we are unable to improve our internal systems, processes and controls.

We need to continue to improve our internal systems, processes, and controls to effectively manage our operations and growth. We may not be able to successfully implement and scale improvements to our systems and processes in a timely or efficient manner or in a manner that does not negatively affect our operating results. For example, we may not be able to effectively monitor certain extraordinary contract requirements or provisions that are individually negotiated by our sales force as the number of transactions continues to grow. In addition, our systems and processes may not prevent or detect all errors, omissions, or fraud. We may experience difficulties in managing improvements to our systems, processes, and controls or in connection with third-party software, which could impair our ability to offer our platform to our customers in a timely manner, causing us to lose customers, limit us to smaller deployments of our products, or increase our technical support costs.

Our financial results may be adversely affected by changes in accounting principles applicable to us.

Generally accepted accounting principles in the United States are subject to interpretation by the Financial Accounting Standards Board ("FASB"), the SEC and other various bodies formed to promulgate and interpret appropriate accounting principles. A change in these principles or interpretations could have a significant effect on our reported financial results for periods prior to and subsequent to such change, and could affect the reporting of transactions completed before the announcement of a change.

In February 2016, the FASB issued new guidance, Accounting Standard Update No. 2016-02, Leases (Topic 842), which supersedes nearly all existing lease disclosures under U.S. GAAP. As we ceased to be an emerging growth company as of December 31, 2020, we adopted the standard on December 31, 2020, presenting the initial application of ASC 842 beginning on January 1, 2020, in our annual financial statements included in our Form 10-K for year ended December 31, 2020. Its impact is reflected in our consolidated financial statements, which includes several newly required disclosures. Market practices with respect to these new disclosures are continuously evolving, and securities analysts and investors may not fully understand the implications of our disclosures or how or why they may differ from similar disclosures by other companies. Any additional new accounting standards could have a significant effect on our reported results. If our reported results fall below analyst or investor expectations, our stock price could decline.

Risks Related to Laws, Regulations, and the Global Economy

Failure to comply with U.S. and foreign governmental laws and regulations could harm our business.

Our business is subject to regulation by various federal, state, local, and foreign governments. If we do not comply with these laws or regulations or if we become liable under these laws or regulations due to the failure of our customers to comply with these laws, we could face direct liability or delivery of content by our platform may be blocked by certain governments. In certain jurisdictions, these regulatory requirements may be more stringent than those in the United States. For example, in June 2020, China passed a national security law for Hong Kong that imposes criminal liability for the violation of content regulations, it is currently not clear how broadly such legislation will be interpreted or applied in relation to our customers or our business, and additional developments in our understanding of the application of this law could cause us to remove our POP from Hong Kong. Noncompliance with applicable regulations or requirements could subject us to investigations, sanctions, enforcement actions, disgorgement of profits, fines, damages, civil and criminal penalties, injunctions, or other collateral consequences. If any governmental sanctions are imposed, or if we do not prevail in any possible civil or criminal litigation, our business could be harmed. In addition, responding to any action will likely result in a significant diversion of management’s attention and resources and an increase in professional fees. Enforcement actions and sanctions could harm our business.

If the U.S. government prohibits our current or potential customers from doing business with us, whether through policy, regulations or laws, we could face direct liability or our delivery of content by our platform may be blocked. For example, in the current environment of economic trade negotiations and tensions between the Chinese and U.S. governments, the U.S. government has expressed concerns about the ability of companies operating in China to do business in the U.S. or with U.S. companies. As a result, we could lose the ability to contract with current or potential customers or usage of our platform may decrease by affected customers, which could harm our business and reputation. For example, our largest customer during the year ended December 31, 2020 has strong business ties to China and significantly reduced its usage of our platform in the later part of 2020. We believe this was in response to various actions taken by the U.S. and other governments against them. Even in the absence of new restrictions or trade actions imposed by the U.S. or other governments, our customers that operate in China, target China as a market, or that have strong business ties to China, may take actions to reduce dependence on our platform, which could harm our business.

We are subject, or may become subject, to governmental regulation and other legal obligations, particularly those related to privacy, data protection, infrastructure, and information security, and our actual or perceived failure to comply with such obligations could harm our business, by resulting in litigation, fines, penalties, or adverse publicity and reputational damage that may negatively affect the value of our business and decrease the price of our common stock. Compliance with such laws could also result in additional costs and liabilities to us or inhibit sales of our products.

We receive, store, and process personal information and other data from and about actual and prospective customers and users, in addition to our employees and service providers. In addition, our customers use our platform to collect personally identifiable information, personal health information, and personal financial information from their end-users. Our handling of data is subject to a variety of laws and regulations, including regulation by various government agencies, such as the U.S. Federal Trade Commission ("FTC"), and various state, local, and foreign agencies. Our data handling also is subject to contractual obligations and industry standards. Additionally, we are, or may become, subject to various other laws and regulations around the world with respect to the internet related to, among other things, content liability, security requirements, critical infrastructure designations, internet resiliency, law enforcement access to information, net neutrality, data localization requirements, and restrictions on social media or other content, any of which can have a material impact on our business.

The U.S. federal and various state and foreign governments have adopted or proposed limitations on the collection, distribution, use, and storage of data relating to individuals and businesses, including the use of contact information and other data for marketing, advertising, and other communications with individuals and businesses. In the United States, various laws and regulations apply to the collection, processing, disclosure, and security of certain types of data, including the Electronic Communications Privacy Act, the Computer Fraud and Abuse Act, the Health Insurance Portability and Accountability Act of 1996, the Gramm Leach Bliley Act, and state laws relating to privacy and data security, including the California Consumer Privacy Act (the “CCPA”), which became effective on January 1, 2020. The CCPA requires covered businesses that process information on California residents to make new disclosures to consumers about their data collection, use and sharing practices, allows consumers to opt out of certain data sharing with third parties and provides a new cause of action for data breaches. It remains unclear how the CCPA will be interpreted and the extent of its impact on our business. Additionally, the FTC and many state attorneys general are interpreting federal and state consumer protection laws as imposing standards for the online collection, use, dissemination, and security of data. The laws and regulations relating to privacy and data security are evolving, can be subject to significant change and may result in ever-increasing regulatory and public scrutiny and escalating levels of enforcement and sanctions. In addition, the United States or foreign jurisdictions may establish new laws or regulations regarding the internet or online services. These new laws and regulations may affect our products and infrastructure, which could cause us to incur substantial costs to comply, expose us to regulatory scrutiny, criminal or civil liability, require us to fundamentally change our products or operations, or otherwise have an adverse effect on our business.

In addition, several foreign countries and governmental bodies, including the EU, have laws and regulations dealing with the handling and processing of personal information obtained from their residents, which in certain cases are more restrictive than those in the United States. Laws and regulations in these jurisdictions apply broadly to the collection, use, storage, disclosure, and security of various types of data, including data that identifies or may be used to identify an individual, such as names, email addresses, and in some jurisdictions, Internet Protocol ("IP") addresses. Such laws and regulations may be modified or subject to new or different interpretations, and new laws and regulations may be enacted in the future.

Within the European Economic Area, the General Data Protection Regulation ("GDPR") significantly increases the level of sanctions for non-compliance from those in existing EU data protection law and imposes direct obligations on data processors in addition to data controllers and may require us to make further changes to our policies and procedures in the future, beyond what we have already done. EU data protection authorities will have the power to impose administrative fines for violations of the GDPR of up to a maximum of €20 million or 4% of the data controller’s or data processor’s total worldwide global revenue for the preceding fiscal year, whichever is higher, and violations of the GDPR may also lead to damages claims by data controllers and data subjects. Such penalties are in addition to any civil litigation claims by data controllers, customers, and data subjects. Since we act as a data processor for our customers, we are taking steps to cause our processes to be compliant with applicable portions of the GDPR, but we cannot assure you that such steps will be effective. In particular, although the UK enacted a Data Protection Act in May 2018 that is designed to be consistent with the GDPR, uncertainty remains regarding how data transfers to and from the UK will be regulated.

The scope and interpretation of the laws that are or may be applicable to us are often uncertain and may be conflicting, particularly laws outside the United States, as a result of the rapidly evolving regulatory framework for privacy and internet issues worldwide. For example, laws relating to the liability of providers of online services for activities of their users and other third parties are currently being tested by a number of claims, including actions based on invasion of privacy and other torts, unfair competition, copyright and trademark infringement, and other theories based on the nature and content of the materials searched, the ads posted, or the content provided by users. Moreover, our global platform outage in June 2021 has increased our public profile and resulted in more frequent interest in our company by regulators. This outage, or any additional outages, may draw additional scrutiny or focused legislation from regulators.

European data protection laws, including the GDPR, generally restrict the transfer of personal information from Europe, including the EEA, United Kingdom and Switzerland, to the United States and most other countries unless the parties to the transfer have implemented specific safeguard to protect the transferred personal information. In July 2020, the Court of Justice of the EU invalidated the EU-US Privacy Shield framework, which was one of the primary mechanisms U.S. companies used to import personal information from Europe, and raised questions regarding whether the European Commission's Standard Contractual Clauses ("SCCs"), one of the primary alternatives to the Privacy Shield, can lawfully be used for personal information transfers from Europe to the U.S. or most other countries. Similarly, the Swiss Federal Data Protection and Information Commissioner opined that the Swiss-U.S. Privacy Shield is inadequate for transfers of personal information from Switzerland to the U.S. If local authorities block transfers of data between the EU and the US, our vendor and customer relationships may be impacted. We have encountered and may continue to encounter heightened concerns relating to privacy from customers and potential customers conducting business in Europe since the invalidation of the US-EU Privacy Shield framework. Specifically, we have received more requests relating to EU privacy requirements, impacting the sales negotiation process, and have also had potential customers decline to do business with us due to privacy concerns related to updated interpretations of the laws applicable to transfers of personal data to the United States. If we are unable to implement a valid compliance mechanism for cross-border personal information transfers, we may face increased exposure to regulatory actions, substantial fines and injunctions against processing or transferring personal information from Europe. In June 2021, the European Commission adopted new SCCs under the GDPR for transfers of personal information outside the EEA to countries that the European Commission has not deemed to provide an adequate level of protection for such personal information. If we elect to rely on the new SCCs for transfers of personal information outside of Europe, we may be required to expend significant resources to update our contractual arrangements and to meet the obligations the new SCCs impose; for example, we may be required to conduct data transfer assessments for such cross-border personal information transfers and implement additional security measures. Moreover, other countries outside of Europe have enacted or are considering enacting similar cross-border data transfer restrictions and laws that require local residency, which could increase the cost and complexity of operating our business. As a result of the laws that are or may be applicable to us, and due to the sensitive nature of the information we collect, we have implemented policies and procedures to preserve and protect our data and our customers' data against loss, misuse, corruption, misappropriation caused by systems failures, unauthorized access, or misuse. If our policies, procedures, or measures relating to privacy, data protection, marketing, or customer communications fail to comply with laws, regulations, policies, legal obligations, or industry standards, we may be subject to governmental enforcement actions, litigation, regulatory investigations, fines, penalties, and negative publicity and could cause our application providers, customers, and partners to lose trust in us, and have an adverse effect on our business, operating results, and financial condition.

In addition to government regulation, privacy advocates, and industry groups may propose new and different self-regulatory standards that may apply to us. Because the interpretation and application of privacy and data protection laws, regulations, rules, and other standards are still uncertain, it is possible that these laws, rules, regulations, and other actual or alleged legal obligations, such as contractual or self-regulatory obligations, may be interpreted and applied in a manner that is inconsistent with our existing data management practices or the functionality of our platform. If so, in addition to the possibility of fines, lawsuits, and other claims, we could be required to fundamentally change our business activities and practices or modify our software, which could have an adverse effect on our business.

Any failure or perceived failure by us to comply with laws, regulations, policies, legal, or contractual obligations, industry standards, or regulatory guidance relating to privacy or data security, may result in governmental investigations and enforcement actions (including, for example, a ban by EU Supervisory Authorities on the processing of EU personal data under the GDPR), litigation, fines and penalties, or adverse publicity, and could cause our customers and partners to lose trust in us, which could have an adverse effect on our reputation and business. Our obligation to assist our customers in their compliance with laws, regulations, and policies, like data processing and data protection requirements under the GDPR may also result in government enforcement actions litigation, fines and penalties, or adverse publicity. We expect that there will continue to be new proposed laws, regulations, and industry standards relating to privacy, data protection, marketing, consumer communications, and information security in the United States, the EU, and other jurisdictions, and we cannot determine the impact such future laws, regulations, and standards may have on our business. Future laws, regulations, standards, and other obligations or any changed interpretation of existing laws or regulations could impair our ability to develop and market new functionality and maintain and grow our customer base and increase revenue. Future restrictions on the collection, use, sharing, or disclosure of data or additional requirements for express or implied consent of our customers, partners, or end-users for the use and disclosure of such information could require us to incur additional costs or modify our platform, possibly in a material manner, and could limit our ability to develop new functionality.

If we are not able to comply with these laws or regulations or if we become liable under these laws or regulations, we could be directly harmed, and we may be forced to implement new measures to reduce our exposure to this liability. This may require us to expend substantial resources or to discontinue certain products, which would negatively affect our business, financial condition, and results of operations. In addition, the increased attention focused upon liability issues as a result of lawsuits and legislative proposals could harm our reputation or otherwise adversely affect the growth of our business. Furthermore, any costs incurred as a result of this potential liability could harm our operating results.

Our sales to highly regulated organizations and government entities are subject to a number of challenges and risks.

We sell to customers in highly regulated industries such as financial services, insurance, and healthcare, as well as to various governmental agency customers, including state and local agency customers, and foreign governmental agency customers. Sales to such entities are subject to a number of challenges and risks. Selling to such entities can be highly competitive, expensive, and time-consuming, often requiring significant upfront time and expense without any assurance that these efforts will generate a sale. Government contracting requirements may change and in doing so restrict our ability to sell into the government sector until we comply with the revised requirements. Government demand and payment for our offerings are affected by public sector budgetary cycles and funding authorizations, with funding reductions or delays adversely affecting public sector demand for our offerings.

Further, highly regulated and governmental entities may demand shorter contract terms or other contractual provisions that differ from our standard arrangements, including terms that can lead those customers to obtain broader rights in our offerings than would be standard. Such entities may have statutory, contractual, or other legal rights to terminate contracts with us or our partners due to a default or for other reasons, and any such termination may harm our business. In addition, these governmental agencies may be required to publish the rates we negotiate with them, which could harm our negotiating leverage with other potential customers and in turn harm our business.

The success of our business depends on customers' continued and unimpeded access to our platform on the internet.

Our customers must have internet access in order to use our platform. Some internet providers may take measures that affect their customers' ability to use our platform, such as degrading the quality of the content we transmit over their lines, giving that content lower priority, giving other content higher priority than ours, blocking our content entirely, or attempting to charge their customers more for using our platform.

In December 2010, the Federal Communications Commission ("FCC") adopted net neutrality rules barring internet providers from blocking or slowing down access to online content, protecting services like ours from such interference. The FCC has repealed the net neutrality rules, and it is currently uncertain how the U.S. Congress will respond to this decision. To the extent network operators attempt to interfere with our platform, extract fees from us to deliver our platform, or otherwise engage in discriminatory practices, our business could be adversely impacted. Within such a regulatory environment, we could experience discriminatory or anti-competitive practices that could impede our domestic and international growth, cause us to incur additional expense, or otherwise harm our business.

We are subject to anti-corruption, anti-bribery, anti-money laundering and similar laws, and non-compliance with such laws can subject us to criminal and/or civil liability and harm our business.

We are subject to the U.S. Foreign Corrupt Practices Act, the U.S. domestic bribery statute contained in 18 U.S.C. § 201, the U.S. Travel Act, the UK Bribery Act, and other anti-bribery and anti-money laundering laws in the countries in which we conduct activities. Anti-corruption and anti-bribery laws have been enforced aggressively in recent years and are interpreted broadly to generally prohibit companies and their employees and third-party intermediaries from authorizing, offering or providing, directly or indirectly, improper payments, or benefits to recipients in the public or private sector. As we increase our international sales and business and sales to the public sector, we may engage with business partners and third-party intermediaries to market our platform and to obtain necessary permits, licenses, and other regulatory approvals. In addition, we or our third-party intermediaries may have direct or indirect interactions with officials and employees of government agencies or state-owned or affiliated entities. We can be held liable for the corrupt or other illegal activities of these third-party intermediaries, our employees, representatives, contractors, partners, and agents, even if we do not explicitly authorize such activities.

While we have policies and procedures to address compliance with such laws, we cannot assure you that all of our employees and agents will not take actions in violation of our policies and applicable laws, for which we may be ultimately held responsible. As we increase our international sales and business, our risks under these laws may increase.

Detecting, investigating, and resolving actual or alleged violations can require a significant diversion of time, resources, and attention from senior management. In addition, noncompliance with anti-corruption, anti-bribery, or anti-money laundering laws could subject us to whistleblower complaints, investigations, sanctions, settlements, prosecution or other enforcement actions, disgorgement of profits, significant fines, damages, other civil and criminal penalties or injunctions, suspension or debarment from contracting with certain persons, the loss of export privileges, reputational harm, adverse media coverage, and other collateral consequences. If any subpoenas or investigations are launched, or governmental or other sanctions are imposed or if we do not prevail in any possible civil or criminal litigation, our business could be harmed. In addition, responding to any action will likely result in a materially significant diversion of management’s attention and resources and significant defense costs and other professional fees. Enforcement actions and sanctions could further harm our business.

Changes in our effective tax rate or tax liability may harm our business.

Our effective tax rate could be adversely impacted by several factors, including:

- Changes in the relative amounts of income before taxes in the various jurisdictions in which we operate that have differing statutory tax rates;
- Changes in tax laws, tax treaties, and regulations or the interpretation of them, including the Tax Act;
- Changes to our assessment about our ability to realize our deferred tax assets that are based on estimates of our future results, the prudence and feasibility of possible tax planning strategies, and the economic and political environments in which we do business;
- The outcome of current and future tax audits, examinations, or administrative appeals; and
- Limitations or adverse findings regarding our ability to do business in some jurisdictions.

Should our effective tax rate rise, our business could be harmed.

We could be required to collect additional sales taxes or be subject to other tax liabilities that may increase the costs our clients would have to pay for our offering and harm our business.

An increasing number of states have considered or adopted laws that attempt to impose tax collection obligations on out-of-state companies. Additionally, the Supreme Court of the United States recently ruled in South Dakota v. Wayfair, Inc. et al ("Wayfair") that online sellers can be required to collect sales and use tax despite not having a physical presence in the buyer’s state. In response to Wayfair, or otherwise, states or local governments may adopt, or begin to enforce, laws requiring us to calculate, collect, and remit taxes on sales in their jurisdictions. A successful assertion by one or more states requiring us to collect taxes where we presently do not do so, or to collect more taxes in a jurisdiction in which we currently do collect some taxes, could result in substantial tax liabilities, including taxes on past sales, as well as penalties and interest. The imposition by state governments or local governments of sales tax collection obligations on out-of-state sellers could also create additional administrative burdens for us, put us at a competitive disadvantage if they do not impose similar obligations on our competitors and decrease our future sales, which could harm our business.

Adverse tax laws or regulations could be enacted or existing laws could be applied to us, which could adversely affect our business and financial condition.

We operate and are subject to taxes in the United States and numerous other jurisdictions throughout the world. Changes to federal, state, local, or international tax laws on income, sales, use, indirect, or other tax laws, statutes, rules, regulations, or ordinances on multinational corporations are currently being considered and have recently been proposed by the United States and other countries where we do business. These contemplated legislative initiatives include, but are not limited to, changes to transfer pricing policies and definitional changes to permanent establishment that could be applied solely or disproportionately to services provided over the internet. These contemplated tax initiatives, if finalized and adopted by countries, may ultimately impact our effective tax rate and could adversely affect our sales activity resulting in a negative impact on our operating results and cash flows.

In addition, existing tax laws, statutes, rules, regulations, or ordinances could be interpreted, changed, modified, or applied adversely to us (possibly with retroactive effect), which could require us to pay additional tax amounts, fines or penalties, and interest for past amounts. The additional tax obligations could relate to our taxes or obligations to report or withhold on customer taxes. We could take steps to collect customer related taxes, but if we are unsuccessful in collecting such taxes from our customers, we could be held liable for such costs, thereby adversely impacting our operating results and cash flows. Further, if our customers must pay additional fines or penalties, it could adversely affect demand for our services.

On December 22, 2017, President Trump signed into law H.R. 1, “An Act to provide for reconciliation pursuant to titles II and V of the concurrent resolution on the budget for fiscal year 2018,” informally titled the Tax Act, which significantly revises the Code. The Tax Act, among other things, reduces the corporate tax rate from a top marginal rate of 35% to a flat rate of 21%, limits the tax deduction for interest expense to 30% of adjusted taxable income (except for certain small businesses), limits the deduction for net operating losses carried forward from taxable years beginning after December 31, 2017 to 80% of current year taxable income, eliminates net operating loss carrybacks, imposes a one-time tax on offshore earnings at reduced rates regardless of whether they are repatriated, eliminates U.S. tax on foreign earnings (subject to certain important exceptions), allows immediate deductions for certain new investments instead of deductions for depreciation expense over time, and modifies or repeals many business deductions and credits. Notwithstanding the reduction in the corporate income tax rate, the overall impact of the Tax Act is uncertain and our business and financial condition could be adversely affected. In addition, it is uncertain if and to what extent various states will conform to the Tax Act. The impact of the Tax Act on holders of our Class A common stock is also uncertain and could be adverse. More recently, on March 18, 2020, the Families First Coronavirus Response Act ("FFCR Act"), and on March 27, 2020, the Coronavirus Aid, Relief, and Economic Security Act ("CARES Act") were each enacted in response to the COVID-19 pandemic. The FFCR Act and the CARES Act contain numerous income tax provisions, such as relaxing limitations on the deductibility of interest and the use of net operating losses arising in taxable years beginning after December 31, 2017. In December 2020, the Consolidated Appropriations Act, 2021 ("CAA") was signed into law. The CAA included additional funding through tax credits as part of its economic package for 2021. The Company evaluated these items in its tax computation and determined that the items do not have a material impact on the Company’s financial statements as of and for the period ended December 31, 2020. Future regulatory guidance under the FFCR Act, the CARES Act, as well as under the Tax Act, or other executive or Congressional actions in the United States (including, for example, if the Made in America tax plan released in March 2021 were to become law) remain forthcoming, and such guidance could ultimately increase or lessen the impact on our business and financial condition. It is also possible that Congress will enact additional legislation in connection with the COVID-19 pandemic, some of which could have an impact on us. We urge our stockholders to consult with their legal and tax advisors with respect to this legislation and the potential tax consequences of investing in or holding our Class A common stock.

Our ability to use our net operating losses to offset future taxable income may be subject to certain limitations.

Our net operating loss ("NOL") carryforwards could expire unused and be unavailable to offset future income tax liabilities because of their limited duration or because of restrictions under U.S. tax law. Our NOLs generated in tax years ending on or prior to December 31, 2017 are only permitted to be carried forward for 20 years under applicable U.S. tax law. Under the Tax Act, our federal NOLs generated in tax years ending after December 31, 2017 may be carried forward indefinitely, but the deductibility of such federal NOLs is limited. It is uncertain if and to what extent various states will conform to the Tax Act.

In addition, under Section 382 of the United States Internal Revenue Code of 1986, as amended (the "Code"), a corporation that undergoes an "ownership change" is generally subject to limitations on its ability to utilize its pre-change NOLs to offset future taxable income. We may have experienced ownership changes in the past and may experience ownership changes in the future as a result of subsequent shifts in our stock ownership (some of which shifts are outside our control). Furthermore, our ability to utilize NOLs of companies that we have acquired or may acquire in the future may be subject to limitations. For these reasons, we may not be able to utilize a material portion of the NOLs, even if we were to achieve profitability.

Our international operations may subject us to potential adverse tax consequences.

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

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

Our products are subject to U.S. export controls, including the Export Administration Regulations administered by the U.S. Commerce Department, and economic sanctions administered by the Office of Foreign Assets Control of the U.S. Treasury Department ("OFAC"), and we incorporate encryption technology into certain of our products. These encryption products and the underlying technology may be exported outside of the United States only with the required export authorizations.

Furthermore, our activities are subject to U.S. economic sanctions laws and regulations that generally prohibit the direct or indirect exportation or provision of products and services without the required export authorizations to countries, governments, and individuals and entities targeted by U.S. embargoes or sanctions, except to the extent authorized by OFAC or exempt from sanctions. Obtaining the necessary export license or other authorization for a particular sale may not always be possible, and, even if the export license is ultimately granted, the process may be time-consuming and may result in the delay or loss of sales opportunities. Violations of U.S. sanctions or export control laws can result in significant fines or penalties, and possible incarceration for responsible employees and managers could be imposed for criminal violations of these laws.

Other countries also regulate the import and export of certain encryption products and technology through import and export licensing requirements, and have enacted laws that could limit our ability to distribute our products or could limit our customers' ability to implement our products in those countries. Changes in our products or future changes in export and import regulations may create delays in the introduction of our products in international markets, prevent our customers with international operations from deploying our products globally, or, in some cases, prevent the export or import of our products to certain countries, governments, or persons altogether. From time to time, various governmental agencies have proposed additional regulation of encryption products and technology, including the escrow and government recovery of private encryption keys. Any change in export or import regulations, economic sanctions or related legislation, increased export and import controls, or change in the countries, governments, persons, or technologies targeted by such regulations could result in decreased use of our products by, or in our decreased ability to export or sell our products to, existing or potential customers with international operations. Any decreased use of our products or limitation on our ability to export or sell our products would harm our business.

We are exposed to fluctuations in currency exchange rates.

Our sales contracts are primarily denominated in U.S. dollars, and therefore a majority of our revenue is not subject to foreign currency revaluation. However, a strengthening of the U.S. dollar could increase the real cost of our platform to our customers outside of the United States, which could adversely affect our operating results. In addition, an increasing portion of our operating expenses is incurred outside the United States. These operating expenses are denominated in foreign currencies and are subject to fluctuations due to changes in foreign currency exchange rates. As these expenses become more material and if there are significant fluctuations in foreign currency exchange rates, the risk of not hedging or not hedging effectively could harm our business.

The phase-out of the London Interbank Offered Rate ("LIBOR"), or the replacement of LIBOR with a different reference rate, may adversely affect interest rates.

On July 27, 2017, the Financial Conduct Authority (the authority that regulates LIBOR) announced that it would phase out LIBOR by the end of 2021. It is unclear whether new methods of calculating LIBOR will be established such that it continues to exist after 2021, or if alternative rates or benchmarks will be adopted. The interest rate under our Credit Agreement with Silicon Valley Bank dated February 16, 2021 (the "Credit Agreement") is calculated based on LIBOR. While the Credit Agreement contains limited "fallback" provisions providing for the adoption of a successor rate that has been broadly accepted by the syndicated loan market in the United States in lieu of LIBOR in the event LIBOR is unavailable, these provisions may not adequately address the actual changes to LIBOR or its successor rates. Changes in the method of calculating LIBOR, or the replacement of LIBOR with an alternative rate or benchmark, may adversely affect interest rates and result in higher borrowing costs. This could materially and adversely affect our results of operations, cash flows and liquidity. We cannot predict the effect of the potential changes to LIBOR or the establishment and use of alternative rates or benchmarks.

Unfavorable conditions in our industry or the global economy or reductions in information technology spending could harm our business.

Our results of operations may vary based on the impact of changes in our industry or the global economy on us or our customers and potential customers. Current or future economic uncertainties or downturns could adversely affect our business and results of operations. Negative conditions in the general economy both in the United States and abroad, including conditions resulting from changes in gross domestic product growth, financial and credit market fluctuations, political turmoil, natural catastrophes, warfare, public health issues, such as the COVID-19 pandemic, and terrorist attacks on the United States, Europe, the Asia Pacific region, or elsewhere, could cause a decrease in business investments, including spending on information technology, which would harm our business. To the extent that our platform and our products are perceived by customers and potential customers as too costly, or difficult to deploy or migrate to, our revenue may be disproportionately affected by delays or reductions in general information technology spending. Also, our competitors, many of whom are larger and have greater financial resources than we do, may respond to market conditions by lowering prices and attempting to lure away our customers. In addition, the increased pace of consolidation in certain industries may result in reduced overall spending on our products. We cannot predict the timing, strength, or duration of any economic slowdown, instability, or recovery, generally or within any particular industry.

Risks Related to Intellectual Property

We could incur substantial costs in protecting or defending our proprietary rights, and any failure to adequately protect our rights could impair our competitive position and we may lose valuable assets, experience reduced revenue, and incur costly litigation to protect our rights.

Our success is dependent, in part, upon protecting our proprietary technology. We rely on a combination of patents, copyrights, trademarks, service marks, trade secret laws, and contractual provisions in an effort to establish and protect our proprietary rights. However, the steps we take to protect our intellectual property may be inadequate. While we have issued patents in the United States and other countries and have additional pending patent applications, we may be unable to obtain patent protection for the technology covered in our patent applications. In addition, any patents issued in the future may not provide us with competitive advantages, or may be successfully challenged by third parties. Any of our patents, trademarks, or other intellectual property rights may be challenged or circumvented by others or invalidated through administrative process or litigation. There can be no guarantee that others will not independently develop similar products, duplicate any of our products, or design around our patents. Furthermore, legal standards relating to the validity, enforceability, and scope of protection of intellectual property rights are uncertain. Despite our precautions, it may be possible for unauthorized third parties to copy our products and use information that we regard as proprietary to create products and services that compete with ours. Some license provisions protecting against unauthorized use, copying, transfer, and disclosure of our products may be unenforceable under the laws of jurisdictions outside the United States. To the extent we expand our international activities, our exposure to unauthorized copying and use of our products and proprietary information may increase.

We enter into confidentiality and invention assignment agreements with our employees and consultants and enter into confidentiality agreements with the parties with whom we have strategic relationships and business alliances. No assurance can be given that these agreements will be effective in controlling access to and distribution of our products and proprietary information. Further, these agreements do not prevent our competitors or partners from independently developing technologies that are substantially equivalent or superior to our platform.

In order to monitor and protect our intellectual property rights, we may be required to spend significant resources. Litigation may be necessary in the future to enforce our intellectual property rights and to protect our trade secrets. Litigation brought to protect and enforce our intellectual property rights could be costly, time consuming, and distracting to management and could result in the impairment or loss of portions of our intellectual property. Furthermore, our efforts to enforce our intellectual property rights may be met with defenses, counterclaims, and countersuits attacking the validity and enforceability of our intellectual property rights. Our inability to protect our proprietary technology against unauthorized copying or use, as well as any costly litigation or diversion of our management's attention and resources, could delay further sales or the implementation of our platform, impair the functionality of our platform, delay introductions of new products, result in our substituting inferior or more costly technologies into our products, or injure our reputation. We will not be able to protect our intellectual property if we are unable to enforce our rights or if we do not detect unauthorized use of our intellectual property. Moreover, policing unauthorized use of our technologies, trade secrets, and intellectual property may be difficult, expensive, and time-consuming, particularly in foreign countries where the laws may not be as protective of intellectual property rights as those in the United States and where mechanisms for enforcement of intellectual property rights may be weak. If we fail to meaningfully protect our intellectual property and proprietary rights, our business may be harmed.

We may in the future be subject to legal proceedings and litigation relating to intellectual property disputes, which are costly and may subject us to significant liability and increased costs of doing business. Our business may suffer if it is alleged or determined that our technology infringes the intellectual property rights of others.

The software industry is characterized by the existence of a large number of patents, copyrights, trademarks, trade secrets, and other intellectual property rights. Companies in the software industry are often required to defend against litigation claims based on allegations of infringement or other violations of intellectual property rights. Our technologies may not be able to withstand any third-party claims or rights against their use. In addition, many of these companies have the capability to dedicate substantially greater resources to enforce their intellectual property rights and to defend claims that may be brought against them. Any litigation may also involve patent holding companies or other adverse patent owners that have no relevant product revenue and against which our patents may therefore provide little or no deterrence. If a third party is able to obtain an injunction preventing us from accessing such third-party intellectual property rights, or if we cannot license or develop technology for any infringing aspect of our business, we would be forced to limit or stop selling products impacted by the claim or injunction or cease business activities covered by such intellectual property, and may be unable to compete effectively. Any inability to license third party technology in the future would have an adverse effect on our business or operating results, and would adversely affect our ability to compete. We may also be contractually obligated to indemnify our customers in the event of infringement of a third party's intellectual property rights. We receive demands for such indemnification from time to time and expect to continue to do so. Responding to such claims, including those currently pending, regardless of their merit, can be time consuming, costly to defend in litigation, and damage our reputation and brand.

Lawsuits are time-consuming and expensive to resolve and they divert management's time and attention. Although we carry insurance, our insurance may not cover potential claims of this type or may not be adequate to indemnify us for all liability that may be imposed. We cannot predict the outcome of lawsuits, and the results of any such actions may harm our business.

Elements of our platform and our products use open source software, which may restrict the functionality of our platform and our products, or require that we release the source code of certain products subject to those licenses.

Our platform incorporates software licensed under open source licenses. Such open source licenses typically require that source code subject to the license be made available to the public and that any modifications or derivative works to open source software continue to be licensed under open source licenses. Few courts have interpreted open source licenses, and the manner in which these licenses may be interpreted and enforced is therefore subject to some uncertainty. We rely on multiple software programmers to design our proprietary technologies, and we do not exercise complete control over the development efforts of our programmers and we cannot be certain that our programmers have not incorporated open source software into our proprietary products and technologies or that they will not do so in the future. In the event that portions of our proprietary technology are determined to be subject to an open source license, we could be required to publicly release the affected portions of our source code, re-engineer all or a portion of our technologies, or otherwise be limited in the licensing of our technologies, each of which could reduce or eliminate the value of our platform and technologies and materially and adversely affect our ability to sustain and grow our business.

Provisions in various agreements potentially expose us to substantial liability for intellectual property infringement, data protection, and other losses.

Our agreements with customers and other third parties generally include provisions under which we are liable or agree to indemnify them for losses suffered or incurred as a result of claims of intellectual property infringement, data protection, damages caused by us to property or persons, or other liabilities relating to or arising from our platform, services, or other contractual obligations. Some of these agreements provide for uncapped liability for which we would be responsible, and some provisions survive termination or expiration of the applicable agreement. Large liability payments could harm our business, results of operations, and financial condition. Although we normally contractually limit our liability with respect to such obligations, we may still incur substantial liability related to them, and in case of an intellectual property infringement indemnification claim, we may be required to cease use of certain functions of our platform as a result of any such claims. Any dispute with a customer with respect to such obligations could have adverse effects on our relationship with that customer and other existing customers and new customers and harm our business. Even when we have contractual protections against such customer claims, we may choose to honor a customer's request for indemnification or otherwise seek to maintain customer satisfaction by issuing customer credits, assisting our customer in defending against claims, or in other ways.

Risks Related to Ownership of Our Class A Common Stock

Our stock price may be volatile, and the value of our Class A common stock may decline.

Historically, our stock price has been volatile. During the year ended December 31, 2020, our stock traded as high as $136.50 per share and as low as $10.63 per share, and from January 1, 2021 to August 5, 2021, our stock price has ranged from $122.75 per share to $33.87 per share. The market price of our Class A common stock may continue to be highly volatile and may fluctuate or decline substantially as a result of a variety of factors, some of which are beyond our control or are related in complex ways, including:

- actual or anticipated fluctuations in our financial condition and operating results;
- decreased usage by one or more of our customers;
- variance in our financial performance from expectations of securities analysts or investors;
- changes in the pricing we offer our customers;
- changes in our projected operating and financial results;
- changes in laws or regulations applicable to our platform or related products;
- announcements by us or our competitors of significant business developments, acquisitions, or new offerings;
- publicity associated with network outages and problems;
- our involvement in litigation;
- changes in senior management or key personnel;
- the trading volume of our Class A common stock;
- changes in the anticipated future size and growth rate of our market; and
- general economic, regulatory, and market conditions.

Broad market and industry fluctuations, as well as general economic, political, regulatory, and market conditions, may impact the market price of our Class A common stock. For example, in connection with the COVID-19 pandemic, we initially experienced an increase in the usage of our platform, and as a result, the trading price of our Class A common stock significantly increased, and has since experienced significant volatility, along with the broader market. Following the announcement of our results for our third quarter ended September 30, 2020, which included a significant reduction in revenue from our largest customer in that quarter, volatility increased and the trading price of our Class A common stock decreased. There are no assurances that the trading price of our Class A common stock will continue at its current level for any period of time. Moreover, the trading price of our Class A common stock could experience a significant decrease once the scope and impact of the ongoing COVID-19 pandemic is better understood. These fluctuations could cause you to lose all or part of your investment in our Class A common stock.

In addition, extreme price and volume fluctuations in the stock markets have affected and continue to affect many technology companies' stock prices. Often, their stock prices have fluctuated in ways unrelated or disproportionate to the companies' operating performance. In the past, companies that have experienced volatility in the market price of their securities have been subject to securities class action litigation. We may be the target of this type of litigation in the future, which could result in substantial costs and divert our management's attention.

Conversion of the notes may dilute the ownership interest of our stockholders or may otherwise depress the price of our Class A common stock.*

The conversion of some or all of the Notes may dilute the ownership interests of our stockholders. Upon conversion of the Notes, we have the option to pay or deliver, as the case may be, cash, shares of our Class A common stock, or a combination of cash and shares of our Class A common stock. If we elect to settle our conversion obligation in shares of our Class A common stock or a combination of cash and shares of our Class A common stock, any sales in the public market of our Class A common stock issuable upon such conversion could adversely affect prevailing market prices of our Class A common stock. In addition, the existence of the Notes may encourage short selling by market participants because the conversion of the Notes could be used to satisfy short positions, or anticipated conversion of the Notes into shares of our Class A common stock could depress the price of our Class A common stock.

Servicing our debt requires a significant amount of cash, and we may not have sufficient cash flow from our business to pay our substantial debt.*

Our ability to make scheduled payments of the principal of, to pay interest on or to refinance our indebtedness, including the Notes, depends on our future performance, which is subject to economic, financial, competitive, and other factors beyond our control. Our business may not generate cash flow from operations in the future sufficient to service our debt and make necessary capital expenditures. If we are unable to generate such cash flow, we may be required to adopt one or more alternatives, such as selling assets, restructuring debt or obtaining additional equity capital on terms that may be onerous or highly dilutive. Our ability to refinance our indebtedness will depend on the capital markets and our financial condition at such time. We may not be able to engage in any of these activities or engage in these activities on desirable terms, which could result in a default on our debt obligations.

Regulatory actions and other events may adversely affect the trading price and liquidity of the Notes.*

We expect that many investors in, and potential purchasers of, the Notes will employ, or seek to employ, a convertible arbitrage strategy with respect to the Notes. Investors would typically implement such a strategy by selling short the Class A common stock underlying the Notes and dynamically adjusting their short position while continuing to hold the Notes. Investors may also implement this type of strategy by entering into swaps on our Class A common stock in lieu of or in addition to short selling the Class A common stock.

The SEC and other regulatory and self-regulatory authorities have implemented various rules and taken certain actions, and may in the future adopt additional rules and take other actions, that may impact those engaging in short selling activity involving equity securities (including our Class A common stock). Such rules and actions include Rule 201 of SEC Regulation SHO, the adoption by the Financial Industry Regulatory Authority, Inc. and the national securities exchanges of a “Limit Up-Limit Down” program, the imposition of market-wide circuit breakers that halt trading of securities for certain periods following specific market declines, and the implementation of certain regulatory reforms required by the Dodd-Frank Wall Street Reform and Consumer Protection Act of 2010. Any governmental or regulatory action that restricts the ability of investors in, or potential purchasers of, the Notes to effect short sales of our Class A common stock, borrow our Class A common stock or enter into swaps on our Class A common stock could adversely affect the trading price and the liquidity of the Notes.

We may not have the ability to raise the funds necessary to settle conversions of the Notes in whole or in part in cash or to repurchase the Notes upon a fundamental change, and our future debt may contain limitations on our ability to pay cash upon conversion or repurchase of the Notes.*

Holders of the Notes will have the right, subject to certain conditions and limited exceptions, to require us to repurchase all or a portion of their Notes upon the occurrence of a fundamental change at a fundamental change repurchase price equal to 100% of the principal amount of the Notes to be repurchased, plus accrued and unpaid special interest, if any, as described in the indenture governing the Notes. In addition, upon conversion of the Notes, unless we elect to deliver solely shares of our Class A common stock to settle such conversion (other than paying cash in lieu of delivering any fractional share), we will be required to make cash payments in respect of the Notes being converted as described in the indenture governing the Notes. However, we may not have enough available cash or be able to obtain financing at the time we are required to make repurchases of Notes surrendered therefor or pay cash with respect to Notes being converted. In addition, our ability to repurchase the Notes or to pay cash upon conversions of the Notes may be limited by law, by regulatory authority or by agreements governing our future indebtedness. Our failure to repurchase notes at a time when the repurchase is required by the indenture or to pay any cash payable on future conversions of the Notes as required by the indenture would constitute a default under the indenture. A default under the indenture governing the Notes or the fundamental change itself could also lead to a default under agreements governing our future indebtedness. If the repayment of the related indebtedness were to be accelerated after any applicable notice or grace periods, we may not have sufficient funds to repay the indebtedness and repurchase the Notes or make cash payments upon conversions thereof.

The conditional conversion feature of the Notes, if triggered, may adversely affect our financial condition and operating results.*

In the event the conditional conversion feature of the Notes is triggered, holders of Notes will be entitled to convert their Notes at any time during specified periods at their option. If one or more holders elect to convert their Notes, unless we elect to satisfy our conversion obligation by delivering solely shares of our Class A common stock (other than paying cash in lieu of delivering any fractional share), we would be required to settle a portion or all of our conversion obligation through the payment of cash, which could adversely affect our liquidity. In addition, even if holders do not elect to convert their Notes, we could be required under applicable accounting rules to reclassify all or a portion of the outstanding principal of the Notes as a current rather than long-term liability, which would result in a material reduction of our net working capital.

Future sales and issuances of our capital stock or rights to purchase capital stock could result in dilution of the percentage ownership of our stockholders and could cause the price of our Class A common stock to decline.

Future sales and issuances of our capital stock or rights to purchase our capital stock could result in substantial dilution to our existing stockholders. For example, we may issue approximately 9.2 million shares of our Class A common stock upon conversion of the Notes, subject to customary anti-dilution adjustments. We may sell Class A common stock, convertible securities, and other equity securities in one or more transactions at prices and in a manner as we may determine from time to time. If we sell any such securities in subsequent transactions, investors may be materially diluted. New investors in such subsequent transactions could gain rights, preferences, and privileges senior to those of holders of our Class A common stock.

Future sales of our Class A common stock in the public market could cause the market price of our Class A common stock to decline.

Sales of a substantial number of shares of our Class A common stock in the public market, or the perception that these sales might occur, could depress the market price of our Class A common stock and could impair our ability to raise capital through the sale of additional equity securities. We are unable to predict the effect that such sales may have on the prevailing market price of our Class A common stock.

As of June 30, 2021, we have outstanding a total of 106.9 million shares of Class A common stock and 9.8 million shares of Class B common stock. All of our outstanding shares are eligible for sale in the public market, other than shares and options held by directors, executive officers, and other affiliates that are subject to volume limitations under Rule 144 of the Securities Act, various vesting agreements, and shares that must be sold under an effective registration statement. Additionally, the shares of Class A and Class B common stock subject to outstanding options and restricted stock unit awards under our equity incentive plans and the shares reserved for future issuance under our equity incentive plans will become eligible for sale in the public market upon issuance, subject to applicable insider trading policies.

Future sales also could cause the trading price of our Class A common stock to decline and make it more difficult for investors to sell shares of our Class A common stock.

If securities or industry analysts do not publish research or publish unfavorable or inaccurate research about our business, our Class A common stock price and trading volume could decline.

Our stock price and trading volume are heavily influenced by the way analysts and investors interpret our financial information and other disclosures. If securities or industry analysts do not publish research or reports about our business, delay publishing reports about our business, or publish negative reports about our business, regardless of accuracy, our Class A common stock price and trading volume could decline.

The trading market for our Class A common stock depends, in part, on the research and reports that securities or industry analysts publish about us or our business. We do not have any control over these analysts. We expect that only a limited number of analysts will cover our company following our initial public offering. If the number of analysts that cover us declines, demand for our Class A common stock could decrease and our Class A common stock price and trading volume may decline.

Even if our Class A common stock is actively covered by analysts, we do not have any control over the analysts or the measures that analysts or investors may rely upon to forecast our future results. Over-reliance by analysts or investors on any particular metric to forecast our future results may result in forecasts that differ significantly from our own.

Regardless of accuracy, unfavorable interpretations of our financial information and other public disclosures could have a negative impact on our stock price. If our financial performance fails to meet analyst estimates, for any of the reasons discussed above or otherwise, or one or more of the analysts who cover us downgrade our Class A common stock or change their opinion of our Class A common stock, our stock price would likely decline.

We do not intend to pay dividends for the foreseeable future.

We have never declared or paid any cash dividends on our capital stock, and we do not intend to pay any cash dividends in the foreseeable future. Any determination to pay cash dividends in the future will be at the discretion of our board of directors and are restricted by the terms of our Credit Agreement. The Credit Agreement permits the payment of cash dividends so long as, after giving effect to any such dividend, we maintain a consolidated adjusted quick ratio of at least 1.50 to 1.00 and are otherwise in pro forma compliance with all covenants under the Credit Agreement. In addition, the Credit Agreement permits us to pay up to $10.0 million in cash dividends per fiscal year so long as, after giving effect to any such dividend, we are in pro forma compliance with all covenants under the Credit Agreement, including a consolidated adjusted quick ratio of at least 1.25 to 1.00. Accordingly, investors must rely on sales of their Class A common stock after price appreciation, which may never occur, as the only way to realize any future gains on their investments.

We incur increased costs as a result of operating as a public company, and our management is required to devote substantial time to compliance with our public company responsibilities and corporate governance practices.

As a public company, we incur significant legal, accounting, and other expenses that we did not incur as a private company. We expect such expenses to further increase now that we are no longer an “emerging growth company.” The Sarbanes-Oxley Act, the Dodd-Frank Wall Street Reform and Consumer Protection Act, the listing requirements of the NYSE, and other applicable securities rules and regulations impose various requirements on public companies. Furthermore, the senior members of our management team do not have significant experience with operating a public company. As a result, our management and other personnel have to devote a substantial amount of time to compliance with these requirements. Moreover, these rules and regulations increase our legal and financial compliance costs and make some activities more time-consuming and costly. We cannot predict or estimate the amount of additional costs we will incur as a public company or the timing of such costs.

As a result of being a public company, we are obligated to develop and maintain proper and effective internal control over financial reporting and any failure to maintain the adequacy of these internal controls may adversely affect investor confidence in our company and, as a result, the value of our Class A common stock.

We are required, pursuant to Section 404 to furnish a report by management on, among other things, the effectiveness of our internal control over financial reporting. This assessment includes disclosure of any material weaknesses identified by our management in our internal control over financial reporting. In addition, our independent registered public accounting firm is required to attest to the effectiveness of our internal control over financial reporting in our first annual report required to be filed with the SEC following the date we are no longer an “emerging growth company.” Based on the market value of our common stock held by non-affiliates as of June 30, 2020, we ceased to be an emerging growth company as of December 31, 2020, which expedited our obligation for our independent registered public accounting firm to issue an attestation report on management's assessment of our internal control over financial reporting and accelerated our adoption of accounting standards. Our compliance with Section 404 requires that we incur substantial accounting expense and expend significant management efforts. We currently have an internal audit group and have hired additional accounting and financial staff. We may need to hire additional accounting and financial staff with appropriate public company experience and technical accounting knowledge and update the system and process documentation necessary to perform the evaluation needed to comply with Section 404.

During the evaluation and testing process of our internal controls, if we identify one or more material weaknesses in our internal controls over financial reporting, we will be unable to certify that our internal controls over financial reporting is effective. We and our independent registered public accounting firm identified a material weakness in our internal controls over financial reporting for the years ended December 31, 2019 and 2018, which remains partially unremediated for the year ended December 31, 2020. The material weakness related to the lack of sufficient qualified accounting resources, including those with the appropriate level of technical accounting knowledge, to timely identify and assess accounting implications of complex transactions which resulted in the incorrect application of generally accepted accounting principles. While we are actively working on remediating this identified weakness, we may discover additional material weaknesses or significant deficiencies in our internal control over financial reporting in the future. Any failure to maintain internal control over financial reporting could severely inhibit our ability to accurately report our financial condition or results of operations. If we are unable to conclude that our internal control over financial reporting is effective, or if our independent registered public accounting firm determines we have a material weakness or significant deficiency in our internal control over financial reporting, we could lose investor confidence in the accuracy and completeness of our financial reports, the market price of our Class A common stock could decline and we could be subject to sanctions or investigations by the exchange on which our shares of Class A common stock are listed, the SEC or other regulatory authorities. Failure to remedy any material weakness in our internal control over financial reporting, or to implement or maintain other effective control systems required of public companies, could also restrict our future access to the capital markets.

Anti-takeover provisions in our charter documents, the indenture governing the Notes, and under Delaware law could make an acquisition of our company more difficult, limit attempts by our stockholders to replace or remove our current management and limit the market price of our Class A common stock.*

Provisions in our amended and restated certificate of incorporation and amended and restated bylaws may have the effect of delaying or preventing a change of control or changes in our management. Our amended and restated certificate of incorporation and amended and restated bylaws include provisions that:

- authorize our board of directors to issue, without further action by the stockholders, shares of undesignated preferred stock with terms, rights, and preferences determined by our board of directors that may be senior to our common stock;
- require that any action to be taken by our stockholders be effected at a duly called annual or special meeting and not by written consent;
- specify that special meetings of our stockholders can be called only by our board of directors, the chairperson of our board of directors, or our chief executive officer;
- establish an advance notice procedure for stockholder proposals to be brought before an annual meeting, including proposed nominations of persons for election to our board of directors;
- establish that our board of directors is divided into three classes, with each class serving three-year staggered terms;
- prohibit cumulative voting in the election of directors;
- provide that our directors may be removed for cause only upon the vote of the holders of a majority of our outstanding shares of common stock; and
- provide that vacancies on our board of directors may be filled only by a majority of directors then in office, even though less than a quorum.

These provisions may frustrate or prevent any attempts by our stockholders to replace or remove our current management by making it more difficult for stockholders to replace members of our board of directors, which is responsible for appointing the members of our management. In addition, because we are incorporated in Delaware, we are governed by the provisions of Section 203 of the Delaware General Corporation Law, which generally, subject to certain exceptions, prohibits a Delaware corporation from engaging in any of a broad range of business combinations with any “interested” stockholder for a period of three years following the date on which the stockholder became an “interested” stockholder. Any delay or prevention of a change of control transaction or changes in our management could cause the market price of our Class A common stock to decline.

Certain provisions in the indenture governing the Notes may make it more difficult or expensive for a third party to acquire us. For example, the indenture governing the Notes will require us, except as described therein, to repurchase the Notes for cash upon the occurrence of a fundamental change and, in certain circumstances, to increase the conversion rate for a holder that converts its notes in connection with a make-whole fundamental change. A takeover of us may trigger the requirement that we repurchase the Notes and/or increase the conversion rate, which could make it costlier for a potential acquirer to engage in such takeover. Such additional costs may have the effect of delaying or preventing a takeover of us that would otherwise be beneficial to investors.

Our amended and restated certificate of incorporation provides that the Court of Chancery of the State of Delaware and, to the extent enforceable, the federal district courts of the United States of America will be the exclusive forums for substantially all disputes between us and our stockholders, which could limit our stockholders’ ability to obtain a favorable judicial forum for disputes with us or our directors, officers, or employees.

Our amended and restated certificate of incorporation provides that the Court of Chancery of the State of Delaware is the exclusive forum for the following types of actions or proceedings under Delaware statutory or common law for:

- any derivative action or proceeding brought on our behalf;
- any action asserting a breach of fiduciary duty;
- any action asserting a claim against us arising under the Delaware General Corporation Law,
- our amended and restated certificate of incorporation, or our amended and restated bylaws; and
- any action asserting a claim against us that is governed by the internal-affairs doctrine.

This provision would not apply to suits brought to enforce a duty or liability created by the Exchange Act. Furthermore, Section 22 of the Securities Act creates concurrent jurisdiction for federal and state courts over all such Securities Act actions. Accordingly, both state and federal courts have jurisdiction to entertain such claims. To prevent having to litigate claims in multiple jurisdictions and the threat of inconsistent or contrary rulings by different courts, among other considerations, our amended and restated certificate of incorporation provides that the federal district courts of the United States of America will be the exclusive forum for resolving any complaint asserting a cause of action arising under the Securities Act. While the Delaware courts have determined that such choice of forum provisions are facially valid, a stockholder may nevertheless seek to bring such a claim arising under the Securities Act against us, our directors, officers, or other employees in a venue other than in the federal district courts of the United States of America. In such instance, we would expect to vigorously assert the validity and enforceability of the exclusive forum provisions of our amended and restated certificate of incorporation. This may require significant additional costs associated with resolving the dispute in other jurisdictions, and there can be no assurance that the provisions will be enforced by a court in those other jurisdictions.

These exclusive-forum provisions may limit a stockholder's ability to bring a claim in a judicial forum that it finds favorable for disputes with us or our directors, officers, or other employees, which may discourage lawsuits against us and our directors, officers, and other employees. If a court were to find either exclusive-forum provision in our amended and restated certificate of incorporation to be inapplicable or unenforceable in an action, we may incur further significant additional costs associated with resolving the dispute in other jurisdictions, all of which could harm our business.

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

Unregistered Sales of Equity Securities

None.

Item 3. Defaults Upon Senior Securities

None.

Item 4. Mine Safety Disclosures

Not applicable.

Item 5. Other Information

None.

Item 6. Exhibits

Exhibit Number	Exhibit Description	Form	File No.	Exhibit	Filing Date	Filed Herewith
3.1	Amended and Restated Certificate of Incorporation.	8-K	001-38897	3.1	May 21, 2019	
3.2	Certificate of Amendment of Amended and Restated Certificate of Incorporation.	8-K	001-38897	3.1	June 10, 2020	
3.3	Amended and Restated Bylaws.	10-Q	001-38897	3.3	August 7, 2020	
3.4	Certificate of Retirement.	8-K	001-38897	3.1	July 13, 2021	
4.1	Form of Class A common stock certificate of Fastly, Inc.	S-1/A	333-230953	4.1	May 6, 2019	
4.2	Reference is made to Exhibits 3.1 through 3.4.					
10.1+	Amended and Restated Non-Employee Director Compensation Policy.	8-K	001-38897	99.2	July 13, 2021	
10.2+	Transition and Separation Agreement by and between Fastly, Inc. and Adriel Lares, dated May 4, 2021.	8-K	001-38897	10.1	May 5, 2021	
10.3+	Offer Letter by and between Fastly, Inc. and Ronald W. Kisling, dated June 22, 2021.	8-K	001-38897	10.1	June 29, 2021	
31.1	Certification of the Chief Executive Officer pursuant to Exchange Act Rule 13a-14 as adopted pursuant to Section 302 of the Sarbanes-Oxley Act of 2002.					X
31.2	Certification of the Chief Financial Officer pursuant to Exchange Act Rule 13a-14 as adopted pursuant to Section 302 of the Sarbanes-Oxley Act of 2002.					X
32.1*	Certification of the Chief 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 the Chief 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.					X
101.SCH	Inline XBRL Taxonomy Schema Linkbase Document.					X
101.CAL	Inline XBRL Taxonomy Calculation Linkbase Document.					X
101.DEF	Inline XBRL Taxonomy Definition Linkbase Document.					X
101.LAB	Inline XBRL Taxonomy Labels Linkbase Document.					X
101.PRE	Inline XBRL Taxonomy Presentation Linkbase Document.					X
104	Cover Page Interactive Data File (formatted as inline XBRL and contained in Exhibit 101).					X

\+ Indicates management contract or compensatory plan.

* The certifications furnished in Exhibit 32.1 and 32.2 hereto are deemed to be furnished with this Quarterly Report on Form 10-Q and will not be deemed to be “filed” for purposes of Section 18 of the Exchange Act, except to the extent that the Registrant specifically incorporates it by reference.

SIGNATURES

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

		FASTLY, INC.
August 6, 2021	By:	/s/ Joshua Bixby
		Joshua Bixby *Chief Executive Officer (Principal Executive Officer)*
August 6, 2021	By:	/s/ Adriel Lares
		Adriel Lares *Chief Financial Officer (Principal Financial and Accounting Officer)*

Exhibit 31.1

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, Joshua Bixby, certify that:

1. I have reviewed this Quarterly Report on Form 10-Q of Fastly, 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:	August 6, 2021	By:	/s/ Joshua Bixby
			Joshua Bixby
			Chief Executive Officer

Exhibit 31.2

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, Adriel Lares, certify that:

1. I have reviewed this Quarterly Report on Form 10-Q of Fastly, 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:	August 6, 2021	By:	/s/ Adriel Lares
			Adriel Lares
			Chief Financial Officer

Exhibit 32.1

**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 the Quarterly Report of Fastly, Inc. (the "Company") on Form 10-Q for the period ending June 30, 2021 as filed with the Securities and Exchange Commission on the date hereof (the "Report"), I certify, pursuant to 18 U.S.C. § 1350, as adopted pursuant to § 906 of the Sarbanes-Oxley Act of 2002, that, to the best of my knowledge:

1. The Report fully complies with the requirements of Section 13(a) or Section 15(d) of the Securities Exchange Act of 1934, as amended; and

2. The information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of the Company.

Date:	August 6, 2021	By:	/s/ Joshua Bixby
			Joshua Bixby
			Chief Executive Officer

Exhibit 32.2

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 the Quarterly Report of Fastly, Inc. (the “Company”) on Form 10-Q for the period ending June 30, 2021 as filed with the Securities and Exchange Commission on the date hereof (the “Report”), I certify, pursuant to 18 U.S.C. § 1350, as adopted pursuant to § 906 of the Sarbanes-Oxley Act of 2002, that, to the best of my knowledge:

1. The Report fully complies with the requirements of Section 13(a) or Section 15(d) of the Securities Exchange Act of 1934, as amended; and

2. The information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of the Company.

Date:	August 6, 2021	By:	/s/ Adriel Lares
			Adriel Lares
			Chief Financial Officer